Friends of Oakley Creek
Te Auaunga

December Update, 2014 *Wishing you all the best for the festive season!* Vol. 7, Issue 4

Occasional musings in history, archaeology and Oakley Creek
Part 3: Midden analysis results

by Brent Druskovich, Consultant Archaeologist

One thing that archaeological investigations can do is give an indication of past vegetation. This can be achieved in more than one way, in that analysis can be undertaken for pollens, starch residues, phytoliths and charcoal. I will not go into what these all entail, as frankly a book, or at least chapters, could be written and this is only an article. In July 2012, the community planting encountered midden at the recorded pits and midden site of R11/524 – on the slope behind what is often now referred to as the Lizard Management Area in MU3A. As a result of this, some plants were selected that have less invasive root systems to be planted over and near the midden, and a young pohutukawa was uprooted and shifted to an area outside the midden. In doing this, the midden (mostly shell, rock and charcoal) was sampled and taken away for analysis.

Dark midden soil, containing charcoal, was exposed during a community planting at Oakley Creek Te Auaunga. **Photo: B. Druskovich**

Analysis found the midden sample to be predominantly made up of cockle, with mud snail being the only other significant percentage of shellfish species amongst the sample content. These two species are both readily available from the mudflats found at the mouth of Oakley Creek, right up to Point Chevalier, so they were, therefore, hardly surprising finds. (I use the word 'sample' in that only a small sample of the site was taken away for analysis - it is possible that this was not representative of the overall contents of the site.) After analysis, some of the cockle shell was sent to the University of Waikato for radiocarbon dating. These returned the result of a likely occupation date for the site of between 1474 and 1590 (radio carbon analysis cannot give a precise date - dates are correctly expressed in a likely date range of occupation which, in this case, means that Maori were likely living at this site at some time between 1474 and 1590, not that they occupied the site for 116 years continuously). Therefore, we could summarise it as being occupied in the 16th century, some 500 years prior to the century we are now in.

Also amongst the shell were 148 bone fragments, which were sent to Sheryl McPherson of Faunal Solutions for analysis. Of these, only one, a tooth, could be positively identified to species: snapper. All the others may have come from the same fish or may represent bone from a number of different fish and species of fish. To put this in perspective, most bones in any given fish are indistinguishable from most others of any other species, often only those associated with the jaw, and sometimes other parts of the head structure, have enough differences to identify them. Also, in most midden situations the bone is very much degraded, broken and fractured. A good number of the bones in the sample were captured after they had been sieved through both 7 mm and 5 mm sieves and found in my 2.5 mm sieve, so the enormity of the challenge of identifiying them can be somewhat more appreciated.

Charcoal was also processed through the same system of sieves and sent to Dr Rod Wallace at the University of Auckland for analysis (this is the most common of the vegetative matters to be analysed – the others mentioned in the opening paragraph are less commonly analysed). Again, it must be seen that this is a sample only, one of the midden, and two of the local environment, in that the Maori who occupied the area may or may not have had plants and trees that they preferred or selected against to use as firewood for the cooking fires. What it did tell us is that the following species were found in and around the Oakley Creek during the 16th century: *Coprosma,* mapou, pohutukawa, puriri, matai, kauri, fivefinger and manuka.

Need an inspiring green gift idea?

Give a tree to plant on Oakley Creek ...

Just $20 gives:

- **a native tree** to be planted at Oakley Creek Te Auaunga on your behalf (or by your recipient or you)
- **an attractive commemorative card** with the details of your gift
- **Friends of Oakley Creek Te Auaunga Membership** for one year

Email your order to info@oakleycreek.org.nz or ph 815 3101, Payment details are listed at the bottom of this newsletter.

Secretary needed for committee please

Our secretary, Kim Maree, is unable to undertake this role any longer, so we need a new volunteer. The main responsibility is to record the minutes from our Friends of Oakley Creek committee meetings held on the third Monday of each month. Assistance with preparing agendas and membership records would also be appreciated. Please contact Wendy if you are able to volunteer in this way.

We would like to extend our thanks to Kim Maree for all her work on the committee and wish her all the best for her study.

New discovery of old stone wall

A pre-1900 basalt stone wall was recently uncovered in Harbutt Reserve, following extensive weed removal undertaken by contractors, Te Ngahere. This will, at some point, be registered, by our local archaeologist, Brent Druskovich, as a new archaeological site with the NZ Archaeological Association. *Photo: W. John*

Visit to Rahui Kahika Reserve

Recently, a small group of us paid a visit to Rahui Kahika Reserve in Green Bay. We were interested in whether it might be another potential reference site, to give us an indication as to what vegetation might have grown at Oakley Creek in the past. The reserve is well worth a visit, with an interesting wetland.

While at the reserve, we saw this spittle bug on the back of a rangiora leaf.

Photo: W. John

Buchanan Rehabilitation Centre garden group

The Buchanan Rehabilitation Centre garden group has been working in partnership with Friends of Oakley Creek since 2005, under the guidance of Karen Mann, Horticultural Therapist. The team visit the creek on a monthly basis to carry out a range of activities. This includes planting, plant propagation, plant releasing, weeding and water quality monitoring, in the Wairaka Wetland area, on a quarterly basis. Thanks, Karen and team, for your continued support for the project.

Dates for your diary

Bring your family and friends – and spread the word about:

Sunday, 7th Dec, 10.00am: Community Working Bee and then **12.30pm: Picnic Party** – bring some festive food to share and help celebrate the year's achievements. Both events will be at Harbutt Reserve.

Thursday, 11th Dec, 7.30pm: Night spider spotting with arachnologist, David Court. Meet at Phyllis Reserve, with a torch.

Saturday, 13th & Sunday, 14th Dec, 9.00am: Rodent Monitoring Meet at Unitec student carpark, by Building 76.

Sunday, 1st February, 10.00am: Community Working Bee

Sunday, 1st March, 10.00am: Community Working Bee, possibly a Rubbish Clean-up, depending on need.

See www.oakleycreek.org.nz or contact Wendy John, by emailing info@oakleycreek.org.nz or phone 815 3101 or 027 232 6454 for more information.

Walkway Slumping – traverse with care

As many of you will know, there is a section of the walkway where ground around and under the path is slumping badly. This may take some time for Auckland Council to repair. So, in the meantime, if the diversion barriers have been removed by some unsuspecting members of the public, please take extra care when passing through this area, as the middle section of concrete has been completely undermined, and has very little support holding it in place.

The Harbutt Reserve / Cradock St and Phyllis Reserve bridges are also being rebuilt, so the nearest crossing is downstream at the Waterview Downs Bridge.

Photos: top, W. John, above, C. Stanton.

Pest Free New Zealand Challenge

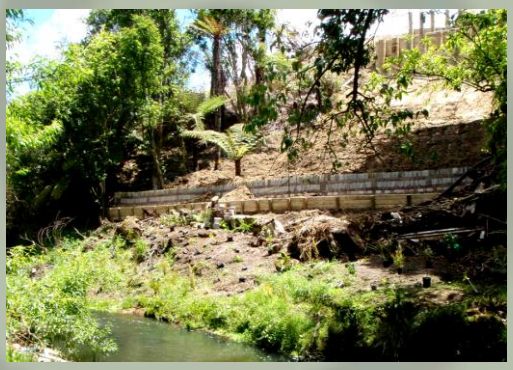
Are you interested in the concept of a pest free New Zealand? Take a look at this video about how you may contribute – through your ideas, experience and analytical skills or with your opinions: https://www.youtube.com/embed/_DUbVrxNPWA?autoplay=1&autohide=1&border=0&egm=0&showinfo=0 then visit http://pestchallenge.org. to take part.

Sustainable Neighbourhoods

We are thrilled to report that two new neighbourhood groups have been set up under the Auckland Council west / Waitakere City Council legacy programme, Sustainable Neighbourhoods. Friends of Oakley Creek is working, with support from our local Sustainable Neighbourhoods co-ordinator, Natalie Wilkinson (Whau River Trust), to assist these two communities to undertake environmental restoration work on land adjacent to the creek. One group is at the end of Powell Street and the other at the end of Cradock Street – the latter being a group which Friends of Oakley Creek has been working with for several years, but which has now established itself as a 'Te Auaunga Haven and Friends sustainable neighbourhood'.

The aim of the Sustainable Neighbourhoods Programme is to 'provide communities with advice and practical help, so they can improve their environment and become more sustainable'.

Both communities have been working hard, over the past few months, to bring about some positive changes, both for their own properties and for the creek.



Before, during and after … Powell St sustainable neighbourhood group, woofers (from the Czech Republic) and friends have been busy clearing one of their sites of weeds, removing trailer loads of rubbish, building retaining walls (upcycling) and planting native plants.

Photos: W. John

Night fish spotting along Oakley Creek

Twenty-four people recently attended an informative and fun evening of spot-lighting on the creek, looking for native fish with *Afishionado* expert, Paul Woodard. Paul gave an informative talk on our special native aquatic species, including the threats to a number of them. These threats include loss of habitat, pollution and the lack of protection for species such as the longfin eel, which is now classified as 'chronically threatened'. Species spotted during the evening included inanga, banded kokopu and eels.

Photos: W. John

A special thanks to Paul for giving his time, and sharing his enthusiasm, knowledge and experiences.

Mark your diary for our next natural history special event on Thurday 12th December, which is another chance to go night spot-lighting – this time to take a different look at spiders with arachnologist, David Court. Meet at Phyllis Reserve at 7.30pm with your torch and camera.

Look at me!!!! From left: manuka, Leptospermum scoparium; *pukatea,* Laurelia novae-zelandiae, in the *Wairaka wetland; mingimingi,* Leucopogon (Cyathodes) fasciculatus.

Photos: W. John

Monitoring and pest control

Oakley Creek Lizard Management Area (LMA)



Students from Gladstone Primary helped plant the new Muehlenbeckia *area for our native copper skinks.*

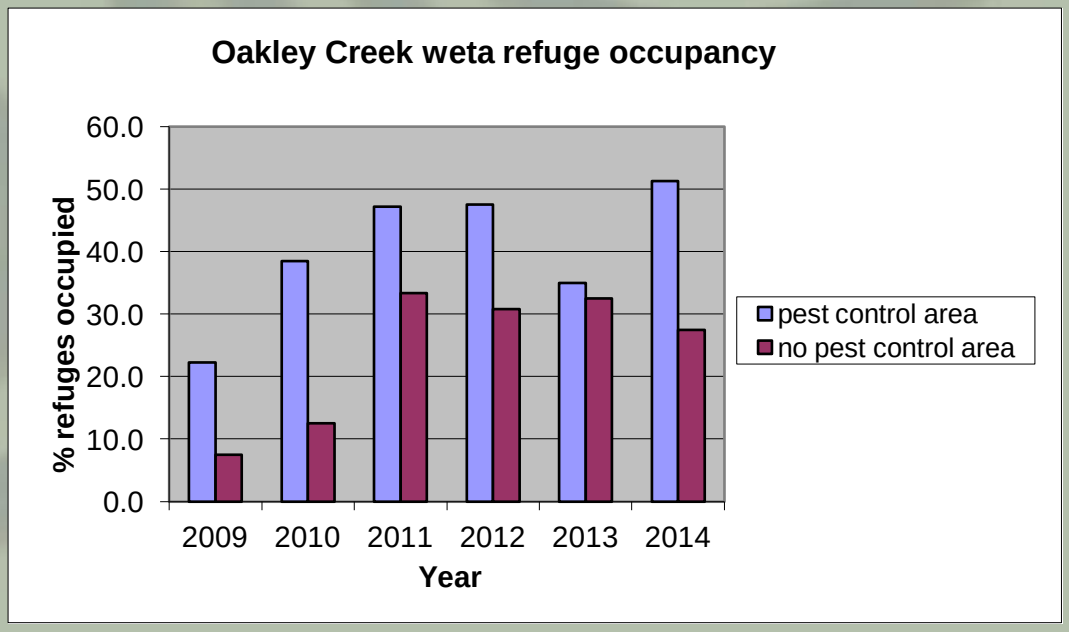
The LMA is a special area on Oakley Creek that was chosen as suitable for relocating native lizards from various sites of the Waterview Connection motorway construction. Friends of Oakley Creek are responsible for carrying out pest control in this area (along with other areas along the creek). We have managed to get the rat numbers right down, but getting rid of mice is much more difficult. So, since we need to keep some of the area open – lizards like to bask in the sun occasionally - we decided we would trial converting an area of rank grass (which mice love) to an area of *Muehlenbeckia complexa*, which they are not so keen on (we hope), but which our native copper skinks will love. And, at the same time, we will be providing ideal habitat for our native copper butterfly. Watch this space

A group from Conservation Volunteers International have now placed mulch around the new plants to help them through any summer droughts and to suppress engulfing weeds. *Photos: W. John*

Weta Monitoring on Oakley Creek – 2009-2014 results

Large invertebrates are preyed upon by rodents, hedgehogs and other pest mammals. Weta make a good indicator species for these large invertebrates and are easier to monitor than many other invertebrates. The use of artificial refuges is a useful way of detecting changes in weta abundance and we use these at Oakley Creek.

Our monitoring shows that in most years, more refuges in the areas with pest control are occupied by weta than those where there is no pest control. This trend suggests that our pest control is having a beneficial effect.



Friends of Maungawhau – A Short History of Volunteer Action

… is a record of the history, campaigns and restoration work on Maungawhau. It also explores the many difficult issues involved in preserving and caring for volcanic cones, and argues for the legitimacy of our attempts to restore scoria-cone forest on land classed as an archaeological site. The "booklet" has grown into an absorbing and well produced 116-page illustrated book with maps, sketches and historical photos. $20 plus P&P ($3 within NZ). Available from sales@maungawhau.co.nz

DIY ecosourcing guide

Agathis australis / kauri

Kauri is a tree of northern zones, naturally growing as far south as Kawhia and Katikati. The immense stature of some specimens makes it an attractive tree to grow. Kauri are most commonly found on ridges but historically were also found on lowland river terraces. Even a well established kauri is particularly vulnerable to drought. Trees are either male or female.

Propagation: The mature cones can be found in the autumn. Collect whole cones before they disintegrate and store until they open and reveal the winged seed. Sow seeds by pressing into a firm bed of seed raising mix and lightly cover with mix. Fresh seeds usually germinate within a month.

These notes on kauri (left) are part of a useful new native tree and shrub seed collection calendar and propagation guide published by DOC at http://www.doc.govt.nz/getting-involved/run-a-project/restoration-advice/native-plant-restoration/ecosource-seeds/collection-and-propagation-guide/

However, note their sobering caveat: *Species such as akeake, broadleaf, kohuhu, karo and tarata are not included in this list because finding naturally growing sources of these plants is now difficult as a result of widespread amenity planting and hybridisation.*

Recent taxonomic work on species, such as kowhai and kanuka, has shown the hidden diversity in our flora - with the latter now being divided into at least ten species, many of which are separated by geography and/or habitat, while others co-occur. This demonstrates how crucial it is to ecosource plants – to source them from naturally occurring vegetation within the same ecological district as where they will be planted. Oakley Creek is in the Tamaki Ecological District, which covers the Auckland isthmus, the North Shore up to Albany and parts of lowland Waitakere.

What is this?

Solution at the end of the newsletter.
Photo: W. John

On aquatic plants …

With few or no exceptions, wetlands within the city do not have a future as they change to egeria soup.

Alan Esler (2004):Wild Plants In Auckland.

Egeria is the introduced oxygen weed which grows profusely in some parts of Oakley Creek, as featured in our last newsletter.

Take a look … mushrooms and bees

What's the link? Watch this fascinating video to find out: https://www.youtube.com/watch?v=DAw_Zzge49c

Million Metres Streams Project

The Sustainable Business Network, in collaboration with Enspiral, filmed some of its promotional footage at Oakley Creek for their Million Metres Streams project at Oakley Creek Te Auaunga. The Million Metres Streams project is a world-first initiative, linking Carbon4Good's carbon offsetting work to a new, national waterway restoration programme. The Sustainable Business Network and collaborators are crowd-funding the riparian planting of one million metres of public and private waterways in New Zealand.

See http://millionmetres.org.nz *Photo: W. John*

Dioecy *- male flowers, with pollen bearing stamens (above) and a female flower with central stigma (right), borne on separate karo,* Pittosporum crassifolium, *individuals.*

Photos: A.Stanton

Oakley Creek Photo Jigsaw

It is easy to make your own jigsaw from downloaded templates for a thrifty holiday gift. Glue your favourite Oakley Creek photo onto cardboard, then glue a printed jigsaw template to the back, to cut out when dry. For example, an especially easy to cut template can be found at http://timvandevall.com/make-your-own-jigsaw-puzzle-templates You may like to use this photo (right) …

… but, probably not this one (left) of the same tree fern on another occasion – sigh!

Photos: A. Stanton

Oakley Creek history recalled

The following piece by Sir Harold Marshall, was a presentation to the Select Committee at the time of the SH 20 extension planning process. It describes some of Oakley Creek's history, which is great to have recorded.

"Show me your parks and I will show you the route of your next motorways". This saying was never truer than in Transit NZ's proposals for the completion of the Mt Roskill to Waterview motorway. The parkland that borders the Oakley Creek – already devastated to the East of Mt Roskill - is the preferred route for this connection. Where it lies on land designated railway reserve for more than 100 years, like the Alan Wood reserve South of New North Road, the park is doomed and there is nothing to be done. But a more acute problem is the fate of the open space from New North Road to the Waterview interchange.

I am familiar with this piece of land and its geology and history at first hand. Mark Woodward (my great grandfather) and his five sons first farmed it, picking up the scoria and stacking it into the dry-stone walls characteristic of Mt Albert in the early days. It was inhospitable stony land, but cheap. Mark's farm lay on the flow of lava which had welled up before the last splutter of the eruption made the Owairaka cinder cone 10,000 years earlier - but I suppose he didn't know that, or care. Survival in 1867 was the name of his game. The fl ow had stopped against the "100 foot terrace' of the Waitemata series sandstones where Blockhouse Bay road is now and its edge became the natural drainage course for runoff. That is why Oakley Creek is there.

In my childhood I was frequently wakened by blasting as the bluestone was quarried from the lip of the basalt flow and well recall the pause in the grinding of the stone crusher while the charges were set. When the quarry was exhausted or at least had reached the edge of the 1916 subdivision of Springleigh farm into house lots at Phyllis Street, the hole became the Mt Albert Tip discharging toxic waste into the creek. Upstream of this disgrace, so typical of the age, the creek still ran clear. It was a childhood adventure play-ground. There was a big white teatree - kanuka we would say today – with a knotted rope to swing out over the deep pool in the bend then still called "Woody's pool" by the previous generation. I walked there this morning past a grove of 10 m kanukas which I guess are descendents of our tree.

Finally the tip was full – stinking, toxic and dangerous. Over the next 30 years it was leveled and grassed into the now heavily used playing fields at the Phyllis Street reserve while below, along the stream bank the Oakley Creek walkway reclaimed the neighbouring asylum grounds for the public. It took something like 40 years but finally the redemption is nearing fulfillment thanks to the dedicated efforts of the Parks Department of the city and local volunteers.

The past decade has seen the threatening garbage scarp of the old tip stabilized, drainage improved and the walk sealed for more than two and a half km. Most significantly hundreds of thousands of native trees and shrubs have been planted by the city – kanuka, kowhai, puriri, broadleaf, fivefinger and lemonwood, flaxes and grasses, treeferns and ponga. It is full of birds – I have counted 27 species on my walk. The jewel in the crown on the walkway is the most beautiful waterfall in the Auckland city - 6m high the creek plunges over it into a deep pool. Trees 130 years old shade the onward meanders of the stream. The noise of the city is inaudible here – the background is set by the murmur of the stream and the birdsong. It is a true Taonga painstakingly recovered from the disgraceful contempt of previous generations.

And the same contempt is evident in one of Transit's plans for the motorway in this section. There are both more expensive and less expensive alternatives. The more expensive, under-grounding option, would honour these 40 years of effort and recognize the enormous but immeasurable value of the Oakley creek walkway to the western City. The cheaper, expedient and contemptuous option will destroy it.

Sir Harold Marshall KNZM, Mt Albert, 20 July, 2007.

That was then, this is now …

Photos: Then – 2000, C. Kiwi; now – 2014, W. John

Weed watch

This section of the newsletter features details about weeds that threaten the native plants along Oakley Creek. You can help by tackling them at the stream, around the region and in your garden, if present. In this issue, Auckland Council Biosecurity contribution:

Summer weed alert by Amanda Peart, Auckland Council Biosecurity Contractor

As you enjoy Auckland over summer, you can help keep our region beautiful by reporting some of the nasty plants hiding in our midst. One of these plants is **Asiatic knotweed**, a shrub-like plant that grows rapidly and, once established, forms dense stands that shade and crowd out all other vegetation.

What to look for? Leaves are 10-15cm long and triangular – oval shaped, pointed at the tip, with a flattened leaf base. A creamy white flower appears from December – March. The plant can grow up to 3m high.

There is a site of Asiatic knotweed in New Lynn, and it is related to the Chinese knotweed which was found in Oakley Creek this year. It is a Total Control plant too, so Auckland Council will do the control work, and wants to know where it is.

It is also the season for **Cathedral bells** to flower, making them easier to spot. This is also a Total Control pest plant that the Auckland Council will control. It is a vine that can smother large native plants and suppress seedlings.

What to look for? It has large, bell-shaped, greeny-white to purple flowers, light green, oval leaves, and tendrils.

Summer is also perfect for spotting and getting rid of some of the usual suspects that flower or produce berries in the warmer months. These include moth plant, climbing asparagus, Formosa lily and Japanese honeysuckle. Visit www.aucklandcouncil.govt.nz/plantsearch for more information.

If you think you see Asiatic knotweed or Cathedral bells, please take a note of the location and contact Auckland Council biosecurity on 09 301 0101 or biosecurity@aucklandcouncil.govt.nz.

Photos: Auckland Council

Unitec clean up

Unitec staff and students undertook a clean up of Te Waiunuroa o Wairaka - the stream that flows through Unitec. There was a good turnout, with lots of weeds, that were blocking the flow, being taken out. Te Waiunuroa o Wairaka is an important tributary of Oakley Creek, and is fed by spring water from just below the Hub, on the campus.

Black shag, hanging out at Oakley Creek Te Auaunga. *Photo: W. John*

[In the context of freshwater quality decline]
New Zealand 's 6.5 million dairy cows = 90 million human equivalents [of effluent].

Mike Joy,
Massey University

Linton Winder, head of the School of Natural Sciences, and Carolyn Cox, Environmental Sustainability Manager 'mucked in' to help. *Photo: W. John*

Out and about …

Photos: W. John (unless stated otherwise)

Helen Wadsworth, Nick Moore and family took part in the annual **Great Kereru Count,** choosing Oakley Creek for their observation site (right).

Dominic Hutching and Margaret McConnell helped out at the Friends of Oakley Creek display at **Waterview Community Day** (left).

You may remember this photo from the June newsletter (above). The following website is where this **filming** at Oakley Creek ended up: https://www.kickstarter.com/projects/pghaynes/afk-gaming-web-series

Enjoy!

Approximately thirty people attended the Auckland Council **Heritage Festival** guided walk along the creek this year (left).

With so many storms and high flows through the creek, we decided we would hold an extra Spring Clean Up, as part of the **Keep Waitakere Beautiful 'Operation Spring Clean'**. Volunteer David Smith helped wheel in the 'spoils' (right).

Tawapou, Planchonella costata - *new growth.*

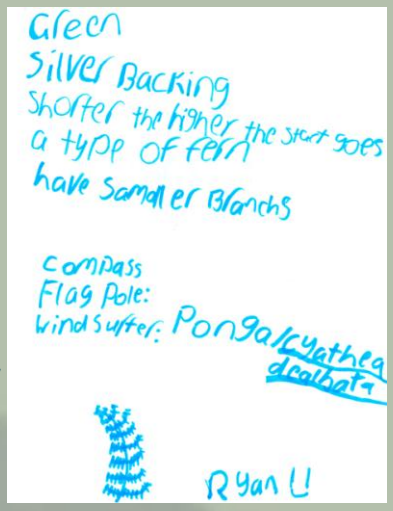
Local resident, Patrick Carpenter, has recently installed **bee hives** on the Dorje Chang land on the edge of Oakley Creek (below).

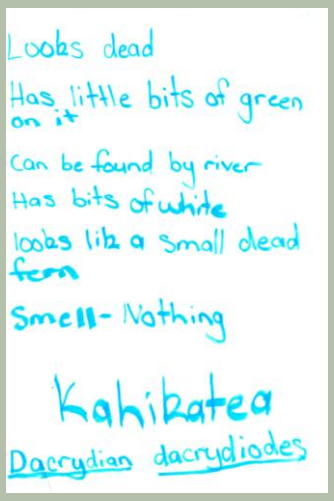
Waterview Connection have placed this great **billboard** on Great North Rd, Waterview (left).

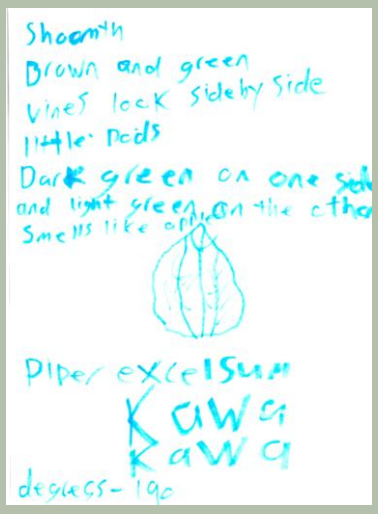
Rodent Baiting Crew – regular volunteers, Opal Gordon, John Stevenson and Margaret McConnell were helped by Auckland International College students (left).

Once again, the wonderful **Waikowhai Scout group** helped at the September community weeding (right), while mighty **Mt Albert St Judes' Scouts** worked on the site by their den (below).

Friends of Oakley Creek, ran a **native plant identification** session at **Mt Albert St Judes' Scouts**, whereby the Scouts had to describe their own sample of foliage, then find and map the location of a growing plant of that same species, within their restoration planting area.







Hong Kong Shanghai Banking Corporation team braved the weather to clear around some of the young plants on the Harbutt Reserve floodplain.

Leslie Haines, **Open Polytechnic** tutor, (right) instructed students on planting, as part of the practical component of their course.

Maheeja Fernando, John Stevenson and Kate McIntosh, Wai Care, worked hard on the **NIWA Water Monitoring Research Project** (left). Community volunteer, Jeff Lang with Alice Rieger, Wai Care (centre) and Jagjeeta Kaur (right) also carried out their regular **water monitoring** - at Cradock St Bridge and under the Unitec Bridge, respectively.

What is this? - solution

Found at Oakley Creek during the NIWA water monitoring, these are eggs - laid by a native freshwater snail, *Zemelanopsis* (formerly *Melanopsis*). These snails live in coastal streams and estuaries, usually where it is stony. They graze on biofilms, growing on submerged surfaces.

http://www.landcareresearch.co.nz

Fruit salad anyone? As we have to keep saying, you never know what you will see next at Oakley Creek …

Changing Baselines Syndrome – where the current state of an ecosystem or population is assumed to be 'normal' by observers who are ignorant of previous states.

Wood ear fungus (left), a jelly fungus (centre) and unfolding wheki, Dicksonia squarrose, *frond (right) at Oakley Creek Te Auaunga.*

We gratefully acknowledge the support of ASB Community Trust, WWF, The Trusts Community Foundation and Auckland Council: Albert-Eden and Puketapapa Local Boards; Community Organisation Grants Scheme (COGS).

Next Newsletter Contributions and comments for the next newsletter are welcome – please send to **info@oakleycreek.org.nz**

New Members Welcome, Donations Too!

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 and gift plant orders can be made directly into our bank account:

Friends of Oakley Creek - Kiwibank – A/c 38-9003-0978224-00

or cheques, made out to 'Friends of Oakley Creek', can be sent to: 4/65 Woodward Road, Mt Albert, Auckland 1025.

Chairperson: Wendy John Treasurer: Jane Shand Secretary: Volunteer needed
Committee: Dominic Hutching, Helen Mellsop, John Stevenson
Newsletter Editor: Adrienne Stanton

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