



1 PhD student in biology specialization ecology

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The position is based at the Department of Wildlife, Fish and Environmental Sciences at The Swedish University of Agricultural Sciences in Umeå, Sweden. The department offers a creative and stimulating environment and perform internationally recognised basic and applied research, education and environmental monitoring in the areas of biodiversity restoration and conservation, fish biology, wildlife ecology and zoonosis. The department has a large proportion of international employees and well established national and international cooperation which gives opportunities for fruitful exchange.

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Grassland restoration with horses: grazing to promote biodiversity

Description:

Are you interested in species conservation, ecology and ecological restoration? This PhD position offer an opportunity to work with these questions through studies of grazed areas and the potential of using horses in grassland restoration.

Semi-natural grasslands are biodiversity rich but their area have been reduced by 95 percent during the last century. There is thus an urgent need for alternative methods in the restoration and maintenance of semi-natural grasslands. Recreating or restoring semi-natural fields is crucial, because many associated plant species, as well as species from other taxa, are threatened by extinction. The introduction of horse grazing is a potential measure to increase diversity at formerly abandoned sites, and to simultaneously recreate semi-natural grasslands through low-intensity grazing. The use of horses as grazers at abandoned sites might suit Sweden in particular, because horses have increased by approximately 25% from 2004-2016 to approximately 355.500 individuals, and now exceed the number of dairy cows in the country. Another advantage is that horses are generally not kept for food production, and therefore do not need fertilized pastures to enhance meat or milk production, instead animal health is promoted in low productive sites. Horses are often kept

on in smaller units which allows the use of land that is marginal in industrial agriculture. **The overarching aim of this study is to investigate the potential of using horses to restore and maintain biodiversity in semi-natural grasslands and abandoned farmland in boreal Sweden and to develop guidelines for grazing strategies that promote biodiversity.**

Within this project the PhD student will evaluate the effects of horse grazing on the biodiversity of plants and insects in abandoned farmland and semi-natural grasslands. Established field sites consisting of 20 pairs of horse grazed areas and abandoned fields have been chosen together with horse owners. Here we study the effects of horse grazing on biodiversity and preliminary results show that both flowering plants and butterflies benefit from horse grazing. In addition, we will add restored grazing areas in Västerbotten and Jämtland and evaluate the potential of horses for grassland restoration in biodiversity rich semi-natural grassland sites. The project includes analysis of (1) the local plant and insect communities including red listed and grassland associated species and (2) changes of the composition of the surrounding landscape and its effects on grassland associated biodiversity. The studies will be based on field surveys of plants and insects and landscape analyses using GIS.

Qualifications:

Master degree in biology or equivalent. Good knowledge in ecology, entomology, botany and statistics as well as field and lab work experience and taxonomic knowledge is meriting. The applicant must be highly motivated and be able to work independently as well as a part of the research group. The candidate must have excellent English skills both in writing and orally. Selection will be based on a personal letter, CV, exam certificate/Masters thesis, personal references, English skills and an interview. Drivers licence is desirable.

Place of work:

Umeå

Forms for funding or employment:

Employment (4 years)

Starting date:

According to agreement. The position will open in summer/autumn 2023.

Application:

Click the “Apply” button to submit your application. The deadline is 2023-04-27.

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) has a key role in the development for sustainable life, based on science and education. Through our focus on the interaction between humans, animals and ecosystems and the responsible use of natural resources, we contribute to sustainable societal development and good living conditions on our planet. Our main campuses are located in Alnarp, Umeå and Uppsala, however, the university also operates at research stations, experimental forests and teaching sites throughout Sweden.

SLU has around 3,000 employees, 5,000 students and doctoral students and a turnover of over SEK 3 billion. We are investing in attractive environments on all of our campuses. We strive to provide a work environment characterised by inclusivity and gender equality, where different experiences generate conversations between people and pave the way for science, creativity and development. Therefore, we welcome applications from people with diverse

backgrounds and perspectives.

Contact person

Therese Löfroth

Senior Lecturer

+46 (0)90 786 83 84

firstname.surname@slu.se

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