

Research Experience Placement (REP) Scheme 2026

Supervisor Project Proforma

Project title:	The role of peatlands in agriculture on the path to net-zero
Host Institution:	Cranfield University
Project supervisor (name, department):	Michelle Cain (CEC)
Project enquiries (supervisor email):	Michelle.cain@cranfield.ac.uk , p.burgess@cranfield.ac.uk
Co-Supervisor, if any (name, department):	Paul Burgess (SABS) Ceris Jones (SABS)
Proposed start date and weekly hours: (please note project must be of 6 weeks duration)	Start date between 29 June and 8 July, running for 6 weeks, either FT (37 hours per week) or PT (as agreed).
Please provide a short paragraph or couple of sentences summarising the project to encourage potential applicants to apply (max 75 words):	
<p>Agriculture is a unique sector, covering 70% of the UK's land. Alongside producing food, farms offer opportunities for carbon sequestration and biodiversity net gain. In this project, we focus on the role of peatlands within agriculture, viewed through the lens of farms' pathways toward a net-zero future. This student project forms part of the Land Use for Net Zero (LUNZ) Footprint programme.</p>	
Project description (max 700 words, 1-2 figures may be included):	
<p>Proposed projects must:</p> <ul style="list-style-type: none"> • Have a clearly defined objective • Be within the science remit of NERC • Be feasible for a student to complete within the timescale of the placement • Include more than purely a computer/modelling component i.e., some element of fieldwork, data collection, activity to give an understanding of the wider context including participation in lab/team meetings, networking, and training etc. • Give scope for thought and initiative on the part of the student and should not use the student as a general assistant • Be based at an eligible UK research organisation (remote placements from within the UK are also an option for enabling inclusivity) 	
Project objective: To assess the role of peatlands in agriculture on the path to net zero	
<p>Agriculture is a unique sector, covering 70% of the UK's land. Alongside producing food, farms offer opportunities for carbon sequestration and biodiversity net gain. In this project, we focus on the role of peatlands within agriculture, viewed through the lens of farms' pathways toward a net-zero future. This student project forms part of the Land Use for Net Zero (LUNZ) Footprint project. In the wider project, 100 farms across the UK form a Living Lab. The project team is</p>	

learning with the farmers during their journey towards net zero, utilising carbon calculator tools developed specifically for food and farms.

At present, peatlands are under-represented in these tools. In contrast, the UK's national emissions inventory was recently updated to improve its representation of emissions from peatland. This student project will investigate this issue and contribute to an understanding of the role of peat in farm scale tools. They will be supported by the LUNZ Footprint team, including partners from three UK farm scale greenhouse gas calculation tools.

Two aspects are important for this topic: scientific understanding of how peatlands affect farming and greenhouse gas emissions or sequestration; and the practicalities of including peat within farm scale greenhouse gas assessments. Considering greenhouse gases at a national scale may have a different balance of priority compared to working at a farm scale, but in an ideal world the data at each scale would be consistent or there would be a methodology to scale up or down.

The first step will be to gather evidence through meeting key partners in the LUNZ Footprint project, e.g. from the three farm scale greenhouse gas accounting tools, academics. Consulting with experts will provide the student with the broader context and insights to where peatland is (or isn't) accounted for in assessments of greenhouse gas emissions. Combined with evidence from the literature, the student will map this out to identify where there is inconsistency at different scales (farm scale to national scale). This will be used as a discussion point with the wider LUNZ Footprint team, so identify potential routes forward to including peatland at the farm scale.

The next steps will be determined in consultation with the wider LUNZ project team as it will depend on the findings to this point in the project. There may be a need for gathering data or insights from additional experts, or analysis of secondary data.

A report will be produced as a record of the project. This will be support future activity in the LUNZ Footprint project or by the farm greenhouse gas accounting tools on the topic of peat on farms.

There is potential to arrange a visit to an agricultural event, for example Groundswell (1-2 July) or the Great Yorkshire Show (14-17 July).

Project timeline:

Week 1: Introduce to the team, induction, IT set up, introduce the project, meet with other LUNZ Footprint team members, start initial reading.

Week 2: Meetings with key team members to gather evidence on how peatland features in greenhouse gas assessments, from farm scale to national scale. Gather and review literature-based evidence following meetings.

Week 3: LUNZ Footprint annual meeting in Cranfield (Wednesday 22 July) – prepare and present results for discussion. Identify next steps based on the discussion.

Week 4: Carry out next steps (e.g. further meetings with other experts, perform calculations based on gathered data or within one of the tools). Work on the first draft of the report for review with supervisors at end of week.

Week 5: Work on the report. Circulate a full draft report to supervisors by end of week.

Week 6: Revise report based on feedback from supervisors and submit final report.

Candidate requirements:


The role would suit a student who is studying an environmental, agricultural or geographical science, or has a strong interest in pursuing a career in these areas if on a different degree programme. A combination of qualitative and quantitative data analysis skills will be required. Applicants should be prepared to present to the project team at an in person meeting, and have the ability to produce a written report to capture their work.

Background reading and references:

LUNZ Footprint project website: <https://lunzfootprint.com/>

To be completed by institutional CENTA PoC

I confirm that:

- The host institution takes responsibility for selecting a suitable undergraduate student and ensuring and confirming their eligibility under the NERC REP student eligibility criteria.
- This REP project falls within the NERC remit, is of suitable quality and meets the REP research project criteria.
- Appropriate supervisory arrangements are in place.
- The application processes used will be inclusive and accessible.
- Reasonable adjustments will be made for students that need them whilst undertaking placements.
- The placement will be carried out in accordance with all applicable ethical, legal and regulatory requirements including but not limited to relevant provisions of the General Data Protection Regulation, the Data Protection Act 2018, the Bribery Act 2010, the Fraud Act 2006, the Equality Act 2010 and the Modern Slavery Act 2015.
- The host organisation takes responsibility for identification, protection and exploitation of any intellectual property rights arising from the work.
- All facilities, agreements about access and collaborations necessary for the work will be obtained before the work commences and can be ensured through the period of the work.
- All costs awarded by NERC for the REPs will be used and accounted for appropriately.
- A report of the project by the student will be submitted no later than one week after the end date of the placement or Friday 25th September 2026, whichever falls first.
- A PhD interview (where possible) will be offered to all students who have completed a REP within the CENTA Doctoral Landscape Award.
- Signed: 
- Date: 13-03-2026
- Position: Lecturer in Remote Sensing – Cranfield's PoC