Otago Peninsula Biodiversity Trust

Vegetation Monitoring Report
December 2013

Vegetation Monitoring Report
December 2013

Permanent plots

Kunzea Consultants set up 14 permanent vegetation monitoring plots (10m x 10m) in April 2011 in a variety of types of vegetation on the Otago Peninsula, to monitor changes following possum removal. The standard 'recce' methodology was chosen, so that the OPBT baseline data-set content is comparable with other data sets around the country. This has enabled the Peninsula vegetation data-set to be submitted to the national vegetation Survey (NVS) databank, managed by Landcare Research in Lincoln. In addition to normal monitoring within the plots, 4 tree species were selected for Foliar Browse Index(FBI) assessment. These were mahoe (25 individual trees), tree fuchsia (12), lancewood (3) and broadleaf (2).

In April 2011 Kunzea Consultants collected data from the 14 recce plots and undertook FBI assessment of 42 individual trees. In addition, a training day was organized for local residents interested in learning the techniques for vegetation monitoring. The priority for OPBT is to undertake annual FBI assessments, as this technique is designed to readily identify the degree of possum browse and any recovery following a possum control operation.

Results of Volunteer Monitoring

1) FBI assessments. Assessments were undertaken on trees in 11 of the 14 plots in 2012 and have been repeated on most plots in 2013 (2 remain to be done in December 2013/January 14). Overall, there are fewer signs of possum damage to tree bark, such as scratches and bite marks, in 2013 than in 2012. There are also indications of canopy recovery and epicormic growth in some trees.

2) Additional permanent vegetation monitoring plot (plot 15). An extra plot was set up by volunteers in a newly fenced section of Taiaroa Bush. Plot 15 is within 40m of plot 03. The area of Plot 15 now has stock excluded, so will provide an interesting comparison with the grazed area of plot 03. Seedling plots were recorded in Plot 15 in November 2012 and 2013.

3) Monitoring at other sites. Individual trees (Hall's totara and mahoe) showing signs of possum browse at other sites on the Otago Peninsula have been selected for monitoring. Photos are taken annually to record changes

4) Botanical knowledge needed. The OPBT has found that a reasonable amount of botanical knowledge is needed for the vegetation monitoring. This knowledge is provided by a small but enthusiastic group of 6 volunteers.

Anecdotal reports of benefits of the lack of possums

Anecdotal reports suggest the removal of possums has already had noticeable effects. A few examples:

The first time in 40 years I have had fruit on my plum and pear trees
Significant growth of mahoe seedlings in the Sandymount Reserve
The possums didn't take the apricots this year
Native plantings at Pilots Beach, Okia Reserve not being damaged by possums

Photographs

1) FBI monitoring: locating tree tag

2) FBI monitoring: measuring tree diameter

3) FBI monitoring: assessing the canopy cover

4) Vegetation plot monitoring: recording seedling species

5) Regrowth: new shoots (epicormic growth) from the base of a broadleaf tree

6) Regrowth: new leaves on a previously browsed mahoe branch