# Position Details

## Technical Services- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Data Analyst – EcoCommons |
| Job Reference | 78562 |
| Tenure | Specified Term of 18 months Full-time or Part Time |
| Salary Range | CSOF5 LevelAU$102,724 to AU$111,165 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Canberra, Melbourne or Brisbane preferred. |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian Citizens Only
* Australian/New Zealand Citizens and Australian Permanent Residents Only
* All Candidates
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| Position reports to the | Peggy Newman |
| Client Focus – Internal | 60% |
| Client Focus – External | 40% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Peggy Newman via email at peggy.newman@csiro.au |
| 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. |

### Role Overview

* Do you want to apply your data skills to be part of science and research at CSIRO?
* Are you passionate about open-source software and open data?
* Supportive, rewarding, inclusive and truly flexible environment

The Atlas of Living Australia (ALA) is Australia’s largest national biodiversity data source funded by the National Collaborative Research Infrastructure Strategy (NCRIS) and hosted by CSIRO. The ALA is the Australian node of the Global Biodiversity Information Facility (GBIF). Our digital infrastructure is developed in-house to support research activities, government decision-making and community events.

The ALA is a key partner in the 3-year digital innovation program, EcoCommons Australia, designed to tackle complex technical challenges encountered by researchers and decision- makers concerned with biodiversity including ecosystem services, biosecurity, natural resource management and climate-related impacts and responses. This is a multi-institutional program with partners across technical and research fields.

As part of this program the ALA wishes to appoint a Data Analyst to work on data acquisition, transformation, loading, integration and quality assurance for a 1.5 year opportunity based at CSIRO in Canberra**.** Our team is technically oriented and uses multiple technologies and platforms to explore and manipulate large datasets into a standardised format, which we then ingest through our processing pipeline.

### Duties and Key Result Areas:

As a successful candidate you will develop new and support existing automated jobs to harvest data from a series of data providers including national and international data repositories, ensuring data currency and quality is consistent with expectations. The successful candidate will have knowledge in processing species data (occupancy and/or abundance) as well as data on environmental variables (e.g. rainfall, temperature, soil characteristics etc.). You will need to be effective both as a team member and as a reliable point of contact for data providers. We’re looking for strong collaboration and communication skills, and the ability to develop great rapport with stakeholders.

Duties and Key Result Areas:

* Reportto the EcoCommons Program Manager and Technical Lead to build and manage both automated and manual data loading processes and specifically focus on a better integration of ALA-provided data into EcoCommons
* Architect a framework for the data lifecycle: from ingestion to processing to search to outputs in scientific workflows and analysis pipeline
* Assist in providing advice on engineering a pipeline for data ingestion and processing (automate as much as possible) to ensure dataset updates + additions are sustainable by the dev team
* Create guidelines for data management (incl. metadata, updates, criteria for inclusion.)
* Map datasets to required data standards (e.g. Darwin Core, Darwin Event Core, Humboldt Core).
* Implement, deploy, schedule and maintain data load processes.
* Implement quality assurance and verification on datasets to ensure loaded records meet expectation
* Engage professionally with external stakeholders offering technical guidance on data management issues such as data mapping, automation, and loading and ensuring data is useful in models and meets the expectations of providers.
* Contribute to team meetings and planning and review activities
* Contribute work to ALA Data Management Team on spatial layer management (adding, updating, deleting layers according to a prioritised worklist).
* Advocate for open science principles wherever feasible and help align projects and development efforts for the benefit of ALA and EcoCommons.

## **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:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **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:** 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 changes.

## **Selection Criteria**

Our preference is to hire a talented programmer with tertiary qualifications in Computer Science/Software Engineering, Quantitative Ecology, Science or another relevant field.

**Essential Criteria:**

* Strong knowledge of scripting languages in a command line environment – Python or R
* Experience in both delivering and consuming REST services
* Strong (extract, transform, load) ETL skills with large datasets with a focus on efficiency and scale
* Experience with a variety of open source relational and non-relational databases
* Source code management using git, svn or Bitbucket
* Effective stakeholder engagement and technical liaison skills

**Desirable Criteria:**

* Experience with geospatial data systems and development
* Experience in processing species data (occupancy and/or abundance) as well as data on environmental variables (e.g. rainfall, temperature, soil characteristics etc.)
* Background or strong interest in biodiversity/ecology/taxonomy
* Enthusiasm and knowledge of open data standards, procedures and policy
* Experience with Darwin Core standard
* Experience with Apache Airflow

*CSIRO thrives on innovation; innovation that is harnessed by the diversity of the minds and lived experiences brought to our greatest challenges. If you meet some, but not all requirements, we encourage you to submit your application. Our priority is to improve how we recruit diverse, talented people and empower them to flourish.*

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.

## **About CSIRO:**

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