

Pomona Post



Kia ora Volunteers and 'Friends of Pomona'. Here is the latest edition of Pomona Post. Enjoy.

See you on the next trap check!



Level 2 trap check. Paul, John with Nick. Key our new owner operator of Southern Frontiers Water taxi

News brief

As it is Spring, Pomona has been undergoing its own version of a 'spring clean' with contractors out doing much needed jobs.

1. A big thank you to Simon Marwick who was contracted to complete the Kea proofing trap up grade. He replaced 20 old and broken traps in those places hard to get to for volunteers to carry out this task and replaced all the trap ends and baffles with stainless ones. Simon flew in twice to the hell pad and camped out on the island and even had snow one night during a lightening & thunder display. He also had an early exit out from the island by helicopter due to lock down but was back in level two sunshine to finish the job. Thanks to the DOC Community Fund for funding the upgrade. The same fund also provided money to purchase new radios and cameras for monitoring (purchased the end of 2019). Here is Simon hard at work caught on camera carrying a load of trap boxes at C05



2. Another big thank you to Ben Crouchley & team who have recently spent 5 days on the island clearing Pomona's tracks of many windfalls. The A line is now all set for speed records. Happy trappers. Awesome work.

3. And another big thank-you to Reg Calder & Jo Wilson who have sold their water taxi business to Nick & Maree Key. You guys have just been fantastic providing sterling service over the last 16 years, All the best for your well earned retirement, and welcome to Nick & Maree. The trust & volunteers will continue to listen out for throb of the boats engine at the end of a trap check



Since this time last year where we reported that the rat numbers are down, now the numbers are trending up. A bit like Covid where we all hope it isn't going to be exponential growth, so we will continue with trap checks to suppress the numbers and continue to be vigilant. Elimination comes later.

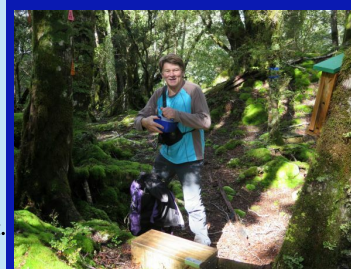
Trap check rat totals; 11th Sept (back in level 2) = 29, 23rd Sept = 35, 28th Oct = 52

Stoat news.. 1 stoat caught (28/10) at MO5. Has been in the trap for a while and sex/age may be indeterminant due to decay. Is this the elusive stoat, last seen on camera in June? We all hope so for kiwis breeding season.

The latest Mainland trap check (20th Oct) by Ross & Bruce from the Invercargill Yacht Squadron, the total was 8 rats, 1 mouse. Ross writes 'of some concern perhaps is that of 4 rats caught on the peninsula line, 3 of them right at the end of the peninsula'. Once again awesome work Yacht Squadron on looking after our 'borders' with trapping the pests before they become escapees.

Interestingly still NO mice have been seen on cameras or caught in traps in more than a year now.

Here is one of our hard working volunteers Fraser up in the sun on Pomona's summit.



There has been interesting news from Rona recently. Jane Tansell was on Rona searching for a missing kiwi and her kiwi dog pointed to a freshly killed bird carcass near the top of. So what killed this bird? and what species of bird was it?

Expert advice was sought from Colin Miskelly of Te Papa who said, 'it looks like a prion but would not be possible to confirm which prion species without a head and without the body being recovered (board-billed prions are larger, with long wings, than the other prion species). But board-billed is the only species known from Fiordland'. Our sea bird then, really did get blown inland to Rona.

Two volunteers then headed out to the island to re bait all the tracking cards and traps with fresh rabbit in case there was a stoat on the island. Fresh lure was also placed in front of all the cameras. The 'vollies' spent the night on the island, then rechecked and re-lured everything the next day. No predators were found or seen. Vollies then went back to Rona a week later..... All clear.

Nearly 4 weeks later still all in the clear. So hopefully the predation on the seabird was by a falcon and Rona is still predator free.

Photo showing the Prion minus its head.



Island Art

One of talented trustees Liz Scott has completed 2 water colours of the islands. They are now available as printed cards A5 size to purchase as a fundraiser.

\$15 for a set of 2

Contact to buy is email pomona.rona@gmail.com



Pomona Island



Rona Island

VIPP STANDS FOR VERY IMPORTANT POMONA PERSON OR PEOPLE.

This edition of Pomona Post features a person who has been an enthusiastic supporter and generous benefactor since the early days of the Trust. Gary Chisholm



How did a Christchurch surveyor/product manager for a Global company Trimble Navigation get involved with the restoration of 2 small islands? Let's go back to 2008..... The Pomona Trust was undertaking a trap replacement project. All the existing old Fenn traps on Pomona & the Mainland were to be replaced with DOC 150's. In Christchurch Gary Chisholm was doing a lot of international flying for his job at Trimble..... but the old guilty conscience of his carbon footprint was at the forefront of his mind. He wanted to offset this footprint by donating to conservation & reduce pests. Someone told him to look at the Pomona Island Trust. So he did and the trap replacement project was made possible with a generous donation by the Gary Chisholm Family Trust. This was the start of Gary's amazing encouragement and support with the restoration work of Pomona & Rona.

13 years later Gary now retired after 35 years at Trimble is 'hands on' involved in the job of killing pests on the islands with the Trust. On the next page you can read about this Trap Trigger Detection project of Gary's which we now are trialing on Pomona. When you ask Gary about his achievements he is most proud of, it was the setting up of Trimble and being able to create opportunities for people to develop well paid careers. It sounded like Gary also created this work atmosphere where one didn't even need to wear shoes to work. Jandals did the job at Trimble, 'just come to work & think, let your mind go free' says the product manager.

Gary says he had to send out emails for 'Shoe Thursday' to remind his staff shoes can still be worn. Not only does Gary give his expertise and enthusiasm to two small islands in Fiordland he is the volunteer treasurer (15yrs) for the Riccarton Community Patrol Inc. Within this role

he is involved in a number of initiatives that develop and nurture social connectivity. Gary also helps out with the 'Volunteer Student Army' recently helping clear out flood affected farm land from the recent Canterbury floods.

He is an IT committee member of the Hydrographic Society NZ region and is good at organising webinars.

Gary was very proud to fund in 2004 a Masters student Ben Aitken. This Masters study titled 'The Mother's Curse': was an investigation in the trojan female technique which could be applied to specific animals like stoats to help with pest control. He also got involved with helping DOC develop a self setting trap (before A24's) called the Spitfire.

According to Gary it was engineered too quickly but got his interest into pest controls and technologies.

He is now looking at how he could apply the trap trigger detection system to rural and urban crime. From rats to ratbags Gary says. When he needs rest & relaxation in his busy & rewarding life, the environment around Christchurch has great places to explore. The Castle Hill basin with its landscape & recreational activities being a favourite, just like the Bellbird/Korimako and Kokako are his Bird of the Year favourites.

Spending time with his grand children teaching them simple robotics, or helping out with maths at their primary schools and having a hobby like model railways also fill in Gary's retirement.

Gary the Trust would like to thank you for your unstinting support of our work on Pomona & Rona and you are always welcome on our trap checks.



POMONA PLANT HOTSPOT

This edition of Pomona Posts 'Plant Hotspot' features one of the largest trees on Pomona, Miro, (*Prumnopitys ferruginea*). Miro is found across Pomona but just where the rat hotspot is in the NW corner of the island, this is also Miro's hotspot. Rats just love those yummy seeds which carpet the forest floor. Did you know if you pick up those large pink fruit, squeeze them to release an oil, then flavour the oil with various herbs..... you now have a massage oil to use in front of a fire.

The true value of miro is not as food or massage oil for humans but in its irresistible lure to kereru. A single kereru can be responsible for eating over 10,000 miro fruit from a single tree across a fruiting season. Greedy things !!

However when the birds eat too many overripe berries the fruit can ferment in their crop turning to alcohol. Drunk kereru can often be observed falling out of trees in years with bumper crops. So watch out along the M & L lines !!

Apparently the tasty miro-marinated meat of the Polynesian rat, kiore was regarded as a delicacy. The strong turpentine flavour infused the flesh of the rat. Maori placed miro berries in pit traps to lure the rats to fall in or the berries were placed in portable rat traps made from split supplejack. So next trap check bring a spade and we will dig a few pits in that NW corner..... just kidding.



Photo above shows the large pink fruit of the miro, then its seed kernel, followed by a half eaten kernel. You can see the rat tooth marks.

Photo below shows a carpet of miro seeds along the L line



Photo of miro's beautiful large feathery green leaves different to a matai's foliage.

Photo below shows a miro windfall along the lower K line. Bark damage on the top indicates the kaka or keas have been busy.





Recently, the Trust has installed a WTE Ltd system to detect when a trap is triggered and report it to the Internet so that trap status can be viewed on a computer or SmartPhone.

We are interested to know if most pests are trapped within a certain time period of getting re baited, and what time of the day they are trapped. Knowing the number of traps which have been triggered will help our management of trapping trips to the islands.

Currently we have 9 traps with the system, and plans to increase this to up to 20 traps.

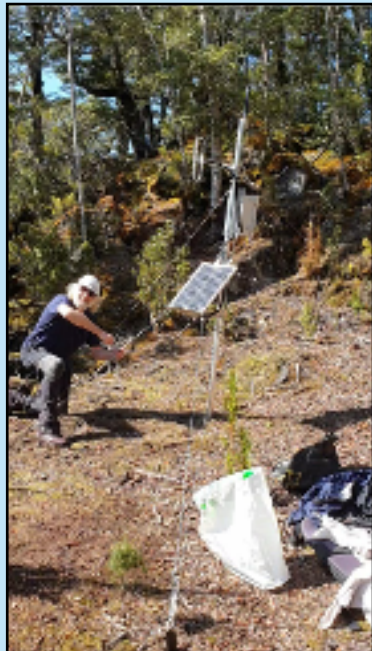
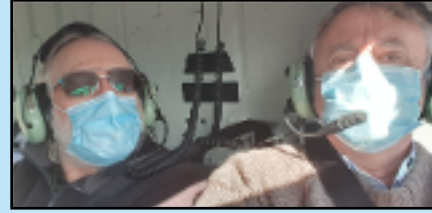
This project has been inspired and funded by donations, by our long-time benefactor Gary Chisholm.

On a fine day in September, Gary Chisholm and Paul King flew into the helipad on Pomona Island. First, they installed the base station near the helipad.

The base station radio and satellite system consists of a 'shoe box' sized waterproof box with a battery and has a small solar panel so it can operate for many years without servicing.

The base station receives the messages from the traps via a UHF dipole antenna. It sends back an acknowledge message so the installer can confirm while beside the trap. The messages are then passed to the SWARM satellite communication system with its vertical antenna on the top of the pole. The hill top radio then transmits the trap event message via an uplink to the SWARM satellites so that the information is available on the Internet.

The trap event is stored onto an Internet based file so any number of people can view that history of closures and alerts are visible on a Smart Phone or computer. Each device also sends a daily message with battery voltage and temperature so the Trust knows all sensors are alive.



Next, we installed the UHF radio sensors on the traps in the rat hot spots.

When a predator triggers the trap, a small sensor in the trap detects this and the radio transmitter at each trap sends a message to the hilltop base radio. The small transmitter alongside the trap has very low power consumption as it is not transmitting most of the time. Two AA batteries in the radio will last two years, maybe more, before replacement. The closed trap message is received by the WTE Ltd low power base radio on the hill top and the message is time stamped along with its trap ID.



The radio frequency of approx 440 MHz means the signal can penetrate the dense Fiordland bush to a much greater distance than other systems.

A number of these small radios can act as a radio repeater when the topography limits the signal to the hill top base radio. When the field staff reset the trap a message is also sent and recorded in the system so you have a record of the date / time / trap ID showing it was reset.

Why did the SWARM satellite communications get used in this particular project? It works anywhere in the world which is perfect for remote areas with no cellular coverage. It costs little to purchase and operate, so the Trust is not burdened with high initial or ongoing costs. A display is available on a device such as a Smart Phone or PC to show the state (closed/open) of traps, as well as their ID, battery level, temperature and time/date the event happened. The Trust can then start to answer questions about the lure effectiveness and decide to plan their next resetting program. A .csv file exists for the historic tracking of the traps. Display on Smart Phone or computer shows the state of each trap (open or closed) as well as time/date of the event.

References: www.wte.co.nz (contact Garychisholm7@gmail.com)
www.Swarm.space Thanks to Gaven Burgess
Te Anau Helicopter Services Ltd

Date	Time	Sensor	Status	Measurements		Longitu...	Latitude
				Temp	Volts		
04/10/2021	07:55:00 am	L08		7°C	3.1 V	167.46451	-45.50397
27/10/2021	11:56:00 am	Main Gateway		null°C	13.55 V	167.4730833	-45.511944
27/10/2021	12:32:00 pm	G01		2°C	3 V	167.46556	-45.50639
27/10/2021	06:02:00 pm	M04		5°C	3 V	167.46573	-45.50215
27/10/2021	12:03:00 pm	F01		14°C	3 V	167.46768	-45.50537
28/10/2021	10:54:00 pm	T10		15°C	3 V	167.46826	-45.50039
28/10/2021	11:00:00 pm	D09		3°C	3 V	167.46981	-45.50473