



Towards Ecosystem Resilience

Post Graduate (PGDipSci/Masters) scholarships: Rongoā approaches to myrtle rust control

General information

Principle supervisor

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Co-supervisor

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Funding

Funding is available within the Beyond Myrtle Rust research programme for two students, for up to two years of full-time post graduate study (a longer period of part time study may also be considered). Funding is available for both the PGDipSci year of classes, and for the following year of masters research. If an interested student already has all or part of a PGDipSci, funds would be provided for them to complete their qualifications to masters level. Domestic student fees and a stipend of \$15,000 (NZD) for each year (full-time equivalent) is available for each student.

Start date: by 13th July 2020

Aims: To investigate rongoā approaches to biocontrol and assist in collection of biocontrol agents with mātauranga Māori guidance. Key tasks:

- Literature review, and possibly conducting interviews of mātauranga Māori experts to identify biocontrol agents and approaches to ecosystem resilience.
- Conduct preliminary testing to evaluate biocontrol agents (microorganisms) for future trials.

Project

Many of Aotearoa's best known, highly-valued native trees – pōhutukawa, rātā, mānuka – are in the plant group Myrtaceae. They urgently need protection from a recently arrived rust fungus causing the disease myrtle rust (MR), which can kill plants. MR is now part of the story of Aotearoa, and we have a narrow window of opportunity to reduce the disease's impact on our landscapes.

As part of an ambitious programme to transform plant pathogen management in Aotearoa, Beyond Myrtle Rust will use next-generation approaches. We will focus beyond the pathogen and its host, to

the whole ecosystem the pathogen inhabits, and provide innovations that boost ecosystem resilience. We aim to meet Māori and community aspirations to maintain the mauri (vital essence) of the land. To do this, we will adapt the learnings from other countries to identify the best approaches and tools to minimise the impacts of MR on our forests and natural landscapes, with a focus on natural tools that draw on traditional Māori knowledge and medicinal approaches. With this in mind the team is looking to recruit post-graduate students to investigate rongoā approaches to biocontrol and assist in the collection of biological control agents with mātauranga Māori guidance. The aim is to combine kaupapa Māori and innovative scientific approaches to develop Māori-led control tools incorporating rongoā approaches. To learn more about the Beyond Myrtle Rust programme, see this website: www.manaakiwhenua.co.nz/beyond-myrtle-rust

Candidate requirements

We seek enthusiastic, motivated candidates with backgrounds in ecology, environmental science, microbiology or plant pathology. The ideal candidate would also have experience with working within Māori/Pasifika communities.

We encourage applications students from under-represented groups in STEM (e.g. Māori, Pasifika, lower socio-economic status students, first generation university students, women).

Entry requirements: BSc, BSC(Hons), or a PGDipSci, in Biological Sciences.

For further information and to apply, contact Mahajabeen Padamsee:

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