

No. 15: Summer 2022

Tēnā koutou katoa! In this issue you'll read about what the newly announced Predator Free Dunedin expansion means, and what's been happening with the Halo Project over Summer.



PREDATOR FREE



FOREST HABITAT RESTORATION



FROM SOURCE TO SEA



SEABIRD HABITAT RESTORATION

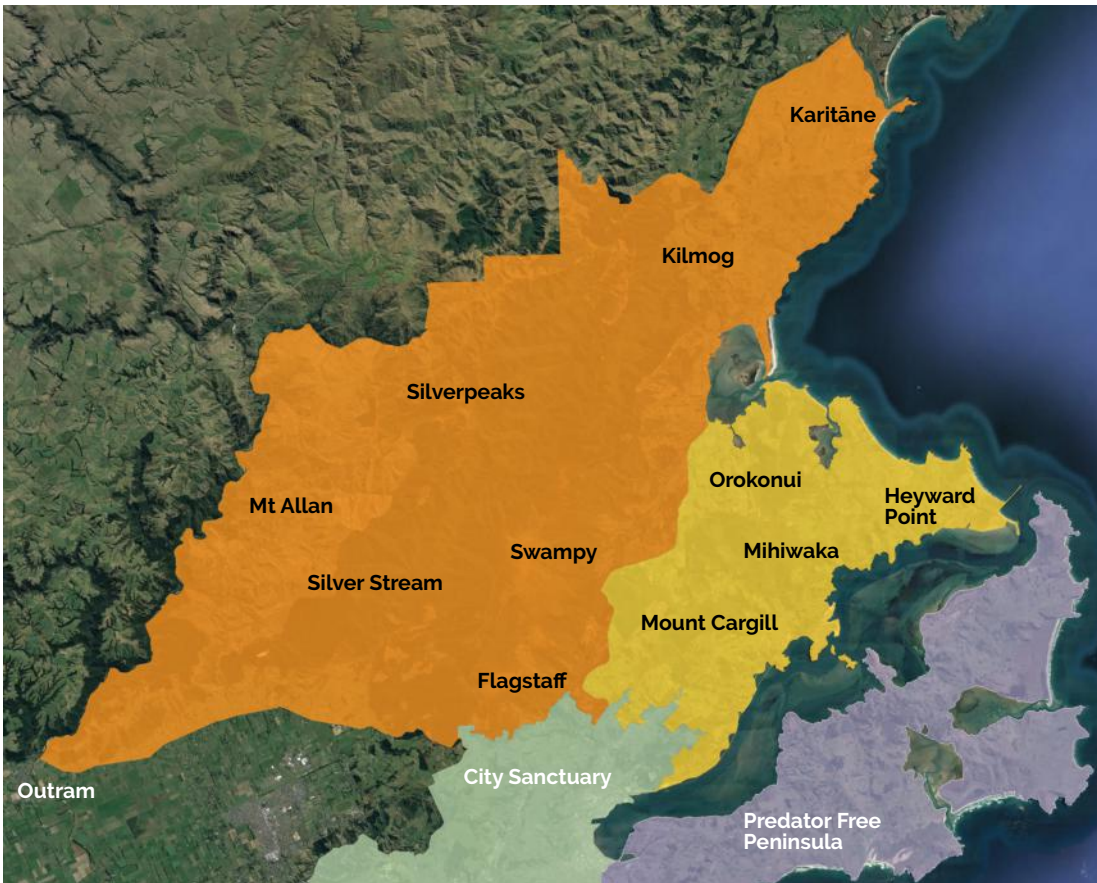
The Halo Project is driven by community input and involvement – thanks to all who participate, give their time, energy, expertise and passion! We wouldn't be here without you!



PREDATOR FREE








Funding boost to support Predator Free Dunedin expansion

Perhaps you read the article in the ODT? Predator Free Dunedin (PFD) secured an additional \$7 million for the expansion of predator control programmes over the next three years! (Story continues on page 2).





Map of Halo Project's predator control buffer ('expansion') area (orange), and predator free core area (yellow). Also showing part of City Sanctuary (green) and Predator Free Peninsula (purple)

Halo Dashboard
2018 - current
Catch data:

RATS		3253
POSSUMS		1737
HEDGEHOGS		1162
MICE		667
STOATS		411
WEASELS		193
FERRETS		92
Total catch #:		7,515
Total # traps:		2,806

Source to Sea data:

	Length of fencing (m):	9,340
	# of native trees planted:	43,088

Total volunteer hours
26,143





PREDATOR FREE (expansion continued)

This is a great opportunity for a city-wide coordinated approach to possum control.

As a delivery partner of PFD, the expansion has big implications for the Halo Project and the landscape we embrace. The funding boost allows us to expand possum control to include an additional 33,000 hectares west of State Highway 1, protecting important conservation areas such as Silver Peaks, Silverstream and Mount Allan.

Possums will be reduced to "zero density" across 10,000 hectares in West Harbour and Mount Cargill. This means getting their numbers to such a low level they can't reproduce.

Stoat control across 12,500 ha can continue for a further two years through 2025, to reduce stoats and keep numbers low. Plus, we'll be working in partnership with Wenita to control stoats across Mt Allan forest.

More households in the city will be supported by another PFD partner City Sanctuary to do backyard predator control for possums and rats. This will complete the buffer around Halo's Predator Free core area.

Consultation

PFD held a series of consultation meetings last year with its signatory partners (22 organisations from around Ōtepoti) gaining support for the proposed expansion programmes.

Since then, Predator Free 2050 Limited has committed \$4 million in funding as part of the government's Jobs for Nature Mahi mō te Taiao programme. This complements new support from Wenita Forest Products, City Forests and the AAW Jones Trust.

We have been planning and preparing consultation material for residents within the expansion areas. While planning is still underway, the team are keen to engage with rural and residential sectors via a brief survey.

Predator control methods

Current research, modelling and experience from other Predator Free programmes in Aotearoa, show maintaining eradication over time is still not possible on the mainland, outside a predator-proof fence. However, controlling possums in a buffer zone around a predator free area is an effective way of keeping possum numbers as low as possible (zero density) in a core area.

Trapping is an effective way to control predators. While not cheap to set up compared to some alternatives such as toxin in bait stations, benefits include a very low risk of bycatch and being able to accurately record the predator catch.

The Halo Project team will be contacting rural landowners within the expansion area. We get good feedback from landowners with AT220 traps already on their properties, saying they are seeing fewer possums around.

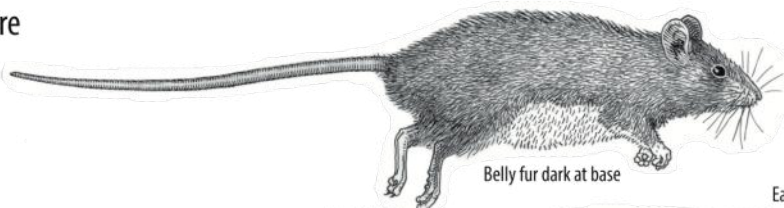
Goals - what you will see

With the removal of thousands of possums from our Predator Free core area, we expect to see forest canopies renewed and thriving.

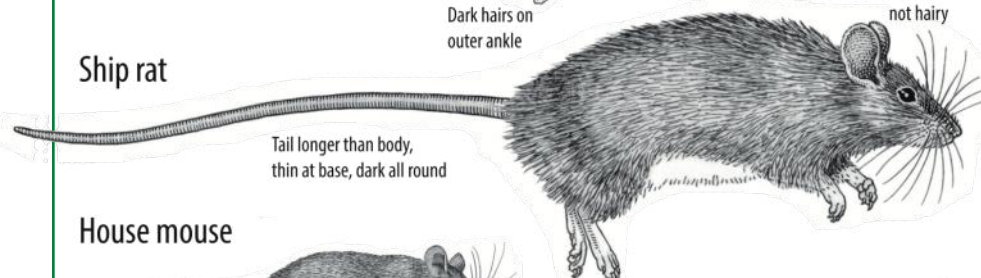
With such a reduction in number of these omnivorous canopy browsers, and the maintenance of extremely low densities we will see more trees flowering and fruiting and lush canopy growth. A healthier canopy can support more birds and lizards which feed on foliage, nectar, fruit, seeds and insects. We'd expect to see growing populations of titipounamu/rifleman, kakaruwai/robin and ruru/morepork, geckos, skinks and moths, for example.

Where volunteers are backyard trapping, there will be fewer possums hiding-out in, raiding and fouling gardens and reserves.

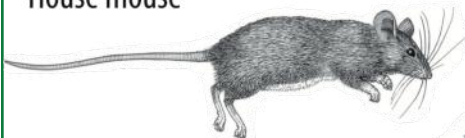
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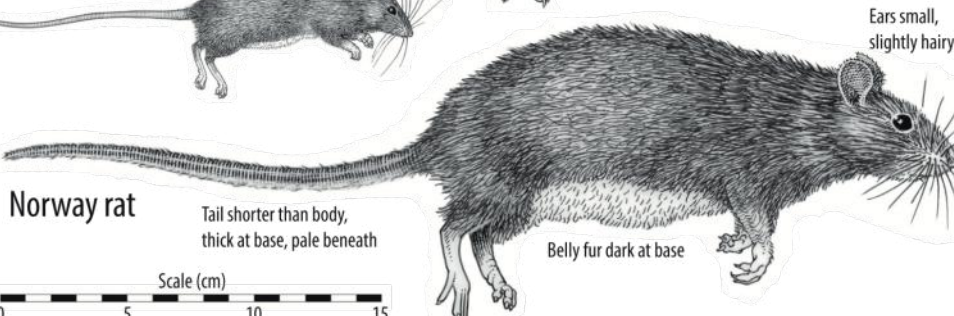
Ship rat



House mouse



Norway rat



Scale (cm)
0 5 10 15

Illustration by Sabrina Malcolm, from *The Handbook of New Zealand Mammals 3rd Ed*

New resources available online

We've produced information sheets on our target species - possums, stoats and rats, and the traps we use to control them - Trapinators, DOC Series traps and the automatic AT220. These accompany new maps and updated information on our webpage www.haloproject.org.nz/predator-free.

Please see our website for more information or contact us at info@haloproject.org.nz





PREDATOR FREE (continued)

Summertime stoats

Stoats are notoriously difficult to control due to their biology. They are small animals with a big attitude and fast-paced life (short-lived, high metabolic and reproduction rates), and highly skilled at what they do – a bit like a rockstar! But these are common unwelcome predators.

Around Ōtepoti Dunedin, stoats are found anywhere from beaches and dunes to forests and farms, but more commonly in forest. On farms, they move around under vegetation cover, out of sight from kāhu/harriers, kārearea/falcons, cats and ferrets.

Stoats are good climbers, easily reaching nests in tree hollows and feeding on eggs, chicks and adult birds (including kākā), mice, rabbits, hares, lizards and wētā (and other insects). They hunt frequently, day and night, by climbing trees, invading nests and investigating every hole or burrow on the ground. They can even swim to the islands in the harbour in search of food.

Females raise litters of around seven kits annually. Young stoats disperse from their den during summer, when birds are on the nest and chicks are fledging, making perfect prey.

Upping the effort to trap young stoats as they disperse from their den and when birds are most vulnerable is an effective way to control the predator and protect the prey.



Map of stoat catch locations this summer (December 2021 and January 2022). Yellow dots are single stoat catches; orange dots indicate two or more. The map shows that more than half were trapped in the Flagstaff/Leith Valley area in new traps, and fewer stoats were caught in the areas that have been trapped for the past three years (around Orokonui, Heyward Point and Dean's Valley)

The boost of funding for Predator Free Dunedin means stoat control across 12,500 ha can continue for a further two years through 2025, to reduce stoats and keep numbers low. Plus, we'll be working in partnership with Wenita Forest Products to control stoats across Mt Allan forest.

This is great news for birds and other wildlife. More observations of titipounamu/rifleman, kakaruwai/robins, kākā and ruru/morepork are being recorded beyond Orokonui's predator fence.

Over the next few years, we hope stoats will be more like rockstars – you'll be lucky to see one on their occasional appearances.

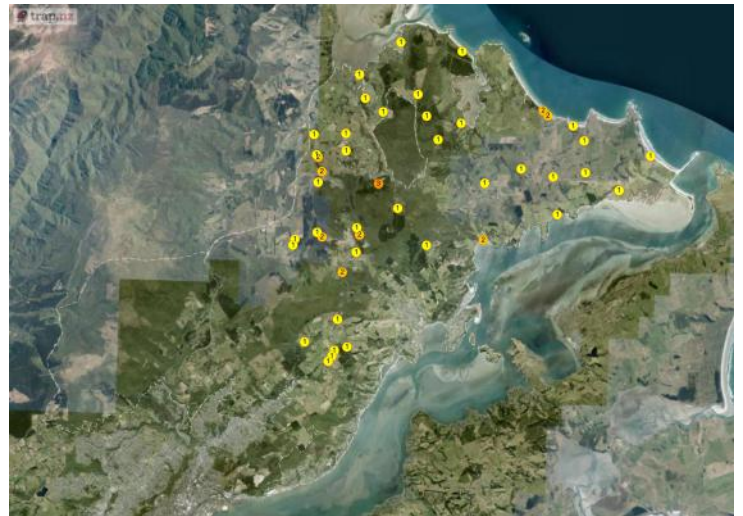
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A large stoat caught in a double DOC200 trap box

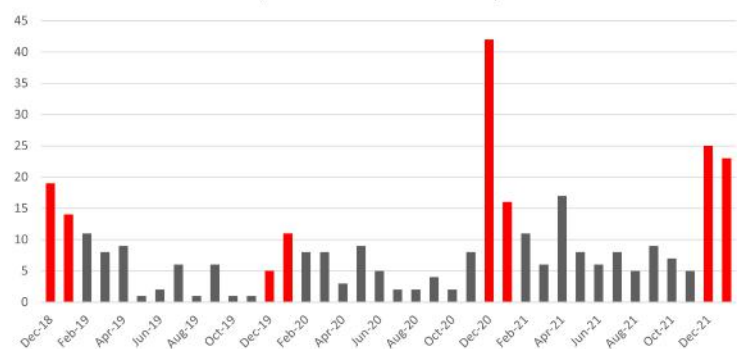
Halo's newly completed stoat trap network, stretching from Heyward Point to Flagstaff, includes DOC150s, DOC200s and A24 autotraps, totalling 1,866 active traps. Staff and volunteers are working hard to ensure every trap is checked fortnightly and freshly baited with enticing rabbit. Lots of work is done in preparation for the busy period - traps are cleaned and calibrated, volunteers rallied, vegetation cleared from the entrances and fresh rabbit sourced for bait.

Half-way through the season, the tally is lower than last year's even though it covers a larger area: with 58 stoats trapped in December and January 2020/21, compared to 48 trapped in December and January this summer. What this means is hard to be sure of just yet, but we are hoping it signals that stoat numbers are being reduced by continuous trapping.



Map of stoat catch in previous summer (December 2020 and January 2021) showing higher catch

Total number of stoats caught in the Halo Project Predator Free area per month, from 1 Dec 2018 to 31 January 2022.



Stoat catch peaks in summer each year (red bars), with smaller peaks in April/May, when food becomes scarce and bait becomes attractive



PREDATOR FREE (continued)

Predator control survey

Landowners and residents within the Predator Free buffer area are invited to complete a brief online survey. The purpose of the survey is to connect with people, to get feedback and gauge demand for backyard traps and the level of potential volunteer support.

Everyone who completes the survey by **7 April 2022** goes in the draw for wonderful prizes.

Complete the survey online: www.haloproject.org.nz/predator-free or visit Blueskin Library, Karitāne General Store or Arc Brewing Co to fill out and return your completed survey.

If you live in Evansdale, Kilmog or Warrington to Karitāne (within orange area shown) **please complete our survey**.



Do you live in the orange area?



SOURCE TO SEA

Restoring nature and access to Long Beach Recreation Reserve

This is a first for the Halo Project. We have an agreement with the Department of Conservation to manage the 9.4 ha recreation reserve at the southern end of Long Beach.

It is envisaged that, with the addition of 38,400 carefully selected native plants, the back dunes will become a source of seeds for local dunes, provide food and shelter for native wildlife and will absorb and filter runoff. A new 1.2km looped walking track will be a great addition to Dunedin's track network.



Map showing Source to Sea's planting site at Long Beach

It's not only us excited about it! Locals we've spoken to are keen to see the work begin, and we have the help of the former leasee to control grass growth prior to planting in April. This will be timed to avoid sea lion breeding season.

There are 30 common and threatened species to be planted, including plenty of flax/harakeke, toetoe, tī kōuka/cabbage trees and other hardy species.

A series of planting days are planned throughout the season,

starting in May. Follow us on Facebook or check our website for dates and details.

Predator control and planting complement each other to create safer and higher quality habitat for wildlife. High quality habitat is biodiverse. It has a range of food resources (foliage, flowers and fruit, insects) available through the year, as well as safe nesting sites.

Halo's local volunteers have been trapping possums and stoats at Long Beach for the past two years, with this goal in mind.



Jennifer (Project Manager) at Long Beach Reserve with a massive jointed rush (oioi). Planting will be around the existing native vegetation



SOURCE TO SEA (continued)

Supported by our community

Project Manager, Jennifer Lawn, is very excited about the new year and the work it brings. While planting milestones appear massive, Jennifer is buoyed by the support from local communities and volunteers who will be critical to achieving them. She is sure her team will see 91,000 native plants in the ground this year – with your help.

Following a review of the project, the team is being restructured. A volunteer coordinator role is being created to make better use of the wealth of volunteers Ōtepoti provides, as well as focussing on the local communities the team works with.

Our team has done a sterling job in a short time, planting 43,088 plants, as well as controlling rampant grass growth. We are delighted with the result – an average of 95% plant survival so far.

As their contracts come to end, we'll be looking for new Rangers and a Team Leader to strengthen our team. These positions will be advertised on Facebook and on our website in March. Jeanne Hutchison will become our Volunteer Coordinator on the 1st April, a position she is looking forward to embracing.

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Jordyn (Field Ranger) with thousands of used plant pots to return to nurseries

Saturday public planting days

Source to Sea is running a series of public planting days, starting in April (TBC) at Waihemo Shag River estuary. Follow us on www.facebook.com/halobeyondorokonui/ for more event info.



A healthy saltmarsh ribbonwood mākaka (Plagianthus divaricatus)

Love planting trees? Volunteer with us!

We would love some volunteer help planting trees - we have so many to get in the ground!

This suits fit and keen people able to volunteer semi-regularly (one day per week or fortnight).

Weekdays (Tuesday to Friday) between 8.15am & 4.30pm.

Please contact Jeanne on 022 095 0772 or jeanne@haloproject.org.nz



Jonty with Honda team volunteers at Waitete Bush



SOURCE TO SEA (continued)

Repurposing Pūrākaunui piggery

What better use is there for a disused pig shed than a native plant nursery?

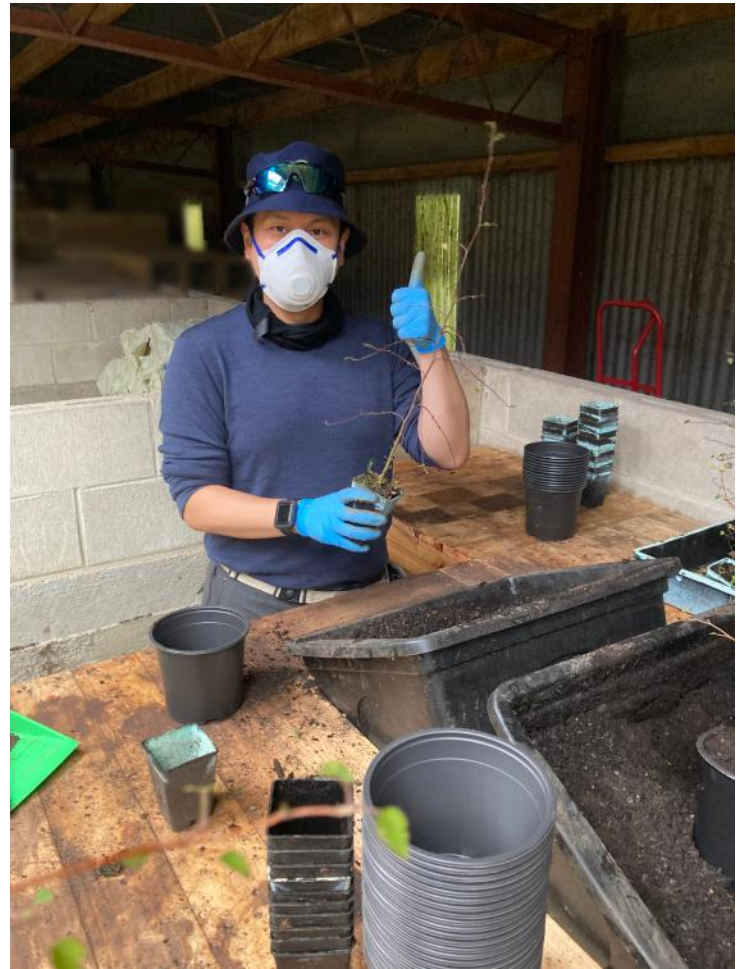
Happy for the space to be used, farmer Rob Chapman



Ingenious water storage

has loaned us the use of the shed for potting up seedlings, with a large outdoor space for growing-on young plants. Thank you, Rob! In an ingenious way, water is collected from the roof and stored inside in a makeshift reservoir for irrigation.

Thank you to our volunteers who have helped us every step of the way, from setting up irrigation to potting up our 31,000 plants.



Ivan (volunteer) potting up

CONTACT THE RIGHT PERSON

If you wish to get hold of us, you can use the generic email: info@haloproject.org.nz, or choose from below:

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



THANK YOU



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