

POSITION DESCRIPTION

Academic Positions

(In addition to the Position Classification Standards)

Position Title: Ecological Modeller (Research Fellow) Level: B
Faculty/Division: SMAH Department/Location: Biological Sciences

Primary Purpose of the Position:

Using a combination of field based empirical studies and simulation studies, the position will examine the role of carbon and biodiversity plantings in altering fire regimes and fire risk. Specifically the project will examine: (i) how environmental values, fuel loads and regeneration capacity changes as plantings age; (ii) how revegetation will alter potential fire behaviour, and; (iii) whether plantings can be designed and managed to minimise losses from fire and maximise the environmental return on investment.

Position Environment:

The Centre for Environmental Risk Management of Bushfires (CERMB) undertakes research to provide a quantitative basis for bushfire risk management. This research encompasses modelling, field ecology and technology transfer to support the risk management planning activities of key public agencies (OEH, RFS) involved in bushfire risk management in NSW. Activities of CERMB are multidisciplinary, requiring collaboration with a wide range of people both within and external to the University, particularly planners, policy makers and land and fire managers.

This position will contribute to projects in the Centre to do with bush fire risk management. Current areas of interest include:

- Analysis of the determinants of risk to people, property and environmental values
- Analysis of the effectiveness of risk mitigation activities
- Modelling of cost-effective risk management strategies
- Modelling of the consequences of global change for bushfire risk

The position will undertake work specified in recent contracts with the NSW Office of Environment and Heritage. The job involves working in the office and the field plus direct liaison with clients.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Complete analyses and modelling of the influence of plantings on fire regimes	Analyses and modelling satisfactorily completed	
2.	Collect field data to aid development of statistical models	Field studies satisfactorily completed	
3.	Complete analyses and modelling of changes in carbon stocks in response to fire regimes and plantings	Analyses and modelling satisfactorily completed	
4.	Liaise with relevant scientific colleagues to develop and adapt analyses to suit	Successful integration of knowledge into analyses	

5.	Write project reports and scientific publications summarising the work	Completed reports and publications	
6.	Participate in workshops/meetings to present results to clients and other parties	Project results reported and discussed with clients	
7.	Derivation of management guidelines based on results of scientific analyses	Clients with scientifically based guidelines derived from project analyses	
8.	Supervisory roles: Communicate and consult with staff on workplace and staffing matters.	To foster direct relationships with staff and enhance engagement with the organisation.	Ongoing
9.	Observe principles and practices of Equal Employment Opportunity	To ensure fair treatment in the workplace	
10.	Have OH&S responsibilities, accountabilities and authorities as outlined in the http://staff.uow.edu.au/ohs/commitment/responsibilities/document	To ensure a safe working environment for self & others.	

Inherent Requirements:

This position description outlines the major accountabilities/responsibilities and the selection criteria against which you will be assessed as suitable for the position. As such there will be specific job requirements that we refer to as Inherent Requirements.

Inherent Requirements refer to your ability to:

- Perform the essential duties and functional requirements of the job;
- Meet the productivity and quality requirements of the position;
- Work effectively in the team or other type of work organisation concerned; and
- Do the job without undue risk to your own or others health, safety and welfare at work.

If you have any injuries, illness, disorder, impairment, condition or incapacity that may affect your ability to perform the inherent requirements of the position, we encourage you to discuss this with the University to assist in the process of identifying reasonable adjustments to enable you to perform the duties of the position. The University wants to place you in the best situation to use your skills effectively in the position you are applying for at the University.

Reporting Relationships:

Position Reports to:	Dr Trent Penman, Senior Research Fellow, CERMB and Prof. Ross Bradstock, Director CERMB
The position supervises the following positions:	NA
Other Key Contacts:	Dr Owen Price, Senior Research Fellow, CERMB , Dr Luke Collins, UWS

Key Relationships:

Contact/Organisation:
NSW Environmental Trust

Purpose & Frequency of contact
Project administration and reporting. Monthly contact.

NSW Local Land Services

Identify planting management scenarios, identify field sites and organise land access. Monthly contact.

Key Challenges:

1. Development of novel analysis of carbon and biodiversity plantings and their effect on fire regimes
2. Development of novel analysis of changing fire risk.
3. Writing of high level scientific papers
4. Working with clients to develop sound policy and fire management principles

Knowledge & Skills:

Essential:

- High level of knowledge and experience in ecology or conservation biology
- High level of knowledge and experience statistical analysis and modelling of ecological data
- High level of knowledge and experience in GIS and remote sensing
- Experience in undertaking ecological field work
- Experience in writing technical reports and scientific manuscripts
- Demonstrated ability to work with clients and policy makers
- Demonstrated ability to plan, undertake and complete scientific projects in consultation with supervisors.
- Understanding of fire ecology and/or fire risk

Education & Experience:

Essential:

- PhD or equivalent in conservation biology, fire ecology, or ecological modelling
- Experience in spatial and statistical analysis of ecological data
- Knowledge of relevant fire ecology, vegetation ecology and carbon literature
- Experience in design of ecological experiments and studies

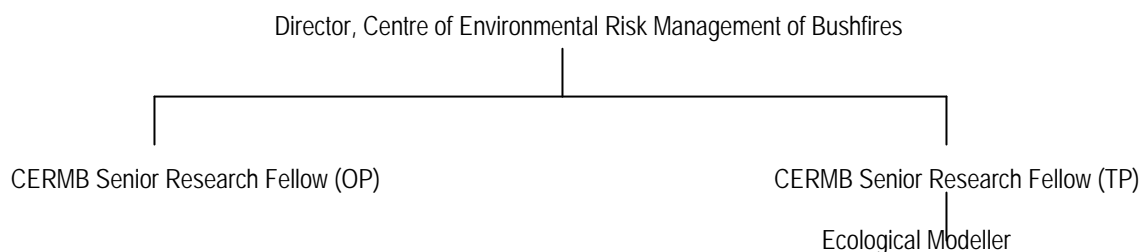
Personal Attributes:

The position requires a researcher who has the ability to creatively design challenging ecological analyses in consultation with supervisors and clients. The ability to develop and adapt appropriate models in consultation with colleagues and experts is required.

Special Job Requirements:

The job may require field work in remote locations, working in teams of 2 or more for extended periods.

Organisational Chart:



POSITION CLASSIFICATION STANDARD - Research Only

Level: B
Title: Fellow

Description

A position classification standard describes the broad categories of responsibility attached to research-only academic staff at different levels. The standards are not exhaustive of all tasks in research-only academic employment, which is by its nature multi-skilled and involves an overlap of duties between levels. The standards provide an adequate basis to differentiate between the various levels of employment and define the broad relationships between classifications.

Progression through an academic career will normally be based on research, teaching, administrative functions and contribution to the profession. The balance of functions will vary according to level and position over time. It is only in exceptional circumstances that promotion would be solely on the research only position classification standards.

- General Standard
- Specific Duties
- Skill Base

General Standard

A Level B research-only academic is expected to carry out independent and/or team research within the field in which he/she is appointed and to carry out activities to develop his/her research expertise relevant to the particular field of research

Specific Duties

Specific duties required of a Level B research-only academic may include

- The conduct of research either as a member of a team or independently, and the production of conference and seminar papers and publications from that research.
- Supervision of research-support staff involved in the staff members' research.
- Guidance in the research effort of junior members of research-only academic staff in his/her research area.
- Contribution to the preparation, or where appropriate individual preparation, of research proposal submissions to external funding bodies.
- Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise.
- Administrative functions primarily connected with his/her area of research.
- Occasional contributions in the teaching program within the field of the staff member's research.
- Co-supervision, or where appropriate supervision, of major honours or postgraduate research projects within the field of the staff member's area of research.
- Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental and/pr faculty meetings and/or membership of a limited number of committees.

Skill Base

A Level B research-only academic will normally have completed a doctoral qualification or have equivalent qualifications or research experience. In addition he/she may be expected to have had post-doctoral research experience which has resulted in publications, conference papers, reports or professional or technical contributions which give evidence of research ability.