



PhD student to Department of Forest Genetics and Plant Physiology

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The Department of Forest Genetics and Plant Physiology was founded in the late 1970s - when the College of Forestry moved to Umeå. The number of employees has since grown steadily is now around 100, including postdoctoral researchers and postgraduate students. In the late 1990s it was decided to join with the Department of Plant Physiology at Umeå University to form a research center, Umeå Plant Science Centre (UPSC). The Department of Forest Genetics and Plant Physiology moved into the premises adjacent to the partner department and together have developed a close and successful collaboration on research issues, technology platforms, and training of master's and doctoral level students. The international element within UPSC is large, with over 40 nationalities represented.

The department conducts introductory and advanced training in plant physiology, ecophysiology, plant molecular biology, forest genetics and forest biotechnology within the Forestry program and at the master level.

The department offers postgraduate studies in biology, specializing in plant physiology, ecophysiology, plant molecular biology and forest genetics. Postgraduate courses are generally held in cooperation with the Department of Plant Physiology.

For more information about the Department of Forest Genetics and Plant Physiology and UPSC visit www.upsc.se.

Department of Forest Genetics and Plant Physiology

Read more about our benefits and what it is like to work at SLU at <https://www.slu.se/en/about-slu/work-at-slu/>

PhD student for research on: Remote sensing and breeding A new model for forest improvement performed at the landscape level

Description:

In order to strengthen innovation in biological production systems, the Foundation for Strategic Research (SSF) within the call for proposals "Biotechnology and processing" has financed the seeding project "Landscape processing: A new paradigm in forest management/tree processing" (<https://strategiska.se/en/research/ongoing-research/food-feed-and-forest-2020/project/11358/>) between 2022 and 2026. The goal of the research project is to develop a digitized forest tree breeding strategy that overcomes limitations found in traditional forest tree breeding. By utilizing commercial and natural forest stocks and taking climate and environmental variables into account in analyzes and models, the project wants to accelerate the breeding of forest trees.

Within the project, we are looking for three PhD students to develop various aspects of a digitized forest tree breeding strategy based on population genetic analyzes and remote sensing technology. Population genetic analyzes and remote sensing phenotyping will be performed at the landscape level to develop predictive models to improve forest resilience, biomass production and biodiversity.

The doctoral work combines genomics and breeding theory with remote sensing to develop novel breeding models to improve forests production and resilience.

Qualifications:

Highly motivated and team-oriented candidates with an interest in remote sensing and conifer genetics and physiology are encouraged to apply. The candidate must have a master's degree or equivalent degree in subjects relevant to the position, such as biology, physics, mathematics, or statistics. Knowledge in remote sensing, quantitative and population genetics, bioinformatics, and programming is advantageous. Good ability to communicate in spoken and written English is required. The ability can be demonstrated through scholarly works written in English by the candidate (eg an MSc thesis or any other published or informal material).

Place of work:

Umeå

Forms for funding or employment:

Temporary employment 4 years

Starting date:

March 2023 or as soon as possible after this date

Application:

Click the “Apply” button to submit your application. The deadline is 2023-01-15

1. CV/résumé
2. Diplomas and register extracts from previous studies at basic and advanced level at a university or college
3. A copy of a master's thesis at advanced level whose scope corresponds to at least 15 higher education credits or other relevant independent work of equivalent difficulty and scope
4. Documents proving eligibility in English B/6 or equivalent
5. If the applicant has foreign citizenship, a certified copy of the page in the passport containing the photo and personal information must be attached
6. It is desirable that a list of reference persons and their contact information is also attached
7. The doctoral student should have a Swedish or international driver's license

Read more about SLU's postgraduate education at www.slu.se/utbildning/program-kurser/forskarutbildning/

To qualify for third-cycle (Doctoral) courses and study programmes, you must have a second-cycle (Master's) qualification. Alternatively, you must have conducted a minimum of four years of full-time study, of which a minimum of one year at second-cycle level.

More information about the English language requirements can be found here: www.slu.se/en/education/programmes-courses/doctoral-studies/new-doctoral-students/english-language-requirements/

Please note that applicants invited to interview must submit attested copies of their degree certificate, a transcript of records from previous first and second-cycle studies at a university or higher education institution. Applicants who are not Swedish citizens need to submit an attested copy of their passport's information page containing their photograph and personal details.

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

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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