

Tiritiri Matangi Summer Studentship 2017-2018: Study of the relationship between proximity of seeding trees and regeneration within the Pōhutukawa Project Vegetation Plots



To be carried out under Authority no. 39910 granted to the Supporters of Tiritiri Matangi (Inc.) to undertake non-invasive monitoring of fauna and flora on Tiritiri Matangi Scientific Reserve.

Introduction

Pōhutukawa was planted on Tiritiri Matangi in large numbers as a 'nursery crop' to give shelter to other, slower growing trees. A large number of these trees were planted – approximately 90,000. The 'strike rate' for the small trees was much higher than anticipated (between 60% and 90%) and this led to significant areas of the Island being covered in pōhutukawa monoculture forest.

A project was begun in 2010 to 'thin' parts of the forest and to monitor the effect of that thinning on invertebrate, plant and bird populations. The vegetation plots have now been monitored for six years and anecdotally we know that regenerating trees in the plots are mostly species which are in close proximity to the plot. This project will formally survey the trees surrounding all the vegetation plots in the project and look at those survey results in conjunction with monitoring data from the last five years.

Methodology

For this study, the fieldwork will consist of surveying the trees surrounding each 2m x 1m plot (18 per site) in seven sites on Tiritiri Matangi Island.

Fieldwork is to be completed in December. Analysis and reporting is expected to be completed in January and will include

- Analysis of the survey findings in areas surrounding the vegetation plots
- Analysis of the monitoring data in relation to the survey findings to look at relationships between natural regeneration and proximity of tree species.

Personnel

The fieldwork will be completed by a student under the supervision of Mel Galbraith and Hester Cooper of the Supporters of Tiritiri Matangi (Inc) (SoTM). Since the work will be carried out away from the tracks and the student is unlikely to be familiar with the Island, they will be assisted in finding all the sites by volunteer members of SoTM. The same volunteers will be able to help with tree identification if necessary. The student will receive a stipend of \$2500 payable in instalments, payment of the final instalment is conditional on completion of a satisfactory final report.

Applications

Letters of application, accompanied by a curriculum vitae giving details of experience in ecological work, should be sent to research@tiritirimatangi.org.nz by 8 September 2017.