# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Biostatistician |
| Job Reference | 85763 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$102,724 - AU$111,165 per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | Hobart |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents |
| Position reports to the | Team Leader, Marine Biodiversity Risk and Management |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | [Piers.Dunstan@csiro.au](mailto:Piers.Dunstan@csiro.au), +613 6232 5382 |
| 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 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

CSIRO’s Ocean and Atmosphere business unit is uniquely placed to deliver significant economic, social and environmental benefits for Australia and the region. CSIRO Oceans and Atmosphere provides the knowledge to manage Australia's marine estate and atmospheric environment, plan for and respond to weather and climate related natural hazards and ensure sustainable coastal development and growth of marine industries. We seek to secure Australia’s future through our seas and skies.

CSIRO Coasts and Ocean Research (COR) Program is a world leader in marine scientific research, focusing on the sustainable use and conservation of the marine environment.

The role of Research Scientist/Engineer staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Research Scientist/Engineer may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist/Engineer 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.

We are seeking a research scientist to provide statistical analysis of complex systems from ecosystems to genes, adapt existing statistical methodologies to these systems and develop new methods where none exists. The provision of statistical analysis and development of methodologies has been identified as a key capability. The position will support project work across multiple areas within Coasts and Oceans Research with a focus on marine spatial planning and risk assessment in the first instance. The successful applicant will have experience in the analysis of at least one type of complex system and be able to show the ability to adapt approaches to new applications. They will need to have a strong statistical background, with a preference for an understanding of spatial analysis and/or bioinformatics. The ability to adapt classical statistical approaches to utilise AL/ML would be an advantage.

### Duties and Key Result Areas

Working closely with project leaders in the Biodiversity Management & Conservation, Integrated Marine Management, Marine Monitoring and Surveillance and Domestic and international Fisheries Domains to develop and deliver collaborative research projects and capacity building activities with partners, including:

* Develop and/or implement methodologies for the statistical analysis of physical, biological, ecological and genetic/eDNA data.
* Analyse physical, biological, ecological, biochemical tracer and genetic/eDNA data using defined methods to understand the connectivity, drivers and dynamics of ecosystems/species and produce risk assessments with estimates of the associated uncertainty.
* Data manipulation and curation of physical, biological, ecological, genetic and human use data to support analyses.
* Link the ecological, biological, biochemical tracer, genetic/eDNA and spatial modelling components of projects to current data on, and future scenarios of, growth in human pressures on marine systems (shelf, deep sea and pelagic), and environmental change, to provide recommendations about spatial management priorities
* Contribute to science projects more broadly in the Biodiversity Management & Conservation, Integrated Marine Management, Marine Monitoring and Surveillance and Domestic and international Fisheries Domains and in particular provide statistical support and methodology development across these domains.
* Have a significant role in communicating research or technological results in internal and external forums and, where applicable, lead and contribute to scientific papers.
* 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, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as ecology, statistics or bioinformatics.
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
3. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
4. Demonstrated capability to conduct innovative research in the analysis of complex systems (eg ecological or genetic/eDNA data)
5. Demonstrated capability in the development of statistical methodology for the analysis of biodiversity data, including model development, parameter fitting, data integration and estimation of uncertainty.
6. Experience in, or knowledge of programming in R/C/C++, package building in R and the efficient processing of large and diverse datasets

## **Desirable**

1. Experience in, or knowledge of marine ecology and the marine environment
2. Experience using database and GIS software.
3. Experience using linux operating systems and clusters.

## **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.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO’s Oceans and Atmosphere Business](https://www.csiro.au/en/about/people/business-units/Oceans-and-Atmosphere) 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