# Threatened species protection in the Eglinton Valley

## Annual Report 2011/12

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Department of Conservation
*Te Papa Atawbai*

Cover image – Eglinton Valley looking north from near Smithy Creek. Martin Sliva.



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# Summary

Good progress has been made towards outcome targets for threatened species protection and recovery this season in the Eglinton Valley, Fiordland National Park. The key benefit species present in the site are South Island long-tailed bat *(Chalinolobus tuberculatus)*, southern short-tailed bat *(Mystacina tuberculata tuberculata)*, mohua/yellowhead *(Mohoua ochrocephala)*, and South Island kaka *(Nestor meridionalis meridionalis)*.

Monitoring of bat species indicates that populations have generally remained stable or increased, and have not suffered the substantial losses expected where predator control was not in place.

A total of 69 mohua were transferred from Chalky Island to the Eglinton Valley in October 2010 to supplement the existing valley population. Many of these birds have settled in the valley and paired up with other transferred birds or existing valley birds. Twenty seven pairs were found during the 2011/12 breeding season, with at least 73 mohua fledglings recorded, an increase from the previous year.

The Department of Conservation undertakes continuous stoat and cat control; and periodic rat and possum control when required within the Eglinton Valley to protect a range of threatened species.

The stoat trap network was expanded and intensified during the 2011/12 season. Forty two additional tunnels were deployed to bolster the stoat trap density around long-tailed bat roosting areas either side of the valley near Mackay Creek, bringing the total number of stoat trap tunnels in the site to 356.

A considerable amount of beech seed was recorded in the mid and upper valley during autumn 2011, and rodent levels rose in response through winter and spring of the 2011/12 season. Rat control was initiated across a 4800 hectare bait station block in July and August 2011. The Northern Block (2520 ha) received two fills of pindone cereal pellets and the Southern Block (2280 ha) received one fill of bait. Rat control successfully maintained rat numbers below the result target for the duration of the operation. Possums were controlled within the same area using encapsulated cyanide pellets filled into the stations at the same time as the pindone bait.

A low level of beech seeding was recorded during autumn 2012, therefore it is expected that predator levels will decline and remain low heading into the 2012/13 season.

# Introduction

This report summarises the animal pest control and monitoring carried out in the Eglinton Valley between July 2011 and June 2012. Invasive animal pests are controlled to protect a range of threatened native species present in the valley. Pest species that were targeted for control during the 2011/12 season included stoats, cats, rats, and possums. Monitoring of mustelid/rodent abundance and threatened species survival was conducted.

The Eglinton Valley lies at the eastern edge of Fiordland National Park, starting 50 km north of Te Anau (Fig 1). The valley is glacially formed, with steep sided walls and a generally flat valley floor 500-1500 m wide. The Milford Road between Te Anau and Milford Sound travels through the valley for the majority of its length, providing good access.

The Eglinton Valley contains two threatened bat species- the South Island long-tailed bat and southern short-tailed bat. Mohua or yellowhead are also present in the mid and upper reaches of the valley. Other native species present include South Island kaka, yellow-crowned parakeet *(Cyanoramphus auriceps)*, black fronted tern *(Chlidonias albostriatus)*, and South Island robin *(Petroica australis australis)*.

The forest canopy is predominantly made up of southern beech species *(Nothofagus* spp.*)*, with several large open grassland clearings across the valley floor. The mid and upper slopes tend to be dominated by silver beech *(Nothofagus menziesii)* in the upper valley, with mountain beech *(Nothofagus solandri* var. *cliffortoides)* being more common in the drier lower valley. Mature stands of red beech *(Nothofagus fusca)* tend to dominate the more fertile, warmer lower slopes and valley floor. Monitoring of the annual beech seedfall has been carried out in the Eglinton for several years, showing dramatic increases during mast years (e.g. 2000 & 2006), and generally low seed production in non-mast years. The seedfall trend in recent years has seen more frequent moderate and locally variable seeding (2009 & 2011).

Stoat control has been carried out in the Eglinton Valley in its current form continuously since 1998, and traps have been checked and rebaited four-six weekly. The number of stoat trap tunnels has increased from the original 195 in 1998 to 356 tunnels in 2012.
Rat control was first attempted in the Eglinton Valley during the 2006/07 season using a grid of bait stations to protect mohua, long-tailed and short-tailed bats across three small areas totalling 950 ha (Hill 2007). The rat control block was expanded between 2009 and 2011 to encompass a contiguous area of 4800 ha.

Rodent and mustelid abundance is monitored using standard tracking tunnel methods, and is typically carried out quarterly each year.

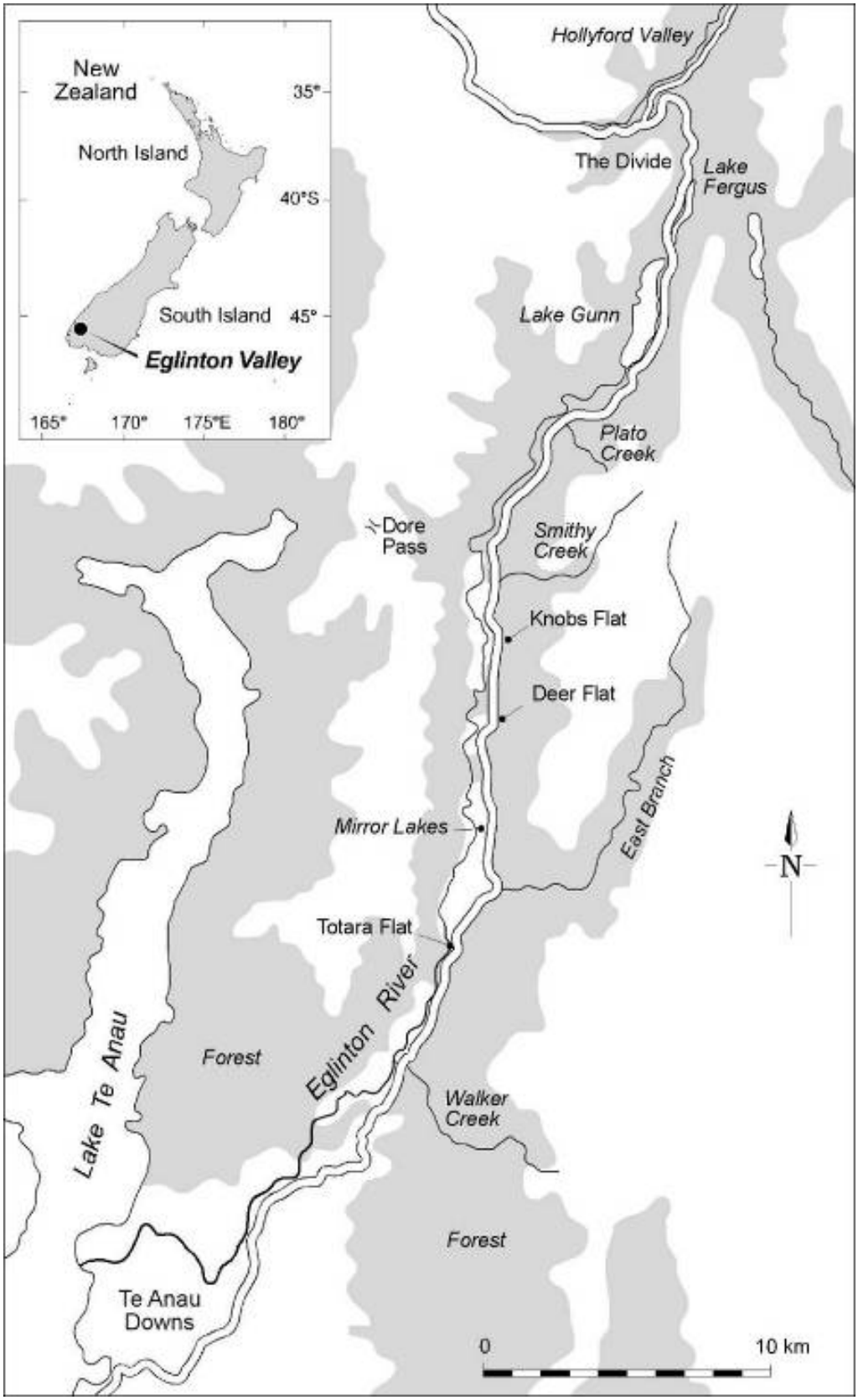


Figure 1- Eglinton Valley location, Fiordland National Park

# Threatened Species Outcome Targets

**Ten year conservation outcome (2020)**

- Mohua- The Eglinton Valley will contain a population of at least 50 pairs of mohua
- Long-tailed bat- An intrinsic rate of increase of >5% is maintained for study colonies and adult annual survival is maintained at >75%
- Lesser short-tailed bat- The Eglinton Valley will contain a population of at least 2000 lesser short-tailed bats

**Annual measures**

- Mohua
  Nesting success is >60%
  Adult annual survival is >50%
- Long-tailed bat
  Halt current decline and increase current population:
  Maintain current range
  Average annual survival >70%
- Short-tailed bat
  Increase current population:
  Average video counts maintained or increase by >1% per year

# Predator Control Result Targets

Rat control

- ≤ 5% rat tracking rate inside control areas

Stoat control

- ≤ 20% of lines tracked by stoats

Possum control inside control areas

- ≤ 3% RTC

# Predictive monitoring

Seed fall of beech species is monitored annually during autumn using lines of eight seed collection trays located near Walker Creek, Knobs Flat, and Plato Creek (Fig 1). Collection data from Knobs Flat goes back to 1989 (Fig 2A); and additional lines at Walker and Plato Creeks were established in 2005 (Fig 2B & 2C). The amount of seed that beech species produce varies considerably from year to year. Generally there is a low amount of seed produced during autumn, however some years the amount of seeding substantially increases. Rodent levels in the forest fluctuate in response to the food provided by the annual beech seed crop, and heavy seeding years can lead to damaging irruptions of rats and mice through winter, spring, and summer. Stoats can respond to the extra food provided by elevated rodent levels, and often a higher than normal number of young stoats is born during the summer following a rodent irruption. Monitoring the amount of beech seed that falls in autumn is a useful way to predict probable trends in rodent and stoat populations for the following season.

A significant level of beech seeding was recorded in autumn 2011. The seed fall density was variable between the monitored sites, with far more seed produced in the mid and northern parts of the valley compared with the southern end. The amount of seed recorded at Knobs Flat and Plato Creek was sufficient to drive a rodent and stoat irruption.

A low level of seed was recorded during autumn 2012 in most of the valley, and mice numbers are expected to decline through winter and spring as a result. The level of seed recorded at Walker Creek is probably enough to allow mice levels to remain elevated longer through the following season, although the amount is unlikely to drive a rat irruption.

**Table 1- Total number of seeds collected at each monitored site March-May 2012**

| | Walker Creek | Knobs Flat | Plato Creek |
|---|---|---|---|
| Red beech | 563 | 16 | 5 |
| Silver beech | 15 | 17 | 8 |
| Mountain beech | 0 | 0 | 0 |
| **TOTAL** | **578** | **33** | **13** |

**Table 2- Total seeds $m^2$ per site March-May 2012**

| | Walker Creek | Knobs Flat | Plato Creek |
|---|---|---|---|
| Red beech | 251 | 7 | 2 |
| Silver beech | 7 | 8 | 4 |
| Mountain beech | 0 | 0 | 0 |
| **TOTAL** | **258 seeds $m^2$** | **15 seeds $m^2$** | **6 seeds $m^2$** |

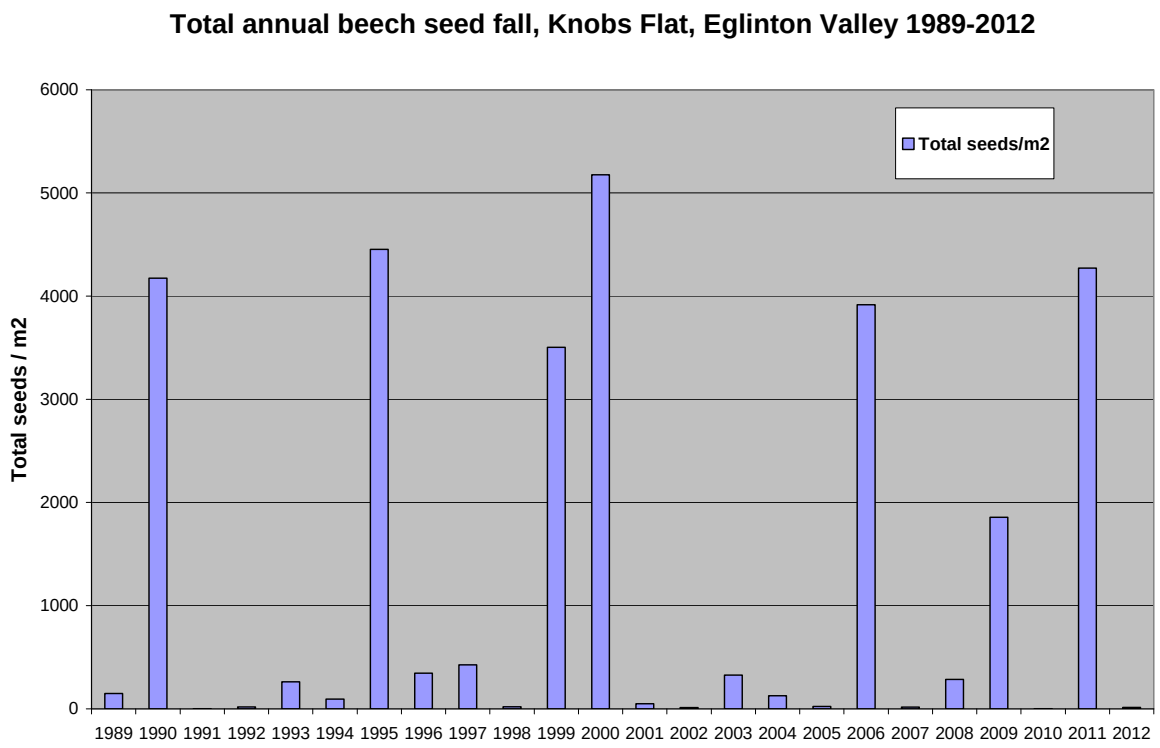


Figure 2A- Annual beech seed fall monitoring results at Knobs Flat, central Eglinton.

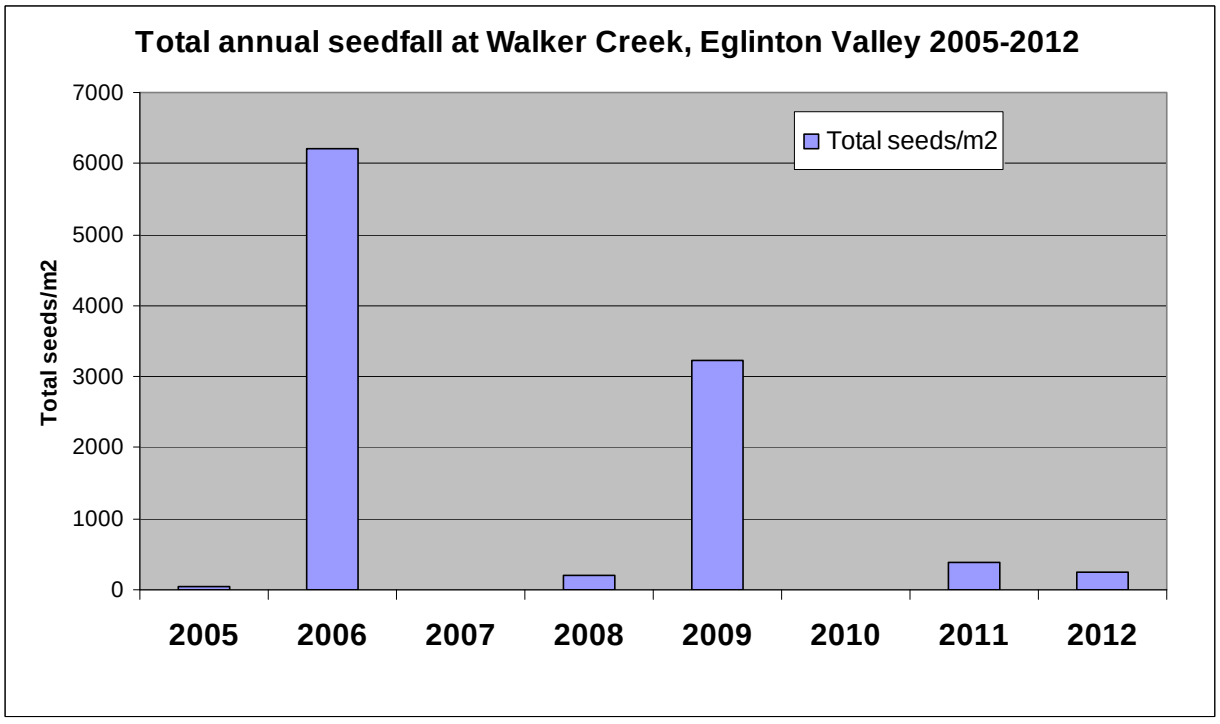


Figure 2B- Annual beech seed fall monitoring results at Walker Creek, southern Eglinton.

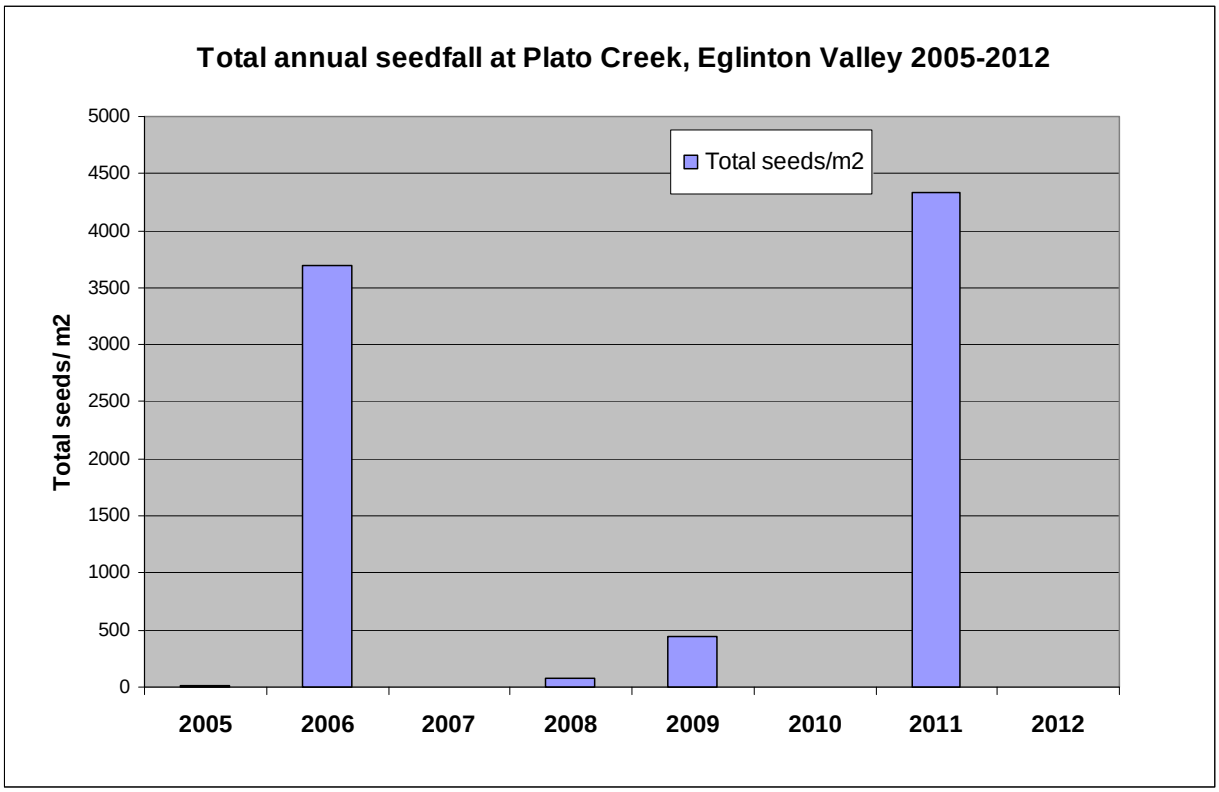


Figure 2C- Annual beech seed fall monitoring results at Plato Creek, northern Eglinton.

# Stoat Control

Stoat control in the Eglinton Valley during the 2011/12 year consisted of 356 wooden tunnels containing either two stainless DOC traps, two Mk VI Fenn traps, or one stainless DOC trap. Tunnels are spaced at 100-200m intervals along lines from the National Park boundary to 1 km past the Divide, a distance of approximately 41 km (Appendix 3). Traps were checked and re-baited ten times during the 2011/12 season, approximately 6 weeks apart, and monthly through the summer months. Traps were rebaited each time with a hen's egg and a piece of rabbit meat or venison.

The servicing of the stoat traps was tendered out to a trapping contractor for the majority of the season. Flying Dutchman Wildlife Management Ltd (Alexandra) completed nine trap check rounds between September 2011 and June 2012, whilst the first check of the season was completed by DOC staff in August 2011.

Forty two new single DOC-200 traps were installed in June 2012 to increase the trap density around Mackay Creek and the opposite side of the valley where there is a group of long-tailed bat roost trees (Fig 4). Replacement of the old Fenn traps with stainless DOC series traps was completed during this year. Now all tunnels contain either stainless DOC-150 or DOC-200 traps.

A total of 193 stoats and 265 rats were caught in the traps during the 2011/12 season, which is higher than a typical year due to the beech seedfall in autumn 2011 (Fig 7 & 8). The monthly capture breakdown is presented in Appendix 4.

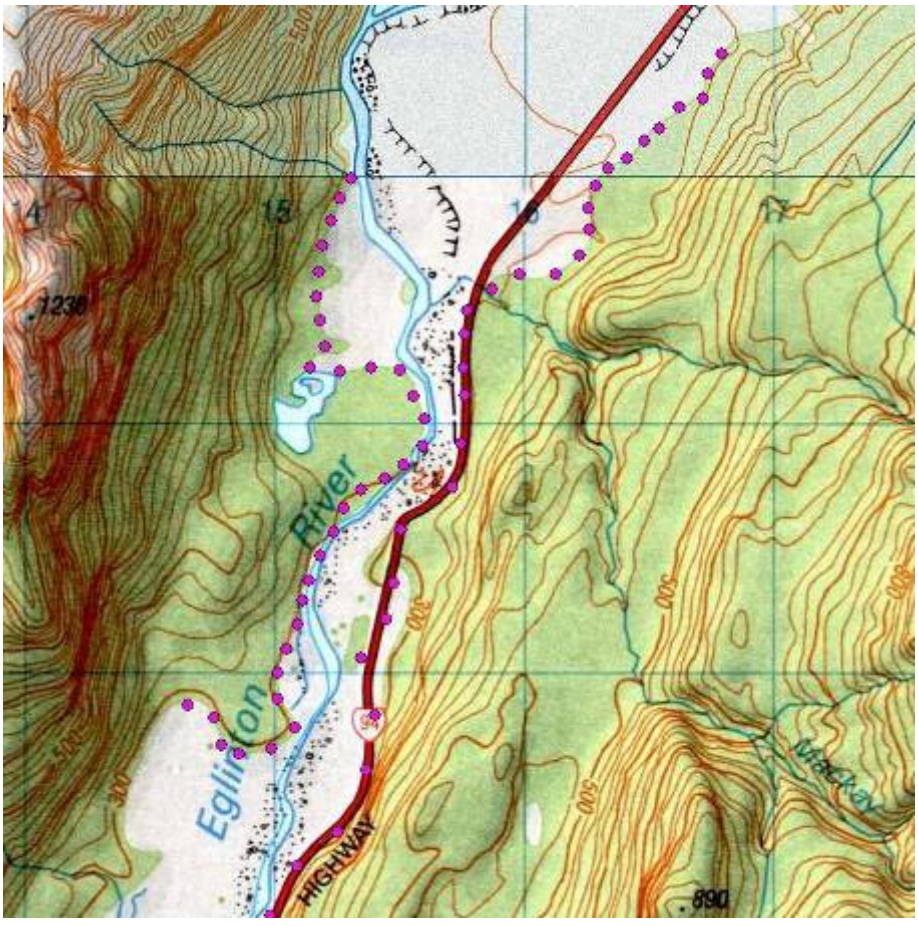


Figure 4- The new stoat trap line on the western side of the valley near Mackay Creek.

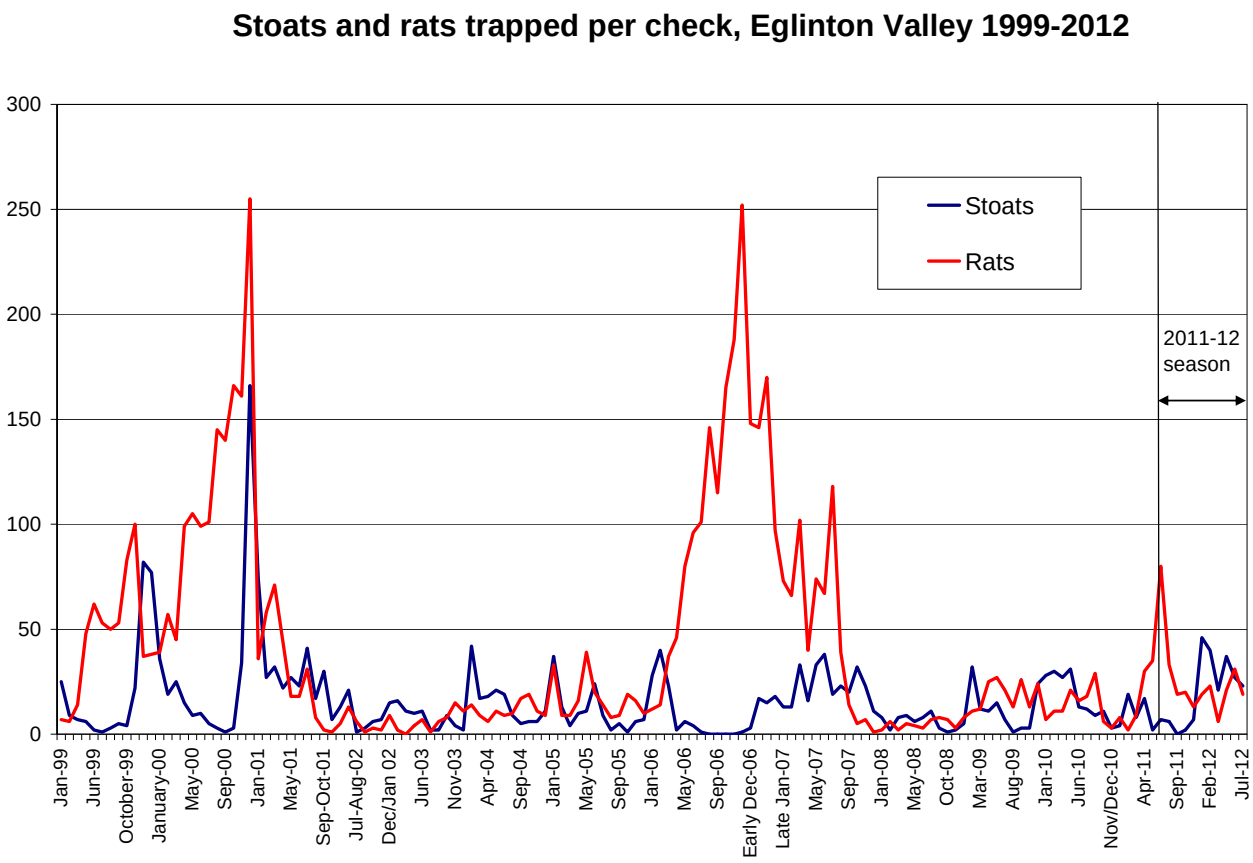


Figure 6- Total stoat and rat captures per check, 1999-2012.

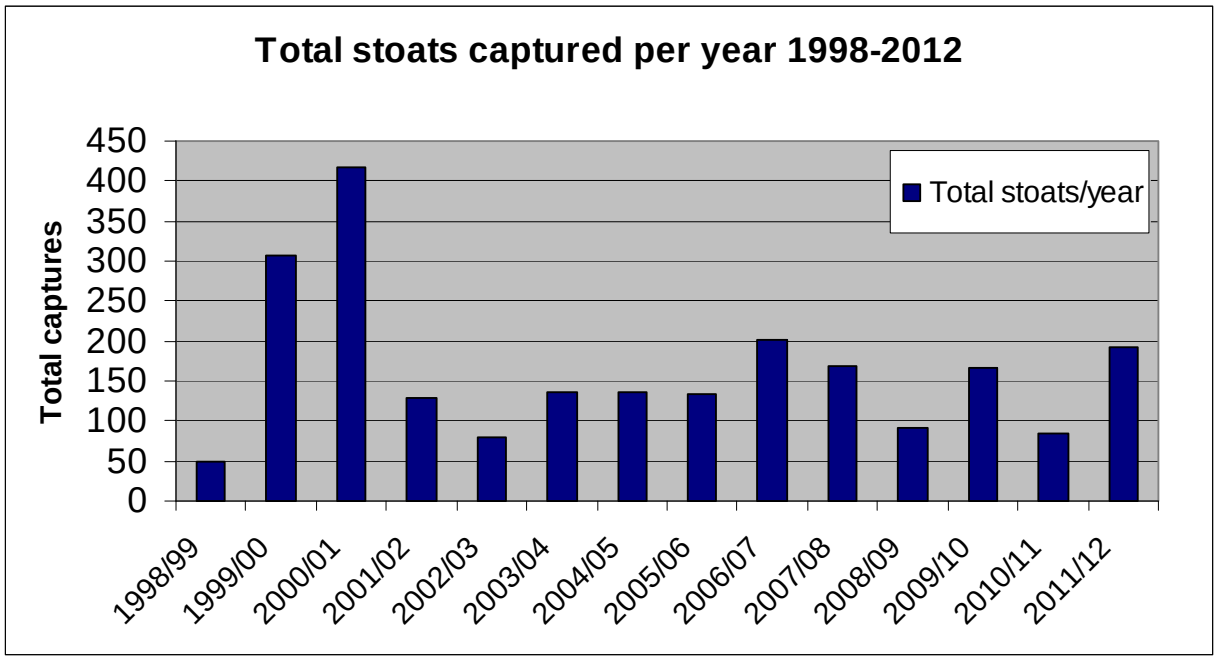


Figure 7- Total annual stoat captures (July-June), 1998-2012.

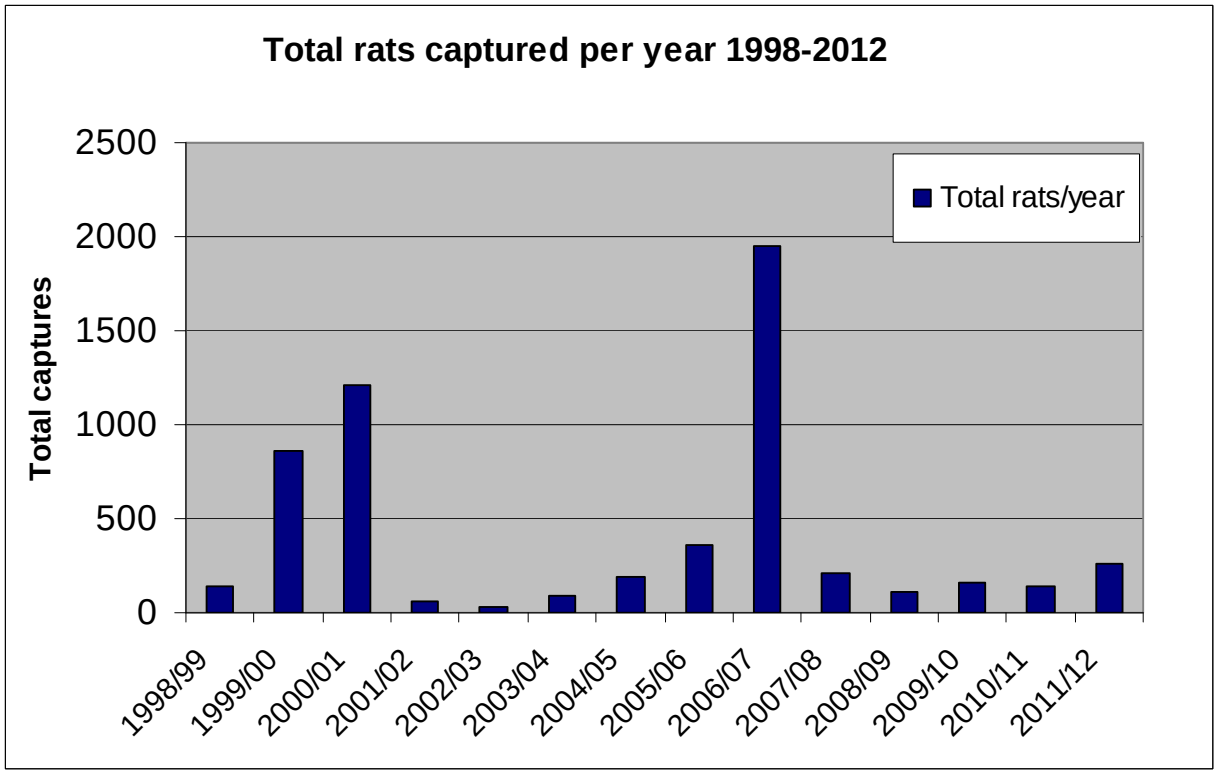


Figure 8- Total annual rat captures (July-June), 1998-2012.

Martin Sliva from True Travel donated seven new Goodnature A24 self-resetting traps to be used in the Eglinton Valley this season (Fig 5). These traps were deployed in May 2012 in two parts of the valley that are away from current stoat trap lines that contain mohua and/or bat roosts (Wesney Creek confluence and Dore Pass track).


Figure 5- Goodnature A24 trap being installed.

# Rat and possum control

Rat and mouse numbers fluctuate in southern beech forest in response to food availability, generally beech seed. Periods of high rat numbers are damaging to a variety of native species, and substantial losses of bats, mohua, and other small forest birds have been recorded following previous rat irruptions (e.g. 1999-2001, and 2006-07).

The level of beech seeding recorded during autumn 2011 in the mid and northern end of the valley was substantial (Fig 2A & 2C), and there was sufficient seed available to drive an increase in rodent numbers heading into winter.

Control of rats was initiated once indicators such as tracking tunnels and trap catch data showed that rat numbers were increasing in response to the seed fall. Cereal pellets containing the first generation anti-coagulant toxin pindone were filled in Philproof-mini bait stations spread across 4800 ha of forest within the valley (bait specifications in Appendix 5). A total of 5300 stations are laid out in an approximate 100 x 100 metre grid through forested areas either side of the valley. This season the bait station area was divided into two blocks – Northern (2520 ha) and Southern (2280 ha) with the boundary near Wesney Creek, see block maps in Appendix 2A and 2B. The servicing of the two blocks was tendered out to contractors, with Stoat and Track being contracted to service the Northern block and Tomau Holdings contracted to service the Southern block.

All stations received an initial fill of 500g of Pindone Pellets plus 3 Feratox pellets (encapsulated cyanide to target possums simultaneously). Baiting in the Northern block began first as this area recorded a heavier seedfall and rat numbers were rising faster than the southern area. The stations in the Northern block were revisited three weeks later and pindone bait was topped up to original level if required. There were two heavy snow falls during mid July and August which extended the number of days required to fill the Northern block. The Southern block received just one fill of bait. All bait was removed from the stations at the end of the operation in February and March 2012.

## Eglinton bait station servicing dates 2011-12

| **Northern Block** | First fill | Second fill | Bait removed |
|---|---|---|---|
| Period start date | 19/07/11 | 11/08/11 | 18/02/2012 |
| Period end date | 10/08/11 | 4/09/11 | 31/03/2012 |

| **Southern Block** | First fill | Bait removed |
|---|---|---|
| Period start date | 29/08/11 | 16/02/2012 |
| Period end date | 4/09/11 | 20/02/2012 |

# Cat control

Wild cats have been present in the Eglinton Valley in low to moderate numbers for several years, and infrequent localised attempts to live capture them in cage traps have been made. Cats have also been captured in stoat trap tunnels as non-target by-catch since the trapping programme began. This season was the second year a concerted effort has been made to trap wild cats.

Twenty eight cat kill-trap sets were installed in 2010 and their maintenance was added to the stoat trap servicing contract. Cat traps are spread between the National Park boundary and Smithy Creek, in areas where cat sign had previously been reported. Three styles of kill-traps are used- double Conibear traps under Philproof covers; modified Timms traps set on the ground; and single Belisle Super-X 220 traps set in 'submarine' or 'chimney' tunnels. The site does not contain ground birds. All designs are considered current Best Practise options and have passed NAWAC tests for cats. Traps were baited with fresh rabbit meat, and were checked ten times during the 2011-12 season.

Table 3- Cat trap capture results 2011/12

| | CAT | HEDGEHOG | BLACKBIRD |
|---|---|---|---|
| 'Twizel' Conibear n = 9 | 1 | 3 | 0 |
| Timms n = 8 | 3 | 0 | 1 |
| Belisle chimney n = 11 | 0 | 0 | 0 |
| TOTAL | 4 | 3 | 1 |

Although four cats were caught in the cat specific traps, there were seven more caught in the older stoat trap tunnels with larger than normal entrance holes in the mesh, suggesting that the best practise kill-traps are possibly less attractive than a simple run through tunnel. Different cat control techniques are being considered for the 2012/13 season including periods of leghold trapping, the use of a cat detection dog, and the use of PAPP is also being considered in the future.

# Predator monitoring results

Monitoring of rodents and mustelids is carried out using a network of tracking tunnel lines following the standard protocol of lines of ten tunnels 50 metres apart described by Gillies & Williams (2005). All predator monitoring results achieved the result targets set for the project. The tracking tunnel lines were monitored six times during the 2011/12 season.

Table 4- Average tracking tunnel monitoring line results 2011/12

| Month | Rats<br>% of tunnels tracked | Mice<br>% of tunnels tracked | Stoats<br>% of lines tracked (10 lines) | Number of rodent lines run |
|---|---|---|---|---|
| Jul-2011 | 21 | 23 | - | 9 |
| North bait station treatment started | | | | |
| Aug-2011 | 5 | 17 | 0 | 28 |
| South bait station treatment started | | | | |
| Sep-2011 | 4 | 41 | - | 21 |
| Nov-2011 | 0 | 41 | 0 | 31 |
| Feb-2012 | 1 | 73 | 0 | 16 |
| All bait removed from stations | | | | |
| May-2012 | 1 | 69 | - | 29 |

Full tracking tunnel line results are available in DOCDM-74961.

DOC Science & Technical staff also ran rodent tracking tunnel grids at the Walker Creek, Knobs Flat, and Plato Creek study sites three times during the 2011/12 season (table 5). Each study site is approximately 100 hectares, and contains tracking tunnels in a 150 x 150 metre grid. Tunnels are run for one night baited with peanut butter.

**Table 5- Average rodent tracking tunnel grid results 2011/12**

| | Walker Creek (n=50) | | Knobs Flat (n=41) | | Plato Creek (n=50) | |
|---|---|---|---|---|---|---|
| | Rats | Mice | Rats | Mice | Rats | Mice |
| Aug-2011 | 2% | 4% | 0% | 27% | 4% | 18% |
| Bait stations started | | | | | | |
| Nov-11 | 0% | 27% | 0% | 71% | 0% | 68% |
| Feb-12 | 0% | 43% | 0% | 88% | 0% | 80% |

Possum population monitoring was not carried out following the possum control operation within the 4800 ha bait station block this season. The last time a similar combined rat and possum control operation was done using pindone and Feratox pellets in 2009 it resulted in a post control result of 0.4% RTC.

# Outcome Monitoring

## Short-tailed bats

Annual monitoring of short-tailed bats was undertaken during January 2012 by DOC Te Anau Area and Science & Technical staff. A total of 220 new bats were PIT tagged during the 2012 season, bringing the total number marked to 1285 since the tagging programme began in 2006. Automatic data loggers were used to record PIT tagged bat activity at selected roost sites. Program MARK was used to generate annual survival estimates using the tagged individual bats recorded by the data loggers positioned on roost entrances (Fig 9). The lower survival rate in 2008 probably reflects the high rat numbers in 2007. The slightly lowered survival in 2011 may reflect the increase in rats which were subsequently controlled in August 2011. (M. Pryde *pers comm.*).

Video counts of bat exiting roost cavities were repeated during the 2012 season. A total of fifteen video counts were made at six known communal roost trees across the river from Knobs Flat. One new roost tree was found this season (M43), bringing the total number of short-tailed roost tree discovered to 88, mostly between Wesney Creek and Lake Gunn. The highest video count of bats exiting a single roost tree during the 2012 season was 927 (Fig 10). See Edmonds (2012) for more details of the bat monitoring programme and Appendix 1 for roost locations.

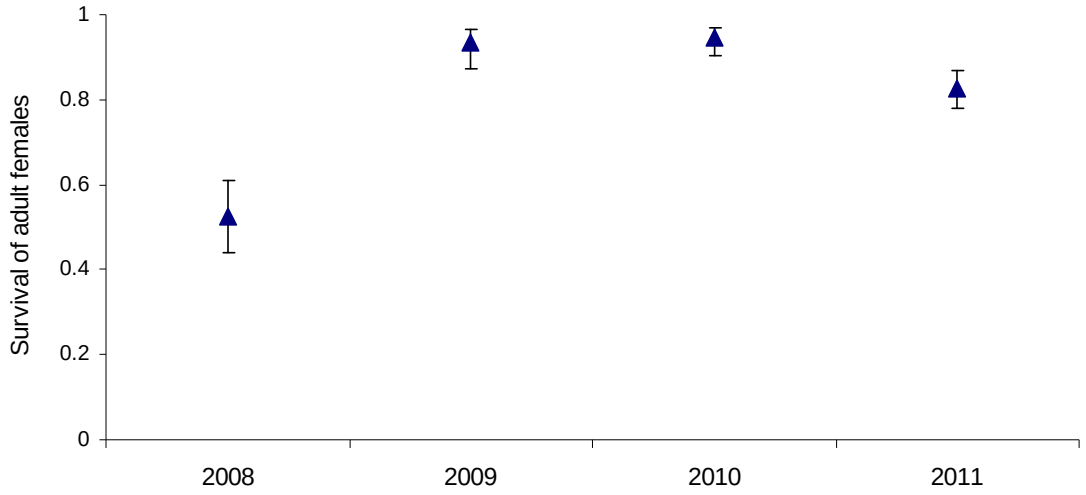


Figure 9- Annual survival of PIT tagged adult female short-tailed bats generated using Program MARK.

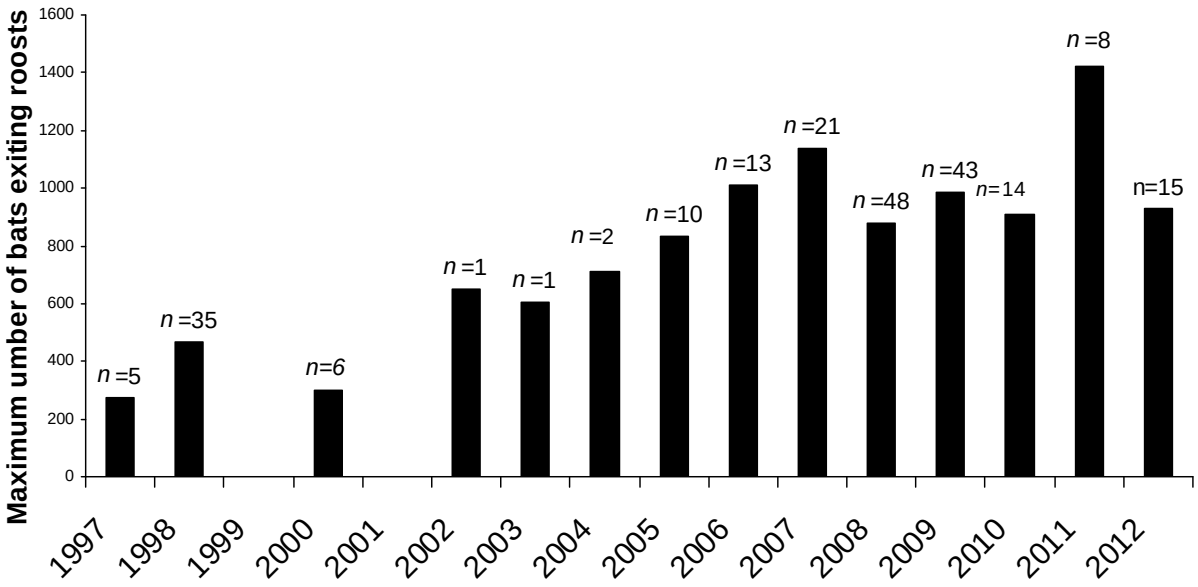


Figure 10- Maximum number of ST bats exiting roosts during video count monitoring 1997-2012. Numbers above bars indicate total number of video counts conducted each year.

## Long-tailed bats

Groups of long-tailed bats have been monitored in the Eglinton Valley for several years, and their survival has been linked with fluctuating predator levels driven by annual beech seed production (Pryde, O'Donnell, & Barker 2005). A population viability analysis was estimated using mark-recapture data from 1993 to 2012 using Program MARK. The survival of juvenile and adult female long-tailed bats along with the proportion of females breeding each year for one social group was recorded and modelled using an age-classified population projection matrix. The survival figures were averaged over two time periods; (i) before 2006 when there was no rat management and five mast events and (ii) after 2006 when there was rat management and three mast events. The intrinsic rate of increase, $\lambda$, was calculated for both time periods and the results were projected over a 25 year scenario (Fig. 11). The confidence intervals were calculated using the variation of survival figures within each time period. The intrinsic rate of increase for the time period with rat management is >1.0 ($\lambda$ =1.09) therefore the population increases, whereas the rate of increase for the time period without rat management is <1.0 ($\lambda$ =0.98) causing a decline in the population (Pryde 2012). These predicted trends are based on a start point of 70 adult females for this social group.

Known roost locations of long-tailed bats are shown in Appendix 1.

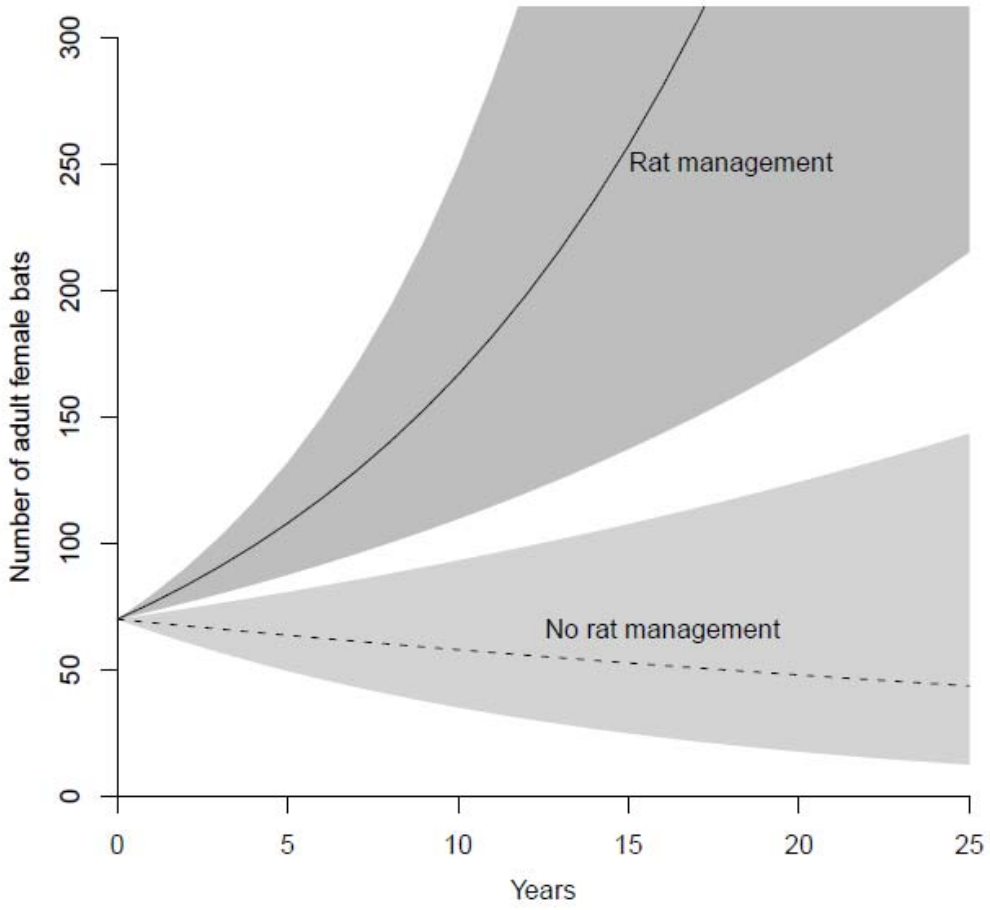


Figure 11. Predicted trends in numbers of female long-tailed bats in the Eglinton Valley over 25 years with and without management of rats (From Pryde 2012).

## Mohua

In October 2010 69 mohua were transferred from Chalky Island in southwest Fiordland to the Eglinton Valley. The transfer was to supplement the existing small mohua population that was present in the valley prior to the release (18 known original valley birds).

There were 66 adult mohua found at the start of the 2011/12 breeding season- 27 pairs, 8 helpers, and 4 single males. There were 38 nests found, 23 first clutches and 15 second clutches. Thirty nests successfully fledged chicks, five nests failed, and three had unknown outcomes (likely to have been unsuccessful). There were at least 73 fledglings produced this season, and at the end of the breeding season there were 139 known mohua in the valley. All known mohua territories extend from near Wesney Creek up to the top of Lake Gunn (Fig 11). A full description of the mohua monitoring results is available in van de Wetering & van de Wetering (2012).

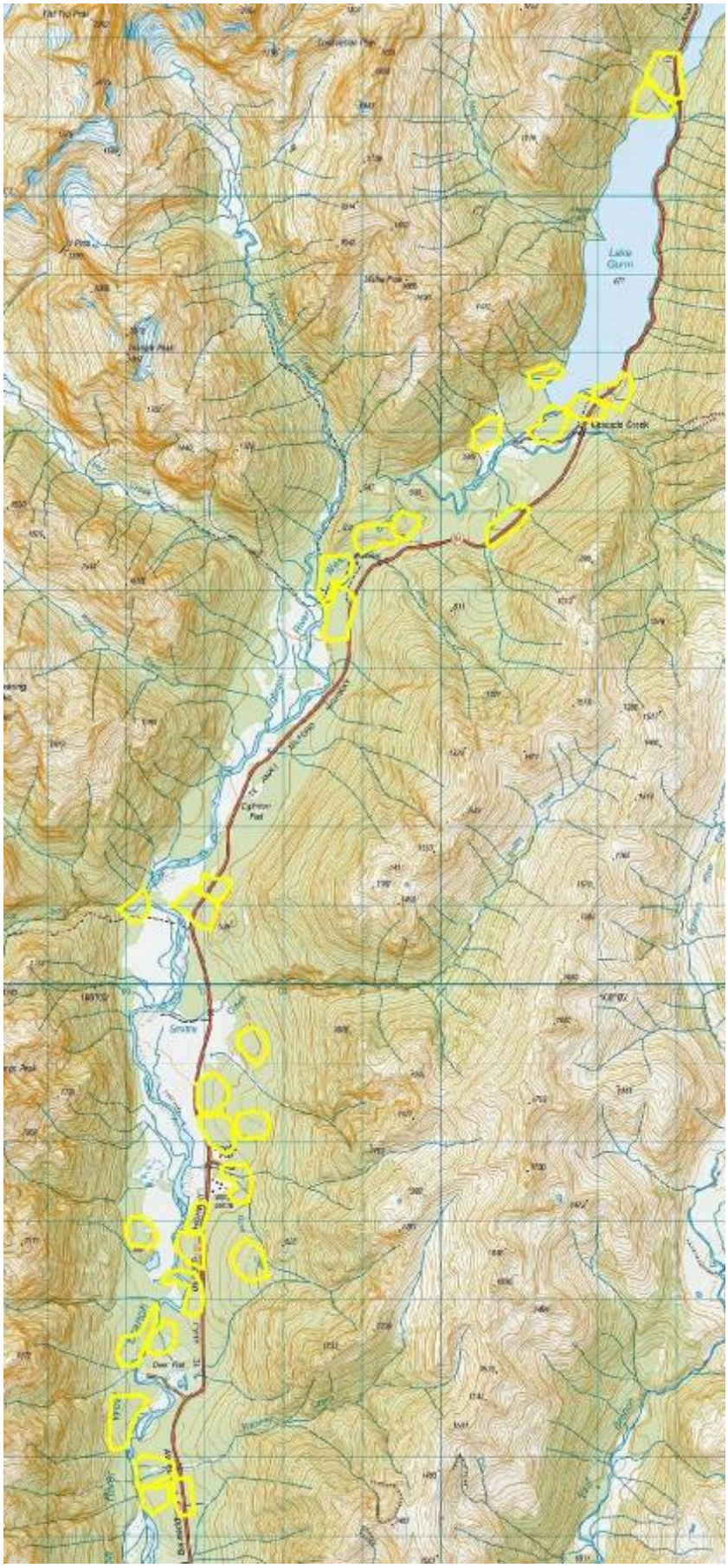

Figure 11- Location of known mohua territories 2011/12.

# Budget 2011/12

| | |
|---|---|
| **Stoat/cat control & predator monitoring** | |
| Salary (Part of two staff) | $33,660 |
| Monitoring wages | $3,650 |
| Trapping contractor | $8,080 |
| Trap bait | $650 |
| **Total** | **$46,040** |
| **Rat/possum control** | |
| Toxic bait North Block | $9,853 |
| Toxic Bait South Block | $8,001 |
| Servicing contractors North Block | $33,974 |
| Servicing contractors South Block | $19,450 |
| Safety gear, signs, general supplies | $3,050 |
| Bait disposal and transport | $8,407 |
| **Total** | **$82,735** |

# Plans for 2012/13

- Continue stoat trapping. Trap checks will be tendered out to contractors and at least 10 trap rounds will be made during the year. Monthly checks during summer months.
- Continue cat kill-trapping, plus investigate periodic leghold trapping, cat detection dog use, and PAPP operation.
- Continue to monitor beech seed fall amounts between February and May annually as a tool for predicting rodent irruptions.
- Continue to monitor rodent levels using tracking tunnels quarterly as a minimum, and more often if rat control is possibly required.
- Initiate rat control within the 4800 ha bait station block if beech seed fall, rodent monitoring, and trap catch indicates that a rat irruption is likely to occur.
- Continue to monitor mustelid levels using tracking tunnels quarterly. The value of continuing this will be assessed.
- Continue to monitor short-tailed & long-tailed bats, and mohua (combined efforts of Te Anau area staff and DOC Science & Technical staff).

# Acknowledgements

A large number of people have been involved with the Eglinton Valley for several years across a variety of projects. Te Anau Area staff who have contributed to the programme this year included Shinji Kameyama, Keri Antoniak, Erina Loe, Hannah Edmonds, Gerard Hill, Warren Simpson, Lindsay Wilson, and Linda Kilduff.

Colin O'Donnell, Peter Dilks, Terry Greene, Lynette Hartley, Jo Hoare, Jason and Maddie van de Wetering and others from DOC Science & Technical put in many long hours on the species monitoring programme. Thanks in particular to Moira Pryde for analysing and supplying bat survival estimates.

Thanks to Flying Dutchman Wildlife Management who were contracted to do most of the stoat and cat trap checks through the season. Contractors from Stoat & Track Ltd and Tomau Holdings completed the bait station servicing. Thanks also to Martin Sliva from True Travel Ltd who donated seven A24 self-resetting stoat traps that were set out in the valley during the 2011/12 season. Thanks to PC Taylor from Knobs Flat Accommodation for his ongoing support and assistance.

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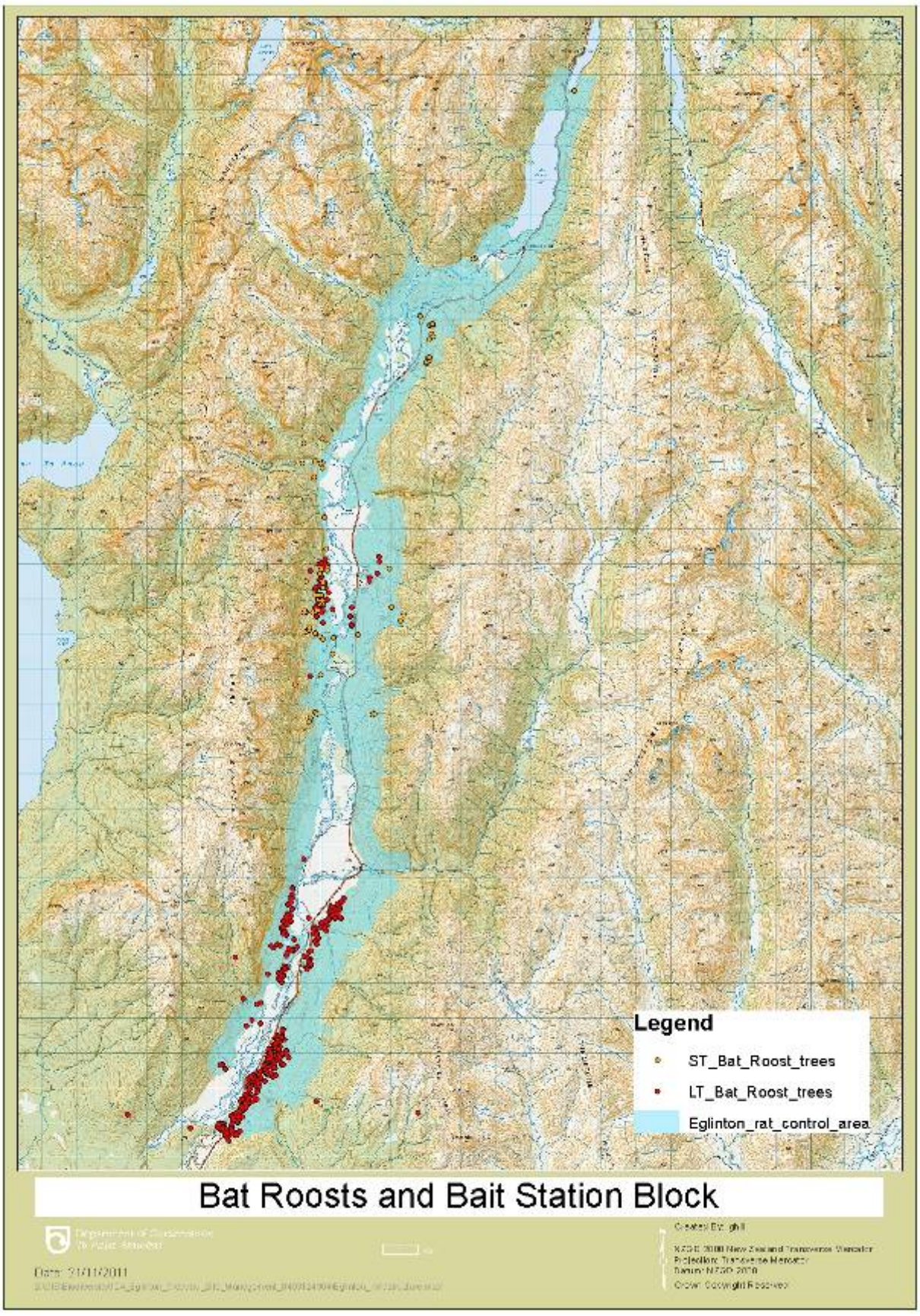
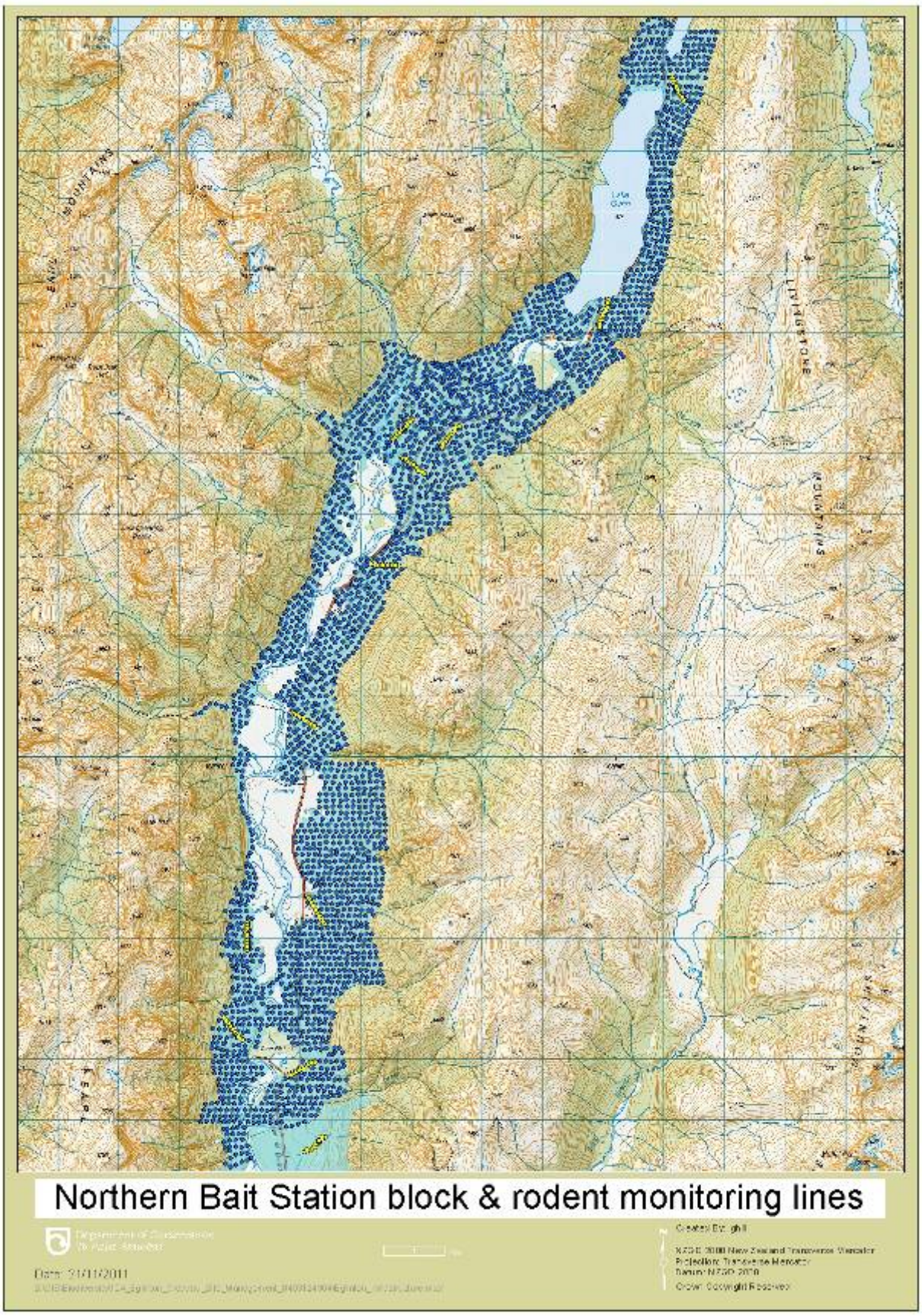
Pestlink report reference- Stoat & cat control- 1112TEA03

Pestlink report reference- Rat & possum control- 1112TEA05

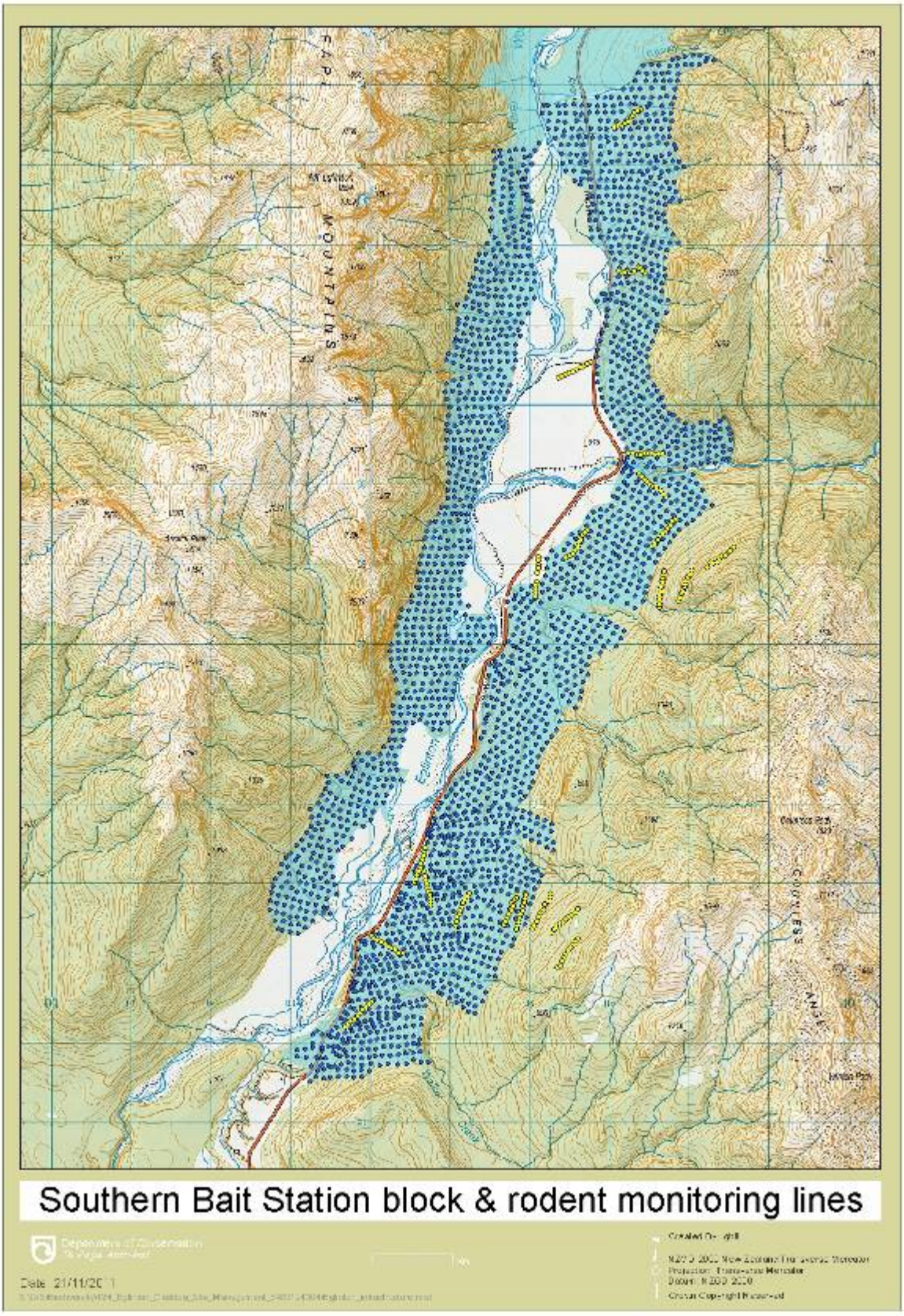
# Appendix 1


Legend
ST_Bat_Roost_trees
LT_Bat_Roost_trees
Eglinton_rat_control_area
Bat Roosts and Bait Station Block

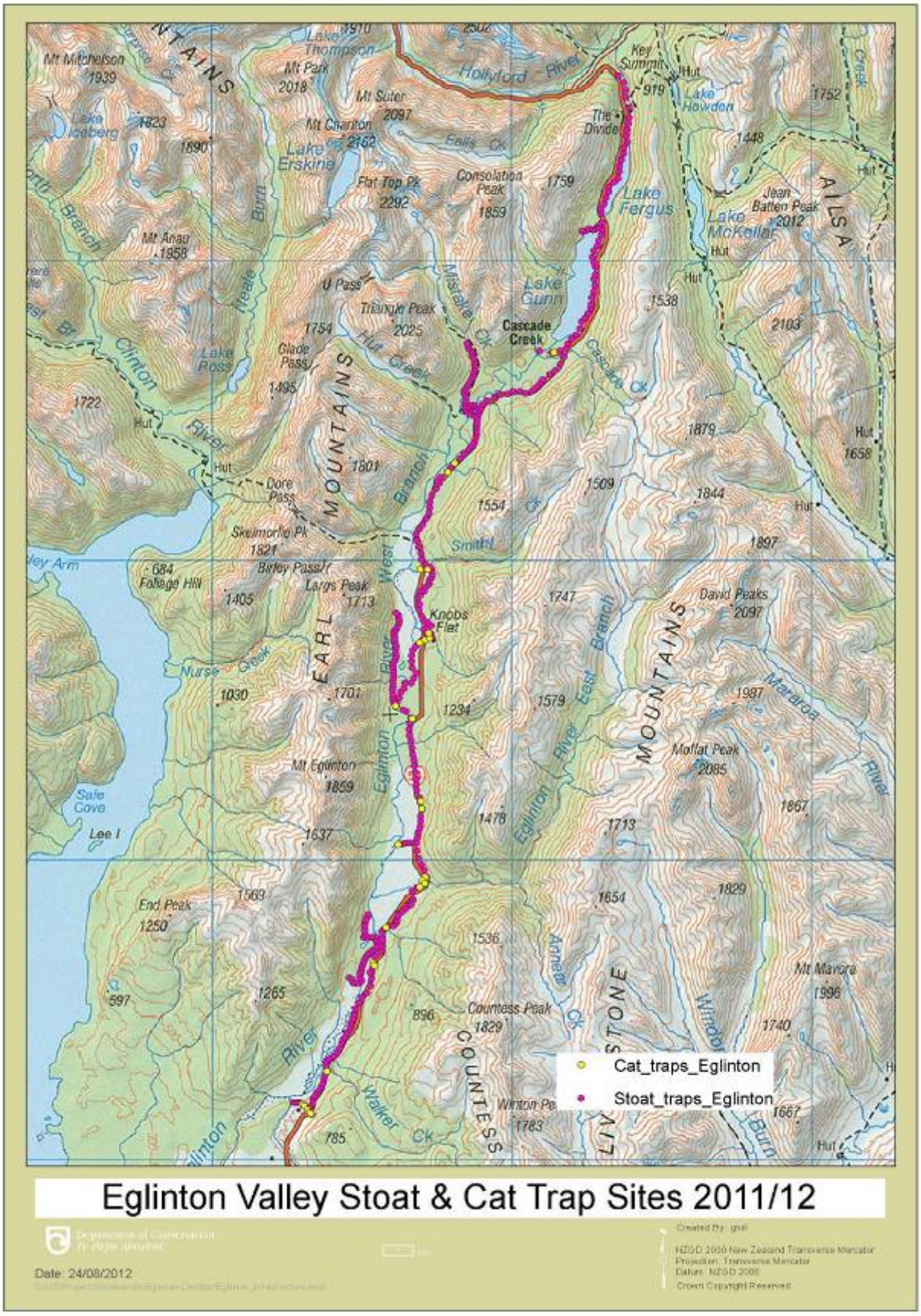
# Appendix 2A



# Appendix 2B



# Appendix 3


Cat_traps_Eglinton
Stoat_traps_Eglinton
Eglinton Valley Stoat & Cat Trap Sites 2011/12
Date: 24/08/2012
Mt Mitchelson 1939
Lake Thompson
Mt Park 2018
Hollyford River
Key Summit 919
Lake Howden
Mt Suter 2097
Mt Charlton 2152
Lake Iceberg
Lake Erskine
Falls Ck
The Divide
Flat Top Pk 2292
Consolation Peak 1859
Lake Fergus
Jean Batten Peak 2012
Lake McKellar
Mt Anau 1958
U Pass
Lake Gunn
Mistake Ck
Cascade Creek
Triangle Peak 2025
Glade Pass
Hut Creek
Lake Poss
Clinton River
Dore Pass
Skelmorlie Pk 1821
Birley Pass/Pr
Largs Peak 1713
Knobs Flat
Nurse Creek
Mt Eglinton 1859
Eglinton River
Safe Cove
Lee I
End Peak 1250
Countess Peak 1829
Annear Ck
Walker Ck
Mt Mavora 1996
Moffat Peak 2085
David Peaks 2097
Earl Mountains
Livingstone Mountains
Countess
Hut

# Appendix 4

Trap capture results 2011/12

| MONTH | STOAT | RAT | WEASEL | CAT | Hedgehog | OTHER* |
|---|---|---|---|---|---|---|
| JULY 2011 | 7 | 80 | 1 | 2 | 0 | 0 |
| AUG 2011 | 6 | 33 | 0 | 0 | 0 | 1 |
| SEPT 2011 | 0 | 19 | 2 | 1 | 2 | 2 |
| OCT 2011 | 2 | 20 | 0 | 0 | 1 | 3 |
| DEC 2011 | 7 | 13 | 0 | 1 | 2 | 8 |
| JAN 2012 | 46 | 19 | 0 | 1 | 1 | 3 |
| FEB 2012 | 40 | 23 | 0 | 2 | 2 | 4 |
| MAR 2012 | 21 | 6 | 0 | 0 | 1 | 3 |
| APRIL 2012 | 37 | 21 | 0 | 0 | 1 | 1 |
| JUNE 2012 | 27 | 31 | 1 | 4 | 0 | 4 |
| **TOTAL** | **193** | **265** | **4** | **11** | **10** | **29** |

*Other includes mouse, possum, bird, or rabbit. Full details are recorded in DOCDM-212559.

# Appendix 5

## Bait specifications

Pindone Pellets

Cylindrical cereal pellets containing 0.5 g/kg pindone

Pellet size – 2g, 11 x 18 mm

Colour – Green

Lure – Cinnamon

Supplier – Pest Management Services, Christchurch

Feratox Pellets

Hard spherical pellet containing 475 g/kg potassium cyanide paste encapsulated

Outer coating – Non-toxic prefeed

Pellet size – 7mm sphere

Colour - Blue/green

Supplier – Connovation, Auckland