

PhD-student in Environmental Assessment

Department of Aquatic Sciences and Assessment

The Swedish University of Agricultural Sciences (SLU) is a world-class international university with research, education and environmental assessment within the sciences for sustainable life. The Department of Aquatic Sciences and Assessment (www.slu.se/aquatic-sciences) focuses on environmental change over time and space in freshwaters. To support society's efforts in sustainable development and ecosystem restoration, we seek the causes of environmental change in both human influences and natural variation. National responsibilities for assessing Swedish surface waters keep us connected to practical issues of water management, while at the same time providing opportunities for cutting-edge research. The department has ca 130 employees. Our approaches to scientific questions are often interdisciplinary, with good opportunities for collaboration between the department's four major areas of expertise: geochemical and hydrological processes, aquatic ecology and biodiversity, microbial ecology as well as environmental organic chemistry and ecotoxicology. To promote landscape level approaches, the department is part of SLU's Soil-Water-Environment cluster. The breadth of expertise comprised by the 300 members this cluster, in combination with major research infrastructures for field studies, laboratory analyses and data management creates a creative environment for scientific endeavor.

Read more about our benefits and what it is like to work at SLU at <https://www.slu.se/en/about-slu/work-at-slu/>

Improved evidence-base for understanding and managing surface water brownification

Research subject: Environmental assessment

Description:

We are seeking a PhD candidate who will work with the project "Improved evidence-base for understanding and managing surface water brownification." Major increases in the color and organic carbon content of many surface waters across Europe and North America have altered aquatic foodwebs, mobilized harmful substances and created problems for the treatment of drinking water. This has highlighted the need to better understand "brownification" and improve the evidence base for managing organic matter concentrations in streams, lakes and rivers. The research project will use three decades of surface water data from across Sweden and other Nordic countries supported by data on climate and land use to resolve the role of different influences on brownification. Innovative statistical methods will be a central feature of this "top down" approach. Decades of soil and groundwater data will be the basis for a complementary, "bottom up" geochemical investigation of organic matter solubility in potential catchment source areas (mires, fens and mineral soils). Both approaches will explore the hydrological connectivity of catchment organic matter sources using new, high resolution mapping products. Stakeholders will be involved in the execution of the study to create a regionally resolved national assessment of the brownification to date and expected developments with and without countermeasures

Qualifications:

We seek a candidate with a master's degree in one of the following fields, or equivalent: environmental science, environmental engineering, soil science, limnology, hydrology, biology, physical geography. The applicant should have a strong interest in science and the ambition to work as part of a research team. Knowledge of biogeochemistry, soil chemistry, hydrology, statistics and geographical information systems are merits for the position. The ability to express oneself well in both written and spoken English is another important merit. Personal qualities including the ability to collaborate, as well as analytical and problem-solving skills are also selection criteria.

Place of work:

Uppsala

Forms for funding or employment:

Employment (4 years)

Starting date:

2023-08-01 or according to agreement.

Application:

Click the "Apply" button to submit your application. The deadline is 2023-05-19.

To qualify for third-cycle (Doctoral) courses and study programmes, you must have a second-cycle (Master's) qualification. Alternatively, you must have conducted a minimum of four years of full-time study, of which a minimum of one year at second-cycle

level.

Applicants will be selected based on their written application and CV, degree project, copies of their degree certificate and transcript of records from previous first and second-cycle studies at a university or higher education institution, two personal references, and knowledge of English. More information about the English language requirements can be found here: www.slu.se/en/education/programmes-courses/doctoral-studies/new-doctoral-students/english-language-requirements/

Please note that applicants invited to interview must submit attested copies of their degree certificate, or equivalent, a transcript of records from previous first and second-cycle studies at a university or higher education institution. Applicants who are not Swedish citizens need to submit an attested copy of their passport's information page containing their photograph and personal details.

Read about the PhD education at SLU at www.slu.se/en/education/programmes-courses/doctoral-studies/

Academic union representatives:

<https://internt.slu.se/en/my-employment/employee-associations/kontaktpersoner-vid-rekrytering/>

The Swedish University of Agricultural Sciences (SLU) is a world-class international university with research, education and environmental assessment within the sciences for sustainable life. Its principal sites are in Alnarp, Umeå and Uppsala, but activities are also conducted at research stations, experimental parks and educational establishments throughout Sweden. We bring together people who have different perspectives, but they all have one and the same goal: to create the best conditions for a sustainable, thriving and better world. SLU has just over 3,000 employees, 5,000 students and a turnover of SEK 3 billion. The university has invested heavily in a modern, attractive environment on its campuses. www.slu.se

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