UNIVERSITY OF OTAGO
ŌTĀKOU WHAKAIHU WAKA

JOB DESCRIPTION

JOB TITLE: Postdoctoral Research Fellow | Paewai Rakahau

DEPARTMENT: Zoology | Te Tari Mātai Kararehe

SCHOOL & DIVISION: Sciences | Te Rohe a Ahikāroa

PRIME FUNCTION

The successful applicant will carry out research examining how gastrointestinal parasites influence the accumulation of plastics and heavy metals in seabirds, as part of the Royal Society Te Apārangi Marsden Fast Start Project: *The gift of infection: using parasites to tackle marine pollution*.

MAIN OBJECTIVES

- Investigate whether gastrointestinal parasites reduce plastic and heavy metal burdens in their seabird hosts.
- Quantify microplastics, nanoplastics and trace metal concentrations in seabird tissues and parasite samples.
- Assess variation in pollutant accumulation among different parasite taxa.
- Conduct observational and support ongoing experimental studies examining interactions between parasites, plastics and heavy metals.
- Contribute to the preparation of manuscripts for publication in high-impact scientific journals.
- Support ongoing engagement with mana whenua and contribute to dissemination of project outcomes.

KEY TASKS

- Conduct dissections of deceased seabirds and collect various tissues for analysis.
- Process (and potentially analyse) biological samples for plastic and trace metal quantification.
- Analyse ecological data using appropriate statistical methods.
- Contribute to the preparation of manuscripts, reports and conference presentations.
- Co-supervise postgraduate and undergraduate research students associated with the project.

RELATIONSHIPS

Directly responsible to: Dr. Jerusha Bennett, and to Zoology HoD.

Supervision of: Potentially Honours and/or Masters students.

Functional relationships with: Staff and students in the Department of Zoology, project collaborators within Marsden program.

BUDGETARY RESPONSIBILITY

- Manage expenditure associated with laboratory analyses and consumables.

EXPECTED OUTCOMES

- Processing and analysis of seabird and parasite samples according to project timelines.
- Generation of datasets relating to plastics, heavy metals and parasite infections.
- Regular verbal progress updates to Jerusha Bennett.
- Contribution to peer-reviewed publication arising from the project.
- Presentation of research findings at scientific meetings, conferences, workshops, seminars and/or community engagement events.

PERSON SPECIFICATION

- PhD in an appropriate field such as parasitology, ecotoxicology, chemistry, or a related discipline.
- Demonstrated experience conducting independent research.
- Experience in plastic or environmental contaminant research highly desirable.
- Knowledge of statistical analysis and modelling of ecological data.
- Excellent people and communication skills.
- Willingness to uphold the principles of Te Tiriti o Waitangi (Treaty of Waitangi) and the University's Māori and Pacific Strategic Framework.

EQUITY AND DIVERSITY:

Act in a manner consistent with the University's commitment to anti-racism and the co-creation of accessible, safe, respectful, and welcoming environments where all students and staff are supported to achieve their full potential.

MĀORI STRATEGIC FRAMEWORK:

Act in a manner consistent with the principles and implications, as well as the University's commitment to the Treaty as articulated in the Māori Strategic Framework.

PACIFIC STRATEGIC FRAMEWORK:

Act in a manner consistent with the strategies and goals contained in the University's Pacific Strategic Framework, role-modelling and promoting Pacific values, equity and diversity principles and cultural safety practices.

HEALTH & SAFETY:

Act and work in a manner compliant with current health and safety at work legislation and University procedures, frameworks and guidelines. Role model safe behaviour and practices, share the responsibility to prevent harm and contribute to a safe campus and work environment, including raising workplace health and safety concerns for self, students, visitors and other staff.

SUSTAINABILITY:

Act in a manner consistent with the University's sustainability commitments; role-modelling sustainable practices, with a particular emphasis on minimising the environmental impact of day-to-day activities