

Introduction

Traps are checked and baited by Abel Tasman Birdsong Trust volunteers approximately twice per month. The results for trap checking are recorded and entered into the DOC designed "Animal Pests – Trapping" internet based application. The trapping application is a Geographical Information System (GIS) that allows systematic recording of trapping results, data analysis and reporting of rats and stoats or weasels caught by volunteers.

January to March 2017 Trapping Results

Trapping results for the months of January to March 2017 (table 1) show 109 rats and 24 stoats/weasels were caught. This is down from 198 rats caught, but up from the 15 stoats/weasels caught in the previous 3 months. Over the last 6 month 39 stoats/weasels have been caught. This is well up from the 10 stoats/weasels caught for the same period in the previous year. See discussion below about stoats/weasels.

Line	Stoats /Weasels	Rats	Average % Rats Per Month Per Total Trap boxes	No of Trap boxes on Line
А	9	67	18	127
В	3	15	13	39
С	0	9	13	23
H31/1 to H31/12	4	4	11	12
H1 to H62	8	7	4	62
Marahau	0	4	12	11
Tinline	0	3	13	8
Lines Combined	24	109	13%	282

Table 1: Stoats or weasels and rats trapped for January to March 2017

Overall, 57 stoats/weasels and 891 rats have been caught Abel Tasman Birdsong Trust volunteers since August 2015 (when records first were stored in the database).

Note: The rats noted as caught are from checking traps twice during the month.

Pitt Head/Anchorage A24

Pitt head / Anchorage A24 traps have remained little used over the 3 months with very low gas use and low scores on the 10% of traps carrying counters. It is assumed that the rodent population remains very low inside the trapped area.

DoC have requested that all our traps be moved up the trees to 1300mm above ground as a "best practise" safe guard against damage to Weka. This work will be done over April/May.

Project Janzsoon specialist staff will soon be cutting trapping tracks for the new area inland and north of the current A24 lines. The first active step will be establishment of tracking tunnel lines and these will be baited at least once to give us information on rat density before traps are active.

Adele Island Feb and March trap checks were clear with no indication of any incursion by rats or stoats. Mice are abundant and DoC are planning poisoning before the end of July this year.

Wasps. Baiting with vespex wasp poison was carried out in Feb on Adele, on the H line, through Torrent bay and Boundary bay and at Pitt Head / Anchorage. All these operations were successful and a worthwhile contribution as wide scale wasp elimination is of direct benefit to our birds as well as to people.

Possum Control

The six new "volunteer friendly" Trapinator possum traps are being rebaited with Ferafeed and checked monthly. The traps were installed in early November adjacent to existing Sentinel possum traps from A55 to A60. In the last 3 months no possums have been caught. Interestingly a rat was caught in one of the Trapinator traps – multipurpose!!

Question 1: What is the trend with rat numbers caught?

The chart below shows the monthly % rats caught per total traps and rat numbers caught per month since August 2015 when data was first entered into "Animal Pests – Trapping" database.

Note that trap line H31-1 to H31-12 has only been in operation since March 2016 and H12 to H62 since December 2015 so the results prior to April are not directly comparable with now. Also 7 additional traps have been added to B line since October 2016.

The chart shows there was a decrease in rats caught since December, followed by increase in Feb/Mar.



Chart 1: ATBT total rats trapped per month from August 2015.

Question 2: Where are rats being caught?

The map below shows numbers in red, orange and yellow circles. These numbers are the number of rats caught in neighbouring traps in a clustered circle. The green triangle is where there was a single rat caught in a trap, but not in general proximity to other rats caught.

Map 1: Density of rats trapped Jan to Mar 2017



The map shows the rats caught are spread between Anchorage and Tinline. This is quite different to the distribution of rats caught from Oct to Dec 2016 where more than 50% of the rats caught were in the Anchorage/Cyathea Cove area. See map below of the density of rats trapped October to December 2016.

Map 2: Density of rats trapped Oct to Dec 2016



Question 3: What is the trend with stoat/weasel numbers caught?

The chart below shows the stoat/weasel numbers caught per month since August 2015 when data was first entered into "Animal Pests – Trapping" database.

The chart shows a large increase in stoats/weasels caught since January, followed by increase in Feb/Mar. The chart also shows the large jump in stoats/weasels caught from November 2016 to February 2017 compared to any prior month back to Sept 2015.



Chart 2: ATBT total stoats /weasels trapped per month from August 2015.

Question 4: Where are stoats/weasels being caught?

Map 3: Density stoats/weasels trapped October 2016 to March 2017 (6 months).



The map below shows where stoats/weasels have been caught for a similar period in the previous year – October 2015 to March 2016. There seems to be a different picture emerging where less stoats/weasels are being caught at the entrance of the park and more near Holyoake Clearing.



Map 4: Density stoats/weasels trapped October 2015 to March 2016 (6 months).

Note that trap line H31-1 to H31-12 has only been in operation since March 2016 and H12 to H62 since December 2015 so the results are not directly comparable. Also 7 additional traps have been added to B line since October 2016.

Question 5: What is happening with stoat/weasels numbers over the whole Abel Tasman National Park?

Map 5 on the left is the caught stoat/weasel densities for six months from October 2016 to March 2017. Map 6 on the right is caught stoat/weasel densities for six months from October 2015 to March 2016. There seems to be a difference between the two periods, with the recent six month period showing higher stoat/weasel numbers caught adjacent to the Torrent River catchment and near Onetahuti.





The maps below are a more detailed view of the same October 2016 to March 2017 and October 2015 to March 2016 comparison showing higher densities of stoats/weasels caught in the lower Torrent River catchment for the October 2016 to March 2017 period.



Map 7: Stoat/weasel density October 2016 to March 2017

Map 8: Stoat/weasel density October 2015 to March 2016



Question 6: What are the possible reasons for the spike in stoats/weasels caught?

Juvenile stoats disperse most often from December to January but sometimes can start in November. This is consistent with the December 2016 to February 2017 spike in stoats caught (A8 Pest Mustelids Monitoring and Control; NPCA (National Pest Control Agencies; November 2015). However this does not explain the difference in stoat or weasel numbers caught compared with 2015/2016.

Is the Torrent River catchment a predator reservoir?

A possible reason for the higher stoat/weasel populations in the lower Torrent River catchment is because up until recently the Torrent River catchment has not had traps. Map 9 below shows existing (green) and new (yellow) trap lines in and around the Torrent River. The Torrent River catchment was a trapping "hole" prior to the trap lines in yellow being installed this year.



Map 9: Old (green) and new (yellow) trap lines in and around the Torrent River catchment.

Also the relatively high number of rats caught in November could have been an encouraging food source for stoats and weasels.