

5 Postdoctoral Positions in Carbon Biogeochemistry and exchange in Boreal Forest and Mire Ecosystems

We are seeking five highly motivated Postdoctoral Researchers with focus on: Carbon biogeochemistry and exchange in boreal forest and mire ecosystems. The main focus of these positions is on biosphere – atmosphere – hydrosphere dynamics and exchange processes in the boreal forest landscape.

The Department of Forest Ecology and Management (www.seksko.se) conducts research and education in both basic and applied science in the areas of Vegetation Ecology, Soil Science and Forest Management. The major research focus is on the boreal forest landscape, including peatlands and surface waters, but we have activities also in other biomes. The current positions are in Soil Science/Biogeochemistry. In a recent evaluation (2009) of the university the Soil Science/Soil Biogeochemistry group was ranked among the top seven out of a total of 130 groups at the university. The department has about 90 members of staff of which 13 are professors. Research areas include plant-soil interactions, surface water hydrogeochemistry, soil chemistry, soil biology, biosphere-atmosphere exchange, forest history, forest management, forest regeneration, plant population and community ecology. The department has modern technical facilities, close collaboration with several state-of-the-art technical platforms at Umeå University, and access to unique long-term forest ecosystem experiments and other field sites.

Duties: The research within the program will primarily be based on available data from long term measurement of either Eddy Covariance measurements of CO₂, water and energy and/or long term measurements of carbon export through catchment discharge. The main data sources are: 1) Data on the full ecosystem carbon balance at a boreal peatland, Degerö Stormyr. Eddy-Covariance data on CO₂, water and energy since 2001. Data on methane emission and runoff C-export since 2004. Methane exchange is monitored by EC since 2013; 2) Complete hydrological and carbon hydrochemical data from 17 sub catchments within the Krycklan catchment covering >10 full years; 3) Biosphere – Atmosphere Eddy-Covariance C exchange data as well compartment C flux data from a large scale field nitrogen fertilization experiment in a *Pinus sylvestris* forest. The experiment was initiated 2007.

Qualifications: PhD awarded within the last 5 years in ecosystem ecology, environmental science, or related field such as atmospheric sciences, biogeochemistry or microbial ecology. Experience in one or more of the following areas: eddy covariance, ecosystem modeling, micrometeorology, biogeochemistry of trace gases, plant physiological ecology, nutrient cycling and/or handling and processing large, multiple-source, data sets is a merit. Effectively and efficiently write peer-reviewed papers, and communicate fluently in English are essential for the positions.

Place of work: Umeå

Form of employment: The positions are two years scholarship available for persons with no previous employment at the SLU

Starting date: By agreement

Application:

We welcome your application marked with **Ref no. SLU ua 1276/2013**.

CV, publication list, PhD diploma, copies of no more than five publications. A short description (< 2 pages) of previous research, current research interests and other activities of relevance for the position. Names and addresses of at least two reference persons. All application documents should be written in

SLU is an international university, world class in life and environmental sciences. We are ranked among the Top 100 of ca 5,000 European universities. We have a strong research focus, but we also offer some of Sweden's most in-demand educations; veterinarian, forester, and landscape architect.

SLU has close to 3,000 employees and some 5,000 students. Annual turnover is SEK 2.7 billion, and activities are concentrated to the main campuses in Uppsala, Alnarp, Umeå and Skara.

www.slu.se

The Faculty of Forest Sciences is one of four faculties of SLU. The faculty is the principal Swedish actor in research and higher education regarding forests, forestry and the forestry-wood chain. It has the responsibility for environmental monitoring and inventory of the forest, hence the faculty combines functions of a university and a research institute. The main campus is Umeå, but the faculty has departments also in Uppsala, Alnarp and Skinnskatteberg. The faculty has eight experimental forests throughout the country with long-term experiments and studies of stands, vegetation, soil conditions, water and climate. The faculty has 191 faculty members among them 54 professors in 9 departments and units.

Further information:

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Academic union representatives:

English.

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 **April 19,**
2013.

SLU is an equal opportunity employer.

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