Vision

The forests and beaches of Abel Tasman are once again filled with the birdsong that awakens and delights visitors.
Kia whakaoho te mauri o te Ata-hapara. Kia rongo, Kia Kite, Ki te reo koro tui o Te Tai tapu

Securing the Coast - Predator Control Report – July 2024

By Alistair Sheat

Overview

The **Abel Tasman Birdsong Trust** has objectives:

- ***To preserve native flora and fauna in Abel Tasman National Park.***
- ***To enhance the Abel Tasman National Park and its environs for recreation and enjoyment by residents and visitors now and in the future.***
- ***To generally promote the sustainable management of resources in the Park and its environs***

This report uses data in TrapNZ, the GIS (Geographic Information System) and the GIS Goodnature dashboard.

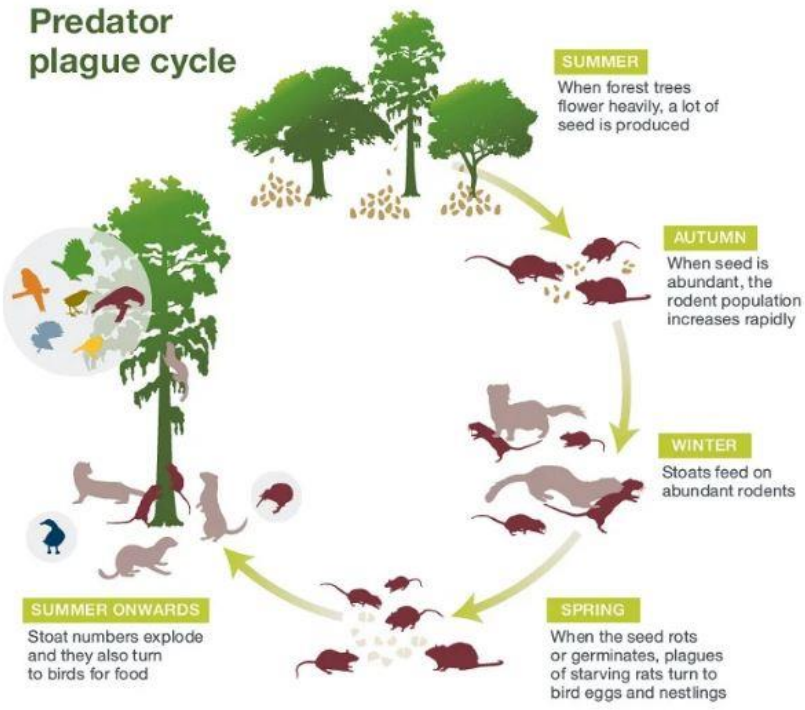
ATBT uses 1,300 DOC150/200 box traps for mustelid/rat control, 800 Goodnature A24 traps for rat control, and 50 sentinel/Trapinator traps for possum control over an area of approximately 4,000 ha.

ATBT volunteers have trapped a grand total of 589 mustelids and 13916 rats since October 2010.

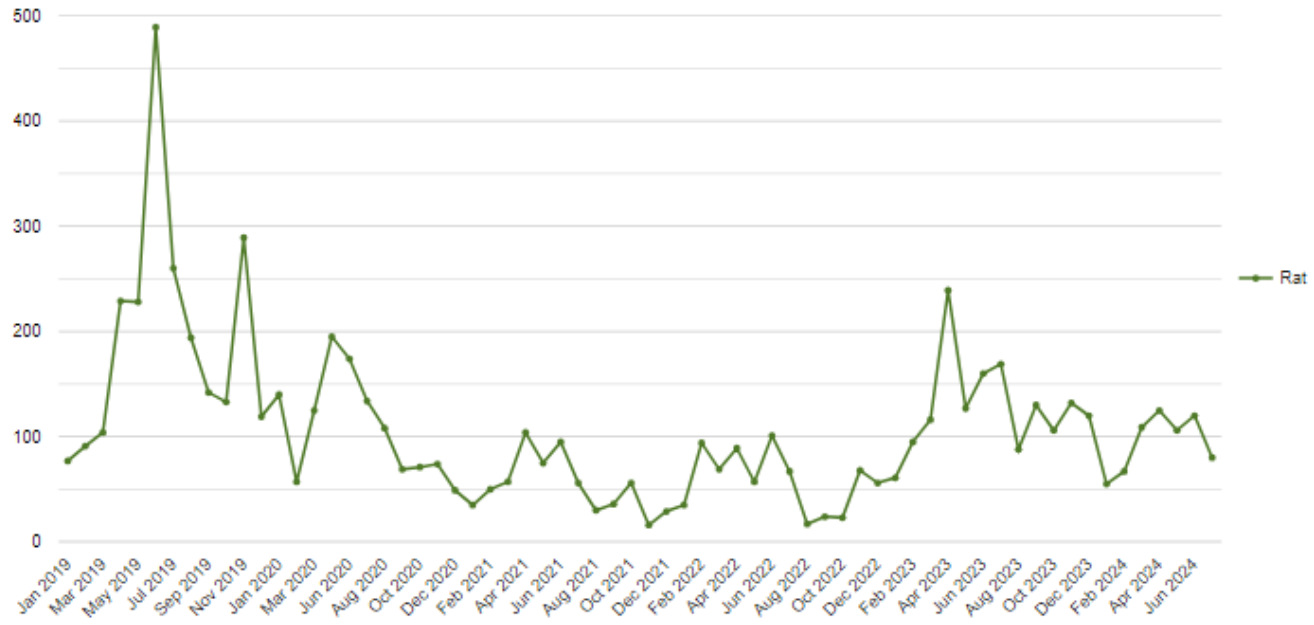
What is the trend in predator (rat, stoat, and weasel) numbers trapped by ATBT volunteers?

The reason for discussing rat and mustelid trap catches together is because the abundance and stoats are linked to the abundance of rodents as depicted opposite.

The relationship between rodents and stoats mean you might expect a relationship between where rats and stoats are trapped.



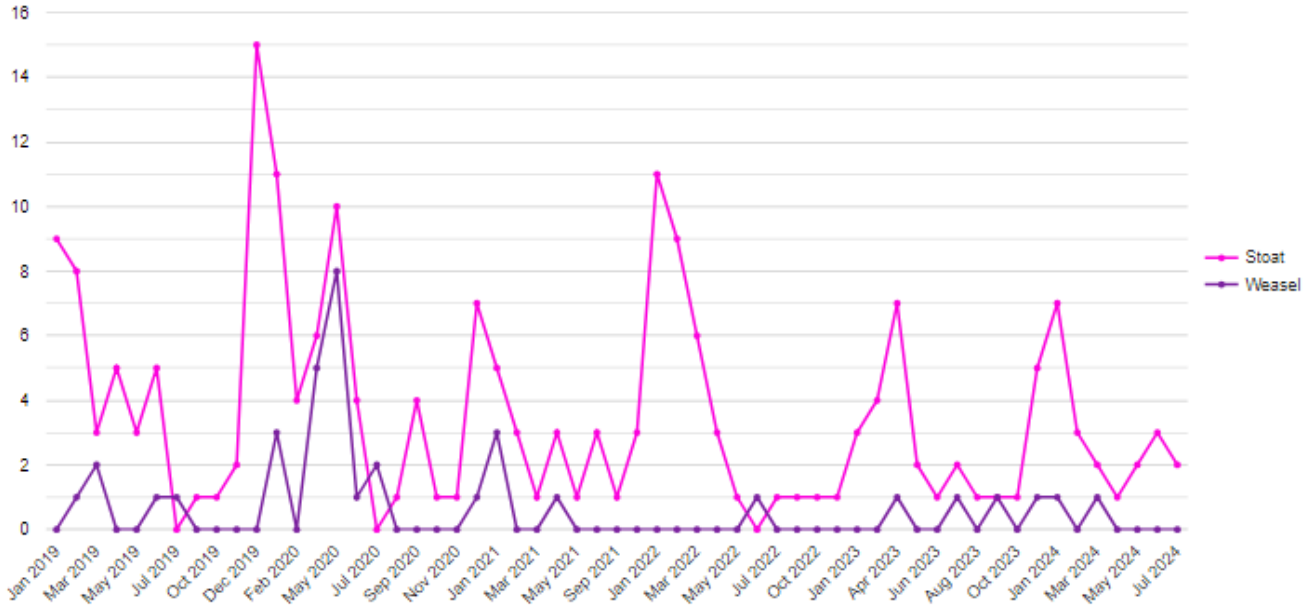
The chart below shows the total rat numbers trapped per month from 1st January 2019 to 31st July 2024.



Rats trapped from August 2023 to July 2024 is 100 per month plus or minus 40. Note the number of rats trapped is when the traps were cleared, rather that when the actual rats were trapped. E.g. the drop in rats trapped in January 2024 could be due to traps not being checked in January when trappers are away on holiday. The drop in rats trapped for July 2024 is due to some trap lines not being checked or entered in TrapNZ in July e.g. a Holyoake trap line and Coastal Track 4.

The peak in 2019 was due to the beech mast when beech seeds feed a boom in the rat population.

The chart below shows ATBT total mustelids trapped per month from 1st January 2019 to 31st July 2024.

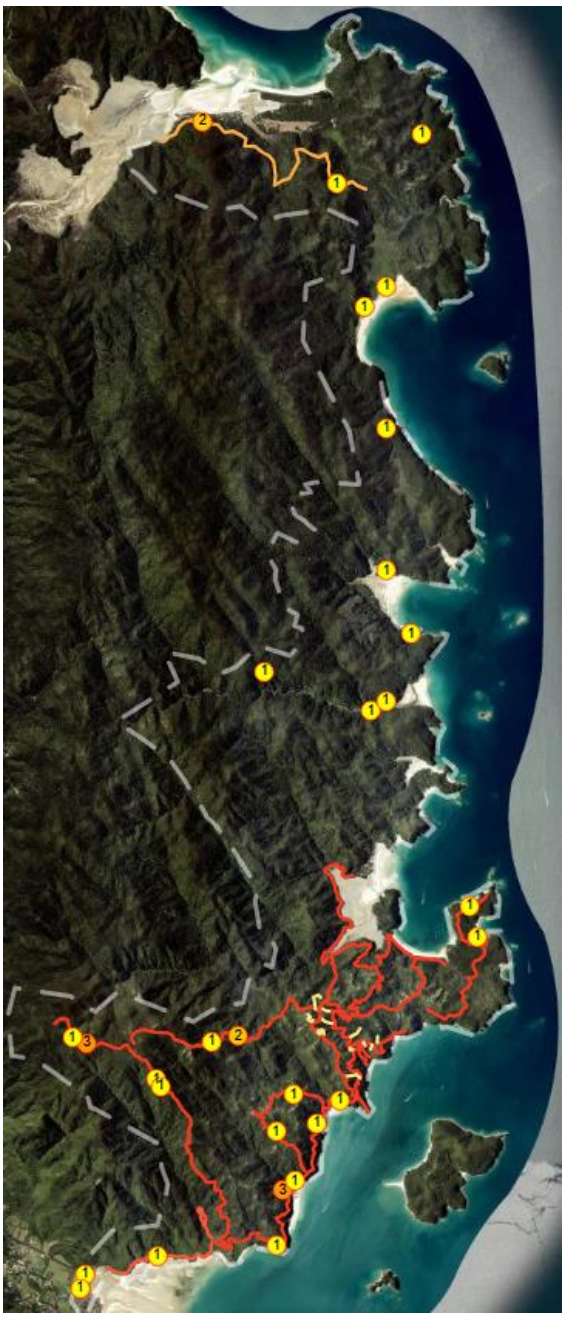


The graph shows a peak in stoats trapped in January 2024 that typifies when stoat trapping usually peaks between December to February.

Maps of Rats and stoats Trapped for the year 1st July 2023 to 31st July 2024

TrapNZ has two of ways for showing where rats were trapped. One is a “heat map” for a quick visual, the other shows the actual number of rats or stoats trapped per trap box. For heat maps, the colour changes from blue to bright orange when there is a higher ‘density’ of rats trapped in one or several nearby traps.

Marahau to Onetahuti Bay Rat Heat Maps and Stoat Numbers Map



The most obvious thing about the heat map of rats trapped and the number of stoats trapped, is 31 of the 43 stoats trapped are in the south of the Park that coincides with rats trapped hot spots (red circles).

The significance of the high rat and stoat numbers trapped in the south of the Park is that this area is also south of the aerial 1080 treatment area (Appendix 1). These indicative high rat or stoat numbers could easily migrate into the middle of the Park and threaten bird species susceptible to rat predation such as robin/toutouwai and South Island tomtit/ngirungiru and stoat susceptible bird species reintroduced by Project Janszoon such as blue duck/whio and Kākā. The inland track could provide an easy pathway for stoats to the headwaters of the Falls River.

Marahau to Torrent Village – Numbers of Rats Trapped 1st July 2023 to 31st July 2024

The following maps show how heat maps translate to numbers of rats trapped by trap box.

The topographical map from Marahau to Anchorage Bay shows how the hotspots (rats trapped in individual trap boxes near each other) translate into numbers of rats trapped in each trap box. The beginning of track with 6 and 4 rats trapped; near Tinline with (5,4,4,3, 5) rats trapped; above Guilbert Point (5,6,2,4); Apple Tree Bay (9,4); Stillwell Bay (5,6); the trapline up from Yellow Pt (5,4); Anchorage Bay (5,4) and (6,4); and Te Puketea Bay (4). The rats trapped at Anchorage and Te Puketea are a concern in that these traps are within the "Moncrieff Sanctuary" A24 network. Also of concern is the 2 stoats trapped at Te Puketea Bay. This suggests that there is work to do optimising the A24 network either by installing new A24 traps and/or relocating A24 traps.

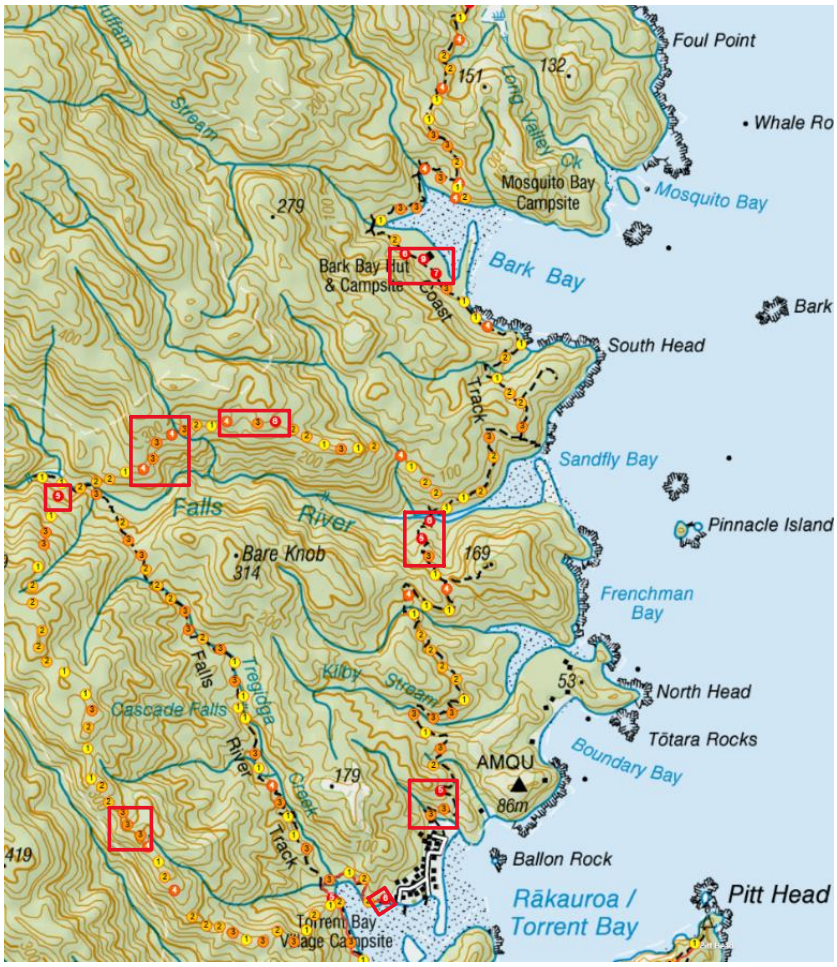
Torrent Village to Tonga– Numbers of Rats Trapped 1st July 2023 to 31st July 2024

The map below shows the hotspots on the Tregidga and Falls Loop traplines and along the Coastal Track.

On the Falls Loop trapline 4,3,3,3 rats trapped; 5 rats; 4,3,3,4 rats; 4,3,6 rats trapped.

On the Coastal track trapline 5 rats trapped at Torrent Village; 3,3,5 just north of the village; 3,5,6 near Falls River.

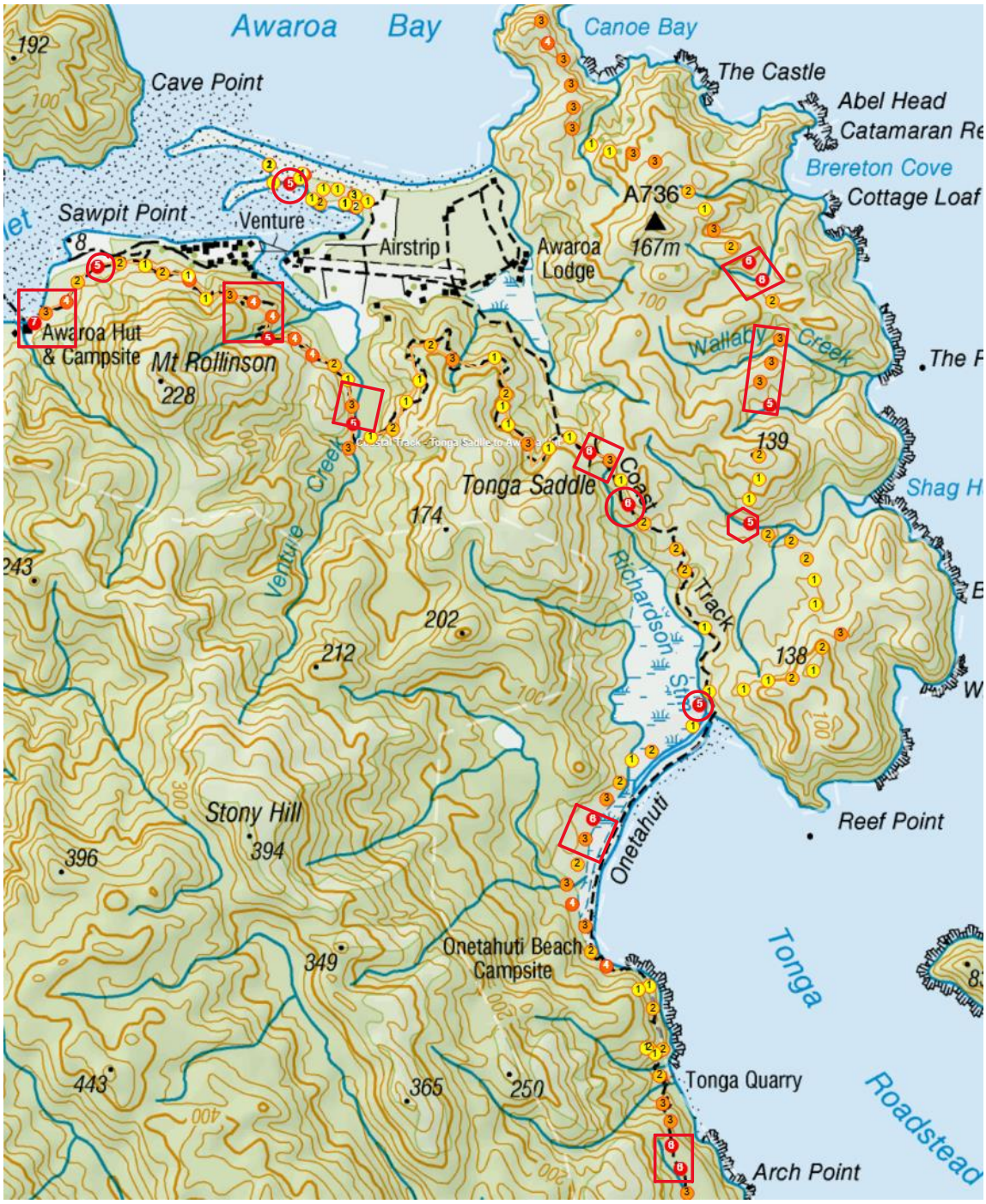
Near Bark Bay there were 6,9,7 rats trapped in adjacent traps.



The Tregidga and Falls Loop traplines were within the aerial 1080 operation in November 2023 (see Appendix 1). The map on the bottom right shows rats trapped for 7 months from 1st Jan to 31st July 2024. While the rat numbers trapped are significantly lower, they are still being trapped.

Tonga to Awaroa - Numbers of Rats Trapped 1st July 2023 to 31st July 2024

The topographical map below shows how the heat map translate to numbers of rats trapped by trap box.



The map above shows hotspots near Awaroa campsite (7,3,4); behind Awaroa village (3,4,5 and 3,5,3); Peoples beach; Tonga Saddle (6,3 and 6 and 5); Onetahuti (3,6,3), Tonga Quarry (6,6), and Awaroa headland trap line (6,6 and 3,3,5 and 5).

A24 Rat Control

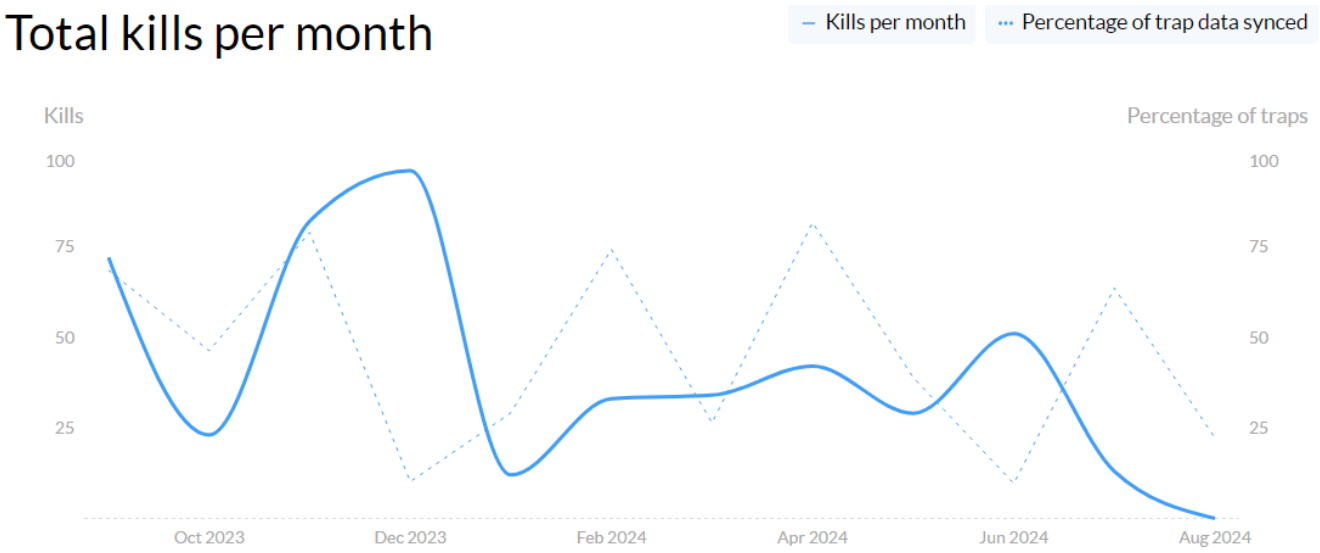
Of the 800 A24 Goodnature traps, 600 are deployed in the Moncrieff/Pitt Head area protecting a project initiative area called the "Moncrieff Sanctuary". See map opposite.

The Moncrieff Sanctuary is a key strategic project for ATBT for the outcome of securing and area for protection of native birdlife, particularly bird species susceptible to rat predation such as robin/toutouwai and South Island tomtit/ngirungiru, and for protection of re-introduced species such as Kākā and Brown teal/pāteke.

Of the 600 A24 traps in the Moncrieff Sanctuary, 163 have Chirps in the Moncrieff Reserve, 20 of these Chirps are at trap trial sites. A further 106 Chirps have been installed around Pitt Head (thanks Bruce Whitwell and team).

Chirps are very useful for measuring the performance of the A24 network as they that measure number of kills, and the time and date of those kills. Trail camera data shows ship rats are nocturnal so kills during the nighttime hours are most likely rats rather than mice.

The chart below is from the Goodnature dashboard and shows the kills per month of the 163 A24 traps over the last year.



The chart shows a peak of kills in December 2023, and small peak in June 2024.

In addition to the Moncrieff Sanctuary, 60 Chirps have been installed around Torrent Village and Boundary Bay (thanks Bruce Whitwell and team), and 6 Chirps have been installed around Bark Bay and South Head (Thanks Peter Lucas and team).

However, the kills per trap varies considerably with the best trap in the Moncrieff Reserve having 22 kills in the previous year – this trap is a new design A24 trap being trialled. Eight of the 163 A24 traps had greater than 10 kills in the previous year. In comparison, six of the A24 traps have had no kills over the last 12 months and being reviewed for potential relocation to a hopefully better location for killing rats.

Outcomes from Rat and Stoat Predator Control

As noted in the A24 section, the desired outcome of ATBT's predator control is securing areas for protection of native birdlife that residents and visitors can enjoy now and in the future. Particularly bird species susceptible to rat predation such as robin/toutouwai and South Island tomtit/ngirungiru.

Below are images from the Moncrieff Sanctuary. A tomtit/ngirungiru on the chopping block at Moncrieff bach (photo by Sally Austin Pearcey) – (note the tomtit was not hurt!), and an inquisitive robin on the Coast Track near box trap site A97 above Observation Stream (photo by Alistair Sheat). Volunteers continue sight robins in this area.

The robin on the Costal Track (far right photo) was observed to the delight of several visitor walking to and from Anchorage Bay.

DOC150 and DOC200 box traps aim to control stoats that prey on larger re-introduced species such as Kākā (photo by trail camera), Brown teal/pāteke (photo by Craig Martin), and blue duck/whio (photo by Ron Moorhouse).

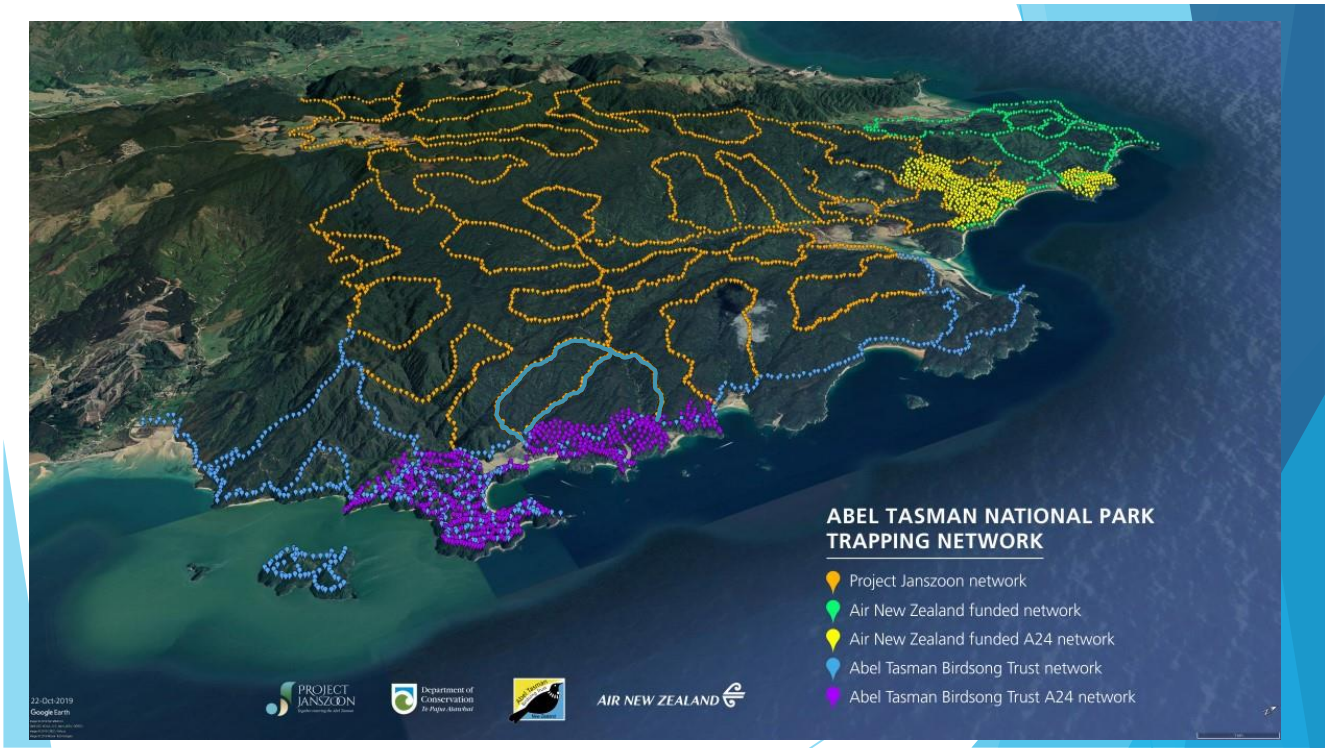
Securing the Coast

A key theme of the Abel Tasman Birdsong Trust's predator control work is "Securing the Coast". Predator control work of ATBT volunteers is predominantly along the coast. The coast is where most visitors to Park experience the birdsong and see rare bird species. The coast is where most of the tourism businesses operate.

Importantly, new research by Manaaki Whenua Landcare Research has indicated that predators breed up their numbers in the lower coastal areas before invading the centre and high altitudes of the Park. It is in these higher altitudes of the Park where rat numbers are usually lower and sensitive species such as robin/toutouwai stand a better chance of recovery.

Project Janszoon does the bulk of the predator control work in the Park as you can see from the image below.

With Project Janszoon now close to achieving its purpose to restore the ecological prospects of the Park, they will conclude the project in 2026.



DOC and Project Janszoon are working on the what the future maintenance programme will look like. For ATBT, we are wanting to secure the future for protecting the four taonga species – whio/blue duck, pāteke/brown teal, kākā and kakariki that Project Janszoon has reintroduced into the Park. We see an opportunity to work with DOC, tourism operators and community to achieve this and will be following up on discussions. We also see the potential to maintain the restoration momentum of Project Janszoon if sufficient support can be generated.

Acknowledgements

A special thanks to all the Birdsong Trust volunteers for giving their time checking traps and managing trapping teams (and acting as impromptu visitor advisers and promoters of Birdsong Trust work).

Thanks to Peter Minchin for adding trapping data to the database for CT and Awaroa trap lines.

Abby McCall (Operations Manager and adviser), assisted by Fran Forsey.

Tourism concessionaires whose Birdsong Levy component of the Environmental Access Fee (EAF) contributes to the funding of Abel Tasman Birdsong Trust operations.

Sponsors and donors for their contributions.

Jim Livingstone, Chris Golding, and Josh Preston (DOC partners and advisers).

Bruce Vander Lee and team (Project Janszoon partners and advisers)

Water taxi companies for carrying volunteers into the Park.

Abel Tasman Kayaks who host the Marahau shed and Bruce Reid who hosts the Motueka shed.

Pic Picot and Pics Peanut Butter for supplying peanut butter for A24 trap lure.

Goodnature for providing advice and support for our A24 networks, and their special “Cahoot” initiative that offers a second Goodnature Trap for every one purchased for our conservation projects.

Finally, to all the Park visitors who show interest and support for all the work of the Abel Tasman Birdsong Trust. A special thanks to those that catch water taxis into the Park and contribute part of their taxi fare to ATBT’s conservation efforts.

Appendix 1: Aerial 1080 Treatment Area

Below is a map that shows the area in the Park that was treated with 1080 in November 2023. The treatment is in the lower altitudes of the Park where rat density is expected to be higher than higher altitudes.

The aerial treatment of 1080 was organised by Project Janszoon and did not include the Awaroa headland, the coastal part of the Park, and the southern part of the Park south of Pitt Head and the two Holyoake tracks and the inland track.

The only ATBT traplines the aerial treatment would have affected are Tregidga Track and Falls loop traplines.