



Otago Peninsula Biodiversity Trust

Rodent Monitoring Report December 2013

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Establishment of the monitoring program

The OPBT was aware of the importance of gathering as much information as possible on the ecological consequences of reducing possums to zero density. In 2011 **Dr Deborah Wilson** (ecologist with Landcare Research) suggested the use of tracking tunnels to test if possum removal has any effect on rat numbers. Tracking tunnels, monitored quarterly, give an index of rat numbers and indices from the same tunnels can be compared over time. Tracking tunnels would be monitored both before and after possum control.

An inked tracking card is placed in each tunnel, which is then baited at each end with peanut butter. The following day the tracking cards are removed, the prints identified and observations are recorded on a spread sheet. In addition to rats, the cards allow several other species (mice, stoats, hedgehogs, skinks) to be recorded

Progress to date

Rodent monitoring commenced in November 2011, with 10 tunnel lines in sectors 2,3 and 4. Nine quarterly monitoring operations have been undertaken to date, with cards put out and collected by volunteers. Moira Parker, an OPBT trustee, then collates and interprets the 100 inked cards and forwards the results (plus any difficult-to-interpret ink tracks) to Dr Deb Wilson.

In July 2012 Dr Wilson commented:

“You are getting nice consistent estimates for rats, mice and hedgehogs (with unsurprising peaks in mice in May and hedgehogs in Feb - likely both associated with spring/summer reproduction and perhaps hibernating now)”.

May 2013 graphs (attached) show Sector 4 All Species, and Sector 4 Rats and Possums. It should be noted that possum control in Sector 4 commenced in 2012. However, it is too early to say if this graph indicates a long term trend of increasing rat numbers as possums decrease.

Volunteer time

Five regular volunteers put the inked cards out and collect them the following day (as long as it has been a dry night). In May and August this can be difficult for volunteers who have to go out by torchlight after work. It is important for all tunnel lines to be tracked on the same night, and that can take some organizing.

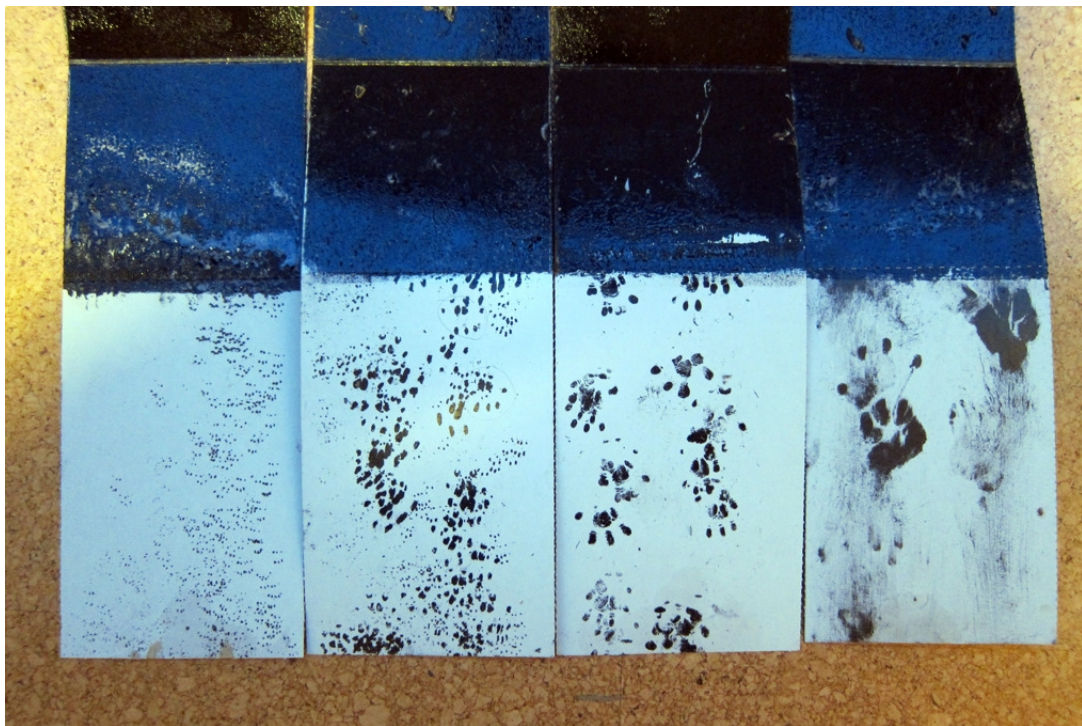
A long term project

The OPBT understands that to be of value, the tunnel monitoring will need to be continued for several more years. It is not too expensive (tracking card plus freight cost \$160.00 for 100) and the volunteers enjoy their walk while making a contribution to the work of OPBT.

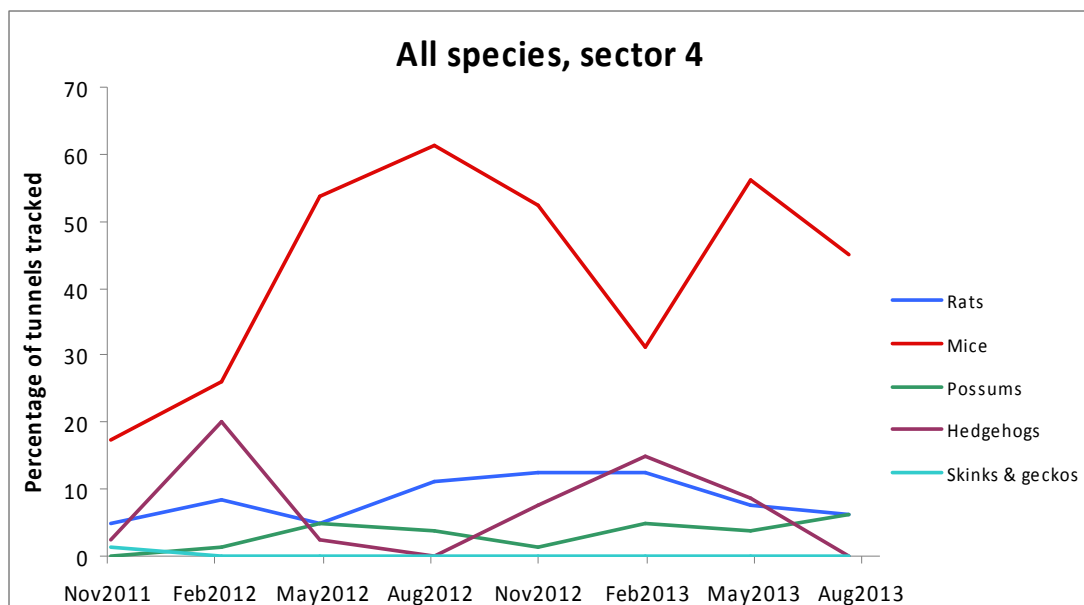
Photographs



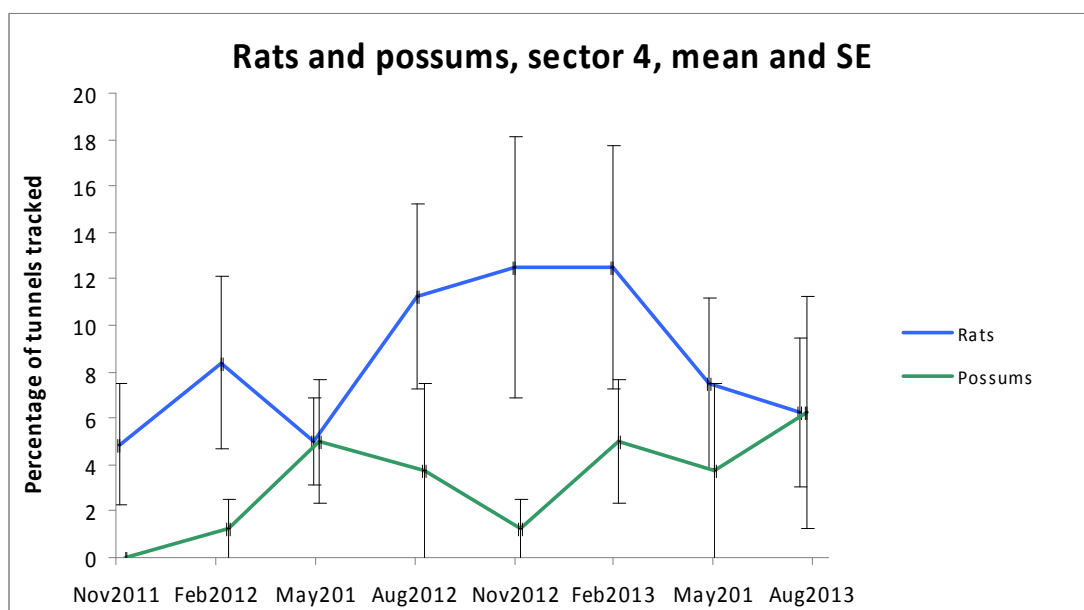
1) Moirra Parker, OPBT Secretary, checking an inked tracking card



2) Mice, rats, hedgehogs and possums all leave distinctive prints



Graphs of all species, Sector 4



Rats and possums Sector 4