# Position Details

## CSIRO Early Research Career (CERC) Postdoctoral Fellowship– CSOF4

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| The following information is for applicants | |
| Advertised Job Title | CSIRO Postdoctoral Fellowship in Quantitative Ecology |
| Job Reference | 80480 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$89,926 to AU$98,504 pa + up to 15.4% superannuation |
| Location(s) | Dutton Park, Brisbane, QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader (Adaptive Biosecurity Management) |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Jens Froese via email at jens.froese@csiro.au  *Please do not email your application directly to Jens Froese. Applications received via this method will not be considered.* |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the area that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

**CSIRO Early Research Career (CERC) Postdoctoral Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have less than three years of relevant postdoctoral work experience. These fellowships aim to develop the next generation of future leaders of the innovation system through:

* A differentiated career development program to deliver capability excellence and breadth across all facets of the national innovation system.
* Research training via strategic research and development projects with a clear focus that will deliver real impact through science and engineering excellence.
* An innovative culture supporting the development and demonstration of original thinking and expertise leading to peer-recognition.
* Opportunities to develop skills and experience in collaborative research teams to effectively work within national and global multi/transdisciplinary and multi-stakeholder environments.

CERC Postdoctoral Fellows **are appointed for three years full-time or equivalent.**

The Postdoctoral Fellow will have skills in quantitative analysis and ecological modelling and will be part of the biosecurity research program of CSIRO’s Health & Biosecurity business unit. This multi-disciplinary program undertakes research to reduce the actual and potential economic, environmental, and social impacts of national priority pests, weeds and diseases of agricultural and environmental concern.

As a member of the Adaptive Biosecurity Management team, the Fellow will help develop novel methods, tools and digital platforms that enable policy makers and land managers monitor, evaluate, and manage invasive species and other biothreats. This Postdoctoral Fellowship will contribute to several highly collaborative, multidisciplinary research projects with internal and external partners. A specific focus will be on developing spatiotemporal ecological models that draw on multiple integrated data streams and deliver interpretable outputs for adaptive decision making.

In this role, the Fellow will have opportunities for collaborating with other researchers across the research program and CSIRO, building networks, pursuing innovative ideas and developing new research and development opportunities. Through the Fellow’s contributions to research projects and broader engagement, this project will help facilitate the ongoing digital transformation of CSIRO’s research capabilities and Australia’s biosecurity system.

### Duties and Key Result Areas

Under the direction and/or guidance of senior research scientists and engineers, this CERC Postdoctoral Fellow will:

* + Develop and apply cutting-edge spatiotemporal ecological models that draw on multiple integrated data streams and deliver interpretable outputs for adaptive decision making.
  + Participate in planning research projects and assume responsibility for scheduling, leading and completing major parts of projects, including allocating and directing tasks where appropriate.
  + Maintain a focus on client needs and the adoption of research outputs and outcomes.
  + Recognise opportunities for innovation and incorporating novel perspectives and/or approaches in the context of existing as well as potential future research directions.
  + Work collaboratively as part of multi-disciplinary, regionally dispersed teams to carry out innovative, impactful research of strategic importance to CSIRO.
  + Produce scientific papers suitable for publication in high quality international journals and for presentation at national and international conferences, and present or write research reports and communication materials for clients, collaborators and technical/community stakeholders.
  + Record, manage, and analyse data/information using relevant domain data science techniques.
  + Maintain confidentiality when dealing with commercially or culturally sensitive information.
  + Develop and contribute to new, multi-disciplinary research projects, including negotiation and securing of external funding requirements.
  + Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
  + Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
  + Proactively undertake learning and development to grow effective researcher capabilities to support career goals.
  + Other duties as directed.

[**The CERC Postdoctoral Fellow learning and development program**](http://www.csiro.au/en/Careers/Student-and-graduate-programs/Postdoctoral-fellowships)is developed between the CERC Postdoctoral Fellow and their CSIRO supervisor. The program will focus on enhancing the Fellows’ capabilities to the level expected of an independent researcher and will include on-the-job and course-based development encompassing:

* Discipline-specific techniques and protocols
* Professional growth
* Project management
* Communication and influencing skills
* Working and collaborating with others

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as Ecology, Ecological Applications or a relevant area of Statistics and/or Machine Learning.

Please note: To be eligible for this role you must have **no more than 3 years** (full-time equivalent) of postdoctoral research experience.

1. Proven strong quantitative analytical and statistical skills, combined with an ability to source, interpret and utilise empirical data.
2. Proven high level skills in scientific computing languages and software (such as R or Python) relevant to the domain questions and data.
3. Demonstrated client focus, including an ability to deliver science-based solutions that are interpretable and practical, and a participatory approach to research and development.
4. **Demonstrated ability to work effectively as part of multi-disciplinary, regionally dispersed teams, plus the motivation and discipline to carry out autonomous research.**
5. Demonstrated ability to lead projects or major components of large multi-disciplinary projects.
6. Demonstrated strong communication skills, both written and spoken, needed to make research accessible to diverse audiences in constrained time frames. This includes an ability to publish impactful scientific papers and effectively present research outcomes to clients, collaborators and technical/community stakeholders.
7. A record of science and/or technological innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations to develop appropriate solutions to research challenges.

## **Desirable**

1. Research experience in biosecurity or invasive species (animal and/or plant) ecology.
2. Technical experience with one or several of the following: data integration, spatial analysis, simulation, dynamic models, or hierarchical models.
3. Track record in developing research proposals and obtaining funding.
4. Remain productive, positive and resilient in complex, ambiguous and uncertain environments.
5. Willingness and the ability, when permitted, to travel throughout Australia and internationally, requiring occasional extended trips away from home and occasional weekend work.
6. A current and valid Australian drivers’ licence.

To be appointed as a CERC Postdoctoral Fellow within CSIRO, candidates are required to have **submitted** their PhD at the time of commencement, as a minimum requirement, if PhD conferment has not been obtained. If a candidate has submitted, but their PhD has not yet been formally attained, the starting salary will be CSOF4-1 (AU$87,068). Upon CSIRO receiving written confirmation that the PhD has been awarded (within a six month period from commencement date), the salary will be increased to the negotiated level and the difference will be back-paid to the Officer’s start date.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test). https://ielts.com.au/

**Our Value Proposition**

We want CERC Postdoc Fellows to join our world class science, engineering and digital teams to solve big, complex problems that make a real difference to the future of Australia and the world.

You'll get to work with some of the most talented minds in their fields, not just in Australia, but in the world. At CSIRO, we spark off each other, learn from each other, trust each other and collaborate closely to achieve more than we could individually.

CSIRO Early Research Career (CERC) Postdoctoral Fellow Experience Employee Value Proposition (EVP). Find out more [here](https://www.csiro.au/en/careers/postdoctoral-fellowships).

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/).

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

Find out more about CSIRO [Health and Biosecurity](https://www.csiro.au/en/Research/BF)