



Abel Tasman Birdsong Trust

Trapping Report – September 2016

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 caught by volunteers.

July to Sept 2016 Trapping Results

Trapping results for the months of July to September 2016 (table 1) show 172 rats and three stoats or weasels caught. The percentage rats caught per month per total traps is fairly consistent over most lines, although this varies quite a lot for the three months (see chart below).

Table 1: Stoats and rats trapped for July to September 2016

Line	Stoats or Weasels	Rats	% Rats Per Month Per Total Traps	No of Traps on Line
A	2	94	25%	127
B	0	18	21%	28
C	0	15	22%	23
H31/1 to H31/12	1	3	8%	12
H1 to H62	0	36	19%	62
Marahau	0	1	3%	10
Tinline	0	5	21%	8
Lines Combined	3	172	21%	271

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

Pitt Head/Anchorage A24

The end of August tracking showed rats at 5% but both tunnels with rat footprints were outside the trap network. Sadly a survey in August found no robins remaining in the project area. It is unknown where they have gone.

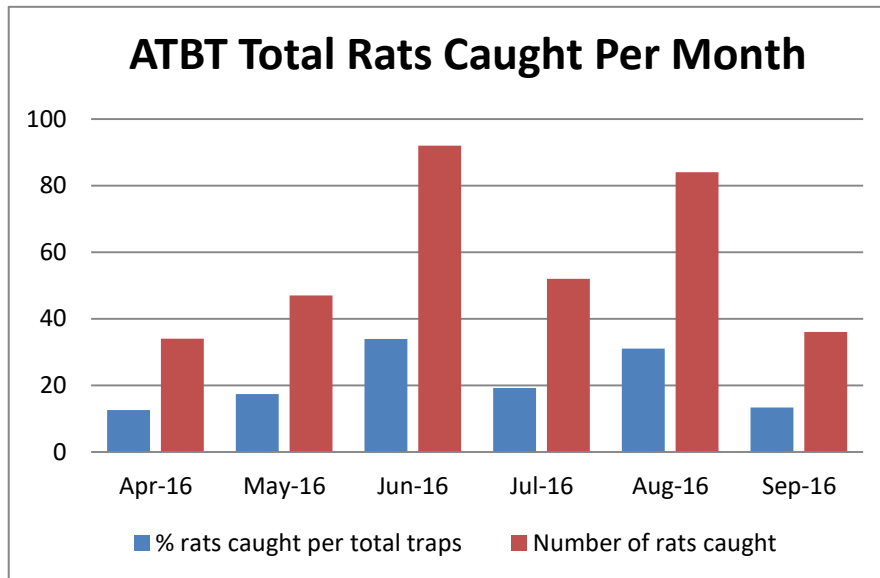
The Sept Trap check of the 200 A24 traps in the Pitt head project showed the lowest activity for quite some time. Hope this is good news for the birds. Only 11 gas cylinders were replaced, of which 8 had been in use for 6 months or longer. 23 strike counters showed 4 strikes - this is the lowest in memory. No robins seen. Signs of pig rooting are evident again in some areas. One deer flushed out onto Anchorage beach (but not caught!). A cat has been reported near Anchorage hut - this is bad news. The B line extension, B29 to B38 (red line on the map below) is set and baited so there are 10 more traps in service.

Trap Maintenance

Trap maintenance was done during August. Maintenance included checking trap location markers, wire mesh attachment, ensuring level ground for the trap box, and importantly the sensitivity of the trapping mechanism using a defined weight – 80 to 100g. Trap maintenance was guided by the rats caught or not during the previous year. For example trap A27 had not caught any rats but had had the bait taken three times over the past year. A number of traps including A27 need the sensitivity of the mechanism adjusted. Interestingly after adjustment of the trap, A27 caught a rat.

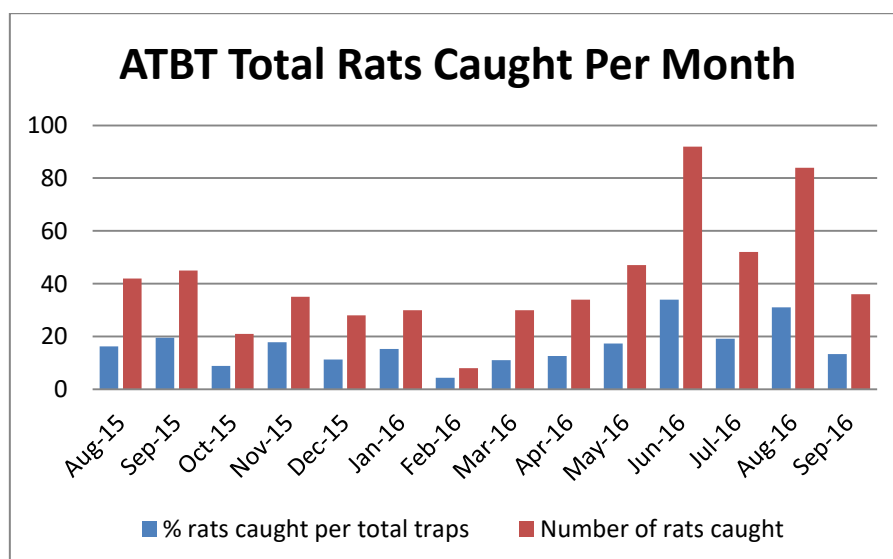
Question 1: Are rat numbers increasing relative to previous months?

The chart below shows monthly rat numbers and % rats caught per total traps. The chart shows there was a reduction in rats caught in July compared to June, an increase from July to August then another reduction from August to September.



This trend in rats caught is the same for A, C, and H lines (See Appendix 1). The increase in rats caught in August is heavily influenced by the rats caught on the 15th August check between A83 and A127. Twenty-five rats were found over the forty-four traps – a 57% catch rate!! A month later on 15th September only two rats were caught between A83 and A127 – a 5% catch rate. Theories why – rats migrating down due to: (1) a cold snap in early August, (2) bird nesting season, (3) spring nesting of rats? Theories welcomed.

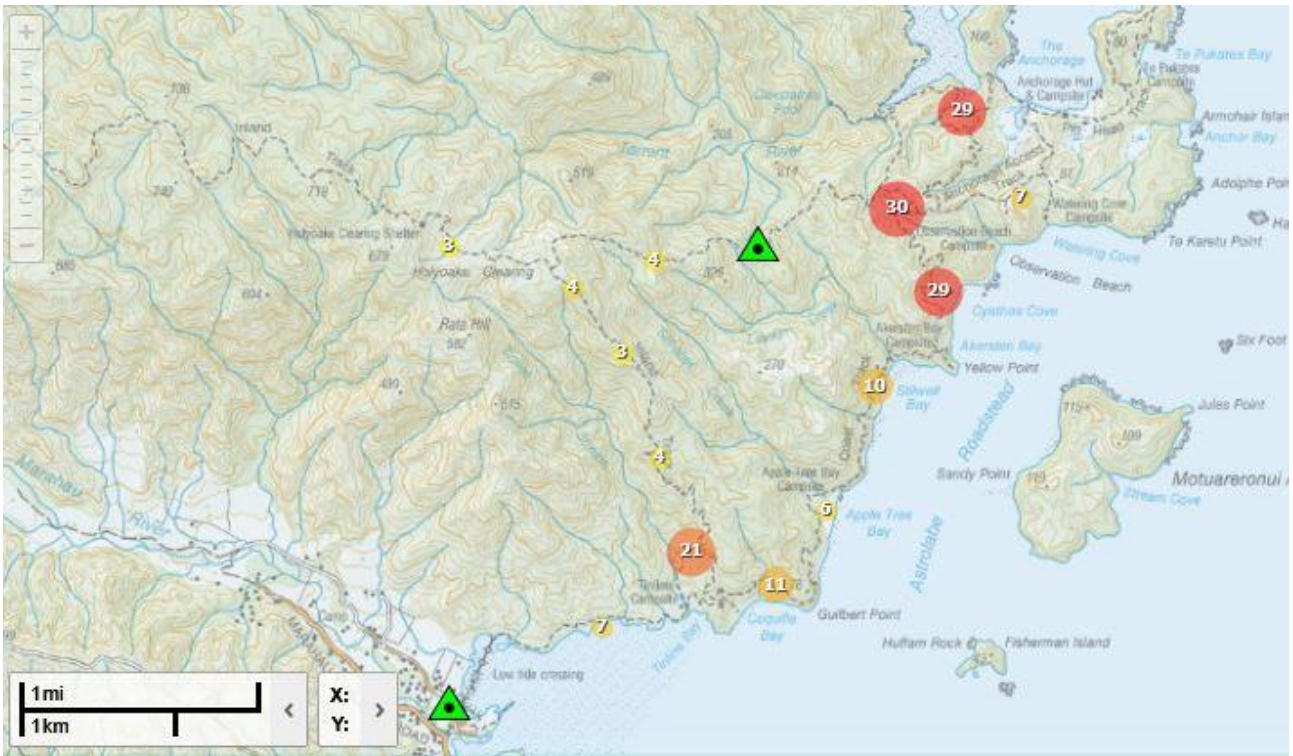
The chart below shows the monthly rat numbers and % rats caught per total traps since August 2015 when data was first entered into “Animal Pests – Trapping” database. Note that trap line H31-1 to H31-12 has only been in operation since March 2016 and H12 to H62 since December 2015 so the results prior to April are not directly comparable to now. However overall, 756 rats and 18 stoats or weasels have been caught since August 2015.



Question 2: Where are rats being caught?

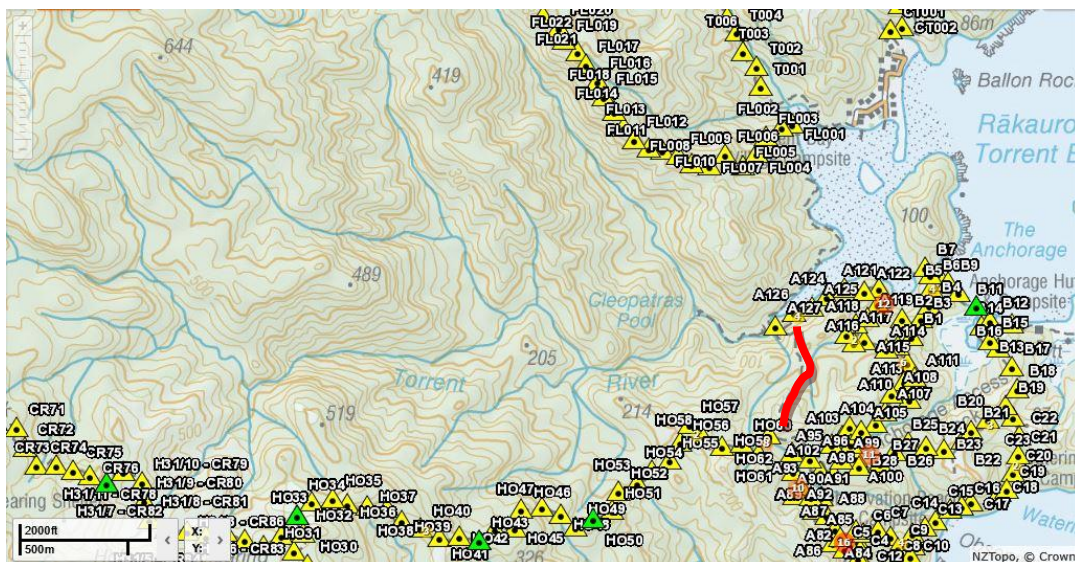
The map below shows numbers in red, orange and yellow circles. These numbers are the number of rats caught in neighbouring traps in a clustered circle. The green triangle is where there is a rat caught in a single trap, but not in general proximity to other rats caught.

Density of rats trapped July to September 2016

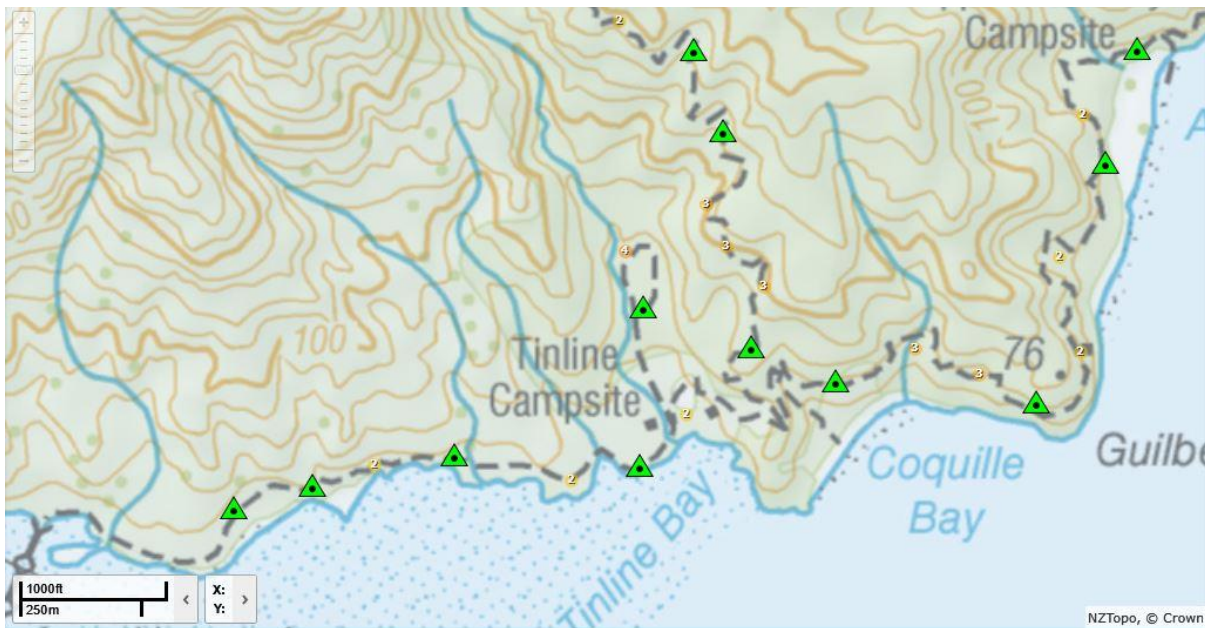


The map shows more than 50% of the rats caught are in the Anchorage/Cyathea Cove area. This result is very similar to the June 2016 rat density. The area is adjacent to the Pitt Head area where bush robins have recently been introduced demonstrating the importance of trapping rats to protect native birds in the Park.

A trap line extension has been put in between H62 and A127 (red line on the map below). It will be interesting to see what is caught in that line as the Torrent River catchment presently has no traps in it, either Project Janszoon or ATBT. See the map below that shows Janszoon FL and T traps lines. Is Torrent River catchment a predator reservoir??



The densities of rats caught from July to September 2016 at the beginning of the track can be seen in the map below. Rat densities are fairly evenly spread apart from 5 rats caught on the Tinline line. Interestingly 3 of those rats were caught in the recently installed new traps and 2 in the old traps. The old traps were non-stainless steel and bit rusty that may have affected the sensitivity of the trapping mechanism. Prior to July 2016 only 2 rats have been caught in Tinline since January 2016.



The above map can be compared with the map below that shows the densities of rats caught from August 2015 to September 2016. The density of rats caught is highest near the Tinline campsite.



What is beginning to emerge from trapping data in the database since August 2015 is some traps seem more effective than others. For example trap A3 has caught 4 rats and 3 stoats/weasels (a super-trap!!) whereas many traps have caught no rats, weasels, or stoats since August 2015 (e.g. A2, A6, A13, A22, A23, A46, A47). Overall 34 (13%) out of a total of 271 traps have never caught a rat between August 2015 and Sept 2016. Is there any reason why?

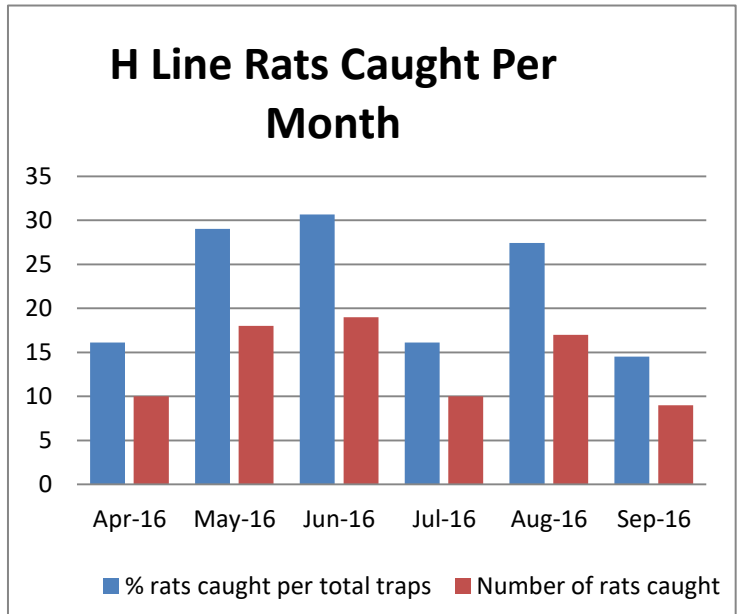
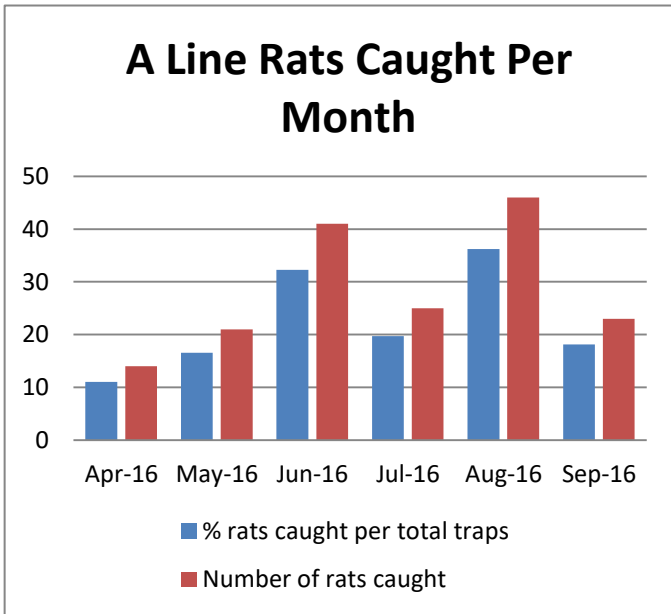
Question 2: Where are stoats and weasels being caught?

The map to the right shows where the stoats and weasels have been caught in the last three months. Two were caught at the beginning of the track (traps A3 and A6) and one caught near Holyoake Clearing (H31 - 8).

The map below shows where stoats and weasels have been caught since August 2015. The picture is fairly similar in that most (7) stoats and weasels have been caught at the beginning of the track with four caught near Anchorage, two on Holyoake Track, two near Holyoake Clearing and one (the green triangle) near Apple Tree Bay.

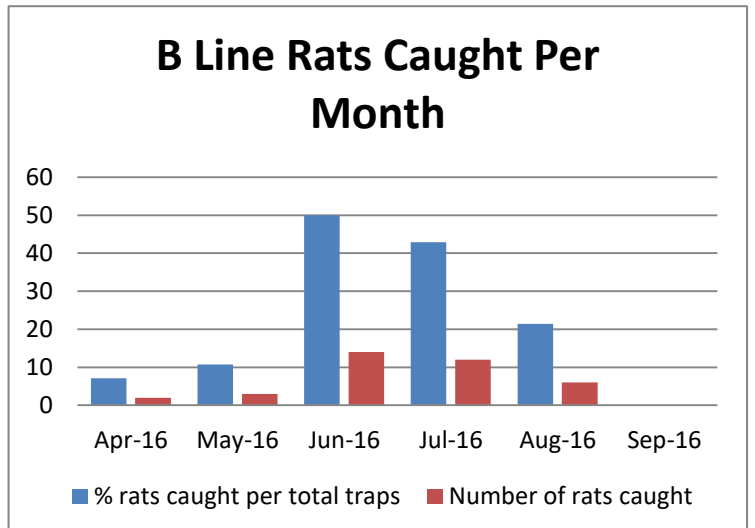
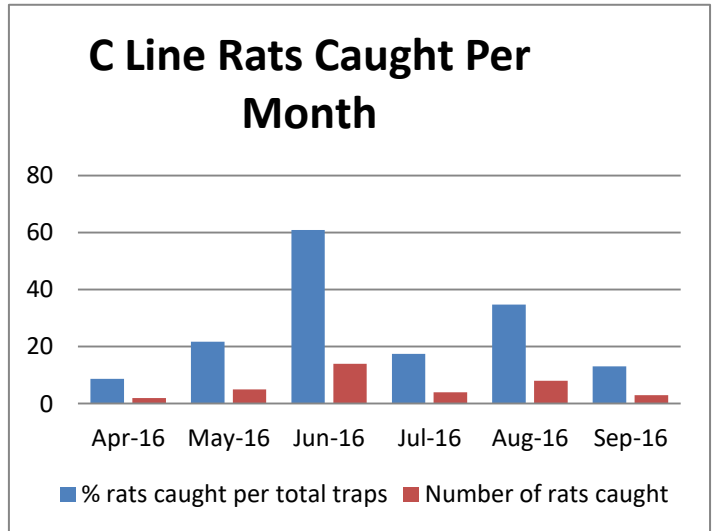


Appendix 1: A, B, C, and H Lines Rats Caught Per Month



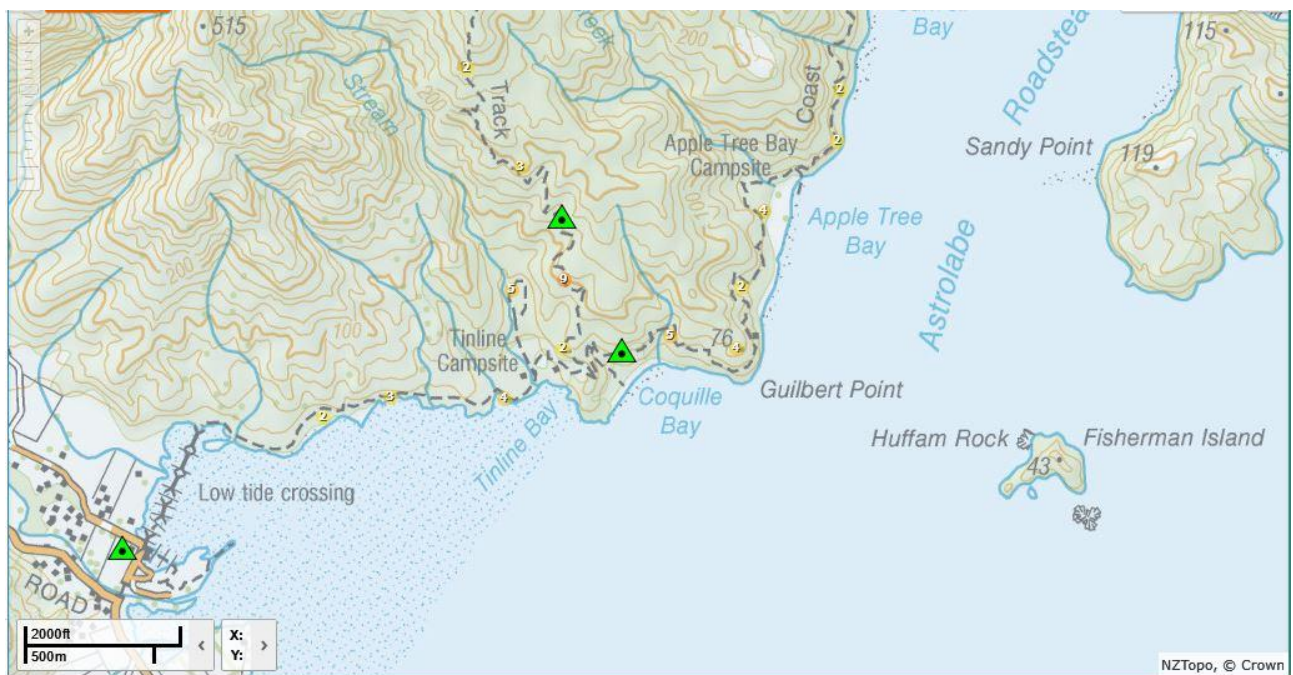
These charts show the pattern of the number of rats caught per month is similar for A (127 traps), H (62 double traps), and C (23 traps) lines.

B line (28 traps) shows a reduction in rats caught from June to August. No rats were caught in September.



Appendix 2: Detail of rats densities July to September 2016

Note the trap line extension has been put in between H62 and A127 (red line on the map below). This is adjacent to the area that has the highest density of rats caught and will be a “frontline trap line” for the Torrent River catchment. It will be interesting to see what rat numbers are caught on this line.



The above maps shows rat densities are highest at the beginning of the Holyoake Track, fairly evenly spread from the beginning of the track to Apple Tree Bay, then higher again near Stillwell Bay.