Phd student, Interdisciplinary decision support for drained wetlands

Ref SLU.ua.2022.2.5.1-515

Department of Forest Ecology and Management

The department includes about 100 people of which 11 are professors. Our mission is to advance the understanding of forest ecosystem processes and to progress the principles of forest ecosystem management. For more information: http://www.slu.se/en/departments/forest-ecology-management/

Interdisciplinary decision support for drained wetlands

Description:

Millions of hectares of northern peatlands have been drained for forestry, with new estimates of up to 1 million km of ditches in Sweden alone. Drainage has increased forest productivity in some, but not all areas. The future fate of these drainage ditches can be to: 1) clean them to ensure continued drainage, 2) ecologically restore them to a more natural state, or 3) leave them alone. The PhD student should develop a decision support tool to balance varying – and sometimes competing – ecosystem services based on new results from a side-by-side comparison of these three different management options at the Trollberget Experimental Area located within the long-term Krycklan Catchment Study (www.slu.se/Krycklan), along with scaled up measurements of ditches.

The PhD student will work with the research group to develop current GIS and modelling methods, potentially using AI methods to identify ditches, soils, and slopes to determine which ditches are the best candidates for ecological restoration, cleaning, or being left alone. The tool should take into account the GHG balance, biodiversity, water quality and quantity of ditches.

This position is fully funded for four years with the expectation that the candidate will complete a PhD-degree within this time. The PhD student will be under the supervision of Eliza Maher Hasselquist and Anneli Ågren, at the Department of Forest Ecology and Management, SLU in Umeå, Sweden and will work closely with an interdisciplinary group of researchers with diverse expertise. Applications from both Sweden and elsewhere in the world are welcome, and we particularly look forward to applications from under-represented groups in this area of research.

Qualifications:

Essential

- MSc. in a relevant subject (hydrology, biogeochemistry, ecology, forest science or similar)
- Experience doing spatial analyses (GIS) and programing in R and python is preferred
- Strong work ethic
- Excellent oral and written communication in English

Preferred

- Experience working in an interdisciplinary context
- Experience with working independently & organizing own work schedule.
- Experience with working successfully within a team.

Place of work:

Umeå

Forms for funding or employment:

Employment 4 years as a PhD student

Starting date:

A planned start September 1 2022 or according to agreement.

Application:

Click the “Apply” button to submit your application. The deadline is April 1, 2022

The application should be written in English and include the following:

- CV
- Cover letter describing yourself and your motivation for applying for this position
- Short (max one page) description of your scientific background, research interests and your match to the above mentioned qualifications
- Copies of graduation degrees, or equivalent, as well as other relevant certificates (e.g. English-language certificate, if you did not do your previous studies in Sweden or in a native English speaking country)
- Name and contact information of two professional references.

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, 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

Contact person

Eliza Maher Hasselquist
eliza.hasselquist@slu.se

Anneli Ågren
anneli.agren@slu.se

URL to this pagehttps://www.slu.se/en/about-slu/work-at-slu/jobs-vacancies/?rmpage=job&rmjob=6093&rmlang=UK

Apply