

Research Assistant in River Ecology

School or Department: Biosciences

Grade & Salary: Grade F (£28,608 - £32,089 p.a. pro rata)

Role Description:

The principal purpose of this role is to contribute to the development of methods to enable effective biomonitoring of ecosystem health in 'temporary' streams, by analysing existing datasets.

Principal duties and responsibilities: The role may encompass all of the following, but the balance of duties and responsibilities will be determined in discussion with the post holder's line manager:

A. **Subject Area:** River ecology

B. **Principal Duties**

1. Undertake research activity on the *Developing SmartRivers for Winterbournes* project, record and report the results.
2. Collate existing datasets describing aquatic macroinvertebrate communities and environmental conditions in winterbourne and other temporary chalk streams, including conditions indicative of human pressures and data describing the flow and drying regime.
3. Harmonise and prepare datasets for analysis.
4. Calculate summary indices to represent aquatic macroinvertebrate communities and metrics to represent environmental conditions including the flow and drying regime, and different human pressures.
5. Develop appropriate analytical models to characterise relationships between environmental predictors and biological response variables.
6. Use the developed models to analyse the data and interpret the model results, noting study limitations and associated data gaps and priorities for future research.
7. Produce research reports and publications, and present the information to the project team and other stakeholders, as appropriate, including development of recommendations to guide effective invertebrate-based assessment of winterbourne health.



8. Contribute to research plans as appropriate, communicating with internal and external contacts as necessary.
9. Keep knowledge and skills up to the required level by engaging in internal and externally based CPD, making both internal and external contacts for collaboration purposes.
10. Ensure that all resources used are correctly recorded and documented, files are kept up to date and data accuracy is maintained, as per the project data management plan
11. Attend and contribute to meetings as appropriate, including as a member of the Project Board.
12. If required, assist in the supervision of student projects and contribute to courses, particularly aspects such as research techniques or approaches or demonstration of equipment as appropriate. This assistance may also take the form of tutorials or assistance in practical work.
13. If required, provide guidance and supervision to support staff and students assisting with research and impact activities.

N.B. The post-holder may be required to undertake any other duties which may reasonably be required as within the nature of the duties and responsibilities of the post as defined, subject to the proviso that normally any changes of a permanent nature shall be incorporated into the job description in specific terms.

Our Principles, Our Ways:

Our Ways represents a commitment to making a difference, taking bold steps, and maintaining moral standards. It's about proactively creating positive change while prioritising integrity and accountability in all our actions. We encourage colleagues to strive towards Our Ways with the following behaviours:

Our Ways		
We change lives.	We are bold.	We do the right thing.
Relationships with others	Adaptability	Planning and delivering work
Delivering through others	Problem solving	Accountability
	Developing yourself	

Personal Attributes:

Attributes	Essential	Desirable
Knowledge	<p>A thorough understanding of standard research techniques and methods within freshwater ecology, and the potential to develop skills further in this area.</p> <p>Expertise and understanding of current ecological data analysis methods and their use in interrogating community-level data.</p> <p>Working knowledge of advanced ecological analysis software.</p> <p>Expertise in relevant software including Microsoft Office and R.</p>	<p>Knowledge of aquatic macroinvertebrate community ecology</p>
Skills	<p>Ability to collate, harmonise, manage, analyse and interpret complex ecological datasets.</p> <p>Ability to explain complex ideas clearly using terminology and style appropriate to a scientific audience.</p> <p>Bibliographic research skills, including use of online literature-searching databases.</p> <p>Ability to overcome problems which may affect the achievement of research objectives and deadlines, including analytical problems.</p>	<p>Ability to use ecological R packages such as vegan.</p>
Experience	<p>Significant relevant work experience in a research environment, using standard research methods and techniques.</p> <p>Experience of ecological data analysis using advanced approaches, and interpretation of the resulting outputs.</p> <p>Experience of disseminating research finding including in written outputs</p>	<p>Experience of delivering oral presentations to practitioner, academic and/or lay audiences.</p>
Qualifications	<p>Undergraduate and Masters degrees or equivalent in</p>	<p>PhD in a relevant discipline</p>



Nottingham Trent
University

	environmental science, ecology or any other relevant discipline.	Membership of relevant organisations UK driving licence
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