





Zealandia Halo Site: Rodent Monitoring Report

February 2019



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Summary

This report presents the results of the rodent monitoring conducted in the Halo area around Zealandia in February 2019.

Key results of the rodent monitoring were:

- No rats or mice were encountered in this monitor.

1. Introduction

The “Halo” area adjacent to the Zealandia ecosanctuary is maintained as a pest buffer area to the ecosanctuary. Monitoring is carried out in this area to determine the effectiveness of pest control in the Halo.

The purpose of this monitoring is to:

- Identify changes in populations of small mammals over time
- Provide a trigger for management responses to changes in small mammal populations
- Report on the effectiveness of the current small mammal control regimes in forest ecosystems in relation to small mammal population levels

2. Methods

Monitoring is conducted in February and August each year using seven lines of ten tracking tunnels each. Lines are spread across three Halo sites, the Bargh’s (n = 2), Long Gully (n = 2) and Wright’s Hill (n = 3). Monitoring follows the standard Department of Conservation (DOC) [Gillies & Williams (2013)¹] protocol, with one adaption: the peanut butter used for rodent monitoring is placed in the centre of the tracking cards rather than at each end as specified in the DOC protocol.

Rodent monitoring takes place over one dry night. The rodent tracking tunnel index (TTI) for each area is calculated as the percentage of tunnels that rats or mice are tracked at along each line of tracking tunnels. This is averaged across the lines monitored across each site to give a TTI for the site.

Note that this method only provides a coarse index of the relative abundance of rodents and is not a direct measure of their population density. The method is best suited to comparing gross changes in the relative abundance in the same area over time.

¹ Gillies CA and Williams D. 2013. *DOC tracking tunnel guide v2.5.2: Using tracking tunnels to monitor rodents and mustelids*. Department of Conservation, Science & Capability Group, Hamilton, New Zealand (<http://www.doc.govt.nz/Documents/science-and-technical/inventory-monitoring/im-toolbox-animal-pests-using-tracking-tunnels-to-monitor-rodents-and-mustelids.pdf>).

3. Results

Rodent monitoring			
Date of monitor: February 2019			
Species	Tracking rate (%TTI)		
	Bargh's	Long Gully	Wright's Hill
Rats	0	0	0
Mice	0	0	0

4. Analysis and comments

There were no rats or mice encountered in this monitor at any of the sites. Other than hedgehog prints that were recorded on one tracking tunnel on Line 1 in Bargh's Block, no other pests were encountered in this monitor.

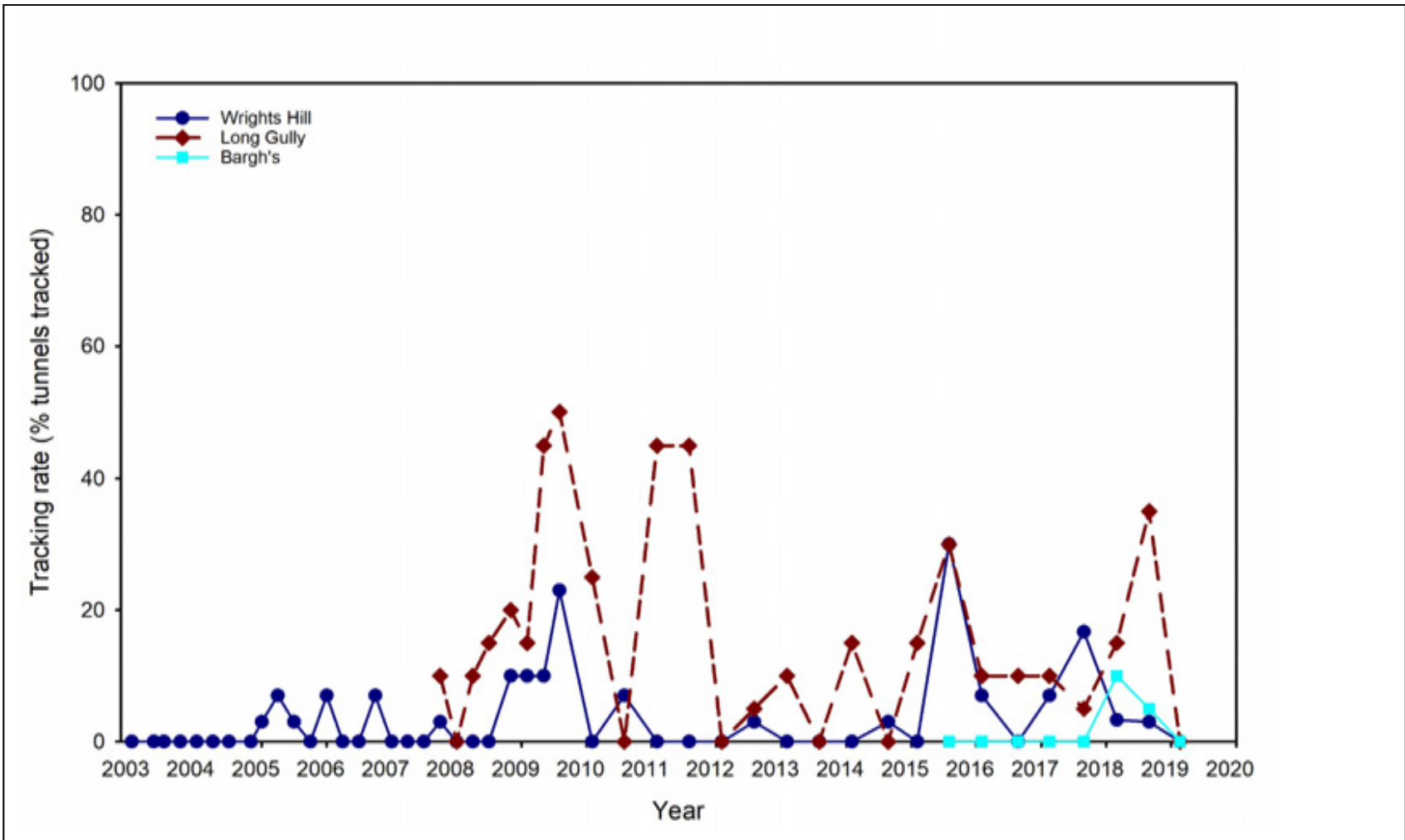


Figure 1: Rat tracking rates in the three Halo sites

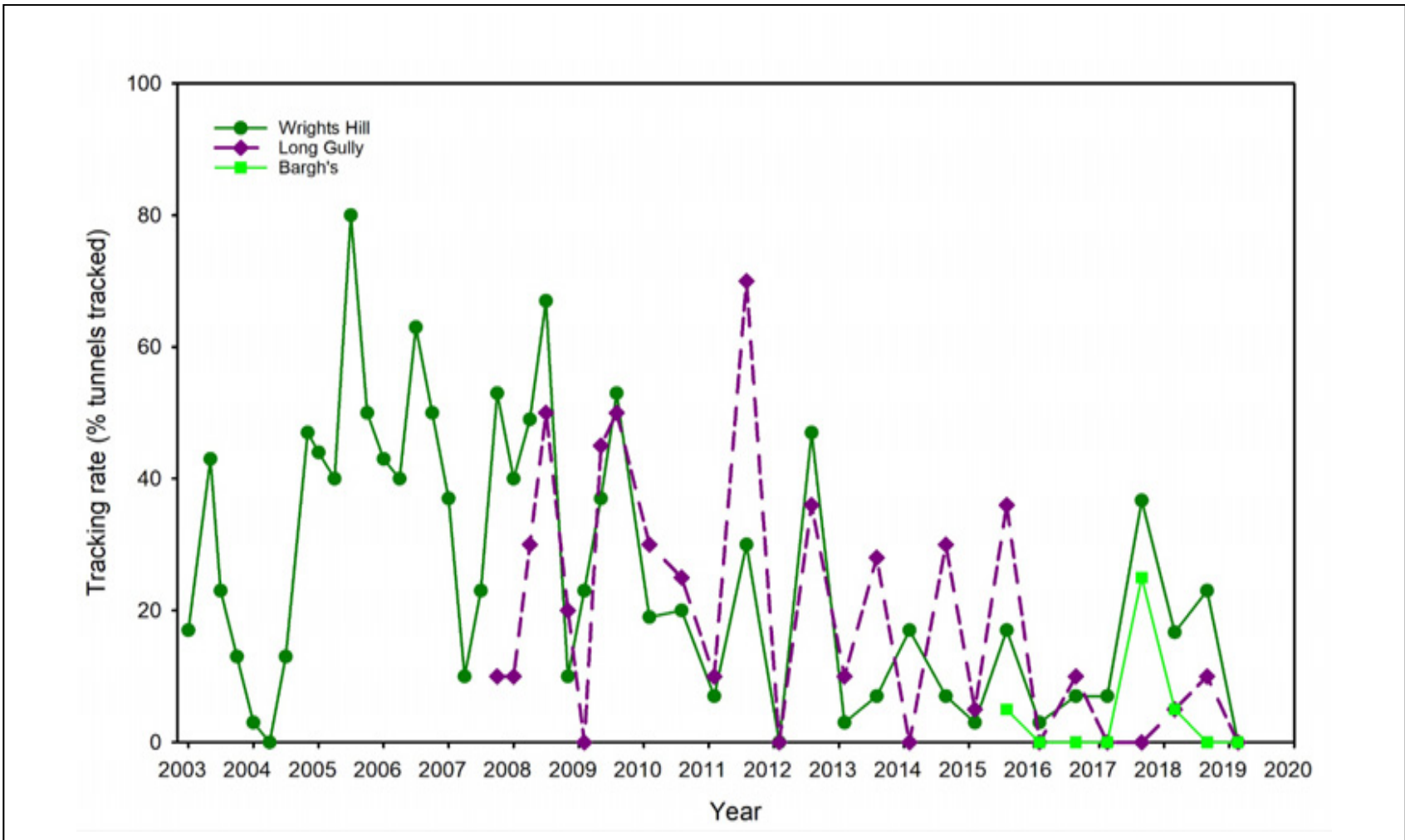


Figure 2: Mice tracking rates in the three Halo sites

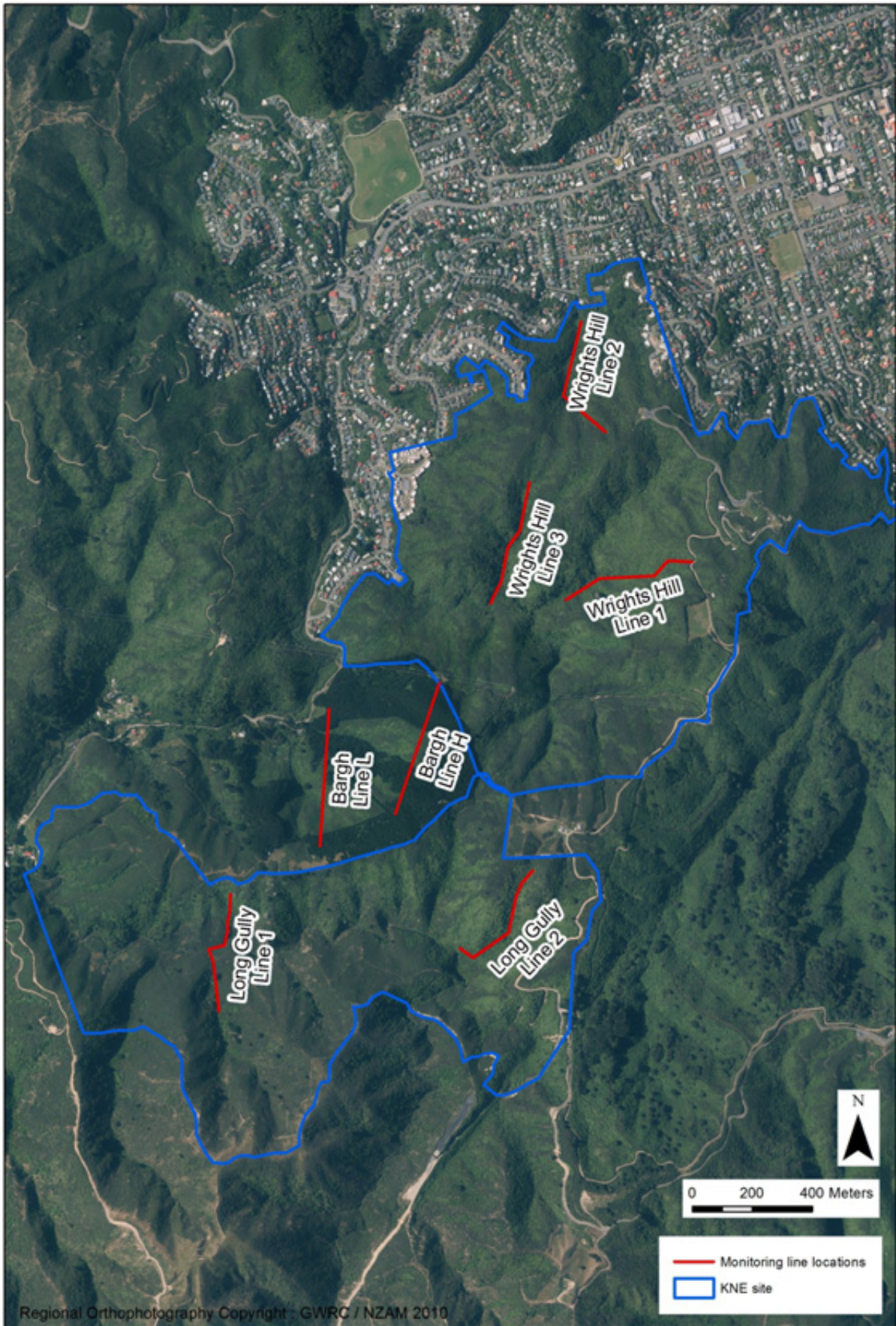


Figure 3: Map of the Halo tracking tunnel line locations