



Friends of Oakley Creek Te Auaunga

SUMMER 2021

SPECIAL POINTS OF INTEREST:

- Possums in oak trees (p2)
- Geranium Te Auaunga (p3)
- Path upgrade (p4)
- Pollution risk research (p6)
- Collectively Kids (p7)
- The legend of Te Puna o Wairaka (p13)

Editorial

It felt like a long wait to get to summer but we're finally here. Even better, the drought in Auckland broke and the flora and fauna down at Oakley Creek are now a little more comfortable. This season we've noticed prolific flowering and fruiting in many of our native species.

This edition of the newsletter is packed with stories about all the great work happening on the awa. You can find out about the innovative ways our members are approaching pest control, how our regular work at the nurseery and water monitoring is coming along, what weeds to watch out for at the moment, and learn about some of our amazing vol-

unteer groups and activities.

There are also some fascinating stories about the creek's living history, from the endemic Geranium Te Auaunga, to the significant archaeology, to the fabled legend of Te Puna o Wairaka—a spring that still exists here at the creek today. We also feature a piece of research from one of our student volunteers about risk from pollution sources using geospatial analysis.

Our regular seasonal gallery shows you what's growing on the creek at the moment and we have a lovely piece on a ruru, our

native owl, and a hypothesis about how it might have come to a sticky end.

Te Auaunga really has a lot going on, there's even a story about bats in this issue. We hope you enjoy reading about the awa and feel inspired by all the great mahi to restore this gem in the heart of Auckland.

Cate Ryan
Editor

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Camera trap on the creek

Towards the end of last year some Pest Free Owairaka members, in collaboration with Friends of Oakley Creek, decided to try something new and see what animals were out and about



in Alan Wood Reserve and Harbutt Reserve. They borrowed Manawa Taiao / Urban Ark's camera and have been placing it at different stations along their rodent and possum trap lines. The camera is motion sensitive and set off by movement between the hours of 7pm to 7am. So far cats, pheasants and rabbits have been caught on film.

Photo (left): A camera trap installed on a tree and painted in camouflage



Photo (above): A possum checks out the camera trap at Harbutt Reserve.

Possum patrol - observing nature

By David Bowden



David Bowden installs a Flipping Timmy trap on a heritage oak

A little observation goes a long way! Back in 2019, I observed a regular pattern of fresh possum droppings beneath the large heritage oak trees on the walkway along the lower section of Oakley Creek Te Auaunga. Despite the wonderful efforts of the pest control team checking and reloading traps weekly, there appeared to be an on-going presence of possum in the area. It seemed that the possums were not always interested in our existing trap network, but rather preferred to live and eat off the oak trees. So, to curb the problem, the committee successfully secured funds from the Albert Eden Local Board to purchase and install 10 more possum traps. The traps are a new model called Flipping Timmy.

We carried out a baseline survey with wax tags in September and sure enough, it revealed a significant presence of possum in these trees. There are over 80 oak trees along the lower reach of the creek and so my son Archie, Wendy John and I carefully installed and set the traps. Over the first week we caught 7 possums including 2 baby joeys. A second round saw a further 6 possums caught, and then a final session caught 2. Over 3 weeks, the 10 traps removed a total of 15 possums. So what can we learn from this small project? We learnt a lot, including:

1. Keeping an eye out for signs of presence can tell us a lot about their habits (possum droppings under oak trees in this case);
2. A mix of static and dynamic trapping is likely to produce best results. Having some traps specifically placed to target individual food sources or places

where possums like to sleep/rest will likely catch the possums which previously evaded the existing trap network.

Although not scientifically proven, the possums appear to like the cavities/holes of the oak trees for places to sleep and bring up their young - hence catching 2 joeys. Also, the trees provide a wonderful supply of fresh leaf tips and nectar, particularly during Spring.

3. Pulse trapping (periodic) might be better than trapping year-round. We'll see if this holds true when the next pulsing period commences in 2021.

Another trapping session is scheduled for Autumn and Spring

this year as part of an on-going pulsing programme. If you would like to learn about possum monitoring and trapping, feel free to get in touch with David Bowden at davidtbowden@gmail.com.

Finally, I wish to thank Wendy, Archie, and the Local Board for their assistance on the ground and financially. The heritage oak trees are a special feature of the creek which, like our native species, we need to protect and value for all to enjoy.

David Bowden, Chairperson

“...Having some traps specifically placed to target individual food sources or places where possums like to sleep/rest, will likely catch the possums which previously evaded the existing trap network “



Photo (above): Wendy with the Flipping Timmy traps, all ready for them to be set out



Photo (above): David and his son Archie install a Flipping Timmy

Geranium Te Auaunga– our rare endemic plant

By Wendy John

Te Auaunga is a special place with its own unique natural history. Did you know Te Auaunga has an endemic, native geranium? Back in our May 2012 newsletter we reported on the protection and translocation of a relatively newly identified (2004) native geranium that was growing on the edge of the creek in Alan Wood Reserve. *Geranium aff. retrorsum* Oakley Creek (now commonly referred to as Geranium Te Auaunga), was ‘discovered’ during surveys required as part of the Waterview Connection con-



Photo (above) - Geranium Te Auaunga

sent. Post construction a considerable number of these special plants were planted at sites along the stream in Alan Wood Reserve, in the same general area as where the plants were first found. While the planting sites were maintained for a number of years, recently most of the sites have been taken over by a range of invasive riparian weed species such as *Tradescantia*, alligator weed and a number of annual weeds.

Over the years Friends of Oakley Creek has looked for, but been unable to find any remaining plants at most of the planted sites. However, we have noticed the Geranium has found some new homes in the reserve in more suitable habitat (open, dry edges), and where competition from weeds is minimal. Also, we found a small new patch of it further down the creek which was very exciting!

Late in 2020 we contacted Auckland Council rare plant expert, Janeen Collings with our concerns at the lack of maintenance of the planted patches and loss of the plants. Janeen organised a survey by her and her team, along with Friends of Oakley Creek and a few patches were found. Janeen proposed a number of actions including select weed control and ongoing monitoring, to ensure this special plant survives and thrives on the creek, the only place in New Zealand that it has been seen,



Photo: Cate Ryan

Photo (above) - Auckland Council staff Ross Cowie, Mary Stewart and Janeen Collings, with Wendy, find a patch of Geranium Te Auaunga

Significant archaeological landscape at Te Auaunga

The part of Te Auaunga Oakley Creek between Trent Street (off Blockhouse Bay) and the northern entrance (Waterview) is classified as one of Auckland’s most significant archaeological landscapes. It includes a wide range of historical sites from early Maori settlement through to 20th century European activities. Sites include midden, old stone walls, animal pens, the remains of old bridges and quarrying. Because of this important history any works done on the creek, including our restoration

activities, are legally bound to work under a Pouhere Taonga / Heritage NZ ‘Authority to Modify’ (ATM). Our current ATM expires in early 2021 and so our resident archaeologist Brent Druskovich surveyed the area, mainly the west side of the creek which hasn’t been surveyed before, as part of preparation of supporting documentation for a new ATM.

If you’re interested in learning more about the history of the creek and the specific archaeology, see the info [at this link](#):



Photo (above)- Archaeologists Brent Druskovich & Nick Radovanovic



The recently upgraded concrete pad around the seat at the waterfall on Oakley Creek

Oakley Creek path upgrade

Work has recently commenced on the upgrade of the path along the walkway from Phyllis Reserve through to the northern entrance to Oakley Creek, off Great North Road.

The project will take quite some time, and will be done in stages. The first stage includes a new concrete pad around the seat at the waterfall which is already complete (photo: left). Other activities include upgrading the side paths and steps at the

various entrances to the walkway, plus installing and formalising access from the northern end of Phyllis Reserve, to connect with the walkway at the Waterview Downs Bridge. The second stage will be upgrading much of the actual path.

The project has been in the pipeline for quite some time, so it's great to see it finally happening. Thanks to the Albert Eden Local Board for funding this work.



Wednesday volunteers at the nursery: Kseniia, Ida and Lynda

Native plant propagation

Almost since day one of our project, we have been growing some of our own plants from locally sourced seeds. Currently, we have around 4,000 plants in the nursery, thanks to the efforts of our valuable volunteers. While the local boards (Albert Eden, Puketapapa and Whau) provide funding for most of our plants, having our own nursery allows for more flexibility, for example, when groups / schools / corporates etc. contact us

at short notice about wanting to do some planting, we can use plants from our nursery, without having to plan too far ahead or apply for extra funding. It also means we can give plants to our local groups and neighbours for planting in their own areas along the creek.

Join our Wednesday nursery volunteers to learn more about plant propagation and growing.



Bat survey group. Paul is in the grey t-shirt

Bat survey

At the end of 2020, Paul Whitfield from Manawa Taiao / Urban Ark, organised a series of bat survey walks across the western isthmus, including two surveys on Te Auaunga Oakley Creek.

While those attending the walks were hopeful, unfortunately, this time

around no bats were found on the creek. The closest they've been recorded to Oakley Creek is Henderson. However, it was lovely to spend time on the creek at night, with just the sound of the water and the night critters.

Have you seen any bats at Te Auaunga?

Water monitoring

Ko au te awa. Kō te awa ko au.
(I am the river. The river is me.)

Water monitoring has been ongoing on the creek since 2002 when Dorothy Maddock and Robin Ingram started monitoring a site just upstream of the waterfall. New monitoring sites have been added over the years and now there are seven sites, the most being recent added in December on the Roma Road Tributary, Mt Roskill. Monitoring is carried out quarterly and it's great to now have monitoring happening on a regular basis across most of the catchment.

All our current sites are listed below and we would like to acknowledge the volunteers who do the monitoring at their sites four times a year:

- Lower Wairaka Stream : Jill Pierce and Eric Pedersen
- Unitec Bridge: Jagjeeta Kaur
- Cradock Street Bridge: Helen Mellsop
- St Judes Scouts Den: Clare Brown
- Kukuwai Park: Sara Bishop & Rutu Jani
- Richardson Road Tributary- just up from convergence with main creek: Sarah Bishop & Rutu Jani
- Roma Road Tributary: Sarah Bishop and Lynda Burnside



Photo (above): Native shrimp at Wairaka Stream

Weed watch

By Allan Woolf

Summer is an important time for weed control now that the spring growth has done its thing, and a whole lot of flowers are obvious and/or fruit are either "ripe" or soon to be ripe. Removing these flowers and fruit now stops bird or wind spread in the future.

A really obvious weed at this time is moth plant – a trailing vine that



climbs over fences and plants. It's particularly bad in that its fruit, large seed pods (see photo: above) have hundreds of seeds that are wind-borne and spread over large areas. The pinkish-white flowers make the

plants very obvious (see photo: below) and since pods are forming, it's crucial to deal with this weed asap. For all but the



Weed Action Whangarei Heads

bigger plants, follow the stems (green when young, white

when older) back to the base, and pull them out of the ground. If they can't be pulled out, dig them out, or cut near the base and paint with paint with woody weedkiller, Roundup/glyphosate paste, or ¼ diluted Roundup/glyphosate

Woolly nightshade (photo: right) have green fruit that grows in clusters which ripen to yellow, and are spread by birds. Removing



Allan Woolf

small branches can be a quick solution. To kill the plants, cut or saw off near ground level and use chemicals as noted above.

Ginger is a prolific and persistent weed that invades our native bush. It grows in deep shade and each flower head can have as many as a hundred seeds, which can be readily spread by birds over considerable distances. A very simple thing to do at this time is to simply snap off the flower and/ or fruit (photo: below) at it's base and drop them on the ground.



Allan Woolf

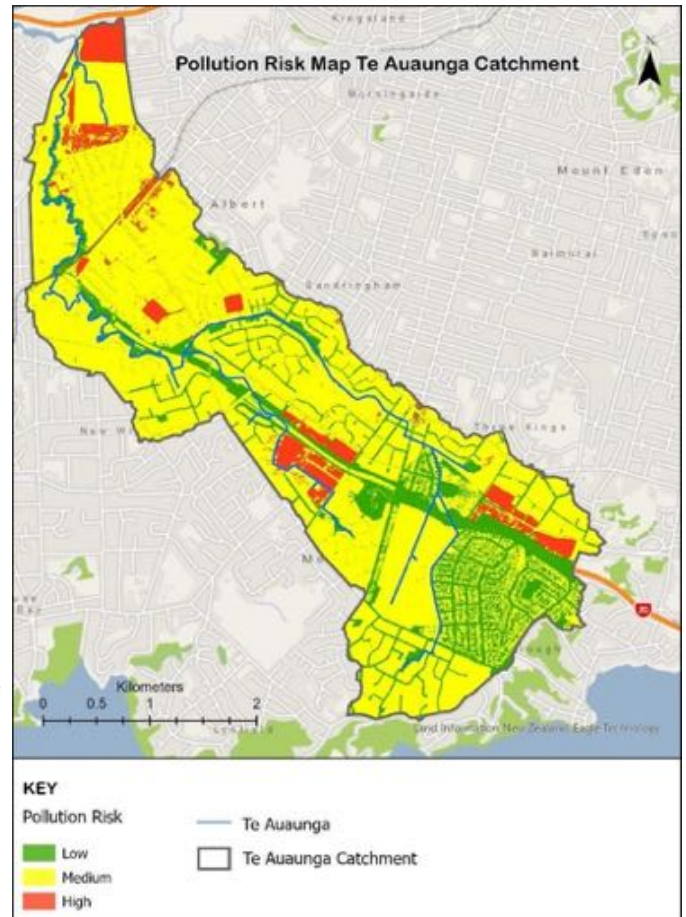
Mapping pollution risk in Te Auaunga catchment

By Sarah Kapuhealani Bishop

Two AUT Science students, Sarah Bishop and Lynda Burnside - who are also volunteers with Friends of Te Auaunga, studied potential pollution risk in the Te Auaunga catchment as part of their geospatial science course at AUT. The study examined potential pollution risk factors common to urban freshwater ecosystems, like Te Auaunga, including the location of development sites, industrial sites, high road use, location upstream or downstream, levels of imperviousness (i.e. whether or not a surface is paved), and whether or not the creek bed has been modified through piping or channeling.

Factors were weighted according to potential impact and analysed in ArcGIS Pro software to create a symbolised map of sources of potential pollution risk from low to high across the catchment. The results of the study (right) found that the areas of highest pollution risk are near industrial and development sites as well as sports fields where fertilisers may be used. Areas at the end of the catchment near the creek mouth in Waterview were also at higher risk, as this is where pollutants tend to gather after travelling downstream.

Results can be used to identify priority areas for water quality monitoring sites, environmental mitigation and future ecological restoration projects. The model created through this project allows for the weighting of different potential pollutant factors to be adjusted



Potential risk of pollution across Te Auaunga catchment. The areas in red are close to industrial sites, proposed development sites and sports fields and have the highest risk

according to perceived pollution risk potential as needed.

For more info on this study please email: sarahkbishop@gmail.com.

“...areas of highest pollution risk are near industrial and development sites as well as sports fields where fertilisers may be used”

Collectively Kids volunteer at Te Auaunga



Photo: Sarah Hangartner

By Christine Lee

Each Matariki the Collectively Kids teaching team encourages children to show love for Papatūānuku- earth mother at Oakley Creek and in the local area. As part of our Matariki celebrations this year, we planned to have a group of tamariki plant with Wendy.

Like many other events, Covid-19 saw the postponement of our outing, but on the 17th September, the children were very excited to finally head out to our special place. A group of seven four-year-olds, one parent helper and a teacher set off on the 45 minute walk from our centre on Sutherland Road. Oakley Creek, being a true taonga, has an abundance of learning opportunities for the young and old. This was shown through all the stops we made along the way for children to observe, question and discuss what we saw. Koi carp in the creek, various trees, birds, insects, signs and markers were some of points of interest that sparked curiosity.

We met with Wendy at marker 0.75 on the track and began our mahi right away. Working in small groups, we planted a total of 27 ti kouka, kahikitea, harakeke, manuka, mahoe, kawakawa, and native sedges and shrubs. Although we had some tired people, a little encouragement to be part of the team and to look after Papatūānuku went a long way. We

Collectively Kids are enthusiastic planters

rewarded ourselves with a climb on the fallen oak tree and a little kai.

Connecting with our special places and looking after Papatūānuku and Ranginui (sky father) are

key aspects of our environmental curriculum and our Te Tiriti o Waitangi based practice at Collectively Kids. Children are encouraged to be active citizens through taking part in mitigation and emissions reduction projects (collecting rubbish, planting trees) and advocacy (writing letters, asking questions, making banners and going on climate crisis marches).

Being a special place to us, Oakley Creek often comes up in our discussions with children. When we were kindly given some tadpoles from one of our families, and after they had undergone metamorphosis, we were faced with the question of where they should be released. The children compiled some questions for Wendy based around the possibility of rehoming them in the creek. We learnt that Te Auaunga has no known frogs and that the moving water

would be too fast for them.

Unfortunately, before we could release them back to the pond they originally came from, our overly adventurous frogs escaped their tank. Though their survival remains a mystery, the children have their own theories on their whereabouts.

We thank Friends of Oakley Creek for their ongoing work in sustaining this treasure for us to enjoy.

“We learnt that Te Auaunga has no known frogs and that the moving water would be too fast for them”



Photo: Sarah Hangartner

Photo (above) - Kids collectively plant at Te Auaunga



Photo: Sarah Hangartner

Photo (above) - Wendy John teaches Collectively Kids how to plant seedlings

Collectively Kids is an early childhood education centre for children aged three months to five years. See <https://www.collectivelykids.com/>

Conservation Volunteers



Photo: CVNZ

A happy Mondelez volunteer weeding at the creek

Conservation Volunteers NZ (CVNZ)

CVNZ is one of our key partners, which has been supporting our project for over 10 years with regular visits of groups of volunteers, on around a 6-weekly cycle. Their support contributes greatly to the restoration work on the creek - as well to many other restoration projects around the city, and country. A special 'thank you' to CVNZ and all of their wonderful volunteers. And, we look forward to working with them again in the coming year.



Photo: CVNZ

Conservation Volunteers NZ co-ordinates people all over NZ to contribute to conservation projects. Volunteers can get involved by planting and caring for native trees, eradicating pests and weeds, protecting threatened species, and helping to make our natural spaces accessible to everyone. See their website for more info: <https://conservationvolunteers.co.nz/about-us/>

Photo (left) - CVNZ take a break from planting and mulching at Oakley Creek

Mondelez

A group of volunteers from [Mondelez](#) took the day off work to contribute to the restoration of the creek, with a serious weeding and mulching session in Harbutt Reserve. Thanks for a great effort, and to CVNZ for co-ordinating the day.



Photo: CVNZ



Photo: CVNZ

Working bees and volunteers

We've been organising regular community working bees on the first Sunday of each month for nigh on 16 years now. We also hold Friday morning working bees, to provide further opportunities to contribute to the project and keep up with the work that's required. The restoration of Te Auauanga is a long-term project, and volunteers are much needed, a need that will continue well into the future. So, mark your calendars in case you can join us for a few of these over the coming year. Please also spread the word! Here are some pictures of the great work our volunteers have been doing recently:



Photo (left to right and down)

1. Mulching completed and plants looking happy (Photo–Adrienne Stanton)
2. Martin, Hugo and Hugo's friend, learning the tricks of the trade
3. Regular Friday volunteers (during holidays)–Back–Jason, Martin, Ida &Tristan. Front–Hugo's friend (hiding) Hugo, Tristan & Alexa
4. We were joined by two staff members from Kainga Ora, who are working on the housing development further up the catchment.
5. Mulching the new plants in Harbutt Reserve (Photo–Adrienne Stanton).
6. Pat
7. David, spreading mulch

Ruru at Te Auaunga

By Marin Adams



This ruru from Te Auaunga died naturally and is now an exhibit at the Auckland Botanic Gardens

When we moved to Powell St in 2013 it was very common to hear the plaintive calls of morepork at night. There was a stand of very old pine trees next door that looked to me, like they would provide perfect nests. When the land was sold for development, I made an unsuccessful submission to the resource consent hearing, asking that the tree stumps be cut at a two metre height rather than ground level to preserve some habitat.

A year or two later, while walking on a path towards the creek, my husband, Michael, came upon a little owl. It was daytime, and the owl was dead. A visiting nurse friend examined him for injuries but could find none. Another

friend told us about the battles, under cover of darkness, that happen when young males compete for territory.

I searched nzbirdsonline.org.nz for more information and read, “*Moreporks strongly defend a territory of 3.5 to 7.8 ha. Birds that appear to be calling together in a ‘duet’ are usually rival males duelling.*” Like many people, I had fondly believed the repetitive calls were affiliative.

I was also interested to find what food sources sustained ruru at Te Auaunga. “*Moreporks catch and consume a wide variety of small animals, including large insects, small birds, (especially silvereyes), and small mammals.... Insects taken include huhu beetles, weta, cicadas and large moths.*”

Indigestible material is ejected through the mouth as a pellet.” I shall keep an eye out for mysterious pellets whilst weeding under the trees in the future!

Back to Ruru Auaunga. After a telephone call with Susie Betany who provides educational programmes at the Auckland Botanic Gardens, I wrapped Ruru Auaunga in newspaper and placed him in our deep freeze. He stayed there until funding had been approved for a taxidermist to prepare him for a new life. This was to be an exhibit for city children who may never see a morepork in the wild. Susie reports: “It’s captured so much attention from the children that we get through the education centre, that I have just had a second ruru taxidermied as well.”

Critters at the creek

The creek is alive with creepy crawlies all the time, but especially this time of year. Here are a few that we found recently:



Male harvestman



Pseudoscorpion



Damselfly larvae at Kukuwai Park



Slime mould from the genus *Lycogala* – a member of the True Slime Mold class - Myxomycetes

Seasonal gallery

Summer at the awa

Flowers and fruits are abundant at this time of year. You may have seen the prolific flowers from kanuka, ti kouka and whau over December and January and the more subtle hoheria and pigeonwood more recently. Pollen is abundant on dioecious plants (species with separate male and female plants).



Photos (left to right): Kanuka (*Kunzea ericoides*), houhere (*Hoheria populnea*), porokaiwhiri/pigeonwood (*Hedycarya arborea*), kiekie (*Freyincetta banksii*)



Kātote—the new kid in town

Local resident and ecologist Paul Bell-Butler has found a species of fern that hasn't yet been recorded at the creek; Kātote, or soft tree fern (*Cyathea smithii*), which is a member of the tree fern family. Two plants were found and although they were most likely planted, they have survived and to date this is the only location that kātote has been recorded on the Auckland isthmus according to the iNaturalist website. Moreover, Paul says there are also no old records of kātote on the isthmus.



Soft fronds of Kātote, or soft tree fern

Young kātote



The sori pattern helps id ferns



Hairs and scales also help



Notices

Monthly Community Working Bees:

First Sunday of each month, first one of the year – Sunday 7th February, Harbutt Reserve. Lots of our young plants need rescuing from an invasion of weeds, and are crying out for help!



Monitoring and Pest Control Programme:

Predator Trapping - Two new volunteers are needed to join our teams, note, **training is provided**. The work involves checking a trap line once every three weeks, great exercise and a bit of fresh air.

Rodent Control – we have two small teams doing quarterly rodent control and monitoring but if anyone would like to join or help out on a regular basis, contact Wendy John.

Plant propagation sessions - Wednesday 9am -12pm: at the nursery

Friends of Oakley Creek Christmas party

An enjoyable time was had by all at our end-of-the-year picnic. This year we celebrated another successful year of restoring our precious awa at the Memorial Gardens beside the Wairaka Stream at Unitec. The Wairaka Stream is a key tributary of Te Auaunga, and is fed from Te Wai Unuroa o Wairaka – a sacred spring of cultural significance to Maori. The stream was named after Wairaka, the daughter of Toroa, chief of the Mataatua waka, who travelled north from Whakatane in around 950AD. See the article 'Te Puna– the spring' in this edition, for a longer version of this legend.



Photos (from left to right): Friends of Oakley Creek committee members and volunteers: Marin and Sarah, Adrienne, David & Chris (volunteer) John & Dorothy & Colin (long-time supporters and volunteers)



Photo: Morphum Environmental

The Wairaka Stream
at Unitec

Te puna, the spring

By Ngaio Balfour

'Te Wai Unuroa o Wairaka'

The long drink of Wairaka

Gurgling along the lush green

Laughing from the red-brown earth,

The puna beckons

Ledged upwells

Replenishing Te Auaunga

As we enter the new year, perhaps we can reflect on the ancestors who guided the past, founding the present. Today I reflect on the legend of Wairaka and 'Te Wai Unuroa o Wairaka', the puna (spring), which gurgles forth from the grounds of Unitec and joins the central stream of Te Auaunga.

Wairaka

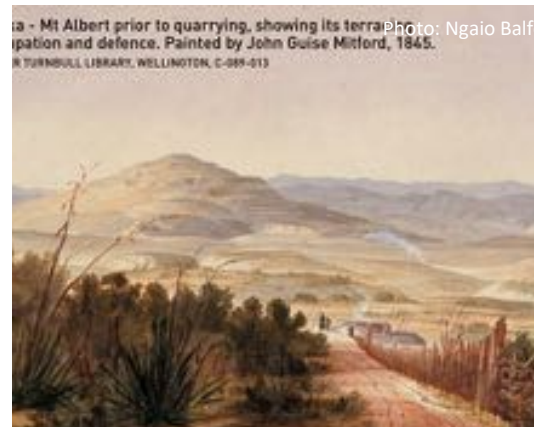
Wairaka was a woman of high rank and well known for her bravery and beauty. She entered Aotearoa in the Mātaatua waka captained by her father Toroa, chief of the Ngāti Awa tribe. The waka voyaged from Hawaiki to bring Kao (dried kumara) supplies to Northland and Whakatane. Mātaatua then journeyed to Te Auaunga, and 'Te Wai Unuroa o Wairaka' formed.

Before the Te Auaunga landing: The Bravery of Wairaka

On Mātaatua's voyage, the waka alighted at the mouth of the Whakatane river. The men climbed ashore while the women remained with the waka. As the tide turned, Mātaatua came loose from her mooring and began to drift, pulled down river by a swift current. In alarm Wairaka called out "Whakatane ake au I ahua" (let me act like a man). Wairaka grasped a paddle and guided Mātaatua to shore. Wairaka's feat holds great whatumoana (bravery), particularly because a woman touching the paddle was a breach of tapu and tradition.

Calling the Puna

Mātaatua continued North and, in need of supplies, alighted in Te Auaunga. Wairaka was in immense thirst and pounded her foot into the earth in a cry of need. Papatuanuku responded, a spring erupting from the red-rich volcanic soil. Wairaka settled, and the area now carries her name, Ōwairaka, Mount Albert. The puna offered water and kai to Wairaka people, holding great significance in ceremonies, celebrations, and daily life.

Photo: Ngaio Balfour
MOUNT ALBERT prior to quarrying, showing its terraced slopes and defence. Painted by John Guise Milford, 1845.
MOUNT ALBERT LIBRARY, WELLINGTON, C-001-013

Te Puna, the spring - continued

Today

You will find the puna north of the community gardens at the entrance of the bush, tucked within a bed of green grasses. Sadly, the industrialisation of Ōwairaka severely impacted the puna, and a concreted culvert now confines a significant stretch. However, the government's housing proposal for Ōwairaka includes 'daylighting' the stream, removing the culvert and working to restore the puna's wellbeing. If such mahi is successful, the puna may again become an integral part of the mauri of Ōwairaka and Te Auaunga.

Maanaki whenua, Maanaki tanga, Haere whakamua.

Care for the land. Care for the people. Go forward.



Photo (left) - Unitec grounds overlooking the wetland surrounding the Wairaka Stream. Te Noho Kotahitanga Marae in the background (Estrin, 2014).



Photo (left) - the stream exiting the culvert near the Community Gardens (Estrin, 2014).

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Friends of Oakley Creek Te Auaunga

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Newsletter Photos: Unless otherwise credited,
all photos are by Wendy John

Newsletter contributions and comments are
welcome – email info@oakleycreek.org.nz



We welcome more members (\$10.00) and/or donations towards the work we are doing to protect and restore our wonderful urban 'taonga' – Oakley Creek Te Auaunga. Donations over \$5.00 are tax deductible. Contributions can be made directly, our bank account number is 38-9003-0978224-00.

You can also find us at <http://oakleycreek.org.nz/>

We gratefully acknowledge the support of Foundation North, The Trusts Community Foundation, Auckland Council, Albert-Eden, Puketapapa and Whau Local Boards and the Community Organisation Grants Scheme (COGS).

