

CANTERBURY ENVIRONMENTAL TRUST

Craigieburn Predator Control Programme Report

May 2007 to May 2011

Key

HQ = Headquarters; buildings, Nature Trail and Lyndon Saddle/Road link. **(30 traps)**

LSA = Lyndon Saddle/Craigieburn Valley link **(4)**

LS = Lyndon Saddle **(44)**

CV = Craigieburn Valley (Track until May 2010, Road after that, from grassland near SH 73 to and including ski lodges) **(46 track, then 38 road)**

TB = Thomas Bush (Lower Logging Track; up Thomas River to above Flying Fox, and up to the Sinkhole) **(30)**

ChR = Cheeseman Skifield Road from top bushline to bottom bushline. **(27)**

HC = Hutt Creek, including access road. **(12)**

DF = Dracophyllum Flat (Jacks Pass to Forest Lodge) **(40)**

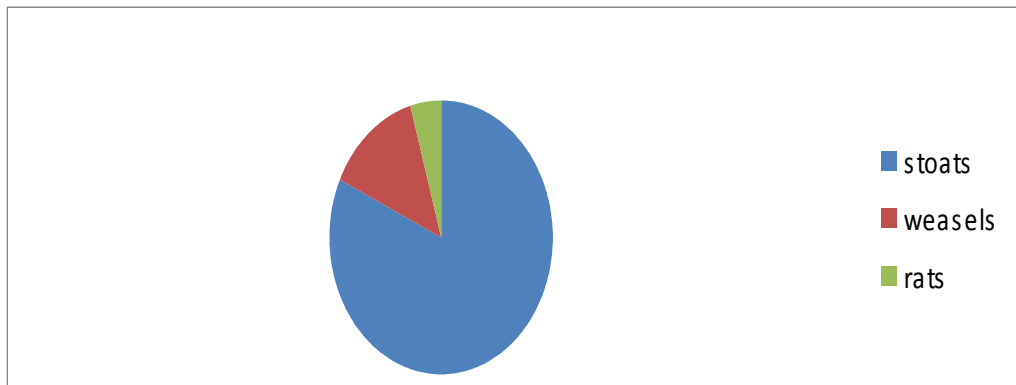
BR = Broken River Skifield Road from Cave Stream Campsite to Skifield Carpark. **(50)**

1. Table of Kills

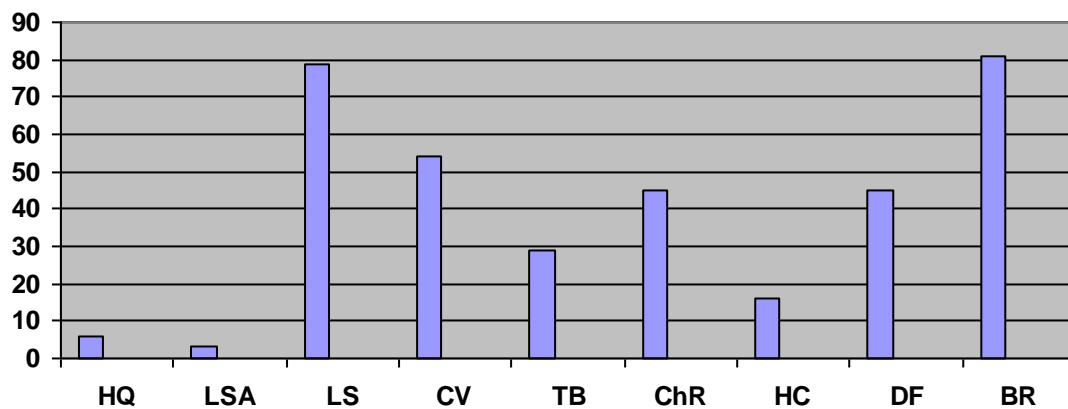
(for analysis purposes hedgehogs have not been included in data beyond this table, as they are not considered predators for nesting birds. They are potential threats to ground nesting birds i.e. kiwi and kea, and competitors for a food niche, if ever kiwi were released in the area)

	LSA	HQ	HC	CV	TB	ChR	LS	DF	BR	Total	
Stoats	2	4	12	33	26	39	64	39	74	295	
Weasels	1	2	2	17	3	4	14	5	1	49	
Rats			2	4		2	1	1	6	16	Sub-total 360
Hedgehogs		1	1		2		1	11	9	25	
										Total kills: 385	

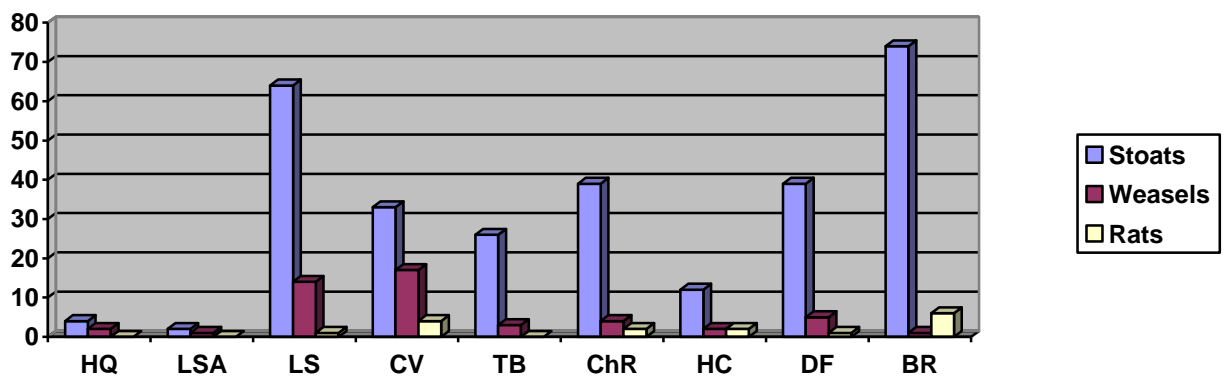
2. Total Species Kills



3. Total Kills per trap line



4. Species per Trap line



Trap Lines

Broken River Skifield Road and Lyndon Saddle Track have been the most prolific stoat areas.

- Lyndon Saddle: Trap 28, near the top of Lyndon Saddle, caught 5 stoats, while traps 23, 25, 26 and 27 each yielded 2. 24 (on the saddle) caught 3. 27, 29 and 30 each caught a weasel. This area is the most prolific of the whole programme, and is above 1050 metres in altitude, and beech forest. Further down towards Cave Stream campsite at the bottom of the track, trap 34 caught 5 stoats, and 40 caught 8 stoats and one weasel (the most prolific single trap of the programme; just on the flat by the stream, 400 m from the camp site). **75% of traps had kills.**
- Lyndon Saddle Addition is the small 500 m. length of track that joins Lyndon Saddle with the Craigieburn Valley foot track.
- Broken River Skifield Road: This trap line begins at the Cave Stream campsite and ends at trap 100, the skifield inclinator carpark, following the road the whole way. Most of the road runs either beside a stream or within 150 m. of one. Trap 50, the first on the road 100 m from the camp site, is the most prolific of this line with 6, all caught in 2010 and 2011. Most other traps on this line have caught 1 or 2 stoats. 53, 55, 80, 81, 90, 92 and 96 caught 3. The latter three traps are all above 1000 metres in altitude. **84% of traps had kills.**
- Craigieburn Valley was difficult to maintain when the traps were originally placed on the track. Traps were kicked over the side and many rolled up to 500 metres down the steep slope. For some time they were not maintained due to the difficulties involved. It was decided to replace them on the road in May 2010, and St. Andrews College helped with the process. They were placed as closely as possible to 100 metres apart, but this was compromised by the steep terrain each side of the road in many places which did not allow for any suitable sites. However, since then the line has been easy to maintain and traps are undisturbed and productive. No trap stands out as being 'popular'. % not valid due to changes.
- The Headquarters traps are surprisingly low in yield considering that most of them are very close to buildings. Those placed around Korimako Lodge had a rough time from humans - kicked, broken, removed, - so several were not replaced in the close vicinity.
- Dracophyllum Flat line was particularly productive within 500 metres of Jacks Pass where the line begins. Traps 101,102, 103, and 105 yielded 4,3,2 and 2 stoats respectively. On the track between Dracophyllum Flat and Forest Lodge several other traps caught 2 stoats. This was also the line where 11 hedgehogs were caught. **76% of traps had kills.**
- Cheeseman Skifield Road line does not have as many traps as some of the others, but yielded a high catch of stoats and weasels. 80% of traps

yielded kills, and over half those were multiple kills. At the top bushline, the first 9 traps caught stoats, 204 = 5, 203 and 206 = 3, 202,205,209 = 2, the rest 1. 211 = 3. This line also caught 4 weasels and 2 rats. **74% had kills.**

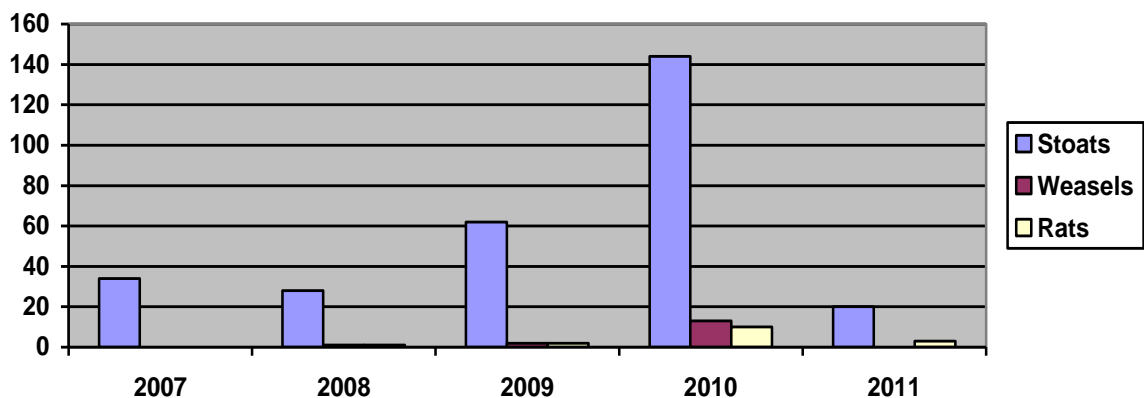
- Hutt Creek only has 11 traps including the road, 9 of which had kills, including 2 rats. Most had one kill. **81% had kills.**
- Thomas Bush line was not set until 2009, by St. Andrews College students. They clear the lines as part of the regular activities at their Centre. The line up the to the sinkhole does not show a particular pattern; only one caught 2, all others were 1. The ones up the river were more productive - 4,3,2 and 1. The logging track lines had 3 traps with 2 kills. **57% of the traps had kills.**

Overall 61 % of traps have had kills.

Some conclusions:

Altitude is no barrier to the stoats and weasels; in fact the highest densities are at the highest altitudes. Water access seems to be a factor in other denser areas. They do not appear to hang around human habitations particularly, contrary to our initial expectations.

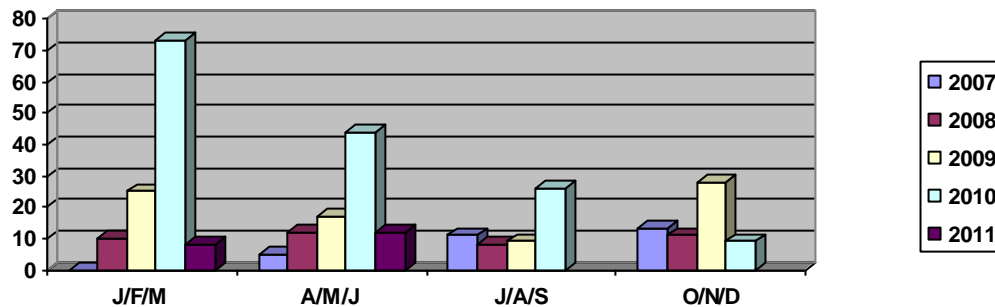
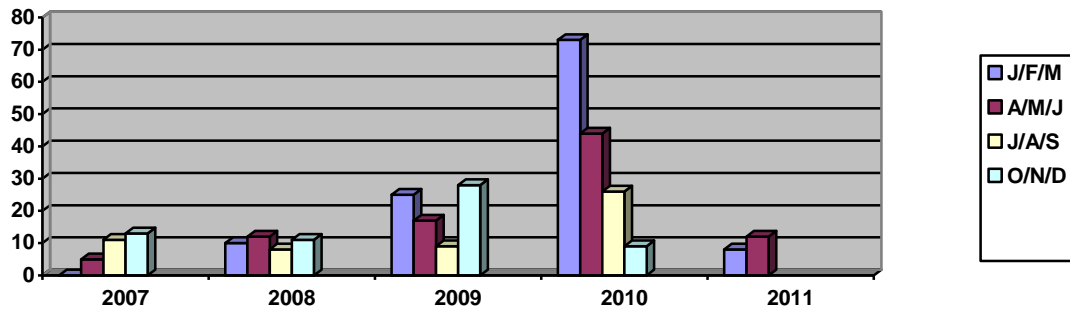
5. Annual Trends per Species (2011 is until May)



Trends:

The first rat was recorded in December 2008, 2 in 2009, and have increased in frequency until 2010, when 11 were recorded until May 2011. This corresponds with the downturn in stoat and weasel kills. The conclusion could be that under normal circumstances the rats are controlled by the stoat and weasel number, and now the numbers are dropping there is a resurgence of rats.

6. Quarterly Trends



Notes

Traps are not cleared often during the winter months, as they are covered in snow, or completely iced up. Any animal winter caught will be tallied in the spring data when they are cleared. No data is recorded as to how fresh a kill is, and when animals are desiccated it is hard to estimate how long since it was caught for a lay person, particularly if it has been frozen.

The huge spike in stoats and weasels in the first half of 2010 corresponds with a spike in mouse numbers in the bush and general environment in the spring and early summer of 2009. (This in its turn did not result from any mast seed year. It was inexplicable.) This would have triggered a big breeding spike as the adults were so well nourished. (See stoat facts in Appendix (i).

Conclusion:

We have received lots of anecdotal reports of the increase in bell bird song in the whole trapped area, as well as observing it ourselves. We would like to think that this was due to the reduction of predators.

Thanks to:

- Alan Palmer, Mike Bradley and Jim Henry for their regular trips up here to clear the Cheeseman Road, Dracophyllum Flat, Lyndon Saddle and Broken River Road lines. They are at the heart of this programme.

- St. Andrews students and Drummond Thompson for their assistance in trap placement, and their Outdoor Centre staff for keeping up the Thomas Bush traps.
- NZ Conservation Trust for supplying the traps and assisting in trap laying.
- Jocelyn and John Cole (my sister and BIL) for helping with trap laying.
- Steve Hicks from Connovation for supplying bait, at no or minimal cost.
- Members of Canterbury Environmental Trust who come up when they can to clear a trap line.
- Miscellaneous groups who occasionally check sections of trap lines.

Maree Goldring

Appendix (i)

Stoat Facts

The female makes her den and brings up her kits alone. A roaming male comes into the den and impregnates the female kits and mum, then leaves (probably by the back door!).

The females leave the nest carrying a large store of embryos during the summer. The next spring, the number of embryos develop to kits according to how well nourished the mother is (i.e. how much food is around).

Stoats live for 2 years, and the amount of damage they can do in that time is frightening.

Thanks to Janine Duckworth for the above information. Please refer to the website below for a very detailed paper on stoat reproduction.

www.doc.govt.nz/upload/documents/science-and.../sfc268.pdf