

**April 2020**

Tena koutou katoa!

In this issue we look at what we've been up to since January 2020 in our four workstreams:



**PREDATOR  
FREE**



**FOREST HABITAT  
RESTORATION**



**FRESHWATER  
ENHANCEMENT**



**SEABIRD HABITAT  
RESTORATION**

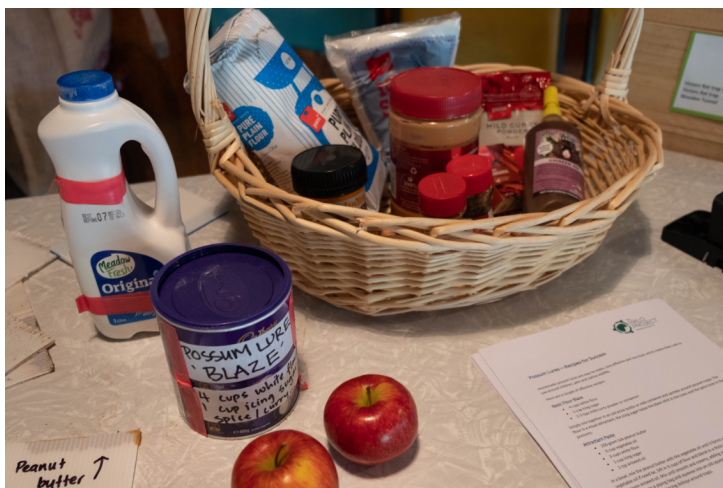
The Halo Project is driven by community input and involvement – thanks to all who participate, give their time, energy, expertise and passion!



**PREDATOR FREE Update**

*Community Engagement*

Since the beginning of the year we have been busy installing dozens of new possum and stoat traps. We held public information sessions in Aramoana and Long Beach and were thrilled to hear that many people are already trapping on their properties. Lots of residents signed up to host a possum trap and start rat trapping in their backyards, and some want to trap possums and stoats in public reserves (and some want to do both!). We are really pleased about the level of engagement from these two fantastic communities and already many predators have been removed! Thanks to those communities for receiving the project with open arms and to the existing communities for their ongoing work toward predator freedom!



Possum baits and lures on display at the public information session (Photo: Kimberley Collins).

*A24 Self-Resetting Traps*



Earlier this year, we worked with High Country Contracting to install Goodnature A24 stoat/ rat self-resetting traps on Mihiwaka. Contractors cut lines 100m apart, installing the traps at 100m spacings along the lines to give coverage of about one trap per hectare.

This trap layout is designed to be multipurpose; serving to knockdown and then maintain low rat numbers and provide a (super) intensive area where marauding stoats are likely to encounter multiple traps... (Continued on page 3).



**The Halo Project  
& COVID-19**

As Aotearoa moved into Alert Level 4 on 26 March, we suspended all our field work and cancelled field trips.

All Halo Project staff continue to work from home and are keen to maintain communications with you.

We'll endeavour to keep you updated on operations in response to changing Alert Levels and we're available online via email [info@haloproject.org.nz](mailto:info@haloproject.org.nz) or give us a call on 022 026 2115.





## PREDATOR FREE (continued)

### *An unfortunate possum tale (a brief history)*

First introduced to Aotearoa in the 1830s, the Australian brushtail possum (*Trichosurus vulpecula*) is now the target of nation-wide predator control. Brought to our shores to develop a fur industry, official possum liberations continued until the mid-1920s. The possum was declared a national pest in 1946 and was later discovered to be infecting cattle and deer herds with bovine tuberculosis (TB). Despite the concerted efforts underway to control possum populations, illegal possum liberations continued until the 1980s.

In 1994, TB infection in cattle and deer reached its peak. By then it was also evident that possums were responsible for killing many trees by stripping bark and browsing shoots, including in production forests. Conservationists were also beginning to prove that possums have a hearty appetite for our native forests, birds and insects. Recordings of possums stealing hoiho eggs, kōkako chicks, kererū, tūī, kiwi, tītī, pīwakawaka and native snails and wētā further fuelled the fight to rid Aotearoa of possums.

The serious implications of TB in our cattle and deer, the devastation of our production forests and native flora and fauna has resulted in a national collective to rid our islands of these introduced mammalian predators. Supported by Government, our aim is to reduce and maintain low possum numbers across the Halo Project's operational area so we can once again see native birds flourish and improve the overall health of our incredible landscape.

### *Possum breeding and habits*

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Possums are generally loners; they don't socialise with each other much nor are they keen on long-term relationships. Male possums can travel up to 20km until they establish their home range where they tend to stay until the resources run dry. A 'home range' is the area a possum regularly covers in search of food and mates. These vary in size with habitat quality and possum abundance but, under normal conditions, are about two hectares (approximately five acres). Female possums tend to travel less but both sexes are driven purely by a common need – food.

Unlike us, possums can reproduce very quickly. Adult possums can live for up to about 12 years and females start reproducing from age one. They can produce two offspring per year, although normally they just have one. The gestation period is only 16-18 days!

Generally, possums start their breeding season in April and continue through to June/July. Autumn is the peak birth time, and the more food there is at hand - the more likely it is that those juveniles or 'joeys' will survive. When conditions are good, possum populations increase quickly.

Once birthed, the 'joey' clammers into the mum's pouch to feed and this is where it will stay for a few months before venturing out into the world on the mum's back, becoming what is known as a 'back-rider'.

Autumn is a great time to notice possum activity and tend to traps more frequently. Given how large their home ranges are, it's likely that possums will use properties as corridors to their food sources. Having a trap set, baited and checked regularly at this time of year is critical to keeping possum numbers low.



Hunting possums, 1929, Taranaki. F B Butler/Crown Studios Collection. Gift of Frederick B Butler, 1971. Te Papa (B.027262)



## PREDATOR FREE (continued)

### A24 Self-Resetting Traps - continued

We regularly receive reports of South Island robin/ kakarua and kākā being seen around Mihiwaka along with increasing numbers of rifleman/ tītī-pounamu and tomtit/ miromiro. The A24 stoat/ rat trap network will support this ongoing spread and re-establishment of our taoka species outside of the Orokonui Ecosanctuary.

This work is made possible with some generous support from the DCC and we are now working with adjacent private landowners to bolster the core area. There'll be plenty of work to do to keep the roughly 18km of A24 trap lines open, and the traps gassed and lured (on a four-monthly basis). If you'd be interested in helping us do this, please give us a shout but be warned – this is steep and rugged terrain!



Kakarua/ South Island robin  
(Photo: Craig McKenzie)

### Halo volunteers



Halo volunteers hard at work fixing traps (Photo: Kate Tanner)

Our stalwart volunteers have been recommissioning old trap boxes we sourced from DOC. The team have cleaned, fixed, and installed new trap mechanisms in more than 150 boxes which are now ready to bolster trapping efforts across the Heyward Point area. They'll mostly be installed along public tracks and road verges and we are fortunate to have great support from some of the local farming community too. A huge thanks to Mike, Craig and Kim for spending many days refurbishing these traps so they are ready for the field.

We are looking forward to getting the stoat traps out when we can and working alongside the local community to undertake trap checks, rebaits and maintenance. This is rewarding and accessible work, if you think this sounds like something you might be interested in helping us with please drop us a line. Full training and basic safety equipment will be provided.

### Sawyers Bay Star Trapper

Sawyers Bay resident, Rose, contacted the Halo Project about her possum problem. Fruit trees were dying, other trees defoliated, possum poo all over the lawn. In August last year, we installed a Trapinator possum trap on a tree in Rose's garden. From there, Rose's daughter Wendy managed the trap and caught 35 possums! On average, Wendy was catching one possum every second night for the first couple of months! The catch rate has now slowed down, and the positive effects are showing. Trees once stripped of foliage are in bloom, fruit trees are fruiting, native bird life has returned, and the lawn is nice and fresh. Nice teamwork!

### Predator Free Dunedin Annual Report & Meeting

About 50 members gathered last month to hear PFD and the delivery partners tell the tale of a year of teamwork, hard grafting, growth in support and achievements.

The Halo Project, the Otago Peninsula Biodiversity Group (OPBG) and the City Sanctuary project (previously known as Urban Linkage) told their unique stories from beginnings to future plans and the challenges in-between.

If you haven't already had a look, the annual report is available at [www.predatorfreedunedin.org/about](http://www.predatorfreedunedin.org/about)

### Farewell to Sanjay



Lastly, from the Halo Project's Predator Free Team, we bid a fond farewell to Sanjay Thakur who has taken up a new opportunity in the local area. We greatly appreciated having his strong technical skills, good humour and attention to detail on the team. We wish Sanjay the very best for the future.



## FOREST HABITAT RESTORATION

### Forest Restoration Project

The aim of the Forest Restoration Project is to improve the quality and quantity of forest habitat throughout the Halo Project area. With thanks to funding from Trees That Count and Dunedin City Council Biodiversity Fund, eight out of nine of the landowners we are working with have funding, and four of those landowners, all near Orokonui, are ready and waiting to get planting. Further applications are underway.

If you are a land owner in the Halo Project area and are keen to understand more about forest habitat restoration, you would like to be involved or would like more information please contact [james@haloproject.org.nz](mailto:james@haloproject.org.nz) / 03 3959 753.



Rohutu (*Lophomyrtus obcordata*) or NZ myrtle, now Nationally Critical due to myrtle rust, is protected at Potato Point (Photo: James Tweed)



## FRESHWATER ENHANCEMENT

### Source to Sea Education Programme

Students taking part in our Source to Sea education programme have been asking the hard questions as they embark on their journey of discovery with Lead Educator John Fisher.

Source to Sea is an inquiry-based programme with core activities to aid exploration and understanding of the health and workings of local water catchments (their ecosystem services and water quality). Being inquiry-based means it is largely up to students to pose, explore and answer their own questions.

**Port Chalmers School** explored Cold Water Stream from Deborah Bay. Did you know an aqueduct was constructed to water the sailing ships anchored in Deborah Bay? Or that there was an explosives factory located nearby which relied on the water supply? Students found evidence and explored this history as they walked up the stream to visit the landowners who have de-stocked and allowed the bush to regenerate, and asked questions like:

- How far up does the tide go?
- Why did they have torpedo boats at Deborah Bay?
- Why did the settlers choose Cold Water Creek for the water supply for ships?
- What creatures will we find?
- What did the land used to look like?

Source to Sea is proudly supported by:



St Leonards School students model a water catchment in clay during introductory Source to Sea session (Photo: Alice Keirle)

Students, parents and teachers of **St Leonards and Sawyers Bay Schools** explored the Thomson's Creek/McDermid's Creek catchment, asking questions like:

- What lives in the streams?
- How does the water get in and out of the reservoir?
- Is the water safe to swim in at the lower water supply reservoir?
- How does the water get into the water treatment plant?
- Why do they have to treat the water when the stream looks clean?
- Are there other ways to treat water?

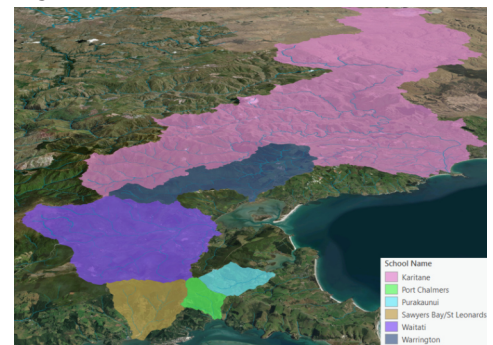
Many Sawyers Bay students are already connected with their stream, recreationally, sharing stories of seeing eels, kōura and fish. But, there's clearly a thirst for knowledge around the workings of water supply, storage and treatment.

**Karitane School** travelled to Macraes Flat where they stopped off to view the source area of the North Branch of the Waikouaiti River, adjacent to Frasers Pit where there are clear contracts between natural and modified waterways. Questions asked included:

- Where does the water for the river start?
- How did goldmining change the catchment?
- What fish will we find in the river?

This is the second year we've been able to run this programme working closely with participating schools, drawing on local and cutting-edge expertise in GIS from the University of Otago School of Surveying; storytelling technology and the freshwater-marine interface from the NZ Marine Studies Centre; and freshwater ecology from Orokouai Ecosanctuary.

While at home, students can practice using new storytelling technology (Story Map) and GIS. Later in the year, we hope schools will sample stream health and water quality with more opportunities for turning-over rocks, getting wet and finding answers to the big questions.



GIS map of water catchments of schools participating in Source to Sea (Courtesy of Aubrey Millar, Otago University School of Surveying)



## SEABIRD HABITAT RESTORATION

### Monitoring Little Blue Penguins

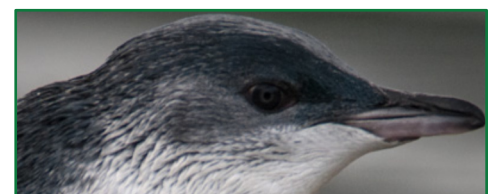


AAPES Otago members volunteering at Doctors Point (photo: AAPES Otago)

We are proud to monitor korora/little blue penguins around Doctors Point and Mapoutahi twice during each breeding season. In September penguins are nesting, and in February penguins begin moulting. We observe as many penguins on land (or evidence of penguins) as possible.

In September we recorded higher than previous numbers (19), and again in February numbers were consistent (18) with the start of the season and much higher than at the same time last year.

Volunteers help locate numerous chicks almost ready to fledge. Results suggest the population is recovering from stoat attacks in 2014. Our predator control operations certainly facilitate in the recovery of this tiny treasured coastal species.



Korora by Craig McKenzie

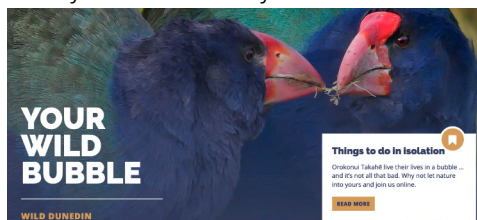
### What you can do to protect our little blue penguins and other wildlife:

- If you spot wildlife on the beach take time to inform others of the sighting and make sure you give the animals plenty of space.
- If you find sick wildlife please report immediately to DOC at 0800 DOC HOT (0800 362 468).
- Walk your dog on a lead when on or near the beach. Even if your dog isn't known to attack wildlife their presence can still be very stressful to animals, which impacts breeding and eating.



## BACKYARD ACTIVITIES

Being at home is a really great opportunity to explore your own backyard biodiversity.



Wild Dunedin has put together a number of exciting “wild bubble” things for you to do in your own bubbles that at home. Read all about them here: [Your Wild Bubble](#).

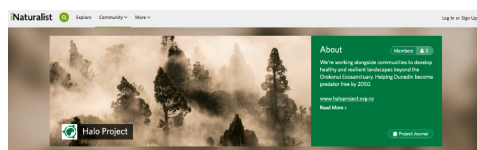
The City Nature Challenge 2020 ([www.citynaturechallenge.org](http://www.citynaturechallenge.org)) runs from 24-27 April, and Dunedin is participating in this global ‘bioblitz’ for the first time — along with Auckland and Christchurch. This global ‘bioblitz’ will see people from all over the world get involved! To participate, sign up to iNaturalist NZ — Mātaki Taiao and make as many observations of nature as you can.

Follow the project and check in with how Dunedin is doing at [inaturalist.nz/projects/city-nature-challenge-2020-otepoti-dunedin](http://inaturalist.nz/projects/city-nature-challenge-2020-otepoti-dunedin).

We encourage everyone to sign up and start uploading your nature pics!

The Halo Project is now on iNaturalist NZ - Mātaki Taiao. We have started a project that will run indefinitely, bringing together all the observations of nature from within our area.

To contribute, all you have to do is make an observation. Head to [www.inaturalist.nz](http://www.inaturalist.nz) or download their mobile app! Here’s a link to our project page [www.inaturalist.org/projects/halo-project](http://www.inaturalist.org/projects/halo-project)



To get you warmed-up for the Challenge, we’re keen to get some backyard nature photos on our Facebook page. You could take a photo of your favourite plant or bird, or an interesting insect, spider, lizard or fungi. Send the photo, name of photographer, species name (if possible) and brief description to us at [info@haloproject.org.nz](mailto:info@haloproject.org.nz).

If you can’t name it, perhaps we can!

Predator Free NZ, The Department of Conservation and the Kiwi Conservation Club also have some awesome online resources and activities to support learning from home.

Here are some of our favourites:

- Explore your backyard and make a nature scrapbook. Collect leaves and glue or sew them in your scrapbook. Try to identify the trees they belong to. Are they native or exotic trees? What kind of birds live in the trees?
- Make your own [Kākāmask](#).
- How well do you know your [Māori bird names](#)? Try the online quiz.
- How big is that bird? Watch the [chocolate fish index video](#) to identify NZ birds by comparing their size to chocolate fish!



## FREE MICROCHIPS & NZCAR REGISTRATION FOR COMPANION CATS WITHIN THE HALO PROJECT AREA

If you have a domestic cat, it is important to be a responsible cat owner and ensure that cats are neutered, microchipped, well fed and kept indoors (especially overnight, including dawn / dusk).

We have microchips and registration forms for the NZ Companion Animal Register (NZCAR) to give away for companion cats within the Halo Project area.

We are working with Pet Doctors at the Gardens Vets who will only charge for the cost of the consultation. If you are taking your cat to the vet, ask for a free microchip, then you will only be charged the vet consultation fee (\$55), or you can book to see the vet nurse and it will cost just \$20.

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

They will provide guidance on when is the best time to book an appointment due to the current lock-down levels.



## THANK YOU

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

