

Position Description (HR28)



Position Title	Post Doctoral Fellow
Branch/Division	ARCUE
Line Manager	Manager, Ecological Sciences - ARCUE
Position Number	N0233A
Grade	4
Salary	Base Salary: \$62,418
Contract Type (Ongoing, Fixed term, Fixed task)	Fixed Term - 2 years
Employment Type (Full-time, Part-time, Casual)	Full-time (100% FTE)

Context

The **Royal Botanic Gardens Melbourne** (RBGM) was established in 1846 and covers more than 36 hectares. Today, the Gardens is home to more than 52,000 individual plants, representing over 10,000 different species, in 19 Collections. It has also become a natural sanctuary for native wild life. One of the most recent developments is The Ian Potter Foundation Children's Garden (Children's Garden). This garden within the Melbourne site provides an interactive educational environment in which children of all ages, backgrounds, physical abilities and cultures are able to play, explore and discover the natural world.

Established in 1970, the **Royal Botanic Gardens Cranbourne** (RBGC) is dedicated to the conservation, display and enjoyment of Australian flora. Within an hour's drive of Melbourne and covering 363 hectares, the Cranbourne Gardens are a natural haven in a rapidly developing urban area. Two thirds of the site is remnant vegetation of state and regional significance, and is home to a number of endangered, vulnerable and 'at risk' species of fauna and flora. The new Australian Garden (Stage 1) covers nine hectares of the site and provides a contemporary landscape display of Australia's remarkable plants and landscapes. The second and final stage of the Australian Garden is currently under development and will open in 2011.

Both the Melbourne and Cranbourne sites are managed by the Royal Botanic Gardens Board, under the *Royal Botanic Gardens Act 1991*.

The **Australian Research Centre for Urban Ecology** (ARCUE) is a division of the Royal Botanic Gardens Melbourne. ARCUE is philanthropically funded by The Baker Foundation and also generates revenue through the provision of niche consultancy and collaborative research projects. ARCUE has office space in the School of Botany at the University of Melbourne. One of the aims of the centre is to undertake research into the effects of urbanisation on flora, fauna and ecological processes, in order to help increase our understanding of the ecology, restoration and management of urban and suburban areas throughout Australia and the world.

ARCUE's vision is to foster the survival of viable natural ecosystems and the preservation of biodiversity in urban and suburban areas, and to help minimise future human impacts on Australia's natural heritage due to the urbanisation of the landscape.

ARCUE aims to be a centre of excellence in the study of urban and suburban ecosystems by conducting high quality ecological research, education and commercial activities. We seek to

contribute to the conservation and management of species and ecosystems in cities and towns, thereby enhancing the quality of life of everyone.

The overall objectives of ARCUE are:

- to be recognised internationally as a centre of excellence for the study of plants and animals in cities and towns;
- to use and disseminate knowledge gained about plants and animals in cities and towns to effect positive conservation outcomes;
- to develop partnerships and provide commercial services to government, industry and non-government organisations to assist in the ecologically sound management of urban and suburban environments;
- to improve understanding of the importance of urban biodiversity and its value to the community;
- to educate and train undergraduate and postgraduate students in urban ecology and related disciplines through collaboration with tertiary education institutions; and
- to contribute to global, national and state objectives for preserving biodiversity;

The scope of ARCUE's overall activities encompasses basic and applied research, undergraduate, honours and postgraduate training, long-term ecological studies, community education and training programs, policy and management advice to all levels of government and consultancy services.

ARCUE takes a broad view of the term urban. The cities and surrounding areas of Melbourne, Sydney, Canberra, Adelaide, Perth, Darwin, Brisbane and Hobart are its principal areas of concern. As these cities expand, the corridors of new developments will also be included in our work. Currently we are concentrating our efforts on the greater Melbourne area. ARCUE believes that successful conservation and restoration of urban natural areas involves maintaining natural ecosystem processes while minimising human impacts. Three of the most significant issues associated with human impacts on urban natural areas are the alteration of natural disturbance regimes, the naturalisation of non-indigenous species and the preservation of native species.

Primary Objective(s)

Conduct research on the structure and function of urban and suburban ecosystems and assist in the development of a nationally and internationally recognized research program.

Utilise highly developed interpersonal and communication skills to enable effective liaison across all levels of the RBG, external suppliers, government agencies, clients, contractors, consultants and research collaborators.

Allocate up to 20% of time to commercial research activities.

Major Accountabilities

Accountability (incorporating Outcomes)

1. Design and implement a sound research program in urban and suburban environments.
2. Develop and maintain a budget required for conducting the proposed research.
3. Seek sources of external funding and prepare and co-ordinate grant application for relevant research projects.
4. Prepare final results for publication in peer reviewed scientific journals.
5. Prepare summaries of the research for internal and external purposes.
6. Develop and manage research links with other organizations, including universities, non-government organizations and government departments and agencies (such as DSE, Melbourne Water and Parks Victoria).
7. Represent the RBG and ARCUE in professional forums.

8. Adhere to RBG policies and Government policies (eg. EEO and OHS)
9. Assist in the teach of honours and post graduate students at ARCUE
10. Participate in the organization and running of scientific workshops and training programs.

Organisational Reporting

Position Title	Primary Objective	No. of Direct Reports
Casual Research Assistants	To undertake specific tasks and field work as directed generally associated with the delivery of commercial research projects	variable

Key Communications

Internal

Position Titles(s)	Purpose	Frequency
ARCUE Board	Presentation at Board meetings on key research outcomes.	Once per year
ARCUE Director	To collaborate and seek advice in relation to pure academic functions and non-commercial research.	Weekly
ARCUE Manager Ecological Science	To collaborate and seek advice in relation to non-commercial and commercial research and opportunities to develop relationships with key stakeholders.	Weekly
ARCUE scientists and students	To collaborate, provide leadership and advice, supervision and direction as required.	Daily

External

Organisations	Purpose	Frequency
University of Melbourne	To supervise research assistants, and to meet with research collaborators. Also, provision of occasional lectures.	Daily
Key Stakeholders including: <ul style="list-style-type: none"> • DSE • Melbourne Water • Parks Victoria • Local Government • CMA's • Growth Areas Authority • Land Developers • VicRoads / RTA • Other research institutions 	To develop mutually beneficial partnerships relating to the research program being developed.	Regularly
Scientific journals	To conduct reviews and write manuscripts.	At least quarterly

Decision Making

Decisions made Independently:

Decision	How	Impact/outcome
Methods and	Development of	Level of funding and staffing (contract

approach to research.	theoretical frameworks based on best available information.	research assistants) required to undertake research.
Publicising research outcomes.	In accordance with RBG and University of Melbourne policies.	Journal articles written, presentation and lectures are prepared, responses to journal editors are prepared.

Decisions made WITH consultation with/referral to Line Manager or others:

Decision	Impact/outcome
Area of research focus.	Identification of knowledge gaps and/or specific need / funding opportunity leading to successful funding/grant applications and/or commercial research contracts.
Management of risks associated with conducting the research and consultancy activities.	Managing the research within agreed budget and without detrimentally affecting the reputation of the RBG and ARCUE.
Which key stakeholders to target for research collaborations and commercial research proposals.	Alignment of commercial research with ARCUE's strategic objectives and consistent approaches to hourly rates etc.

Challenges

Key challenges faced by the position and judgment required to meet challenge (maximum 5)

Type of Challenge	Duration	Description of challenge	Judgment required by position
Identification of important research questions	ongoing	Identification of key knowledge gaps and issues relating to urban ecological management and biodiversity in cities and towns.	Alignment of research projects with themes identified in ARCUE's strategic plan 2008-2011.
Knowledge	ongoing	New information becomes available on a daily basis. Keeping on top of that information and realizing how it impacts on ARCUE research projects in your field of expertise is critical in maintaining our position as leaders in the field of urban ecological research.	Ability to efficiently gather and synthesize information from reputable sources.
Sourcing funding	Establishment phase of research project/s	Creating and/or obtaining external funding to support the proposed research project and allowing for publishing of results.	Appropriate collaborations to develop and funding sources to target.
Financial / Budget	ongoing	Each research project has a budget associated with either the level of funding or grant it attracted or an agreed contract price. Expenditure on research activities must be managed in accordance with these project budgets.	Day to day management of research project expenses and accountability for delivery of the overall project within budget allocation.

Position Scope and Impact

Area	Item	Scope
Employees	No. of employees reporting directly	None
	No. of employees reporting indirectly	None

	Number of volunteers reporting	Project dependent – estimated to be up to 5
	No. of FTEs reporting (employees and volunteers)	None
	No. of contractors / contracts managed	Project related research assistants as required – Anticipated to be up to 3 at any one time.
Financial	Operating Budget	\$ dependent on success in attracting research grants and commercial research collaborations
(nearest \$'000)	Salaries and on-costs	\$
	Capital Budget	\$
	Total	\$
Asset Management	Value of assets under management	\$ dependent on nature of field equipment required to undertake research
Expenditure within delegation	Operating / Capital Expense	No delegation.
Other items which indicate scope/ impact (specify)		

Knowledge, Skills and Experience

*Note: for recruitment purposes, the **Essential** column contains the **Key Selection Criteria** for the role (i.e. the minimum requirements for the role to be undertaken successfully). The **Desirable** column contains additional skills, experience or knowledge, which are not compulsory but which will help ensure success in the role and will be used to differentiate between candidates who meet all the essential criteria.*

	Essential	Desirable
Education/ Qualifications/ Specialist Training	<ul style="list-style-type: none"> ▪ PhD in Ecology (or equivalent field) e.g. forestry, botany, zoology and/or natural resource management ▪ Ability to identify important research questions. ▪ Ability to plan and conduct high quality research and answer research questions. 	<ul style="list-style-type: none"> ▪ A productive publication record. ▪ Working knowledge of the ecology of Australian cities and towns, and the current major research issues in the field of urban and suburban ecology.
Experience/ Knowledge	<ul style="list-style-type: none"> ▪ Demonstrated experience in the development and implementation of a successful research program. ▪ Sound knowledge and understanding of ecological issues related to the conservation of biodiversity in urban and suburban landscapes ▪ 	<ul style="list-style-type: none"> ▪ Experience in working with government and non-government organizations that manage urban and suburban environments on which ecological research has been conducted.

Skills	<ul style="list-style-type: none"> ▪ Experience in preparing grant proposals and tenders. ▪ Demonstrated ability to write for scientific publications and refereed journals. ▪ Well developed interpersonal and communication skills and an ability to communicate effectively with staff, other researchers, government agencies and the public. ▪ Demonstrated ability to manage research project budgets and competing project priorities 	<ul style="list-style-type: none"> ▪ Ability to write for journals and media releases. ▪ GIS capabilities
Attributes	<ul style="list-style-type: none"> ▪ Ability to work autonomously ▪ Proactive 	

Additional Information

- The position is located at the Australian Research Centre for Urban Ecology however travel to the Royal Botanic Gardens, Melbourne (South Yarra) or the Royal Botanic Gardens, Cranbourne will be required from time to time.
 - Field work as required in relation to the research project/s developed.
 - A current, valid Victorian driver's licence is required.
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