Candidate Information

Position: Research Fellow (Co-Centre for Climate+ Biodiversity+ Water)
School/Department: School of Biological Sciences
Reference: 24/111951
Closing Date: Monday 29 July 2024
Salary: £39,922 per annum
Anticipated Interview Date: Monday 9 September 2024
Duration: 3 years

JOB PURPOSE:

The Co-Centre for Climate+ Biodiversity+ Water is seeking to recruit an experienced and motivated Research Fellow to play an active role as part of a new research project team across several Schools at Queen's University Belfast. The Co-Centre is an exciting new tri-jurisdictional initiative spanning Northern Ireland, Great Britain and the Republic of Ireland, which is managed jointly by QUB and Trinity College Dublin and funded by the Science Foundation Ireland (SFI), DAERA and UKRI.

The Co-Centre will seek to be the home of research, innovation, and policy development across the interlinked challenges of climate change, biodiversity loss, and water degradation on the islands of Ireland and Britain, with the goal of integrating research across both islands to address these crises.

This Research Fellowship will contribute to two related projects:

1) Projecting vegetation change: here we will project global vegetation responses driven by climate, land use, and traits, and apply these projections to enable population risk forecasting. We will apply the Global Warming Levels and "storyline" climate projections produced for Ireland and the UK with our biodiversity models to project effects of these new projections on the types of species that will occur under these new climatic conditions and their dynamics.

2) Fluxes & stocks of carbon, biodiversity and water. Here we will assess and collate evidence from the literature describing the fluxes and standing stocks of carbon, biodiversity and water across a set of key ecosystems including peatlands, forests, saltmarshes, and agricultural grasslands and soils. Using curated AI assess the effectiveness of different management interventions or practices in: a) enhancing the carbon sequestration potential; b) regulating water quality and flow; and c) conserving biodiversity, in these ecosystems.

The post will be part of the School of Biological Sciences at QUB but will work as part of a multi-disciplinary team based in the dedicated Co-Centre Hub. The successful candidate will have responsibilities in independent research, supervision, planning, collaborations, and outreach and the post is available immediately.

MAJOR DUTIES:

1. Develop and plan an area of personal research and expertise, and/or undertake research under supervision within a specific research project or as a member of a research team.
2. Design, develop and refine experimental apparatus, field research or experiments in order to obtain reliable data.
3. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
4. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
5. Prepare, often in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.

6. Assist grant holder in the preparation of funding proposals and applications to external bodies.
7. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.
8. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
9. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

ESSENTIAL CRITERIA:

1. Hold or be about to obtain a PhD* in ecology or related field. (*must be obtained within 3 months of commencement of employment)
2. Substantial relevant research experience in (at least some of the following): GIS; geospatial modelling; ecological modelling; land use change and/or climate change impacts.
3. Demonstrable evidence of experience and skills in (at least some of the following): evaluating evidence; data extraction and collation; data management and handling; synthesis; systematic reviews and/or meta-analysis; report writing and/or peer-reviewed publication.
4. Sufficient knowledge in the research methods and techniques to work within established research programmes.
5. Excellent IT skills e.g. Microsoft Office suite, ecological statistics using R software or equivalent.
6. Ability to work in a multi-disciplinary environment as part of a research team.
7. Ability to contribute to broader management and administrative processes.
8. Ability to contribute to the Co-Centre and School's outreach programme by links with industry, community groups etc.
9. Excellent oral and written communication skills.
10. Methodical approach to project management and record keeping.
11. Ability to communicate complex information clearly.
12. Ability to build contacts and participate in internal and external networks.
13. Excellent inter-personal skills.
14. Ability to assess and organise resources.
15. Ability to work independently and on own initiative.
16. Demonstrate commitment to equality, diversity and inclusion through continuous development and modelling of inclusive behaviours.
17. Irregular hours including evening, weekend and other out-of-hours work may be a component of the research at times.
18. Must be willing to travel to national and international meetings and other opportunities for collaborative research as required on an ad-hoc basis.

DESIRABLE CRITERIA:

1. PhD to have included: GIS, geospatial modelling; plant ecology, vegetation modelling; or computational m ecology or related subject areas.
2. MSc or other postgraduate qualification (e.g. MRes etc.) in ecology, computational ecology, computer science.
3. Explicit demonstration of:
   - GIS;
   - Vegetation modelling;
   - Systematic review and/or meta-analysis.
4. Experience of research interactions with industry / community and voluntary sector.

ADDITIONAL INFORMATION:

Informal Enquiries to Mark Emmerson: m.emmerson@qub.ac.uk