

Candidate Information

Position:	Research Fellow
School/Department:	School of Natural and Built Environment
Reference:	26/113405
Closing Date:	Monday 6 July 2026
Salary:	£41,519 - £49,536 per annum
Anticipated Interview Date:	Friday 31 July 2026
Duration:	Fixed Term - Full Time; available for approx. 36 months

JOB PURPOSE:

NH₃ deposition poses a serious threat to peatlands, as elevated nitrogen inputs can disrupt their slow accumulating carbon cycles and ultimately undermine their ability to function as long term carbon sinks.

We are seeking a Research Fellow to play a vital role in the multidisciplinary PEACE-Air project, an all island initiative supported by PEACEPLUS and managed by the Special EU Programmes Body (SEUPB). PEACE-Air aims to improve air quality and safeguard public health across Northern Ireland and Ireland through evidence based policy, cross border collaboration, and innovation. Within this programme, the post offers an exciting opportunity to investigate the impacts of ammonia (NH₃) emissions on peatland ecosystems across the island.

The successful candidate will conduct research that integrates remote sensing, fieldwork, laboratory analysis, and geospatial methodologies including GIS and geomatics to investigate how agricultural emissions influence sensitive peatland environments. This position contributes to a broader research programme examining ecosystem responses to air pollution, with a strong emphasis on the integration of spatial and environmental datasets using advanced analytical and modelling techniques.

Based at Queen's University Belfast and working closely with colleagues at Technological University Dublin, the Research Fellow will contribute to a dynamic, multi institutional inter-disciplinary collaboration. The role requires independence, initiative, and effective communication skills, as the postholder will be responsible for planning and delivering research activities, engaging with project partners, and supporting outreach. A key element of the position will be coordinating a Peatland Forum focused on ammonia impacts, helping to connect researchers, stakeholders, and policymakers.

Applicants should demonstrate experience working with remote sensing data sources, including satellite imagery, LiDAR, drone or aerial survey data, as well as skills in geospatial and GIS-based analytical methods. Proven experience conducting field and/or laboratory investigations to assess land use change, ecosystem dynamics, biodiversity patterns or biogeochemistry is essential, alongside the ability to contribute effectively within a multidisciplinary research team. Experience working in peatlands or other sensitive ecological environments is highly desirable, given the environmental focus of the project.

MAJOR DUTIES:

1. Undertake research under supervision as a member of the PEACE-Air research team.
2. Contributing to project deliverables, including technical reports and visualisations.
3. Participate in monthly project meetings to present progress to the PEACE-Air project consortium.
4. Carry out analyses, critical evaluations, and interpretations of data and the literature using methodologies and other techniques appropriate to peatland science.
5. Produce high quality research outputs consistent with project aims and commensurate with career stage. This will include collaborating and co-authoring with PI and project team (as appropriate) on outputs.
6. In consultation with the project team, promote research milestones and outputs at national and international conferences and through social media (where applicable).

7. Assist grant holder in the preparation of funding proposals and applications to external bodies.
8. Carry out occasional educational 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. Undertake supplementary duties relevant to the success of the project including administrative duties and additional training and development activities as required.

ESSENTIAL CRITERIA:

1. Normally have or be about to obtain a *relevant PhD. (*in Geography, Palaeoecology, Ecology, Environmental Sciences, Environmental Engineering, Remote Sensing, Geographical Information Science (GIS) or closely related areas. (NB 'About to obtain' is normally defined as within 3 months of application date).
2. Experience using remote-sensing techniques (e.g., satellite imagery, LiDAR, drone or aerial surveys) and Geographical Information Systems (ArcGIS or open-source platforms such as QGIS) to analyse, evaluate, and interpret spatial and environmental data relevant to the PEACE-Air project.
3. Experience conducting field-based and/or laboratory-based investigations in environmental or ecological contexts.
4. Experience monitoring or assessing land-use, ecosystem, or biodiversity change, including data collection, analysis, and interpretation.
5. A proven track record in numerical data analysis and/or modelling, demonstrating the ability to handle complex datasets and apply appropriate analytical techniques.
6. Ability to work effectively within a multidisciplinary research environment, contributing to collaborative project goals.
7. Ability to contribute to teaching delivery, where appropriate.
8. Ability to support broader management and administrative processes within the research group or project.
9. Demonstrated ability to contribute to the development, coordination, and promotion of the PEACE-Air project as part of a research team.
10. Excellent written and verbal communication skills, including experience preparing high-quality publications, reports, or other research outputs.
11. A strong publication record.
12. Ability to contribute to broader management and administrative processes.
13. Contribute to the School's outreach programme by links with industry, community groups etc.
14. Practical problem-solving skills, independence of thought and initiative.
15. Ability to assess and organise resources.
16. Ability to communicate complex information in English effectively in oral and written format.
17. Ability to build relationships to develop internal and external networks.
18. Commitment to continuous professional development.

DESIRABLE CRITERIA:

1. Demonstrable experience working in peatland science or other sensitive ecological environments.
2. Demonstrable experience working in ecology and/or biogeochemistry.
3. Proven skills in geospatial data processing and spatial analysis, including the ability to handle complex environmental datasets.
4. Ability to develop clear, engaging visualisations and outputs suitable for both technical and non-technical audiences.
5. Experience participating in or coordinating stakeholder engagement activities, including policy workshops or focus groups.
6. Experience translating research findings into educational or outreach materials, tailored to diverse audiences.

ADDITIONAL INFORMATION:

Informal enquiries may be directed to Graeme Swindles: G.Swindles@qub.ac.uk