# Position Description

## Postdoctoral Fellowship– CSOF4

The following information is for applicants

|  |  |
| --- | --- |
| Advertised Job Title**:** | Postdoctoral Fellowship in Data Analytics, Fisheries, Behaviour, and Criminology |
| Job Reference: | 59742 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | * All Candidates |
| Percentage of Client Focus - Internal: | 50% |
| Percentage of Client Focus - External: | 50% |
| Reports to the: | Principal Research Scientist |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries: | Dr. Denise Hardestyvia email: denie.hardesty@csiro.au |
| Contact Details For Applying: | Call 1300 984 220 or email [csiro.online@csiro.au](mailto:careers.online@csiro.au) |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon |

## Role Overview:

**Postdoctoral Fellowships** at CSIRO provide opportunities to scientists and engineers, who have completed their doctorate and have less than three years relevant postdoctoral work experience. These fellowships will help launch their careers, provide experience that will enhance their career prospects, and facilitate the recruitment and development of potential leaders for CSIRO.

Postdoctoral Fellows **are appointed for up to three years** and will work closely with a leading Research Scientist or Engineer in their respective field. They carry out innovative, impactful research of strategic importance to CSIRO with the possibility of novel and important scientific outcomes. They present the findings in appropriate publications and at conferences.

The fellow will join a research team working on new analytical tools and low cost data sources for addressing environmental crime generally, and illegal fishing in particular (see research.csiro.au/mcsanalytics). The research focus for the position will be analysis of compliance behaviour, using a range of datasets on behaviour of vessel operators at sea.

The fellow’s project will focus on 4 key questions:

1. *Is non-compliance predictable based on context or actor characteristics?*
2. *Is non-compliance correlated across types of decisions for individuals?*
3. *What is the relative importance of ignorance, capacity, and wilful disobedience in predicting violations?*
4. *How do interventions (education, technology transfer, enforcement) affect compliance behaviour?*

The fellow will focus on a mixture of analysing existing data sets and developing a new datasets to address these questions. Datasets will be drawn from domestic and international sources. Where possible, inferences will be supported by follow-up surveys and natural experiments as management interventions occur.

The fellow will bring skills and interest in human behaviour, fisheries, and social systems. This skill set will complement skills within the research team, giving the postdoctoral fellow an area of expertise and leadership independent of the existing team members. S/he will co-lead engagement with the project partners, with support of the supervisor and mentor(s). The fellow will carry out his/her own research project and will be responsible for data management and analysis, but will have the guidance and support of the supervisor, 2 senior mentors and statistical analysists. The fellow will have excellent statistical analytical skills, and be fluent in programming languages such as R, matlab, or a similar alternative.

## 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.
* Undertake regular reviews of relevant literature and patents.
* Produce high quality scientific and/or engineering papers suitable for publication in quality journals, for client reports and granting of 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.
* 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.

***CSIRO’s postdoctoral training program***is developed between the Postdoctoral Fellow and a CSIRO scientist. 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

<http://www.csiro.au/en/Careers/Student-and-graduate-programs/Postdoctoral-fellowships>

## CSIRO Competencies:

1. **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.**
2. **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.**
3. **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.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **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:

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

* PhD required in a relevant field.
* Excellent analytical skills (programming in R, experience with GAMs, GLMs, GIS, data manipulation with large, complex datasets), interpretation
* Strong science communication skills as evidenced by publication record.
* Experience with analysis and interpretation of data in the project domain.
* **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.**
* A record of science innovation and creativity, plus the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

**Desirable Criteria:**

* Experience with management systems, particularly in a natural resources context such as forestry, fisheries, or other similar systems.
* Experience with and/or knowledge of criminology.
* Knowledge of quantitative methods in the social sciences, including survey instruments, survey design, behavioural economics, forensic science, and related fields.

To be appointed as a 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$82,450).* 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 security/national police/medical/character clearance requirements. Applicants who are not Australian Citizens or Permanent Residents 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 imagine. We collaborate. We innovate. 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)