

# Waitutu Update

Jan 2022

Sara Larcombe



## **Summary:**

This update summarizes the recent monitoring work conducted in the Waitutu forest, and the changes to the management of the forest following a reduction in funding.

Recent reductions to the core funding available to the DOC Te Anau Operations Group has meant that the frequency of trapping and monitoring trips into the Waitutu has been reduced to two trips per year.

## **November monitoring trip:**

From 16-28 November a team of DOC staff and volunteers conducted bird counts and serviced traps, tracking tunnels and seedfall trays in the Waitutu forest.

## **Tracking Tunnels:**

Tracking tunnel lines serviced from Waitutu Hut and Grant Burn were put out for rodents on Nov 17<sup>th</sup>, retrieved and swapped to mustelids on Nov 18<sup>th</sup>, and brought in on the 21<sup>st</sup>.

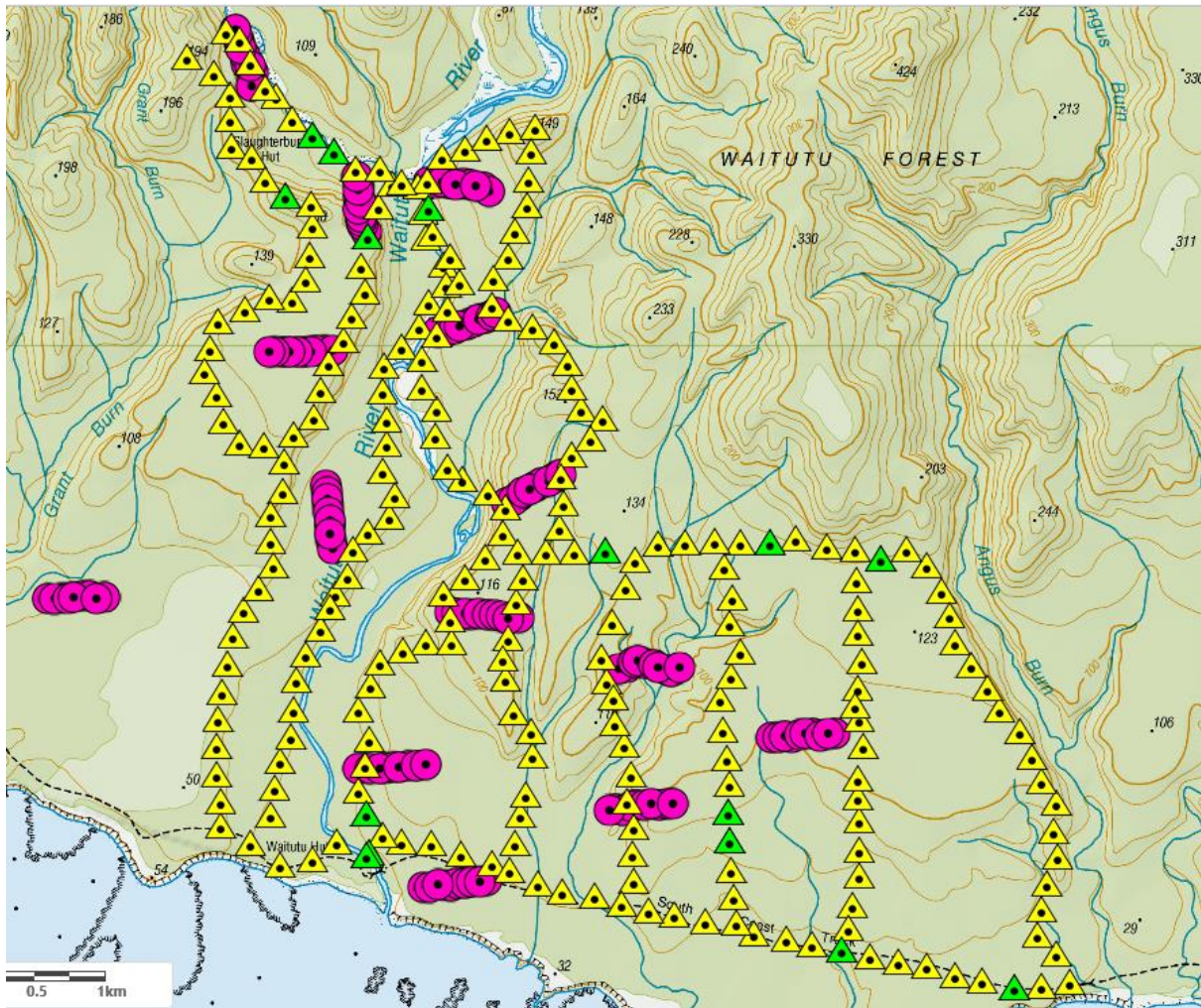
Tracking tunnels at Poteriteri, Slaughterburn and Crombie were set up for rodents on the 23<sup>rd</sup> Nov then collected on the 24<sup>th</sup> when they were set up for mustelids. The papers for the mustelid survey were pulled in on the 27<sup>th</sup> of November.

Tracking rates across both periods across all lines were extremely low. No rodents were tracked during the rodent survey. During the mustelid survey tracking rates a single unidentified mustelid was tracked at Poteriteri. Possums pulled out one of the cards at Slaughterburn.

## **Stoat traps:**

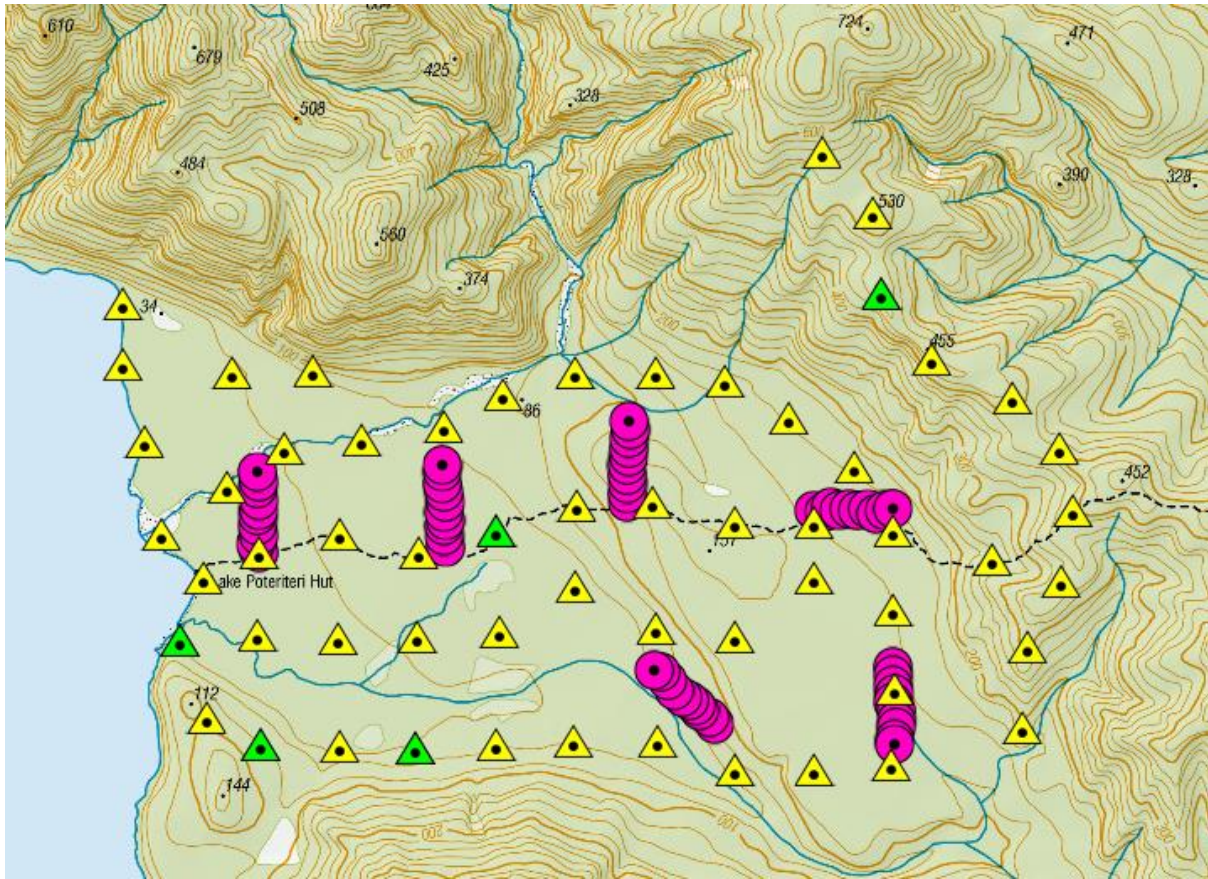
All traps on the stoat trap network were checked, cleared, and rebaited with salted rabbit.

Trap catches are indicated on the below maps via the green triangles. Trap catches were low for rodents and mustelids. Trap catch was low.



Waitutu area all trap catches (green triangles) map Nov 2021 (the pink circles show the location of the tracking tunnel lines).

Waitutu: 251 traps checked in Nov (S/burn, G/burn, Waitutu)					
	Aug 2020	Nov 2020	Feb 2021	May 2021	Nov 2021
<b>Mice</b>	0	0	0	2	1
<b>Rats</b>	14	3	6	6	7
<b>Stoats</b>	20	6	7	3	8
<b>Weasels</b>	6	0	0	0	0
<b>TOTAL</b>	40	9	13	11	16



Poteriteri all trap catches (green triangles) map Nov 2021 (the pink circles show the location of the tracking tunnel lines).

<b>Poteriteri: 58 traps checked in Nov</b>					
	Aug 2020	Nov 2020	Feb 2021	May 2021	Nov 2021
<b>Mice</b>	1	0	0	0	0
<b>Rats</b>	3	3	4	3	1
<b>Stoats</b>	6	8	2	3	4
<b>Weasels</b>	1	3	0	0	0
<b>Unidentifiable</b>				0	0
<b>TOTAL</b>	11	14	6	6	5

### November 2021 Bird Lists:

Lots of kaka, robins, and kereru in particular. In addition to the bird lists, kea surveys were performed at several sites.

Species	Pot	Crom	SB	Y22	GB	Comment
SI pied oystercatcher						
Variable oystercatcher						
Grey duck	Y					
Mallard	Y					
Paradise shelduck			Y	Y		
Black shag	Y		Y	Y		
Pied shag			Y	Y		
White-faced heron						
Pipit						
NZ falcon	Y		Y	Y		
Kereru	Y	4	Y	Y		
Kea	Y		Y	Y	1	
Kaka	Y	6+	Y	Y	6	3x pairs at Grantburn
YC parakeet				Y		
Parakeet spp.	Y		Y			
Ruru	Y			Y		
Rifleman	Y		Y	Y		
Grey warbler	Y		Y	Y		
Bellbird	Y	6+	Y	Y		
Tui	Y	4+	Y	Y		
Mohua						
Brown creeper	Y			Y		
Long-tailed cuckoo	Y	4	Y	Y		

Fantail	Y	6+	Y	Y		
SI tomtit	Y	2	Y	Y	4	
SI robin	Y	6+	Y	Y	6+	
Silvereeye	Y			Y		
Blackbird	Y		Y	Y		
Song thrush	Y			Y		
Starling						
Chaffinch	Y		Y	Y		
Greenfinch	Y		Y			
Redpoll	Y			Y		
Goldfinch						
Dunnock	Y			Y		
Kingfisher				Y		
Fernbird						
Black-backed gull	Y					
Black-billed gull						
Canada Goose	Y					
Shining cuckoo			Y			

### Five Minute Bird Counts

Each November five-minute bird counts are conducted at 758 stations throughout the Waitutu forest. Mean counts by species over the past 15 years are shown below (2021 figures not included) (figures 1 and 2).

Since trapping and aerial 1080 operations began, kaka have increased significantly, from 6 males for every female, to a healthy 1.7 males for every 1 female. Toutouwai (robin) numbers are thriving, and sightings of NZ falcons are increasing. General forest abundance of native species has increased.

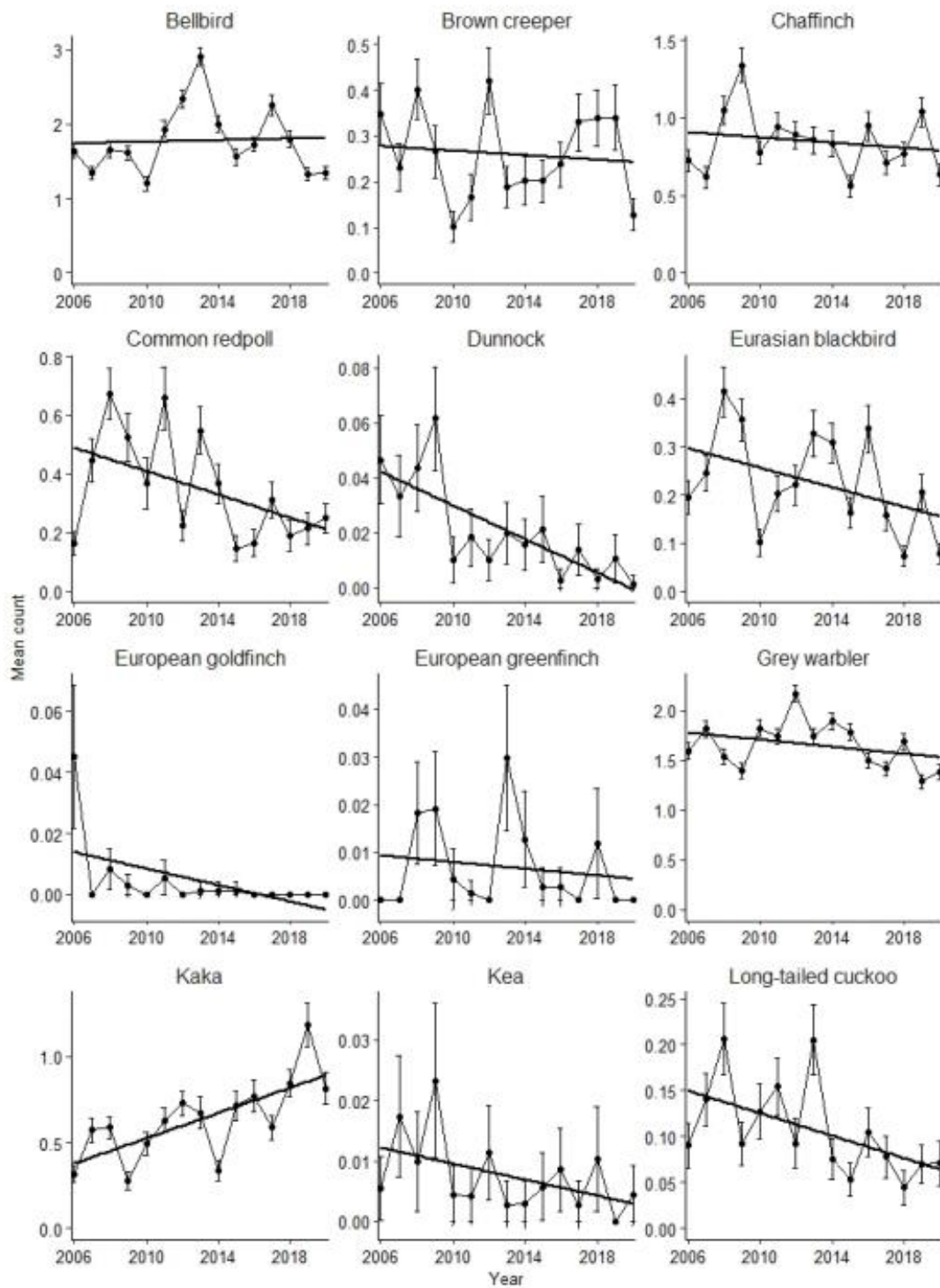


Figure 1: 5MBC mean counts by species, 2006-2020.

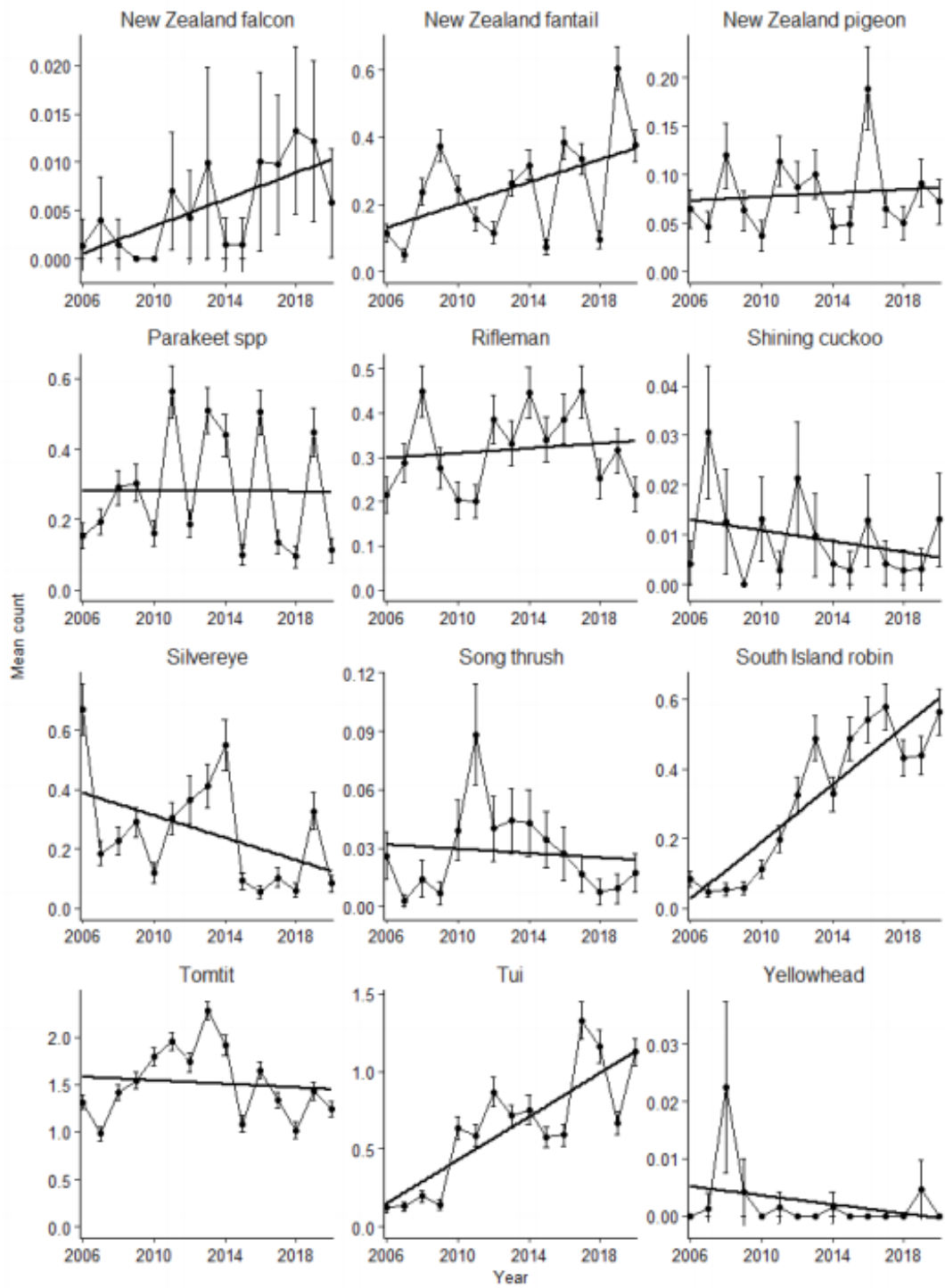


Figure 2: 5MBC mean counts by species, 2006-2020.

### Detailed species response analyses:

More detailed analyses of the trends of several species of interest are underway currently, again based on 5MBC data. These analyses are split into the two monitoring sites (Waitutu and Poteriteri), as some species show differing trends at each of the two sites.

The numbers of fantails show a similar trend at both sites, with a more rapid increase at Lake Poteriteri (figure 3).

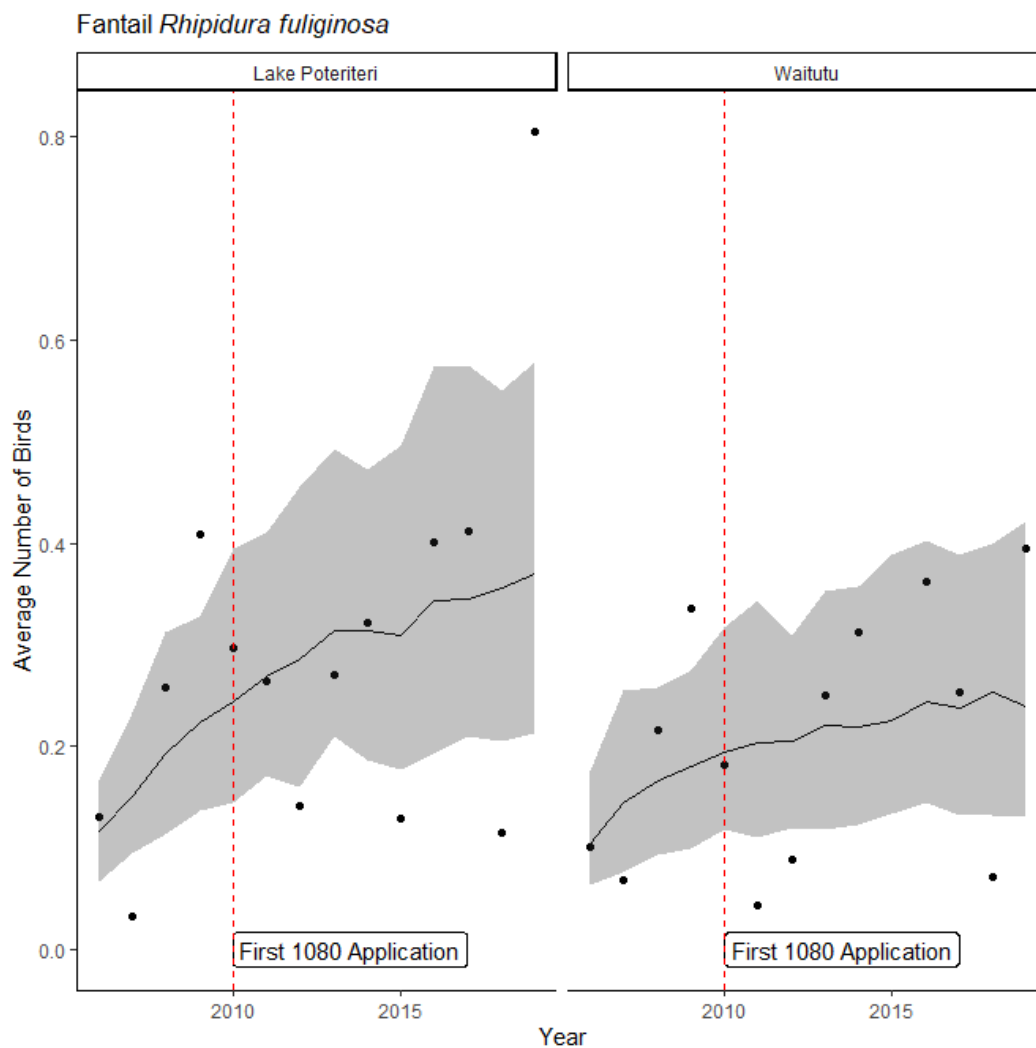


Figure 3: fantails counted during 5MBCs, 2006-2020.

Bellbird numbers show a pronounced increase following the application of 1080 in 2010 at Waitutu, whereas bellbird numbers at Poteriteri remain constant (figures 4 and 5).

Robin numbers have increased substantially at Lake Poteriteri before plateauing in recent years; whereas at Waitutu the increase has been more gradual (figure 6). At both sites robin increases have been localized to specific areas (figure 7).



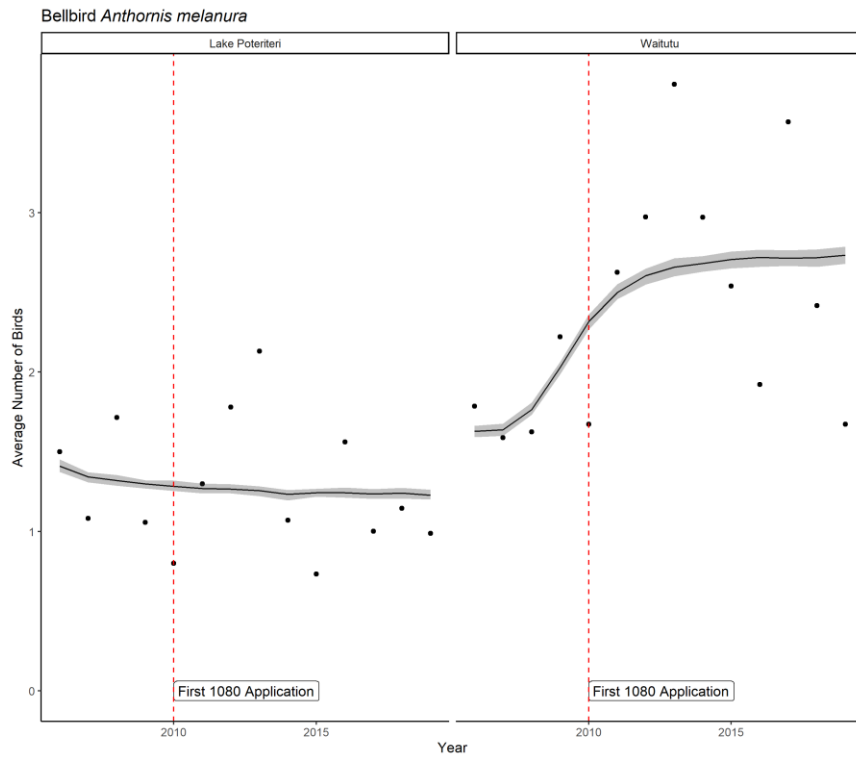


Figure 4: average number of bellbirds counted in 5MBCs at Lake Poteriteri and Waitutu, 2006-2020.

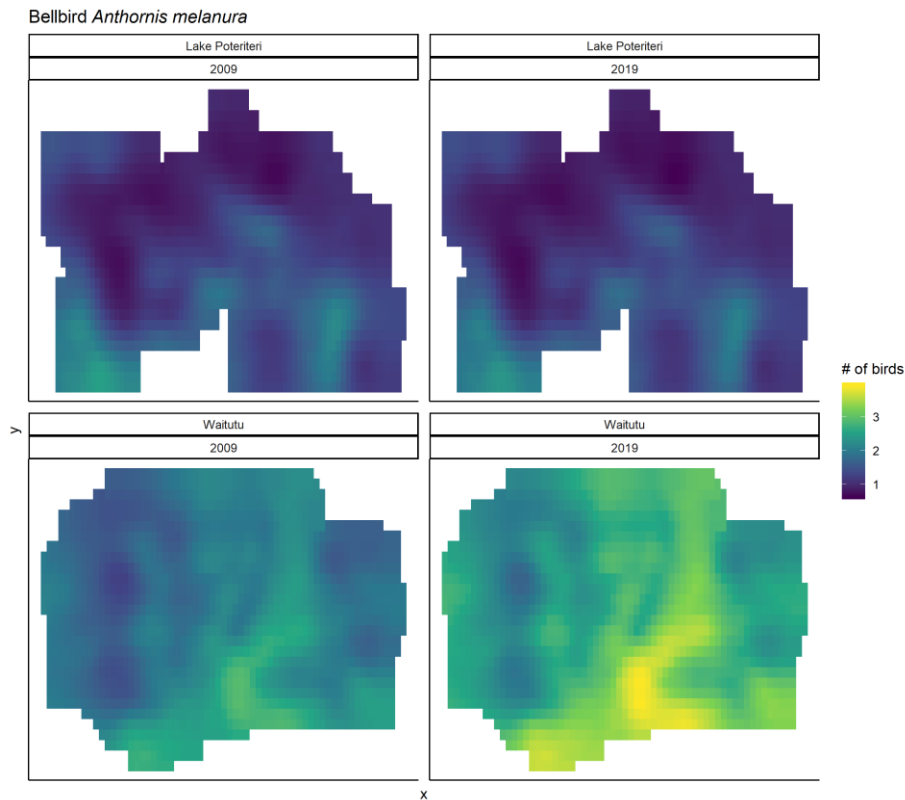


Figure 5: bellbirds counted by grid square in 5MBCs at Lake Poteriteri and Waitutu, 2009 and 2019.

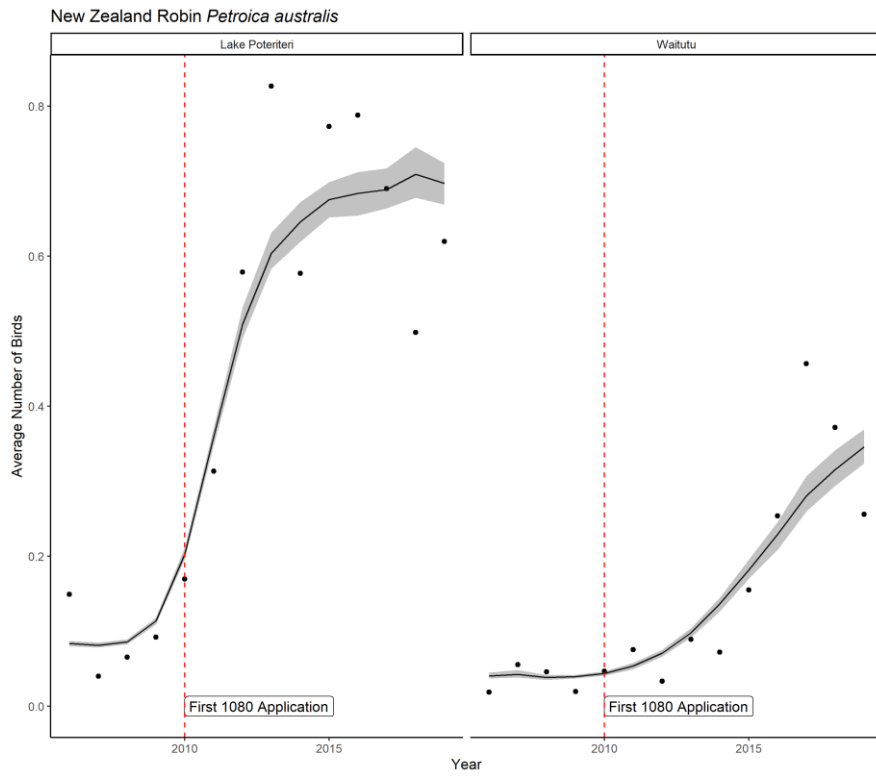


Figure 6: average number of robins counted in 5MBCs at Lake Poteriteri and Waitutu, 2006-2020.

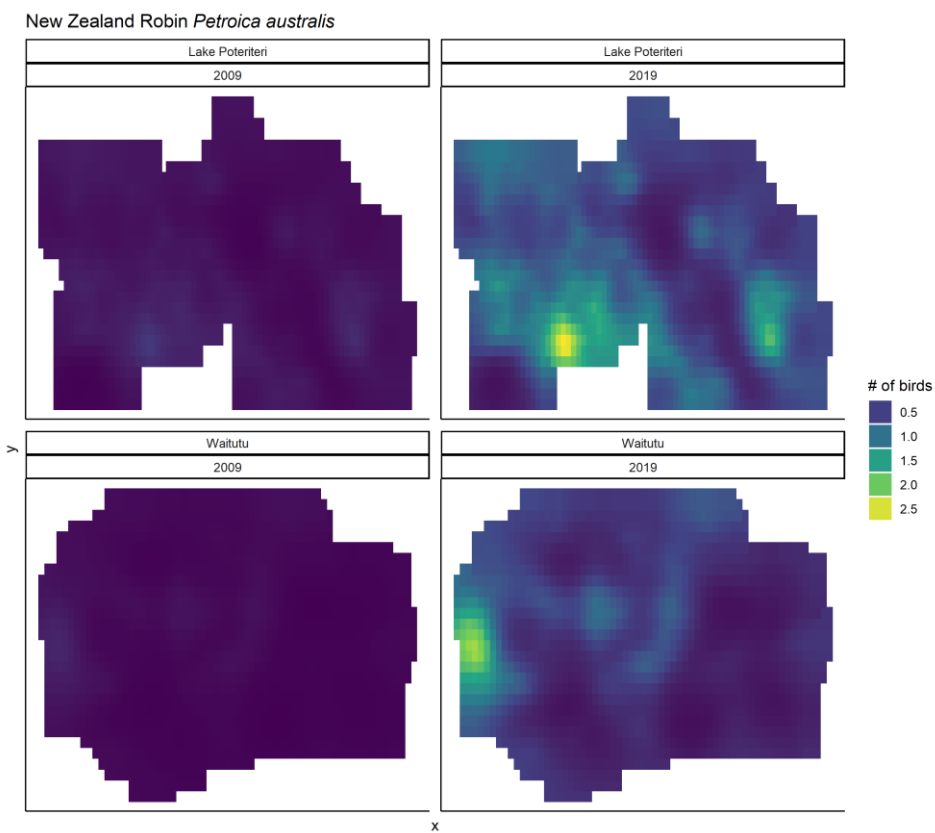


Figure 7: robins counted by grid square in 5MBCs at Lake Poteriteri and Waitutu, 2009 and 2019.

### **Changes in management:**

DOC has been carrying out ongoing pest animal control over parts of Waitutu Forest since the Department was established in 1987. Pest control activities have become more extensive since 2010 when the Nature Heritage Fund (NHF) provided funding to protect the SILNA lands. At the end of the 20/21 financial year, pest control comprised 4,600 ha of mustelid trapping. 22% of the trap network lies on SILNA land. The trapped areas lie within a periodic Tiakina Nga Manu 1080 block that had recently expanded to 63,000 ha. This work was funded partly through Operations Group (Te Anau District) and partly through Biodiversity Group (Design & Evaluation Team).

The pest control model in Waitutu Forest has enabled notably successful recovery of native bird populations including kākā and toutouwai/robins. Advice from Biodiversity Group scientists is that a combination of periodic 1080 and ongoing trapping provides the greatest benefit.

In August 2021, Te Anau Operations received a large reduction in core funding for Biodiversity work as part of the 21/22 business planning process. In this context, one of the work programmes nominated to be turned off was the trapping and monitoring work funded through the Operations Group in the Waitutu Forest. This included turning off all the trapping and monitoring work funded by the district in the Waitutu Forest (\$52,000), thus reducing this work from four checks per annum to two.

The DOC Biodiversity Group (Design and Evaluation Team) fund the remaining two monitoring trips in the Waitutu. This work is currently under consideration to be stopped for cost savings, as part of a separate process run by Biodiversity Group.

The Tiakina Nga Manu programme of periodic 1080 in the area is not affected by the funding reductions. Operations and Biodiversity staff consider that the greatest benefit is brought by the 1080 operations, but that the trapping makes an important contribution and altering this programme will impact the ecological recovery of the area.

A 1080 operation in the area is proposed for spring 2022. Although rodent and stoat numbers are currently very low, we expect them to rise rapidly in response to a mast seeding event this autumn. A separate consultation process will be undertaken relating to this operation.