

## POSITION DESCRIPTION

<b>Position Title:</b>	Postdoctoral Research Fellow
<b>Organisation Unit:</b>	School of Earth and Environmental Sciences
<b>Position Number:</b>	TBA
<b>Type of Employment:</b>	Full time, Fixed Term 1 year
<b>Classification:</b>	Research Academic Level A

## THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver **knowledge leadership for a better world**.

UQ ranks in the world's top universities, as measured by several key independent ranking, including the CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (42), QS World University Rankings (48), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (69). Excluding the award component, UQ is now ranked 45<sup>th</sup> in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland's highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia's Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 52,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 15,400 international students from 135 countries, adding to its proud 250,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a \$1.75 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and

biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of \$11billion+ (see <http://uniquet.com.au/our-track-record>).

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

## **School of Earth and Environmental Sciences**

The School of Earth and Environmental Sciences (SEES) is part of the UQ Faculty of Science and currently has 104 academic staff, and 31 professional and technical staff and over 1,120 equivalent full-time students.

The School's extensive teaching and research activities span the fields of geology, human and physical geography, environmental science and management, biodiversity conservation, geospatial science and remote sensing, mineral resources, palaeontology, geophysics, occupational health and safety sciences, and urban and regional planning. SEES teaches into a diverse range of programs for undergraduate, honours and postgraduate coursework students, and higher degree by research programs.

The School has a vibrant, multidisciplinary research profile and enjoys consistent success in securing nationally competitive grants, industry funding, publishing numerous papers in high-quality international journals as well as having an important influence in areas related to government policy and industry practice.

School academics and technical staff are supported by [world-class facilities](#) and laboratories that house specialist instruments, microscopes and other equipment. Facilities include an extensive lapidary laboratory together with a suite of mass spectrometry infrastructure enabling major and trace element analyses, radiogenic and stable isotope investigations, noble gas geochronology, coal petrology, organic geochemistry, micropaleontology, geomicrobiology and fluid inclusion studies. The School also maintains close links with the UQ Centre for Microscopy and Microanalysis, which houses transmission electron microscopes, scanning electron microscopes, sample preparation facilities and a sophisticated optical microscopy suite.

Other School facilities include an innovative planning studio and computer laboratories for GIS and remote sensing. Staff and students also engage in teaching and research at UQ's world-class island research stations on North Stradbroke Island and Heron Island.

For more information, visit the School of Earth and Environmental Sciences website: [sees.uq.edu.au](http://sees.uq.edu.au).

## **Information for Prospective Staff**

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - <http://www.uq.edu.au/current-staff/working-at-uq>

The University of Queensland [Enterprise Agreement](#) outlines the position classification standards for Levels A to E.

# DUTY STATEMENT

## Primary Purpose of Position

The primary role of the selected candidate will be to engage as a Postdoctoral Research Fellow within the School of Earth and Environmental Sciences to support Dr Eve McDonald-Madden's ARC Linkage project titled "Assessing the ecosystem-wide risks of threatened species translocation".

**Project Summary:** Introducing threatened plants and animals to novel environments, or reintroducing them where they previously persisted, is a growing focus of conservation. However, moving species can have unanticipated negative impacts on other species in the ecosystem. Despite the International Union for Conservation of Nature deeming ecosystem-wide risk assessments as essential for conservation translocations, currently no framework exists for assessing these risks and informing translocation decisions. This project develops a partnership with leading Australian environment agencies and The Nature Conservancy, the world's largest conservation NGO, to deliver the first quantitative risk assessment framework for determining the potential impact of the movement of threatened species.

**Partners:** This project is a partnership between UQ, University of Western Australia (Dr Nicola Mitchell), Booderee National Park (Dr Nick Dexter), Department of Parks and Wildlife WA (Dr Margaret Byrne), and the Nature Conservancy California (Dr Scott Morrison).

**Role:** The candidate will investigate application of novel methodologies to model ecological systems with limited information and approaches to informing management of such systems with a particular focus on reintroductions.

**Case studies:** The project has three main case studies, the reintroduction of Quolls at Booderee National Park, the assisted migration of Western swamp tortoise in Western Australia and the introduction of Island Scrubs Jays on the Channel Island in California.

## Duties

Duties and responsibilities include, but are not limited to:

### Research

- Build ecological models of ecosystems
- Assess risk of reintroductions to ecosystems
- Assess system level monitoring and management alternatives
- Conduct research and publish in high quality journals
- Make presentations to team members and the wider research community on current projects
- Contribute to training, scientific mentoring and supervision of students
- Develop effective timelines and milestones based on goals of the research and development program
- Develop research proposals for emerging grant opportunities
- Be responsible for and communicate this information to the Supervisor
- Work closely with and maintain strong communication with project stakeholders
- Work effectively with other staff and students

## **Service and Engagement**

- Foster the School's relations with industry, government departments, professional bodies and the wider community
- Any other duties as reasonably directed by your supervisor

## **Other**

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:

- the [University's Code of Conduct](#)
- requirements of the Queensland occupational health and safety (OH&S) legislation and related [OH&S responsibilities and procedures](#) developed by the University or Institute/School
- the adoption of sustainable practices in all work activities and compliance with associated legislation and related University [sustainability responsibilities and procedures](#)
- requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related [responsibilities and procedures](#) developed by the University

## **Organisational Relationships**

The position reports to ARC Future Fellow, Associate Professor Eve McDonald-Madden.

## **SELECTION CRITERIA**

- PhD in the area of maths, engineering, physics, statistical modelling or ecological modelling
- Research experiences on quantitative modelling of complex systems using sloppy modelling and Bayesian approaches
- Track record applying novel techniques to ecological problems
- Track record of publications in quantitative field.
- Ability to work collaboratively with colleagues and stakeholders.
- Excellent communication skills.

## **Qualification Verification**

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

**The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University's Diversity and Inclusion webpage (<http://www.uq.edu.au/equity>) for further information and points of contact if you require additional support.**

**Accessibility requirements and/or adjustments can be directed to the HR Contact Officer.**