Postdoctoral position Balancing conflicting goals in the forest: timber production, hunting quotas and biodiversity

A postdoc position is open at the department of Wildlife, Fish and Environmental Studies. There have long been debates about the optimal level of moose (Alces alces) management in Sweden. High levels of browsing can have substantial negative effects on timber production and on forest biodiversity. Climate change may exacerbate negative impacts since declines in snow depth change the browsing behavior of moose. However, moose are an important component of the boreal forest since they are a popular game species, and they induce spatial heterogeneity in forest ecosystems and create substrate vital to an array of organisms. Forest landscape simulation models can be used to assess the effects of natural (e.g. pests) and anthropogenic (e.g. harvest) disturbances, including climate change, on forest dynamics and ecosystem services such as timber production and wildlife habitat provision. Recently an extension to an existing forest landscape simulation model (LANDIS-II) has been developed that simulates the impact of browsing on forest composition and productivity. We will use LANDIS-II in combination with this extension to simulate the combined impact of different browsing intensities, forest management strategies and scenarios of climate change on Swedish forest ecosystems and the ecosystem services they provide. The project is part of FOREST BIOCORE http://www.slu.se/viltfiskmiljo/biocore.

The Department of Wildlife, Fish, and Environmental Studies (“Vilt, fisk och miljö” VFM hereafter) is part of SLU’s Faculty of Forest Sciences. Our base is in Umeå, but have operations throughout Sweden and abroad. VFM's collective responsibility is research, education, environmental monitoring and assessment (FOMA) as well as cooperation in the field of zoology. Although our work is quite diverse, we have four focal study areas: animal ecology, aquatic ecology, molecular ecology, and restoration ecology (in both terrestrial and aquatic systems). Our subject areas support SLU’s national responsibilities in terrestrial and aquatic environments for fish and wildlife, are needs-driven, and open for collaboration internally and externally. Not only is VFM's activity broad and well-grounded in basic research, it is highly interdisciplinary – our research and teaching regarding the human dimensions of natural resources means that we are in high demand as a collaborator for other disciplines, both within and outside SLU. Overall, our responsibility is to study trophic interactions and the factors that influence them, as well as to improve the management of fish and wildlife in Sweden. VFM has about 60 employees and a yearly turnover approximately SEK 60 million a year. Our employees come from more than 10 countries, which means that we regularly use English as a working language. Furthermore, our Masters’ Programme in the Management of Fish and Wildlife Populations attracts many students from Sweden and around the world, which contributes further to our friendly international atmosphere. More information about this institution can be found on our website: http://www.slu.se/en/departments/wildlife-fish-environmental-studies/

Duties: In collaboration with the research group, the postdoctoral researcher is expected to work within the above-mentioned project. The main duties will be to use a forest landscape simulation model to simulate the impact of various moose densities, under different forest management strategies, while accounting for climate change, on ecosystem services: timber production, hunting, and provision of suitable habitat for biodiversity. We are looking for a young researcher who has a good knowledge of forest ecosystems and preferably experience with a forest landscape simulation or forest growth model. Qualifications:
The Swedish University of Agricultural Sciences (SLU) develops the understanding and sustainable use and management of biological natural resources. The university ranks well internationally within its subject areas. SLU is a research-intensive university that also offers unique degree programmes in for example rural development and natural resource management, environmental economics, animal science and landscape architecture. 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 in Alnarp, Umeå and Uppsala. www.slu.se

The Faculty of Forest Sciences (S) is responsible for research, teaching, environmental monitoring and assessment as well as outreach and collaboration in the field of forestry, including forest ecosystems and their sustainable use. Together with the other SLU faculties, the S Faculty is also active in the fields of food, production, health, quality of life, environment and water.

The majority of the S Faculty’s 700 employees and 850 students are based on Campus Umeå, in facilities shared with the University of Umeå. The S Faculty houses 13 departments and a large number of collaborative centres.

Further information: Anouschka Hof Researcher anouschka.hof@slu.se

Academic union representatives: Saco-S föreningen SLU, SACO +46 (0)18 671085

Qualifications: Applicants should hold a PhD degree or a foreign degree deemed to be equivalent to a doctorate in Ecology or Forestry. The PhD degree should not be more than 3 years old.

Documented knowledge of the forest ecosystem and experience of forest landscape modelling, R and GIS are meriting. Experience from research in one or several of the following subject areas will be considered an additional qualification: wildlife ecology, landscape ecology, ecosystem services. From the successful candidate, we expect documented capabilities of autonomous scientific research work and skills in writing scientific publications and reports in English.

Candidates must be able to express themselves well in English, in both oral and written form.

International applicants are encouraged to apply. Place of work: Umeå

Form of employment: Temporary employment, for two years

Extent: 100%

Starting date: By agreement

Application: We welcome your application marked with Ref no. SLU ua 2017.2.5.1-946.

Please submit your application to the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala, Sweden or registrator@slu.se no later than March 26, 2017.

Specific documents attached: Specific documents attached: 1) CV including list of publications, 2) Short (1-2 pages) description of previous research and current research interest, 3) Contact details to at least two reference persons.

SLU is an equal opportunity employer.

Inga