# 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 Fisheries and Environmental DNA |
| Job Reference | 67879 |
| Tenure | Specified Term of 2 years, Full-time |
| Salary Range | AU$86,434 to AU$94,679 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Hobart, TAS |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents * Australian temporary residents currently residing in Australia (visa sponsorship may be provided to eligible candidates) |
| Position reports to the | Research team leader |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Chris Wilcox via email: [chris.wilcox@csiro.au](mailto:chris.wilcox@csiro.au) or phone:+61362325306 |
| 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. |

### 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 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; and
* 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 or part time equivalent.**

The Postdoctoral Fellow will lead the development of environmental genomic methods for monitoring fisheries, including methodological development, implementation of a pilot program, and development of an operational program for a case study fishery.

The Fellow will join an internationally recognised team in fisheries science, to work on a project to apply environmental DNA techniques to monitoring fisheries. The Marine Monitoring and Surveillance team is an interdisciplinary group of 25 researchers, engineers, and technicians work on a range of topics related to understanding and addressing the challenges posed by illegal fishing, at national, regional, and global scales.

Projects in the team cover a wide range of activities, from developing hydrophones capable of detecting explosions from bomb fishing and alerting authorities in real time to building regional scale estimates of the volume and value of catch from illegal fishing using expert surveys and media analysis together with statistical tools.

The team is an active and dynamic group, working domestically in Australia, in partnership with countries across the Asia-Pacific region, and globally with international organizations. The Postdoc will have the opportunity to interact with industry, government and international organization stakeholders, assisting in product development for users, gaining skills in project management, and having the opportunity to take the research effort in new directions.

### Duties and Key Result Areas:

Under the direction of senior research scientists, carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.

* Lead the developing and application of environmental DNA methods to the monitoring of commercial fishing vessels. These will include developing field sampling designs, laboratory processes, and statistical analysis of the resulting data.
* Deliver papers on environmental DNA topics and the application to monitoring of harvesting, particularly in fisheries, targeted at environmental science and resource management journals.
* Produce research reports, and software tools based on the analysis developed in the project.
* Undertake regular reviews of relevant literature and patents.
* Prepare appropriate conference papers and present those at conferences as agreed with your supervisor.
* Contribute to the development of innovative concepts and ideas for further research, including contributing to grant proposals.
* Make a contribution to the effective functioning of the research team and help deliver CSIRO’s organisational objectives and plans.
* Work collaboratively with colleagues within your team, the business unit and across CSIRO.
* Communicate 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 Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Undertake an appropriate training and development program developed by CSIRO.
* 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 genetics, genomics, bioinformatics, or other relevant discipline.

**Please note:** **To be eligible for this role you must have at least one year of research experience but no more than 6 full-time equivalent years (or part time equivalent) of relevant experience, since confirmation of your doctorate at the end of this postdoctoral term.**

1. **Demonstrated experience in using genetic or genomic tools to investigate biological systems, including design of field surveys and development of laboratory processes.**
2. **Experience with real-time PCR and sequencing technology.**
3. **Demonstrated experience in bioinformatic analysis of genetic or genomic data, including e**xperience with Python, R, or other open source statistical analysis packages**.**
4. **The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.**
5. A record of science innovation and creativity, plus the ability & willingness to incorporate novel ideas and approaches into scientific investigations.
6. High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including the presentation of research outcomes at national and international conferences and publication in peer reviewed journals.

## **Desirable:**

1. Knowledge of fisheries science.
2. Experience with commercial fisheries, including industrial and small scale fisheries
3. Experience in resource management in medium and low income countries
4. Entrepreneurial and Innovative.
5. Remain productive, positive and resilient in complex, ambiguous and/or uncertain environments.
6. **The ability to work effectively as part of a multi-disciplinary, potentially regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.**

To be appointed as a CERC Postdoctoral Fellow within CSIRO, candidates will be expected to commence employment by December 2020. Candidates are also 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$83,687 + up to 15.4% superannuation). 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

* 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.

**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/)!

Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)