

INTERNSHIP PROJECT BRIEF

Title: Field biologist and invertebrate taxonomist Intern	Unit: Parks
Total hours: 160 hours	Location: Port Hills & Banks Peninsula
Start date: March 2021	Days and hours of work: Flexible to be discussed and agreed with intern
Salary: Unpaid / Voluntary	

Summary:

Assessment of native insect biodiversity in reserves on the Port Hills and Banks Peninsula.

Council manages a number of reserves on the Port Hills and two large reserves on Banks Peninsula for biodiversity and recreation.

The invertebrate/insect biodiversity on Banks Peninsula has not been well studied but is known to include a high degree of endemism supporting species which occur nowhere else in NZ. The status of many of these invertebrates is not known and many are threatened with extinction.

Invertebrate biodiversity is also fundamentally important for supporting ecosystem functions such as pollination of plants and as a food source for native birds and lizards.

One of the key aims of the Council long term plan is to conserve threatened species in key reserves on Banks Peninsula and to determine what management actions are required to prevent the decline of plants, insects, birds and lizards.

Purpose:

The purpose of the proposed work is to conduct inventory and survey work to assist with the management of key reserves.

This baseline information will be used to determine the threat status of native invertebrates and to measure the impact of pest control operations anticipated as part of the Predator Free 2050 initiative intended to prevent the decline and extinction of threatened species from Banks Peninsula.

The information from this survey will also be used to meet organisational objectives associated with maintaining representative, functional ecosystems that support a range of locally important biodiversity including native geckos, skinks and birds such as rifleman, tūi, ruru and bellbirds.

Outcomes	Measurement of outcome success
<ul style="list-style-type: none">Establish methods for inventory and monitoring of invertebrates in key reserves.	<ul style="list-style-type: none">Successful collection of invertebrates from key reserves.

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<ul style="list-style-type: none">• Review the literature to determine which studies have been completed on Banks Peninsula.	<ul style="list-style-type: none">• A summary list of relevant studies that provide background information.
<ul style="list-style-type: none">• An assessment of the invertebrate fauna occupying key reserves on Banks Peninsula.	<ul style="list-style-type: none">• A report that provides details of the abundance and diversity of invertebrates in key reserves.

Tasks

- Establishment of six malaise traps at key reserves on Banks Peninsula
- Literature review of previous invertebrate studies conducted on Banks Peninsula
- Collection of samples at 2 week intervals from established malaise traps
- Sorting, curation and identification of specimens
- Data collection and summary report of findings

Key Milestones

- Establishment of six malaise traps at recorded locations in two Council managed reserves
- Development of a simple database and a summary of the relevant literature to support the project
- Summary report of the methods and results of the survey

Key skills and experience

- Essential: physical fit with experience working in an outdoor environment
- Nice to have: experience sorting and identifying insects/invertebrates, experience in using mapping tools, experience with data collection and report writing.

Desired qualification or department of college

- Undergraduate studies in:
 - Entomology
 - Ecology; or
 - Conservation Biology

Desired key personality and behavioural attributes

- A person that is interested in conservation biology, has a positive attitude towards environmental issues, is respectful of health and safety guidelines, is motivated to learn and is physically fit for field work.

Benefits

- Learning to work within a team environment.
- Gain practical field experience
- Learn to design a field study
- Use techniques to survey and identify invertebrates
- Learn to work with and share ideas with field biologists
- You will receive a 'Certificate of Placement' that you can attach to your CV which will confirm details of the placement that you have undertaken

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