

**JOB DESCRIPTION**

**Research Associate in Wetland Soil Biogeochemistry**

**Vacancy Ref:** Click here to enter text.

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| **Job Title:** Research Associate Wetland Soil Biogeochemistry (1.0 FTE) | **Present Grade:** 6 |
| **Department/College:** Lancaster Environment Centre (LEC) | |
| **Directly responsible to:** Professor Richard Bardgett | |
| **Other contacts:**  **Internal:**  Staff and students within the Centre for Sustainable Soils (CSS) and LEC.  **External:**  Collaborating research scientists involved in the project. | |
| **Job Purpose:**  This two-year post-doctoral role will directly contribute to a large, collaborative project funded by the Swiss National Science Foundation (SNSF) that is exploring how agricultural nitrogen (N) losses via NH3 emissions impact the functioning of nearby wetland ecosystems. This position will specifically examine impacts of N enrichment from agricultural sources on microbial-mediated processes of carbon to N cycling, including *in situ* assessment of the fate and retention of N inputs using 15N-labelling approaches. You will be based in the new Centre for Sustainable Soils, Lancaster University, and work collaboratively with the project lead at Berne University of Applied Sciences (Professor Alex Valach) and project partners at the federal research institute Agroscope, Switzerland, and the University of Tartu, Estonia. | |
| **Major Duties:**   * Carry out experimental studies in the field (at wetland field site close to Bern, Switzerland) to test for impacts of N enrichment on wetland soil microbial properties and process, and the fate and retention of N in the plant-soil system. * Analyze collected soil samples for C, N and P pools and microbial-mediated properties, including enzyme assays related to C, N, and P cycling and measures of microbial biomass and activity. * Use 15N labelling to quantify the fate and retention of N inputs in the wetland plant-soil system. * On occasion, supervise local field assistants in Switzerland and the project technician. * Interrogate resulting datasets using advanced statistical approaches to test how ericaceous shrubs transform soil carbon cycling in alpine grasslands and identify mechanisms involved. * Contribute to coordination and scientific direction of the project and to write up, in collaboration with others, results for publication in high impact journals; and * Attend, contribute, and organize project meetings, and actively engage with the Centre for Sustainable Soils, and with project collaborators in the Switzerland and Estonia. * Attend and present research and represent the interests of the research group and Lancaster University at major national and international conferences. | |