

Research Associate in River Science

Stuck in the mud: addressing the fine sediment conundrum with multiscale and interdisciplinary approaches to support global freshwater biodiversity

Job Ref: REQ250031

Full-time and fixed term for 30-months starting 1st May 2025 or as soon as possible thereafter.

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Department summary: <https://www.lboro.ac.uk/subjects/geography-environment/>

Project Description

This is an exciting opportunity to play a key research role in the second phase of a successful UKRI funded research project that will develop a mechanistic understanding of how environmental controls drive fine sediment impacts for freshwater biota. The role is full time for 30 months.

Fine sediment (typically defined as particles <2mm) deposition in riverine ecosystems represents a critical anthropogenic threat to global freshwater biodiversity. Despite the extent and magnitude of this threat we lack fundamental knowledge about the mechanisms controlling the ecological effects of fine sediment. This knowledge is required to underpin the implementation of effective river management strategies. The objective of the project is to identify, examine and quantify the primary abiotic and biotic controls influencing the ecosystem effects of instream sedimentation.

The researcher's main responsibilities will be to conduct regular fieldwork, process and identify macroinvertebrate samples in the laboratory, organise and undertake ecological experiments, project management including day to day coordination with research assistants, arrange and attend project meetings and lead / contribute to relevant analyses and dissemination of the research.

The successful candidate will work under the guidance of the PI Dr. Kate Mathers but will benefit from working within a dynamic wider interdisciplinary team addressing aquatic biodiversity challenges. Informal enquires can be made to k.mathers@lboro.ac.uk

Job Description

Job Grade: Specialist and Supporting Academic Grade 6

Job Purpose

To participate in an interdisciplinary project on the environmental controls of riverine fine sediment deposition and the consequences for freshwater biodiversity. This will be achieved by undertaking a regular fieldwork campaign (monthly) in addition to ecological laboratory experiments. There will be opportunities to work closely with collaborators across the globe working undertaking research on similar issues (e.g. New Zealand, Canada). The post will be predominately based at Loughborough University.

Job Role

- Be responsible for conducting the day to day running of sub-projects.
- Organise, lead and oversee fieldwork campaigns.
- Undertake macroinvertebrate sample processing in the laboratory including picking of invertebrates from samples and subsequent identification to species level where possible.
- Plan and undertake ecological experiments in the laboratory.
- Oversee progress on the sub-projects including liaising with research assistant employed on the programme of work.
- Contribute to the formulation of detailed plans for the project in association with the Primary Investigator.
- Feedback to the project team on progress and make recommendations for next steps throughout the project.
- Write regular progress reports and present outcomes to collaborators.
- Organise, attend and present at stakeholder and project partner meetings.
- Independently organise and analyse the environmental and ecological datasets obtained.
- Enhance relationships with existing collaborators / project partners and assist in the establishment of relationships with new collaborators.
- Lead and collaborate on research papers for publication in high quality academic journals.
- Attend and present at national and international conferences.
- Manage and develop online materials, blogs and social media as appropriate.
- Maintain an up-to-date awareness of current and emerging research relevant to the project and contribute ideas for new research directions as appropriate.
- Maintain confidentiality at all times and ensure that intellectual property (IPR) agreements are not violated.
- Undertake training programmes in the University and externally that are consistent with the needs and aspirations of the project and those of the Department.
- Undertake other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Points To Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

Organisational Responsibility

Reports to the Principal Investigator.

Person Specification

Your application will be reviewed with respect to meeting the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Experience of quantitative data analyses using software packages such as 'R', Matlab or similar	1,2,3
	Experience of undertaking univariate and multivariate data analyses	1,2,3
	Experience of working with freshwater macroinvertebrates	1,2,3
	Experience of planning and leading fieldwork campaigns	1,2,3
Skills and abilities	Excellent written and oral communication skills which give you the ability to engage with colleagues, academics and stakeholders	1,2,3
	Ability to work independently <u>and</u> as part of a collaborative team	1,3
	Excellent time management and ability to complete agreed work commitments on time	1,3
	Excellent IT skills	1
	Ability to make technical presentations to stakeholders	1,3
	Identification of macroinvertebrates preferably to species level	1,3
Training	Support and manage researchers employed on the wider programme of research	1,2,3
	Demonstrate a willingness to undertake further training as appropriate and to adopt new procedures as and when required.	1,3
	Qualifications	PhD (or near completion) in Geography, Environmental Science, Ecology or discipline of relevance to the project.
Other	Commitment to observing the University's Equal Opportunities policy at all times.	1,3

Desirable Criteria

Area	Criteria	Stage
Experience	Authoring original research in the highest quality refereed academic journals	1,3
	Experience of designing and undertaking ecological experiments	1,2,3
	Experience of working with stakeholders or undertaking applied research	1,3
	Experience of working with sedimentological data	1,2,3
	Track record of contributing and/or developing collaborative research networks	1,2,3
	Experience of presenting research at international conferences	1
Skills and abilities	Authoring original work for technical stakeholder reports	1,3
	Willingness to relocate to Loughborough or the surrounding area	1,3

Conditions of Service

The position is full time and fixed term for 30 months from 1st May 2025 or as soon as possible thereafter. Salary will be on Specialist and Supporting Academic Grade 6, £34,866 - £45,163 per annum, at a starting salary to be confirmed on offer of appointment.

The appointment will be subject to the University's Terms and Conditions of Employment for Academic staff details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which can be found [here](#).

The University offers a wide range of employee benefits which can be found [here](#).

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information--page.html>)

In addition, the University is supportive, wherever possible, of flexible working arrangements. We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>