

RECRUITMENT

Postdoctoral Research Fellow: Emerging technologies for native wildlife assessment

School of Life and Environmental Sciences

CONTACT

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DEAKIN
UNIVERSITY

About Deakin

Deakin's growing reputation is reflected in its rapid rise in international rankings; Deakin entered the prestigious Academic Ranking of World Universities for the first time in 2014 and now ranks an estimated 262 (ARWU 2020). Deakin is ranked 29 in the QS ranking of the world's top universities under 50 years.

Established in 1974, Deakin University was named after the leader of the Australian Federation movement and the nation's second Prime Minister, Alfred Deakin.

Deakin University has five campuses, one in Melbourne's eastern suburbs, two in the port city of Geelong, one in Warrnambool on the south-west coast of Victoria, and more than 15,000 students study predominantly online as part of Deakin's Cloud Campus.

All students, regardless of their campus or mode of study, benefit from Deakin's award-winning digital environment.

Deakin is proud of its inclusive and student-focused culture and its reputation for using innovative digital solutions to provide an engaging and personalised learning experience. Deakin is committed to lifelong learning, providing students with choices about how, when and where learning occurs.

Deakin prides itself on developing career-ready graduates who are innovative, resilient, and well prepared for rapidly changing workforce needs. Deakin has a strong focus on teaching, with student satisfaction and the employability of its students being key indicators of success. Deakin ranks first in Victoria for student satisfaction (SES) and graduate employability (GOS).

Top 1%
of the world's universities

No. 1
In Victoria for student satisfaction ten years in a row (2010 -2019)

No. 262
ARWU global ranking of world universities' research capabilities

Deakin's four faculties offer courses across the arts, design, science, sport, nutrition, architecture, business, law, medicine, optometry, engineering, nursing, allied health, psychology and teaching.

With over 60 000 students Deakin is one of Australia's largest universities and is consistently ranked in the top 1% of the world's universities.

As an Australian university with global impact, Deakin is translating its research into the commercial outcomes that will drive the innovation Australia's economy needs now and into the future. Research at Deakin focusses on innovation and robust partnerships with industry and business, and it is building a formidable international reputation in areas of emerging national social, economic and political priority in its core areas of health, sport, carbon fibre, energy and cyber security. Deakin's manufacturing innovation precinct provides an important link between technological innovation and successful industry outcomes, strengthening and streamlining pathways for commercial research.

Our strategy

Through the strategic plan Deakin 2030: Ideas to Impact, Deakin's ambition is innovation and excellence in both education and research generate ideas that transform lives and communities. We will be Australia's most progressive and responsive university, leading in blending digital capability with our distinctive campus precincts. We will leverage strong partnerships to maximise the social, cultural and economic impact we deliver regionally, nationally and globally.

- We excel in both education and research.
- We value both excellence and equity.
- We are leaders in digital capability
- We are agile and responsive to community need.
- Indigenous Knowledges and Ideas form our future.
- We deliver impact locally and globally.
- We seek to grow where growth aligns with strategy.

Faculty of Science, Engineering and Built Environment

The Faculty of Science, Engineering and Built Environment at Deakin University places great emphasis on excellence in its teaching and learning, research and research training, community engagement, and staff empowerment. We pride ourselves on our national and international activities and the partnerships we have formed with industry, community, government, and the professions.

The Faculty of Science, Engineering and Built Environment consists of four schools, each with a multi-discipline mix of teaching and research offerings and a strong emphasis on research excellence that informs our teaching programs.

School of Architecture and Built Environment

- Architecture
- Construction Management

School of Engineering

- Additive Manufacturing
- Civil Engineering
- Electronics Engineering
- Electrical and Renewable Energy Engineering
- Energy System Management
- Energy System Management (Professional)
- Engineering Management
- Environmental Engineering
- Infrastructure Engineering and Management
- Infrastructure Engineering and Management (Professional)
- Mechanical Engineering
- Mechanical Design Engineering
- Mechatronics and Control Engineering

School of Information Technology

- Artificial Intelligence
- Computer Science
- Creative Technologies
- Cyber Security
- Data Science
- Information Technology
- Internet of Things
- Mathematics
- Software Engineering
- Virtual and Augmented Reality

School of Life and Environmental Sciences

- Biological Science
- Biomedical Science
- Biotechnology and bioinformatics
- Marine science
- Fisheries and Aquaculture
- Forensic Science
- Environmental Management and Sustainability
- Marine Biology
- Science
- Sustainable Regional Development
- Wildlife and Conservation Biology
- Zoology and Animal Science.

The Faculty Executive includes the Executive Dean, Deputy Dean/Director of Research Partnerships, four Heads of School, Associate Deans (Teaching and Learning; International Partnerships; Research), Faculty General Manager, Deputy Faculty General Manager, Finance Partner, HR Client Partner, Manager Safety, Wellbeing and Environment and Manager, Strategy Planning and Analytics. Collectively, this leadership team establishes and delivers on the Faculty's strategic activities.

Deakin's promise to equity, diversity and inclusion

At Deakin we value diversity, embrace difference and nurture a connected, safe and respectful community. We recognise that our academic workforce is increasingly diverse with a variety of backgrounds, experiences and responsibilities. In many cases, academic careers can be put on hold through career breaks or part-time work arrangements to take on caring duties, gain experience in other industries, for medical reasons or other personal circumstances. Achievement relative to opportunity places more emphasis on the quality as opposed to the quantity of research outputs. In your application, we encourage you to comment on your achievements relative to opportunity.



School of Life and Environmental Sciences

The School of Life and Environmental Sciences specialises in a wide range of disciplines and provides its graduates with a sound platform for the diverse employment opportunities that will exist in the future.

The school's multidisciplinary nature is underpinned by a cluster of foundation disciplines comprising biology, chemistry, ecology, geography, biomedical, earth and marine science. This diversity of expertise allows us to offer a wide range of academic programs at both undergraduate and postgraduate level. Our courses are informed through active and ongoing research and industry connections and provide our students with work-integrated and industry based learning experiences. Through these means, the school produces globally capable graduates with knowledge, skills and experience to gain employment related to their discipline.

Our internationally and nationally renowned academics and research staff are supported by constantly evolving technologies and state-of-the-art infrastructure. Often in collaboration with government departments, industry and leading international scientists, we deliver high quality research outcomes, from 'blue sky' discoveries to applied research and development tailored to industry, recently attracting over \$7 million in overall research funding, consisting of \$2 million in Australian competitive grants and \$5 million in industry funding. The School fosters a synergistic, collaborative and vibrant research culture, an outstanding research environment for early career researchers as well as world-class research facilities. The diversity and breadth of our academic expertise means that our research program can prioritise issues which are important for the future social, economic and environmental development and well-being of Australia and the world.

The School of Life and Environmental Sciences teaches students across four campuses: Melbourne Burwood, Geelong Waurin Ponds, Warrnambool and Deakin's Cloud Campus. The School is one of Deakin's largest teaching providers with around 2,700 equivalent full time undergraduate and postgraduate coursework students. The School attracts a sizable cohort of higher degree by research students who benefit from and contribute to our research culture. The school has close associations with a number of Deakin's strategic research centres - Centre for Integrative Ecology (CIE), Centre for Regional and Rural Futures (CeRRF) and IMPACT (The Institute for Mental and Physical Health and Clinical Translation in the area of Fundamental Biosciences).

Our mission is to produce well-informed and highly skilled graduates for the jobs of the future, and to conduct research that makes a positive difference to the communities we serve. By connecting people through education and research, we help to create a sustainable future.



Postdoctoral Research Fellow: Emerging technologies for native wildlife assessment

Research only Level A

Level A members of staff typically perform these duties at the following levels:

Research and scholarship

- Supporting and assisting with research, scholarship or creative activity
- Supporting and assisting with research projects and collaborations
- Supporting and assisting with research collaborations and partnerships
- Supporting and assisting with research programs or partnerships
- Supporting and assisting with the successful application of scholarly and research expertise to innovation and invention, with appropriate involvement in the commercialisation of outcomes
- Supporting and assisting with honours supervision
- Developing an early career research plan.

Position Description

Position Context

This is a new fixed-term position funded by a grant to the *Faculty of Science Engineering and Built Environment, School of Life and Environmental Sciences (LES)* from the Bushfires and Natural Hazards Cooperative Research Centre, in collaboration with the Victorian Department of Environment, Land, Water and Planning. This project will draw on expertise from Deakin's schools of LES, Information Technology and Business and Law, in collaboration with Parks Victoria and the Arthur Rylah Institute. The project aims to develop, implement and evaluate new approaches to monitoring wildlife, including kangaroos, koalas and ducks. It will use field surveys alongside a range of sources of imagery of wildlife and machine (deep) learning to identify improved monitoring approaches.

The Research Fellow will initiate and conduct research, including field research, by implementing the funded project "use of emerging technologies for native wildlife population assessment and management".

The Research Fellow is expected to contribute to the research output of the TechnEcology Research Network and the Centre for Integrative Ecology by publishing research in high impact peer-reviewed journals.

The Research Fellow will contribute to honours, postgraduate and staff supervision.

The Research Fellow will be responsible for project management, coordinating research activity, reporting and training across three subprojects addressing monitoring of kangaroos, koalas and ducks. Field

components within the remit of this position include surveying kangaroos and koalas, with assistance and advice from other project staff and students.

Organisational Context

The project is part of Deakin University's TechnEcology Research Network, a cross-disciplinary collaboration spanning the breadth of Deakin's expertise from all faculties. TechnEcology aims to use new technology for monitoring wildlife to improve our understanding of wildlife and to engage a broad section of society with nature, while also researching the benefits of these approaches for people and nature.

Principle Accountabilities

The Industry Postdoctoral Research Fellow is expected to contribute towards the research effort of the University and develop his/her research expertise through the pursuit of defined research projects relevant to the particular field of research.

- Initiate and conduct research under limited supervision either as a member of a team, or independently (where appropriate), to achieve the objectives of the funded project which will compare the efficiency of traditional and new survey methods for monitoring wildlife.
- Continue to develop a strong internationally competitive research record, including publishing research and presenting at conferences.
- Constructively contribute to a vibrant research team, including participating with

colleagues in developing and maintaining links and partnerships with industry and the wider community.

- Promote the activities of the University, particularly those relating to research and research training, within academic, industry and professional communities.
- Personally, and through active participation in teams, prepare and submit grant applications that can support additional research that aligns with the project but extends or complements the project's scope.

DUTIES

- Manage the overall project, including field work, reporting and training under supervision of lead investigators.
- Coordinate and implement field data collection for kangaroos and koalas, with assistance and advice of other project staff/students.
- Contribute to preparation of data sets that will be used for training algorithms for automated data processing.
- Ensure high quality engagement with industry partners throughout the project, including in delivering high impact and relevant research outcomes.
- Be involved in professional activities, including attendance at conferences and seminars in the field of expertise (subject to availability of funds).



- Develop research-related material for training purposes, with appropriate guidance from other staff.
- Undertake some administrative functions primarily connected with the area of research.
- Provide advice to postgraduate students within the field of the staff member's research including co-supervision with senior staff.
- Engage constructively with research partners to identify and expand collaboration opportunities and to seek new funding.

LEVEL OF SUPERVISION AND INDEPENDENCE

Research is conducted independently and as part of a team, in the context of frequent consultation with other team members and with the responsible research investigators.

PROBLEM SOLVING AND JUDGEMENT

The Postdoctoral Research Fellow is expected to exercise judgement on work methods and task sequences within standard practices and procedures and to seek expert advice for work methods that fall outside the standard practices.

Capacity to work independently, to use initiative and to work well within a team setting is expected.

Selection Criteria

– Essential

Qualifications

1. A doctoral qualification in ecology or other appropriate disciplines.

Experience, Knowledge and Skills

2. Experience and skills in managing large research projects, including supervising staff, students and/or volunteers
3. Research experience which has resulted in publications in scientific journals.
4. Demonstrated skills in analysis of complex data sets.
5. Experience in collecting field data and capacity to undertake efficient, independent field work in remote areas.
6. Demonstrated capacity to implement research in collaboration with a range of stake-holders (government agencies, private landholders, conservation groups etc.).

SELECTION CRITERIA – DESIRABLE

Strengths in one or more of the following fields would be an advantage:

7. survey techniques for large mammals and/or arboreal mammals and/or waterbirds
8. experience in analysing complex data sets using R statistical software

9. UAV experience and qualifications
10. quantitative spatial ecology/ remote sensing
11. Experience in evaluating wildlife survey techniques

SPECIAL REQUIREMENTS

- Drivers licence
- Capacity to undertake extended, physically demanding field work outside of Melbourne including field trips of 1-2 weeks duration.
- Include in your application a brief cover letter and a CV with full reference list. Separate peer-reviewed publications from conference abstracts or papers not yet submitted.
- Address selection criteria 11 in no more than three pages.

Appointment process and how to apply

Application

Thank you for your interest in the position of Postdoctoral Research Fellow.

Please direct all correspondence and enquiries to:

Eric Trembl, Senior Lecturer Fisheries Science
Faculty of Science, Engineering and Built Environment
Phone: +61 3 5227 8756
Email: d.driscoll@deakin.edu.au

How to apply

Please apply online via:

deakin.edu.au/about-deakin/work-at-deakin

Include cover letter, curriculum vitae and a response to the Selection Criteria.

Please quote reference number:

Interview process

An initial screening of prospective candidates will take place.

Short-listed candidates will be interviewed by a panel of esteemed colleagues.

Details of professional referees will be required prior to interview.

Remuneration and benefits

An attractive remuneration package is offered. Salary will be commensurate with qualifications, experience and research record.

Relocation support may also be available.

Term of appointment

Appointment is for a two year fixed term part-time position (1.0 FTE) which is subject to an initial 12 month probationary period.

Special Requirement/s

This role has been identified as having contact with children and requires the incumbent to apply for and maintain a Working With Children Check (refer to Deakin's Recruitment Procedure for further details).

Performance expectations

Annual performance objectives and expected outcomes will be defined for this role in accordance with the Minimum Standards and Typical Duties for Academic Levels (MSTDALs) and Faculty Research Expectation Models (FREMs). Specific duties will be allocated with reference to the applicable Workload Allocation Model (WAM). These documents are updated from time to time and are available on request.

Our locations

Deakin has five campuses, one in **Burwood**, two in **Geelong** (Waterfront and Waurn Ponds), one in **Warrnambool** and the vibrant Cloud Campus through which 20% of our students study.

Melbourne has been named the world's most liveable city for more than 5 years running*.

Further information regarding our locations and relocating to Victoria can be found here:

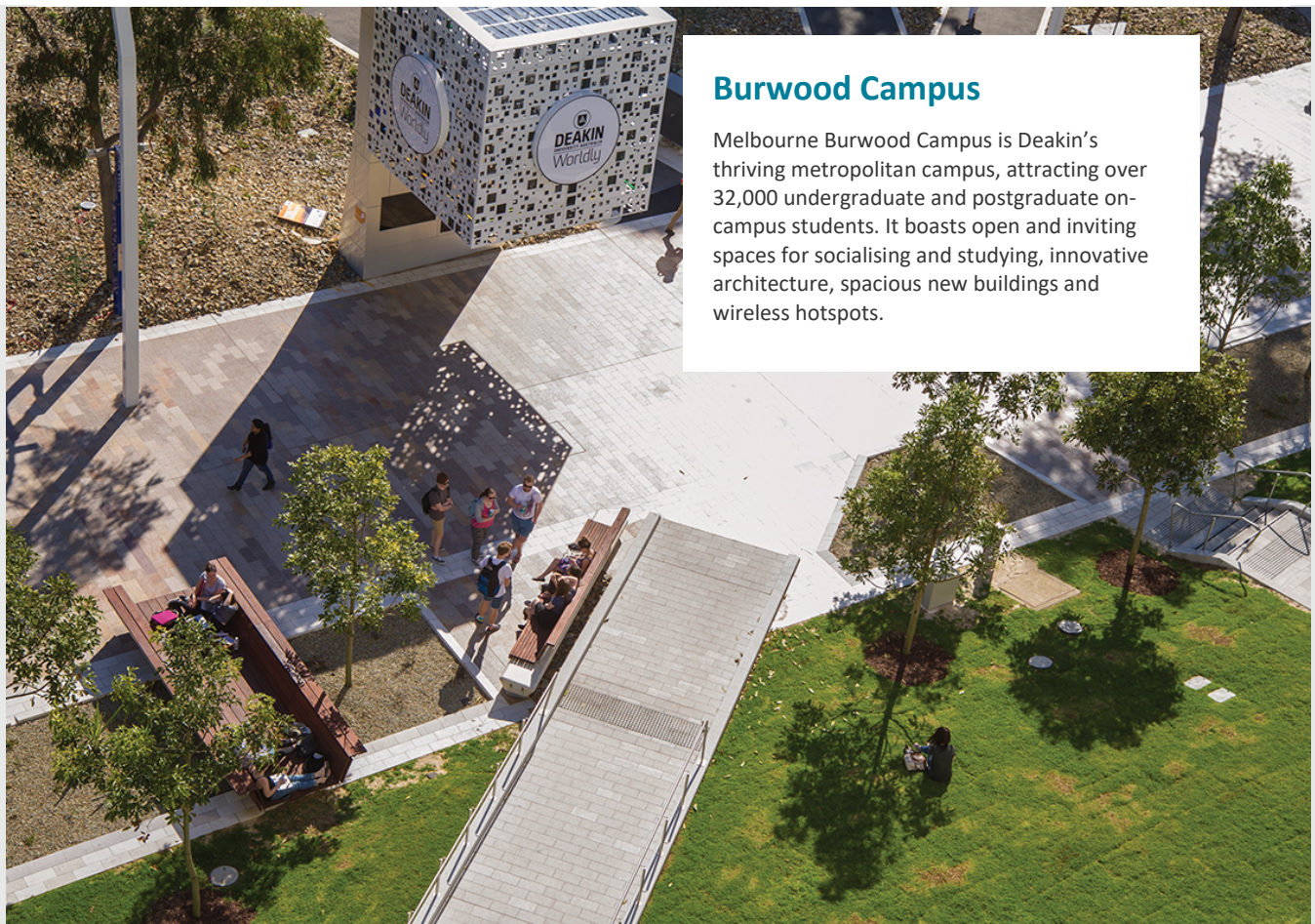
[Our locations](#)

[Considering Relocation](#)

[Melbourne timelapse](#)

[Geelong/SurfCoast timelapse](#)

**The Economist's annual study*



Burwood Campus

Melbourne Burwood Campus is Deakin's thriving metropolitan campus, attracting over 32,000 undergraduate and postgraduate on-campus students. It boasts open and inviting spaces for socialising and studying, innovative architecture, spacious new buildings and wireless hotspots.