

POSITION DESCRIPTION



Postdoctoral Research Fellow in Modelling Australian Vegetation Dynamics



POSITION DETAILS

Position Title	Postdoctoral Research Fellow in Modelling Australian Vegetation Dynamics
Classification	Academic Level A
Position Number	7016375
School/Office	Hawkesbury Institute for the Environment
Division	Provost

POSITION PURPOSE

The Postdoctoral Research Fellow in Modelling Australian Vegetation Dynamics is appointed as part of an ARC-funded Laureate Fellowship. The Postdoctoral Research Fellow will contribute to the development and application of a dynamic vegetation model for Australian vegetation, aiming to understand the factors that govern the distribution and function of the major Australian vegetation types.

KEY ACCOUNTABILITIES

1. Develop and apply the LPJ-GUESS dynamic vegetation model to predict distribution and function of Australian vegetation types.
2. Collaborate with other project team members to improve functionality within the model.
3. Develop and maintain relationships with internal and external collaborators and stakeholders.
4. Ensure reproducibility of research by appropriate management of data and code.
5. Provide advice/mentoring to undergraduate and postgraduate students.
6. Develop and maintain accurate model documentation and training materials.
7. Communicate research findings by preparing reports and manuscripts for publication in refereed journals and presenting research findings in relevant fora.
8. Ensure that project research data management conforms to the Australian Code for the Responsible Conduct of Research, and University policies.

QUALIFICATIONS, EXPERIENCE AND SKILLS

1. PhD degree in a relevant research field such as ecosystem ecology, plant ecophysiology, ecohydrology, physical geography.
2. Strong quantitative skills including experience in computer programming and mathematical modelling. Previous experience working with process-based vegetation models would be an advantage.
3. Strong critical thinking skills including the ability to critically evaluate scientific data and model outputs.
4. Demonstrated organisational skills, including the ability to be self-directed, but also to work effectively and harmoniously as part of a research team.
5. Demonstrated ability to write manuscripts for publication in scientific journals with a track record of publications appropriate for the applicant's career stage.
6. Enthusiasm for the project topic, with either demonstrated knowledge of Australian vegetation or keenness to learn

KEY RELATIONSHIPS

- **This position reports to:** Distinguished Professor in Ecosystem / Earth System Modelling (7007281)
- **This position supervises:** N/A
- **Key internal relationships:**
 - Institute Director
 - Project team members including students
 - Colleagues in the research theme, Institute and across the University
- **Key external relationships:**
 - Stakeholders in partner institutions
 - Research collaborators at external institutions

CHALLENGES

- Working with internal and external collaborators to source, harmonise and analyse appropriate datasets.
- Working with project team members to ensure internal consistency and satisfactory performance of the model.
- Delivering model outputs, documentation and peer-reviewed articles in a timely manner.

UNIVERSITY EXPECTATIONS

The University expects that all employees are aware of, and comply with legislation and Western's policies and procedures relevant to the position, including but not limited to:

- Code of Conduct
- Work Health and Safety and Wellbeing Management System
- Enterprise Agreement or Award
- Anti-discrimination principles, Equal Employment Opportunity and staff and student equity.

Approved by: Lead People and Culture Partner (Provost)

Date: 25/05/2026