

Postdoc position in socio-ecohydrology with a focus on managed ecosystems

Societies rely heavily on ecosystems to meet their demands for raw material, for food, fiber, feed, and biofuels. Identifying management solutions for agroecosystems that work in the long term and are robust to changes in climate requires considering not only environmental and technological limits, and the tradeoffs implicit in contrasting needs, but also how they impact and are impacted by societies. This can be achieved only by capturing the co-evolution of societies and managed ecosystems, thereby accounting for change in farmers' and local communities' preferences as a result of previous experiences, climatic conditions, and available resources. We seek a highly motivated postdoc to work on modelling the co-evolution of societies and managed ecosystems, at the intersection of hydrology, plant ecophysiology and ecology, and social sciences.

The postdoc will be based at the Department of Crop Production Ecology in Uppsala. The research conducted within the Department generally aims at improving crop productivity and sustainability. The Department is part of the Ecology Center, which offers a stimulating research environment. The postdoc will work in close collaboration with Department of Earth Sciences, Program for Air, Water and Landscape Sciences; Hydrology at Uppsala University. Through these institutions, the postdoc will have easy access to a vibrant research environment, involving scientists with very diverse expertise. Furthermore, the location in Uppsala facilitates further collaborations with researchers at Stockholm University and KTH.

Duties:

The project will focus on developing, evaluating, and applying mathematical and stochastic methods for the assessment of the interactions among plants, the environment, and societies, in managed ecosystems. The work will include development of novel process-based mathematical models, use of existing ones, and analyses of ecophysiological, environmental, climatic and social data (e.g. time series analyses and meta-analyses).

Qualifications:

Applicants shall hold a PhD in hydrology, earth and environmental sciences, ecology, mathematics, social-ecological systems or related fields. As postdoctoral appointments are career-developing positions for junior researchers, we are primarily looking for candidates with a doctoral degree that is three years old at most. Research experience and interest in ecohydrological models (coupling plants, ecosystems, and environmental conditions) are a merit. The applicant should have a demonstrated ability to independently initiate, conduct, and complete research projects and to generate and publish the findings in international peer-reviewed journals. The candidate must have strong written and oral communication skills in English, as evidenced by peer-reviewed publications and presentations at professional meetings. A working knowledge of MatLab, R, or Mathematica is a merit.

Place of work: Uppsala

Form of employment: Temporary employment as postdoc for two years.

Extent: 100%

Starting date: By agreement

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

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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 **May 2, 2017**.

Specific documents attached:

The application package shall include i) a short letter of motivation, highlighting current research interests and other activities of relevance for the position; ii) curriculum vitae; iii) publication list; iv) a two-page research statement and vision; v) the names and contact information of at least two professional references familiar with the applicant's qualifications; and vi) copies of degrees and transcripts of academic records. It is strongly preferable that the documents i)-iv) are submitted in English.

SLU is an equal opportunity employer.