

From seeds to trees: Vegetation restoration in the Parangarahu Lakes, East Harbour Regional Park

Introduction

The Parangarahu Lakes are a little known taonga at the entrance to Wellington Harbour. They are nationally significant freshwater lakes and wetlands, a precious resource deserving of conservation and protection. Winter 2017 marks the 11th year of restoration planting around the Lakes by MIRO in cooperation with Taranaki Whānui and Greater Wellington Regional Council (GWRC).

Assisted regeneration to encourage a speedier rate of return to native forest.

In 1991 GWRC purchased 360ha of the land surrounding the Parangarahu Lakes, but it wasn't until 2004 that the last grazing licence ceased and the land was returned to the Regional Park. A decision was made to allow the land surrounding the lakes to regenerate naturally. MIRO was keen to assist this long-term process and as a result GWRC and the Department of Conservation commissioned an ecologist (Geoff Park) to investigate and prepare a restoration plan.

This plan identified the main issues hampering natural regeneration:

- The land had been comprehensively denuded of vegetation by people since their arrival;
- There was no close source of seed to drive the natural regeneration;
- Exotic species especially gorse, were taking hold; and
- Hares and rabbits were a major scourge.

The plan suggested a strategy of assisted restoration, in particular the establishment of a number of fenced planting sites close to the lakes in order to kick-start native regeneration where there were no seed sources. By attracting bird disperser species, these sites will encourage a faster return to the native forest than would occur without assistance.

MIRO Nursery and Plantings

MIRO set up a volunteer nursery to propagate trees for the Parangarahu restoration plots following the adoption of the landscape restoration plan. Starting in Eastbourne, initially on the surrounds of the Croquet Club, it is now located on a more spacious site in Gracefield. About a dozen volunteers get together as work parties two to three times a month. Seed is sourced locally for propagation and surplus trees produced at the nursery are shared with a number of other local conservation projects such as Friends of Baring Head, Friends of

Waiwhetu Stream, Lower Hutt Forest and Bird at Manor Park and Waiu wetland in Wainuiomata.

Initial plantings are of pioneers such as taupata, flax, toetoe, and karamu to establish cover in what is much of the time an extremely hostile climate - arid with salt laden winds. Once cover is adequate emergent trees such as titoki, northern rata and kahikatea are added to the plots. Around 2-3000 trees are planted annually, including a new plot each year and infilling of earlier plots as required.

This winter, a plot will be planted with pioneers in preparation for the later addition of species for rongoa (traditional Maori medicine) and other cultural purposes of the Taranaki Whānui.

Plantings are supported by Taranaki Whānui, Reserve Bank of NZ, Conservation Volunteers and MIRO Volunteers. Other Nursery supporters to whom thanks are due for regular support include GNS Science and Hutt Mana Charitable Trust.

Results

Of the ten plots established so far, six have achieved canopy closure and emergent trees are now being added. Pioneer species are flowering and fruiting and some seedlings have been observed outside the protection of the plots. While for some time, gorse will remain the predominant vegetation succession across much of the landscape, the successful establishment of the restoration plots is a small but critical first step in the very lengthy process of revegetation. Over the next few decades we anticipate the gradual emergence of natives from the confines of the gorse and other scrub.