Department of Crop Production Ecology in Uppsala

1 PhD student in the research education subject: Biology with specialization in Ecology

Modelling climate-related risks and vulnerability to climate change of agricultural systems

This position will be associated with the recently started project "Ensuring food security from field to globe – Climate-related risk and vulnerability to climate change in agricultural systems".

Food security and sustainable use of resources are central to the United Nations Sustainable Developmental Goals by 2030. Improved management of agroecosystems and available resources will be necessary to meet these challenging goals. Identifying the most suitable strategy is a non-trivial task, given the randomness of precipitations and temperatures and the complex interactions between crops and growing conditions, in particular climatic extremes. This project combines stochastic hydrological and crop growth models, data synthesis, and upscaling techniques. The aims are to provide new probabilistic predictions of crop productivity and variability under current and future climates and to identify optimal adaptation strategies to reduce vulnerability of agroecosystems to climate change.

The PhD student will be based at the department of Crop Production Ecology in Uppsala. The research and teaching conducted within the department aims at improving crop productivity and sustainability, considering the interactions with the surrounding environment. The department is part of the Ecology Center, which offers a stimulating research environment, involving scientists with diverse expertise. Furthermore, the location in Uppsala facilitates collaborations with researchers at Uppsala University and Stockholm University.

Starting date: By agreement

Qualifications

The candidate should have a background in engineering, earth and environmental sciences, ecology, agronomy, hydrology, applied mathematics or related fields. Interest in process-based models (coupling plants, ecosystems, and environmental conditions), a documented knowledge in the relevant field of research, and written and oral proficiency in English are expected. A working knowledge of MatLab, Mathematica, or other programming languages for data analysis and model implementation is a merit. The selection among the eligible applicants will be based on their capacity to benefit from the training, their ability to collaborate, as well as their creativity, initiative, and independence. Particular emphasis will be placed on the candidate's written motivation (to be supplied via the application form or as cover letter), describing why you are interested in the field/project described and what make you a suitable candidate for this position and project.

Forms for funding or employment
Employment as PhD student 4 years

SLU is an Equal Opportunity Employer.

A person has basic eligibility for third level education if he or she has taken a second level qualification or has completed course requirements of at least 240 higher education credits, including at least 60 higher education credits at second level.

Selection among applicants meeting the requirements is made with reference to written application including curriculum vitae, copies of degrees and transcripts of academic records, one copy of the dissertation for masters or undergraduate degree, a list of at least two references familiar with the applicant's qualifications, certified knowledge of the English language and an interview.

Read about the PhD education at SLU at
www.slu.se/en/education/programmes-courses/postgraduate-studies/

Use this APPLICATION FORM

Further information:
Giulia Vico, giulia.vico@slu.se,

Academic union representatives
SACO Saco-S föreningen SLU +46 (0)18 67 10 85
SEKO Linda Thörnström +46 (0)18 67 10 57
ST Lotta Olsson +46 (0)18 67 15 36

Applications, marked with **ref no SLU ua 163/2017**, must have arrived at the Registrar of SLU, P.O. Box 7070, S- 750 07 Uppsala or registrator@slu.se
no later than **2017-02-28**.