



PhD position in crop production adaptations to climate change (Subject area: biology with specialization in ecology)

Ref SLU.ua.2022.2.5.1-2508

Department of Crop Production Ecology

Department of Crop Production Ecology is a part of the Ecology Centre at the Swedish University of Agricultural Sciences (SLU), in Uppsala, Sweden. The research conducted within the department generally aims at improving crop production and sustainability, considering the interactions with the surrounding environment. The Ecology Center offers a stimulating research environment, involving scientists with very diverse and complementary expertise. Furthermore, the location in Uppsala allows collaborations also with researchers at Stockholm University and KTH.

Description:

Extreme weather conditions, such as the heatwaves and dry periods that are hitting many regions, are expected to become even more common in the future. These conditions threaten food security by reducing crop yields and increasing their year-to-year variability. We need to know how to grow our crops such that risks of weather-induced yield losses are reduced, in the field and the landscape. A key challenge is to identify reliable forms of cropping, given the randomness of precipitation and temperature and the complex interactions between crops and growing conditions, in particular under climatic extremes. The successful candidate will exploit a wide range of land-use and climatic data, and, with stochastic and statistical models, quantify how climatic conditions and crop and landscape diversity affect the reliability of crop yields. This knowledge is key to inform climate change adaptation of agriculture.

The PhD student will join a world leading team in the field, with researchers working in the areas of plant ecophysiology, hydrology, agronomy and ecology. As a PhD student in

biology, the student will carry out supervised research leading to a PhD thesis as well as take PhD courses to the equivalent of at least 30 credits.

Qualifications:

We are looking for a highly motivated candidate, who is actively pursuing an academic career. The required qualification for the position is at least 240 higher education credits, including at least 60 higher education credits at second cycle education. The higher education credits can be in ecology, engineering, earth and environmental sciences, hydrology, statistics, applied mathematics, agronomy, or related fields. Written and oral proficiency in English is required, corresponding to Swedish upper secondary school English 6 or equivalent level either from previous upper secondary education in English or an internationally recognized language test (TOEFL, IELTS or Cambridge ESOL). Experience in collating and analyzing data and working knowledge of R, MatLab, Python, or other programming languages for data analysis and model implementation are merits.

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 written motivation for applying. It should describe what makes the applicant a motivated and suitable candidate for pursuing a PhD program in general and for this position in particular. Personal merits will play a significant role in the recruitment process. Furthermore, great emphasis is put on personal and communicative skills such as good collaboration and the ability to work independently.

Place of work:

Uppsala, Sweden.

Form of employment:

Employment as PhD student (4 year education).

Starting date:

By agreement.

Application

We welcome your application no later than **2022-08-22**. Applications are to be submitted by completing the process that is accessed through the button below. Applications received via email will not be considered.

The application must be written in English and must contain:

1. a statement of your scientific interests and motivation for applying to *this* specific position (max 8000 characters including spaces);
2. *Curriculum Vitae* including a complete publication list;
3. copies of previous university degrees and transcripts of completed courses;
4. copy of the dissertation for masters or undergraduate degree;

5. contact information to at least two reference persons;
6. certification of English language knowledge equivalent to at least English B/English 6 and/or statement relative to English as language of upper secondary education (see below for details);
7. if the applicant is a foreign citizen, copy of the passport page with personal data and photography.

Read about the PhD education at SLU at <https://www.slu.se/en/education/programmes-courses/doctoral-studies/>

Read about the English requirements, ways to fulfil them and equivalence to internationally recognized English test here: <https://www.slu.se/en/education/programmes-courses/doctoral-studies/new-doctoral-students/english-language-requirements/>; <https://www.universityadmissions.se/en/entry-requirements/english-language-requirements/>

Academic union representatives:

<https://internt.slu.se/en/my-employment/employee-associations/kontaktpersoner-vid-rekrytering/>

The Swedish University of Agricultural Sciences (SLU) is a world-class international university with research, education and environmental assessment within the sciences for sustainable life. Its principal sites are in Alnarp, Umeå and Uppsala, but activities are also conducted at research stations, experimental parks and educational establishments throughout Sweden. We bring together people who have different perspectives, but they all have one and the same goal: to create the best conditions for a sustainable, thriving and better world.

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.

www.slu.se

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