

August 2020

Tēnā koutou katoa!

In this issue we look at what we've been up to since April across our four workstreams:



PREDATOR FREE



FOREST HABITAT RESTORATION



FRESHWATER ENHANCEMENT



SEABIRD HABITAT RESTORATION

The Halo Project is driven by community input and involvement – thanks to all who participate, give their time, energy, expertise and passion! We really appreciate you.



PREDATOR FREE

August Update

We have been pleasantly surprised with the increased interest as people have had more time at home to notice what was, and wasn't, in their backyards. Many people reported seeing a diverse range of bird species and others noticed some less desirable predators such as rats and possums.



The Halo Project area with locations of all traps (TrapNZ)

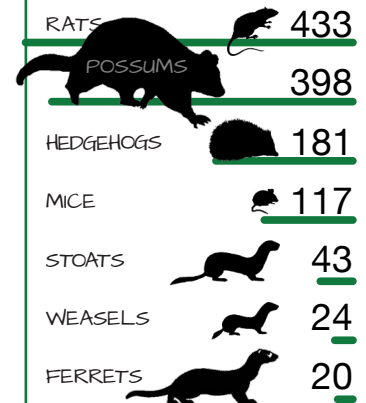
The Halo team and star volunteers have been working hard to establish a stoat trapping network across about 2200ha of the Heyward Point area. This work is almost complete and a big thanks to the team and landowners for all of the hard work and support - together we can make great things happen.

Communities have continued to protect and enhance their patches, and, with our focus expanding to the West Harbour communities from Roseneath to Ravensbourne, we are thrilled to be working in new places with new faces. We are also amazed at the high abundance of predators through these areas.

A big thank you for the warm reception and support so far.

Halo Dashboard

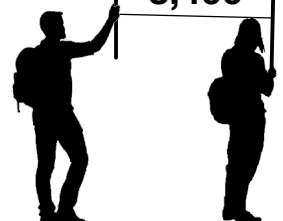
This year we have removed:



Total #: 1216

Total # traps: 1526

Volunteer hours
3,400



Thanks to the huge effort by our volunteers.



PREDATOR FREE (continued)

Predator Free Communities

2

Our backyard trapping programme is expanding by the day as we commence work in the harbourside settlements of Roseneath, Blanket Bay, St Leonards, Burkes, Maia and Ravensbourne. We've split the areas into chunks and will be working our way toward inner Dunedin over the coming months.

In June, Roseneath residents received a letterbox drop containing a pest detection pack so people could ascertain which pests are lurking in their backyard. Using our non-toxic, hypoallergenic, peanut butter baited chew cards, many residents reported possum chews on their cards. Upon further investigation into the bushy corridors on the Roseneath peninsula, we also found extensive possum sign; scratching on trees, territorial marking and lots and lots of possum poo!

Traps have been installed on public reserve land and trap catch numbers have been impressive. We look forward to decreasing the possum populations in the area over the coming months as we head into the bird breeding season.



Possum territory markings with mangled chew card



Volunteer installing information signs



Different types of possum poo



Family outing to check traps

What's that trap?



A Trapinator possum trap mounted on a tree

THE TRAPINATOR



The underside of the Trapinator where possums enter the trap (Photo: Trap.co.nz)

The Trapinator Possum Trap hit the market in 2017 after being developed by trapping cavaliers Phil Waddington, Darren Peters and Ross Mitchell. They wanted to develop something light weight, easy to assemble, install and use. This trap meets all those criteria. It has satisfied the National Animal Welfare Advisory Committee (NAWAC) standards for humane kill traps, and are one of the safest options to use around domestic pets, native birds and children.

These are the perfect traps for residential backyards and because of their light weight they can be easily transported into the bush.

If you live in the Halo Project area and want to host a Trapinator possum trap, contact us and we'll come and do a site assessment, provide H&S guidance and training on how to use the trap!

info@haloproject.org.nz / 022 026 2115

How do possums get trapped?

The Trapinator is mounted at least 1.2 metres above the ground onto a fence post or tree. Possums climb up underneath the baited trap and push up into the trap to bite down on the baited bite block. When possums tug on the bite block the mechanism triggers.

The Halo project uses a specially formulated bait on the bite block which we supply as part of our host-a-possum trap scheme.



PREDATOR FREE (continued)

Have you seen any South Island robins?

Our aim is to give native plants and animals the opportunity to thrive by reducing and maintaining low possum and stoat numbers. South Island robin/ toutouwai, reintroduced into Orokonui Ecosanctuary in 2010-2011, are one such taoka species dispersing into the Halo Project area. Being vulnerable to rats and stoats makes them a good species

to monitor as we can then measure the effectiveness of predator control outside the predator-proof fence. Monitoring them also gives us a better idea of where to target predator control to benefit robins.

The recent resurvey of five robin sites (previously surveyed in 2018) showed that robins are now present at some sites over multiple years

South Island robin ecology

Toutouwai are territorial and pairs tend to stay in the same territory over successive years. They are relatively long-lived birds in areas without predators, with birds recorded living for up to 16 years. Their territory size depends on the density of robins in the area and the food resources available. For comprehensive information, images and sounds look up NZ Birds Online.



*Kakaruai/ South Island robin
(Photo: Craig McKenzie)*

and are likely increasing in number, suggesting predator control efforts are benefiting robin populations. Despite robins not being detected in seven new baseline data collection sites, we have numerous reports of people seeing them in many locations outside Orokonui Ecosanctuary, including Graham's Bush, Mihiwaka and Doctors Point.

Public reports contribute to our knowledge of robin dispersal and distribution. *Please email us if you see one! Remember, please contact us if you see kākā too.*

Spotting South Island robins

Look: in native and exotic forest and scrub areas.

Listen: robins make alarm calls consisting of a single 'chuck', a 'downscale' (a series of chucks decreasing in pitch), and a distinctive territorial song. Listen to sound recordings at www.nzbirdsonline.org.nz

Record: date, time, accurate location (GPS or map coordinates ideal), number of robin seen/heard.

Photograph: if possible.

Report: to info@haloproject.org.nz or upload your photo and observation online at iNaturalist NZ.

Forest canopy on the mend

To help us understand how effective the possum control programme is in the Mt Cargill/ Mihiwaka area, we monitor both the possum population and vegetation health. Results from vegetation monitoring show a significant improvement in tree health, likely due to reduced possum numbers thanks to OSPRI's possum control operation.

Monitoring involves assessing trees for the amount of damage to their leaves caused by mammals. A combination of 54 māhoe and kotukutuku/tree fuchsia around Pigeon Hill and Mihiwaka were measured.

The study coincided with the start of an intensive possum control programme led by OSPRI, that manages the 'TBfree' programme. OSPRI's possum monitoring shows abundance is down to very low levels in the Mt Cargill area, and the results of vegetation monitoring show that plant species vulnerable to possum browse (e.g. māhoe and tree fuchsia) are recovering. This confirms what we'd expect with this drop in possum numbers.

Foliar browse index (FBI) is the standard method used nationally to monitor possum damage and canopy thickness on palatable native trees. The method uses repeated measures of permanently-marked trees to determine trends in both the foliar cover and dieback of tree canopies, possum browse on their leaves and stem (trunk) use. Possum bite and scratch marks on trunks have decreased, showing fewer trees being used by possums.

Lastly, photopoints can also be used to view changes to vegetation over time. For example, the Halo Project has 11 photopoint sites across Mihiwaka and Pigeon Hill, focussing on species of tree favoured by possums: haumakaroa (*Raukaua simplex*/*Pseudopanax simplex*), mountain totara/thin-barked totara (*Podocarpus laetus*, *kaikōmako*, *Pennantia corymbosa*), makomako/wineberry (*Aristotelia serrata*) and putaputawētā/ marbleleaf. Seven of the 11 trees showed improved condition between 2016 and 2020.

Over time, possums contribute to

widespread canopy death but with fewer possums roaming the area, the study found native trees are on the mend.

Even with these great results there are still plenty of possums out there, and we know that their populations rebuild quickly, so the impetus is with us all to keep up the intensity of trapping.



*Check out the **Pest Detective website** for details and images of what possum damage to vegetation looks like.*

Territory marking: You may notice scratched or peeled bark on a fruit tree or other tree in your garden or on a bush walk



FOREST HABITAT RESTORATION

Forest Restoration Planting Days

All nine of the landowners we are working with have funding confirmed for forest restoration on their properties, thanks to Trees That Count, Dunedin City Council Biodiversity Fund, One Billion Trees, and trees from the Corrections Department.

If you're interested in helping us plant these trees and can spare some time, we have planting bees coming up in August and September. They are a great chance to learn more about forest restoration, biodiversity conservation, and local flora and fauna.

We also have a Landowner's Field Day for people interested in enhancing native forest on their properties.

Please contact liz@haloproject.org.nz to register for either days (for catering purposes) and keep an eye on our Facebook page and Halo website for details.

PLANTING DAY

Saturday 29 August, 10am-2pm

Potato Point, 26 Hill St, Pūrākaunui

Look for the Halo Project sign on the driveway. Meet at the woolshed.

Stay on after 2pm for a barbeque when we'll be presenting a landowner forest restoration planting guide and discussing opportunities for funding of restoration projects.

LANDOWNER'S FIELD DAY & BBQ

Saturday 29 August, at 2pm

Potato Point, 26 Hill St, Pūrākaunui

Meet at the woolshed.

Please join us for a landowner's habitat restoration info session & BBQ from 2pm (FREE). Join the folk from Halo Project and explore Potato Point. Meet the landowner and experts in forest restoration, ecology, land management and funding for trees.

PLANTING DAY

Saturday 5 September, 10am-2pm

Ohineahi (also known as Māori Peak), Marks Rd, off Coast Rd, near Karitane.

Look for the Halo signs, meet at the cattleyards at 10am.

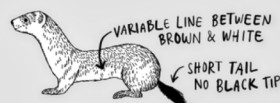
Please note: These events will go ahead under Covid-19 Alert Levels 1 & 2 only.

FERRET CARCASSES WANTED



OSPRI contractors are doing possum control throughout the Halo Project area to eradicate bovine TB. Possums are the main cause of the disease in cattle and deer herds. Ferrets are used to check if TB still remains in possum populations as ferrets can catch the disease from eating possum carcasses but are unlikely to spread it.

Any ferrets you catch can help us eradicate TB. If you catch a ferret, please call James Horton (*not Halo James*) on 022 183 1042. Anything fresh (pre-maggot stage) is welcome. Make sure you wear gloves when handling the animal and double bag and freeze it if possible.



WEASEL



STOAT



FERRET



FREE MICROCHIPS FOR CATS

Pet Doctors at The Gardens Vet only charge for the cost of a consultation (\$20 vet nurse, or \$55 for vet) if you ask for a free microchip. NZ Companion Animal Register provides the free microchip and registration.

A microchipped and registered missing pet is three times more likely to get home when lost, and if lost, will get home faster!

If you want to book in for a microchip for your cat, please contact the **Gardens Vets** 03 473 0387.



THE GREAT KERERŪ COUNT

The Great Kererū Count starts on September 18 and is NZ's biggest citizen science project to help gather information on the abundance and distribution of the New Zealand pigeon or kererū.

Whether you see any kererū or not, sharing your observations on



iNaturalistNZ will help build up a clearer picture of where the kererū live, how many there are and what they are feeding on. Find out how you can contribute your observations at www.greatkererucount.nz





FRESHWATER ENHANCEMENT

Source to Sea Project

In June, we took the opportunity to apply for funding for riparian and wetland restoration on private and public land through the Ministry for Primary Industries' Te Uru Rākau Forestry New Zealand grants and partnerships programme. Our application was one of only six projects, nationwide, to be successful!

Over the next three years, this funding will help us to:

- Increase the extent of riparian and wetland planting;
- Improve water quality;
- Provide educational and engagement opportunities for communities around water quality in local streams;
- Help landowners achieve their legal requirements; and
- Create biodiversity jobs for local people.

That's quite a lot to achieve and we need to get going fast! We're not working alone though. We're collaborating with several groups including East Otago Catchment Group, Kāti Huirapa Runaka ti Puketeraki, Otago Regional Council and, of course, landowners.

We will be reaching out to landowners, keen to improve water quality on their patch, whose property: 1) is susceptible to freshwater contamination and, therefore, likely to result in improved freshwater quality if restored; and/or 2) has potentially high biodiversity values if restored.



A potential area for planting - Whareakeke waterway and wetland
(Photo: Halo Project)

Restoring riparian margins to native vegetation creates many benefits, including:

- Filtering contaminants from surface runoff from adjoining farmland.
- Reducing water temperatures and the risk of algal blooms and eutrophication by providing shade.
- Increasing habitat for native flora and fauna.

If you are keen to work with us, or find out more, please contact: james@haloproject.org.nz / 022 424 8459



FRESHWATER ENHANCEMENT

Source to Sea Education Programme

Source to Sea facilitates students from local schools to develop a greater understanding of their local waterways through a cultural, historical and ecological lens.

Students are supported in the use of new technologies and hands-on science to explore and understand their water catchment using the student-led inquiry model and cross-curriculum learning.

Each year, participating schools continue to monitor stream health and carry out action plans they have worked to develop.



Our Source to Sea school education programme is an integrated part of the broader Halo Project, and in particular, compliments our riparian and wetland restoration programme described above.

Despite Covid disruptions to Term 1 & 2 timetables, Source to Sea is running again in the four new schools. All going well, we will complete the programme in Term 4.

Changes we made to the programme, as a result of reflection on last year's work, are working well, with more time for student-driven inquiry during follow-up class time with their teacher.

We're revisiting concepts of a water catchment, the parts of a stream, and potential impacts of landuse on water quality, while saving stream sampling fieldtrips for warmer months.

The Marine Studies Centre is helping us to use GIS Story Mapping as a tool for students to record and share their learning journeys. We're also looking forward to visits from their Aquavan.



Students from Port Chalmers School identify potential sources of freshwater contamination in an example catchment



FRESHWATER ENHANCEMENT

Source to Sea Project: New opportunities

New biodiversity jobs with our Source to Sea project

Halo Project is looking to employ a **project manager**, a **restoration supervisor** and several **field staff** through our Source to Sea grant from the Ministry for Primary Industries (see p5).

Recruitment will start soon, and we're looking to have the first two staff employed by the end of this year, with further appointments in the new year.

All positions will be advertised on NZ Conservation Jobs and Halo Project websites.

We encourage suitably skilled people interested in native habitat restoration and sustainable land use to keep a watch for advertisements over the next few months. Job training and learning opportunities will be provided, involving environmental management, sustainable land use and ecology.



THANK YOU

The Halo Project wishes to thank all our volunteers, supporters and funders for their ongoing support.



Volunteers at a planting day

