# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Data analyst/Ecologist |
| Job Reference | 90742 |
| Tenure | Specified Term of 4 years  |
| Salary Range | AU$105,806k - AU$114,500 k per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Townsville or Brisbane |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Andrew Hoskins via email at Andrew.Hoskins@csiro.au or phone +61 7 4753 8567 |
| 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 or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas 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

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

The National Koala Monitoring Program (NKMP) is a co-designed, fit-for-purpose, long-term program to improve understanding of the status and trends of koala populations and to support evidence-based adaptive management strategies to reverse the trend of declining populations. The overarching goal of this 4-year program of work is to build long term capability for the monitoring and assessment of koala populations across their range. The project is innovative in its design to build technical and social confidence in a range of data collected by diverse community, government and private sector sources, and to establish a monitoring framework which is trusted by all to provide quality estimates to inform impactful management strategies.

The data analyst/ecologist role is required to undertake tasks associated with implementing the National Koala Monitoring Program. The skills required are broadly applicable and transferable to other projects. The position will involve:

* working with a team of ecologists, statisticians, data analysts, and social scientists to support data collection, analysis and integration to produce National-scale wildlife population estimates and understand population dynamics
* establishing and maintaining data streams including managing data integrity, privacy and ethical use, consistent with regulatory and security requirements
* ensuring dataset integrity and quality checks, including maintain / manage metadata
* designing and undertake meta-analyses to support the development of new typologies to underpin scalable integrated modelling capabilities
* supporting the team to understand and optimise the data pipeline from collection to visualisation

### Duties and Key Result Areas

* Design and lead research investigations requiring originality, creativity and innovation in field data collection, and analytical and digital solutions to conservation and land management challenges.
* Work with multidisciplinary teams to develop and implement workflows that integrate different data pipelines.
* Analyse and present results in a meaningful format, prepare reports for clients and/or write scientific papers for publication.
* Address problems promptly and in a constructive manner, selecting the most profitable lines of attack for a given problem, preparing detailed design proposals and experimental protocols.
* Participate in identification of further opportunities which arise from research and initiate new lines of research.
* Liaise with external and internal clients to determine their needs and take personal responsibility for client satisfaction.
* Draw on professional expertise, knowledge of other disciplines and research experience, recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas/approaches and networking with scientific colleagues across a range of disciplines.
* 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.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD in a relevant field such as ecology, wildlife ecology, quantitative ecology, statistics, data science with at least 2-3 relevant research experience.
2. Strong background in ecology to support the quantitative analysis and interpretation of field and digital data in the context of biodiversity monitoring and assessments, from local to global scales
3. Experience in developing and/or applying novel analytical methods and tools for solving complex ecological challenges
4. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, together with strong written and oral communication skills.
5. Demonstrated ability to lead project teams in ecological research and develop and maintain stakeholder relationships
6. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
7. Current Class C Driver’s Licence

## **Desirable**

1. Willingness to participate in field work, sometimes in remote locations, involving periods of up to two weeks away from base.
2. Experience in the acquisition, integration and analysis of large spatial and temporal datasets using a range of programming languages including (but not limited to) Python and/or R.
3. Expertise in High Performance and/or cloud computing systems and experience with relational databases (e.g. SQL, postGRES).
4. Experience with analysis and collection of citizen science data as well as aggregators (e.g. GBIF, ALA) and/or expertise with mobile app and/or data collection systems development.

## **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 responses by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **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 change.

Special Requirements

* The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals 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/)

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and for more information.

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

* People First
* Further Together
* Making it Real
* Trusted