



Inanga spawning site study

At spring tides over the last few months, we have been checking the lower reaches of Oakley Creek Te Auaunga for signs of spawning inanga or whitebait. But, hold back that exclamation, 'Yum!' No fishing is allowed here and all whitebait species need our protection.

Julia Tuineau, Wai Care, and Matt Bloxham, Auckland Council, have been organising the surveying of Auckland streams and wetlands to find out where whitebait are spawning. They are also assessing potential sites which could be enhanced to promote egg laying - by planting more native vegetation along stream banks or by digging ditches to make more channels,

The eggs are laid at the top of the salt water wedge - that is, where the spring tide reaches its most inland point. Oakley Creek was fortunate to be one of the creeks that have been assessed. In December, the top of the salt water wedge was located using a salinity meter. Surprisingly, it is upstream from the culvert under Great North Rd - no need for a boat! This area is already well vegetated with a mix of suitable native and exotic grasses, so it should be a good habitat for the inanga. However, it is only a small area, so reshaping of the stream banks to enlarge the area of suitable habitat would be a good option.

Inanga were present in large numbers around the high salt water wedge on two of the spring tides in early March. They were very active amongst the weeds in the stream, and were busy feeding along the stream banks, particularly as the tide started to drop. But, there were no obvious signs of any milt, which would indicate that spawning was taking place.

Whitebait Facts

'The five main species of whitebait—inanga, kōaro, banded kōkopu, giant kōkopu, and shortjaw kōkopu—belong to the Galaxiidae family, which was named after the Milky Way galaxy, as the very first species described was sprinkled with dazzling spots.

Habitat Although galaxiid species are found in many places in the Southern Hemisphere, the giant, shortjaw and banded kōkopu only exist in New Zealand. Our galaxiids are generally nocturnal and very good at hiding. They love bushy streams, where they find both shelter and food, with a rain of insects falling from the overhanging plants.

Breeding The main breeding season for our galaxiids is autumn. Inanga migrate downstream to estuaries and lay their eggs among plants and grasses, whereas kōaro and kōkopu stay where they are and lay their eggs on leaf litter and forest plants. The eggs stay out of water for several weeks, and need good plant cover to keep moist. They hatch when re-immersed, either by spring tides (for inanga) or floods (for kōaro and kōkopu). The larvae then float out to sea where they live and grow over winter, migrating back upstream as whitebait in spring.'

- Department of Conservation

Koi carp - on their way out!



Auckland Council has recently arranged for the removal of the highly noxious pest fish, koi carp, at Oakley Creek. A cross-bow is being employed as previous attempts using fyke nets were unsuccessful.

Did you know?

If, without a permit, you

- are found in possession of a live koi carp (or other noxious fish) - \$5000 fine.
- release, spread, source or breed koi carp (or any other unwanted organism) - prison for up to 5 years and/or \$100,000 fine.
- release any aquatic life (native or introduced, animal or plant) into an area where it does not already occur - \$5000 fine.

Matt Hall from contractors, Morphum Environmental, with 'the one that didn't get away' - a large female.
Photo: W John.

Moth plant and woolly nightshade

As well as doing your best by removing these plants as soon as possible, before they spread any more seed this season, please also spread the word around your neighbourhood and your work place. Pest plant information sheets for handing out and placing in letterboxes can be obtained from the biosecurity team at Auckland Council (ph 301 0101) or printed directly from arc.govt.nz/environment/biosecurity/search-for-plants.

And, if you have elderly neighbours, who have difficulty dealing with these weeds, a little help goes a long way.

Albert-Eden Local Board funding

The Albert-Eden Local Board has approved more funding for Oakley Creek restoration in its Environmental portfolio. This grant is for site preparation, planting and weed control in some of the Oakley Creek Watercourse Management Plan 'restoration opportunity' sites in Harbutt Reserve. Our thanks go to the Local Board for supporting this project.

Dates for your diary

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

Sunday 7th April, 10.00am - noon: Community Working Bee.
Please wear sturdy enclosed footwear and meet at Phyllis Reserve Bridge, Phyllis Reserve, end of Springleigh Avenue.

Sunday 5th May, 10.00am - noon: Community Working Bee

Sunday 2nd June, 10.00am - noon: Community Planting

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

More fishy facts ...

This was published a while ago, but we have only just been advised. The link below is for the formal report on the electric fishing carried out at Oakley Creek in mid 2011 by Morphum Environmental and which featured in our July 2011 newsletter (Vol 4, Issue 2):

aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/planspublications/technicalpublications/tr2012016environmentalmonitoringstrategyyear1aucklandcentralstreamsresults.pdf

SH 20 Update by Heather Docherty



Left: Community liaison group (CLG) members catch up after taking a look at some of the 19th-Century artifacts found near the Star Mill site, in the Northern construction area in Waterview.



Below left: CLG members descend into the enormous hole excavated for one of the storm water retention ponds in Alan Wood Reserve.

Bottom left: Some of the basalt that has been blasted through over the last few months will be left exposed as part of the retaining wall facing the motorway.



Above: Friends of Oakley Creek's very own 'Ghostbuster' (ed: aka Heather), ready for the construction site visit.

Photo: B. Ranum

Oakley Creek Te Auaunga - in the news

The latest March-April issue of *New Zealand Geographic* features Oakley Creek! Kennedy Warne describes his personal journey 'seeking solace in suburbia' in *Pilgrim at Oakley Creek*. The 13-page article is beautifully illustrated with Kennedy's photographs of the creek, its inhabitants and visitors. This is fabulous publicity for the stream, waterfall and general area as well as being a thought-provoking piece of broader significance.

On February 15th, *Auckland City Harbour News* published a photo of men working on Oakley Creek as part of a 1930s depression work relief scheme - you can find the image at Auckland Libraries heritage images online, record id 785-A16121,

Auckland City Harbour News also featured Oakley Creek on February 27th, publicising our annual clean-up with an article and photo - very picturesque, with no rubbish. There is more about the clean-up in the *Out and about* section, below.



Above: The final portion of Oakley Creek to be realigned from a basalt channel (left) to a naturalised meander (right), with woolmat laid for erosion control in preparation for planting.

Bottom right: CLG members descending to the lowest part of the tunnel approach excavation. At this stage, excavation is around two-thirds of the final depth that the motorway will sit at. When finished, the exhaust stack will be roughly half the height of the crane at the mouth of the tunnel portal.



Graffiti - please report

Please report any graffiti along the creek to Auckland Council - ph 301 0101 (or as an acquaintance said the other day 301 0101), or send an email to enquiry@aucklandcouncil.govt.nz with the specific location details.

The Tread Lightly Caravan

Travelling around Auckland schools, the Tread Lightly Caravan is a mobile environmental education classroom, which shows how every day choices (what we buy, how we travel around, what we eat, how we heat our homes) can make a huge difference to our natural environment. It is packed with lots of fun, interactive exhibits and experiences, designed to bring science and nature into Auckland schools. See tread-lightly.org/home

New fish ladder for Wairaka Stream, Unitec by Rowena Gilchrist

The month of February saw staff from Unitec and Morphem Environmental get their hands dirty installing a fish ladder on the Wairaka Stream, an Oakley Creek tributary. The fish ladder installation is part of on-going restoration of the stream under Unitec's Environmental Sustainability Strategy.

The Wairaka Stream Restoration Project was developed by Morphem for Unitec, and identifies a number of enhancement opportunities to improve ecological, amenity and community values. This included the installation of a low gradient structure to replace a one metre high wooden weir, which was acting as a significant barrier to fish passage. To avoid the need for extensive stream works involving concrete, Fish Ladder Solutions were contracted to install a pre-formed fibreglass ladder. The 3m long by 600mm wide ladder, faced with natural pebbles and lined with spat rope, will allow improved movement of fish between the upper and lower reaches of the stream. Rip Rap and planted Geotextile socks were installed to prevent stream bank erosion and improve the ecological and amenity values of the area long term. Innovative syphon and wicking irrigation tubes were fitted to keep the plants watered through the dry summer.

The stream is important to Unitec and the wider community for a number of reasons, including the cultural significance of the sacred spring on campus - Te Wai Unuroa o Wairaka, the ecological value of the watercourse, linkages to the wider Oakley Catchment, and the potential for the stream to be used as a teaching resource.

The next planned works include a planting day on 5th June 2013 (World Environment Day) to continue the riparian planting started by the Unitec Environmental Sustainability programme last year.

Photo: C. Clarke



One of the Bits You'll Never See by Dorothy Maddock



Down in the hollow of Methuen Road, near where I live, there are some storm water sumps which hide a secret. Hidden is a tributary of the Oakley Creek, piped and buried forever. Well!, not quite. In one of the darker bends of the creek there is a deep, but quite narrow channel which one could easily miss seeing because it is covered in nasturtiums, black eyed susans and other even less desirable plants. This is the confluence of the creek and tributary or outfall of a drain, depending on one's point of view.

When I was looking over some old maps, covering the 1903 subdivision of the land along parts of Methuen Road and Bollard Avenue, I saw this thin wavy line joining the creek where it flows below Odyssey House. The thin wavy line went into the hollow under where numbers 71 and 69 are now. There were only a few houses along Methuen Road in 1903, and it didn't go any further than the hollow. Paddocks lay beyond.

It was not until the late 1950s that Methuen Road went anywhere further and before it did that pesky tributary had to be dealt with. The planners of the day saw no problem with putting it underground and all might have been well, if, by the 1990s, infill housing causing increasing runoff, hadn't caused a few floods. These were mostly short lived and only covered the road for a short time. I remember seeing them on several occasions, but didn't take any photographs.

One flood, however, made a big impression. The main creek was flooded covering its flood plain in Hendon Park, only subsiding the next day. The water from the unnamed tributary had nowhere to go and backed up around numbers 71 and 69, and another house on the other side of the road.

The authority of the day, probably then called Metrowater, went into action and soon had, on the scene, some large pipes and larger holes in the road. This was in May and June of 2001. In next to no time it was all done and tidied up and the tributary has stayed in its place, out of sight and mind, ever since.



Carex conundrum - long memories required



For our restoration planting, we have been supplied with some *Carex* specimens, labelled *C. lessoniana*, which are quite different from each other in size - overall, leaf and spike. Ewen Cameron, Curator Botany, Auckland War Memorial Museum, has identified them to be in the *C. geminata* agg. Group. The forms approximately match both *C. geminata* (long spikes) and *C. lessoniana* (short spikes), but they intergrade around Auckland so it is preferred to call them all *C. geminata* agg. Ewen notes that further research is needed to resolve the local complex.



Photos: W. John

As Ewen also stresses, the important thing for restoration projects is to only use the local form from the area that is being restored. So, now we have to find where our original, local seeds sources are! Wendy has found a large area of '*geminata*' in the high tide area below the Great North Rd culvert (left), which may be original vegetation. If anyone can help confirm this or propose any other areas of long established *Carex*, please contact her (ph 8153101 or email info@oakleycreek.org.nz).

Have you seen this?

1. **Botany Word of the Day** illustrated with native plants by Tony Foster, author of the excellent book, *Plant Heritage New Zealand*. For example, March 25th: concolorus - having the same colour throughout. It has a photo of lush young puriri - with stem, petiole and leaf of uniform colour. See plant-photography.blogspot.co.nz/

2. **Articles on native plants**, written by Geoff Davidson, Oratia Native Plant nursery oratianatives.co.nz/index.php?page_id=214

What is this?



Solution at the end of the newsletter.

Unitec Arboretum by Penny Cliffin

As the result of a Sustainability Research Grant from Unitec, several projects have been achieved in terms of documenting and promoting Unitec's tree collection.

Landscape students have been involved in gathering data on campus trees for their course requirements and have updated the database held by facilities management. The data is now available from the Unitec website - www.unitec.ac.nz/trees. Labels have been placed on 100 trees around campus, and we will be ordering another hundred later in the year. Each label has a QR on it, which enables Smartphone users to link to the website for more information about the tree. There will be an opportunity to nominate trees for labelling through our Facebook page - www.facebook.com/UnitecArboretum. A self guided walk of interesting campus trees is also under development and a pdf file will be available on the website in a month or so.

So with the data collected, trees labelled and website and Facebook page established, we hope to discuss this pilot with Auckland Council with the view to research and develop a broader urban tree map for Auckland's urban forest, which would include areas such as Oakley Creek. San Francisco has a great model, which allows residents to enter data about the trees in their neighbourhood - <http://urbanforestmap.org/>

As part of Unitec's June 5th Environment / Arbour Day, there will be a ceremony to launch the self-guided walk.



Oakley Creek Te Auaunga late summer fungal fruiting bodies. The right most one is very large!

Photos: 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 these at the stream and in your garden, if present. In this issue:

Hypericum androsaemum, Hypericaceae – tutsan, sweet amber

Tutsan is a Eurasian perennial shrub, which can form dense populations, preventing native seedling establishment. It was officially identified as a pasture weed in New Zealand as early as 1955 and it can also grow in native forest in semi shade, often being found in remnants. Its numerous, long lived, curved seed are readily spread by birds and other vectors. At Oakley Creek, prime habitat, it is necessary to be vigilant in weeding out the individual seedlings which regularly appear. It is fortunate that large infestations, like those which occur in Taumaranui and the Eastern Bay of Plenty, have not established here, so far.

Growing to a height of 1.5 m, tutsan is semi-evergreen and semi-woody. A distinguishing character is that the oppositely arranged, oval leaves (10 x 5 cm) attach directly to the stem, with no petiole. All parts of the plant lack hairs. The stems and autumn leaves may be tinged red. The clustered five-petalled yellow flowers have many stamens and produce **poisonous** red berries (1 cm diameter), which ripen to black. The roots are fibrous and do not have rhizomes.

The name tutsan may be derived from 'toute saine', meaning 'all healthy' in French - historically, the plant was used medicinally in various ways, for example, leaves were applied to wounds.



Photos: flowers, W. John; foliage, A. Stanton.



Control: Small infestations of seedlings and young plants can be dug out and left to rot on site. Larger areas may need repeat spraying or cut and pasting of stumps. As always, areas need to be checked for re-growth and re-infestation.

Warrening worry

Bill Bryson (2010) reports in *At home: A short history of private life*, that at Elveden, the 17,000 acre (69 km²) Guinness family estate in Suffolk, twenty-eight full time warreners were employed to cull rabbits (in the 1890s?). If we estimate the area of Oakley Creek parks and reserves to extend for a quarter of a kilometre each side of the stream's fifteen kilometre length, how many warreners do we need to protect our small native tree seedlings, shrubs and herbs? Solution at the end of the newsletter.



'Think unique, don't even own a box.'

- Anon.



Poataniwha, *Melicope simplex* - this specimen is one of several growing in Harbutt Reserve near the rail corridor. Poataniwha can grow to about 4 m in height.

Oakley Creek statistical challenge

2013 is the International Year of Statistics, the aim of which is to promote the importance of statistics, especially to young people. We challenge you to collect your own statistics concerning Oakley Creek, which are of interest to you. Remember to record the location, date and time for each data set, for example, Oakley Creek Walkway, 6 April 2013, 10 - 11.30 am, 8 joggers (4 wearing lycra), 3 dogs (none wearing lycra) and 6 fantails sighted. Try to collect data over a sufficiently long period that you may see some trends or patterns - then you can start wondering, test your theories and gain your doctorate! Large or small, apparently trivial or of earth shattering significance, we would love to hear about your ideas for data collection and, later on, your discoveries. Your statistics may be useful in the future to advocate for Oakley Creek.



Asplenium oblongifolium fern.

Photo: W. John

Wildlife encounters



From left: 'Here is a picture of a young shag beside the stream that I took when I walked down to check on our re-vegetation site.' - Janet Wade, one of the Open Polytechnic students who are helping to restore a section of Oakley Creek; Bottoms up!; A pukeko on its floating nest,



Far left: Blackheaded jumping spider, Trite planiceps, on a flax leaf - this species is often found in rolled up flax and cabbage tree leaves and can jump up to 20 - 40 cm (Andrew Crowe, 2007, Which New Zealand Spider?); left: woody cased caddisfly, seen during water monitoring with Jagjeeta Jaur, under the Unitec Bridge. .

Photos: top left, J. Wade; remainder, W. John.

Out and about

Photos: W. John (unless otherwise stated).



Wendy (in the fluoro Friends of Oakley Creek vest) is seen here with the WWF fundraising team, who donated their time to planting an area of Oakley Creek last year. Thanks for the great effort! WWF funding also contributes significantly to the Oakley Creek restoration effort, to great effect - thanks so much for this too!

Photo: WWF

In late February, it was the last day for **Toby Ross** volunteering on the creek before heading off to Massey University in Palmerston North. He will be commencing his studies in veterinary science there. Toby started volunteering on Oakley Creek as part of his Duke of Edinburgh Awards community service back in 2010.

Toby continued volunteering long after his hours were fulfilled, and has done a wonderful job of maintaining a small area of the creek below Phyllis Reserve for over two years. Thanks, Toby, and we wish you all the best for your studies.



Cesar Lador and Oliver Ferrick, **Morphum Environmental**, undertook an extensive erosion assessment, from where the creek comes under the rail corridor down to Great North Road.



A **Conservation Volunteers NZ** mid-week team can be seen here, pricking out plants for Oakley Creek. On the left, team leader, Diane Eden, brings the re-potted plants out to the shadehouse.

At the **Annual Clean up** on March 3rd, there was a good turn out from the local community, in spite of the rain. While the number of tyres we removed from the creek were well down compared with the 2006 clean up (75 tyres), there was still plenty of rubbish, both recent and historic. Thanks to everyone who gave up their Sunday morning to lend a helping hand.



Left: Craig Watson found plenty of rubbish to fill a wheelbarrow; and right: children from the local community also lent a helping hand.



And what a difference one person can make! From left, before and after weeding on the Management Unit 1B plateau, with the helping hand of a **Buchanan Rehabilitation Centre** client - many thanks!



Volunteer weedbusters worked hard on a section of the creek opposite Mt Albert St Judes Scout den in early February. No moth plant is going to escape! What's next for the chop? Thanks again, Jean, David, Keith, David (visiting from the UK) & John.



Next time you take a walk by the stream side in **Harbutt Reserve**, you will notice a number of changes. The willows that were lining the creek were nearing the end of their lives. Rather than removing the trees altogether, they have been temporarily topped, to ensure their roots continue to stabilise the stream banks. The willows also provide shade over the stream, until native species, due to be planted this winter, can become established.



After the fire at Management Unit 3A, **Open Polytechnic horticultural students** re-planted the site (above and far left) and are weeding and watering the young plants through the dry summer.



Tidying in the Nursery - late last year, John Stephenson (below) and Fabio Cunha (right, all the way from Brazil) made short work of clearing the weeds and rubble from the back of the nursery.



Wasps have been a problem on the creek this summer, with several nests being destroyed by Auckland Council.



Peter Pattinson, NIWA, recently flushed out one of the SH20 Water Flow Monitors on the creek. There are seven of these monitors from Richardson Road through to the Great North Road culvert. They will remain in place pre (2 years), during and post construction (2 years) to monitor any impact the construction of the motorway might have on changes to the water levels.



In March, Mt Albert St Judes scouts formed a bucket brigade to water the parched and wilted restoration planting, on the bank of Oakley Creek by their den and weeded out some smothering bindweed and moth plant too.



CVNZ Local on Oakley Creek - 5.2.2013



A successful day was spent clearing bindweed from around plants - two bags full!

Puzzle Solutions

What is this?

It is the shadow of one of the many rabbits at Phyllis Reserve - seen here by the Akarana Dog Training Club building.



Warrening worry

Oakley Creek park area estimate = 15 km stream length x 0.5 km park width = 7.5 km².

Proportion of Oakley Creek to Elveden = 7.5 / 69 = 9.2.

So, proportion of Elveden warreners needed at Oakley Creek = 28 / 9.2 = **3 full time Oakley Creek warreners.**

Then, add in Unitec ... but, we would be happy with even one, part time!



We gratefully acknowledge the support of ASB Community Trust, Ministry for the Environment, WWF-New Zealand, The Tindall Foundation, Auckland Council, Community Organisation Grants Scheme (COGS), The Lion Foundation and Environmental Resource Management Foundation.

Next Newsletter

News, articles, contributions and comments for the next newsletter are welcome and can be sent to info@oakleycreek.org.nz

New Members Welcome, Donations Too!

We would 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 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.



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