Ph. D. student in Biology

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Department of Forest Mycology and Plant Pathology

The department is located to SLU’s campus in Uppsala. Our researchers have broad expertise in molecular and ecological microbiology, and forest and plant pathology. Central questions concern the population biology and community structure of microorganisms, their functions especially in nutrient metabolism and for tree health, as well as the interaction between microorganisms and other groups of organisms. Important research areas are genetics, biocontrol, ecology, population biology of microorganisms as well as modelling and control of forest and plant diseases in the field.

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/

Duties:

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 studies will be conducted as part of a large research project and a high degree of collaboration is expected between doctoral students and postdocs in complementary disciplines. The three different doctoral students will work at three strong research environments at the Swedish University of Agricultural Sciences.

The doctoral position in forest pathology will focus on using remote sensing in combination with molecular and genetic methods to identify, measure and predict damage by forest pathogens. The position is located at the department of forest mycology and plant pathology, which is part of the Biocentrum on SLU's campus in Uppsala.

Qualifications:

We are looking for a highly motivated and collaborative person with an interest in remote sensing of forest diseases. The candidate must have a Master's degree or equivalent in a subject relevant to the position: Biology, Ecology, Plant Biology, Plant Pathology, Forest Science, etc. Good ability to communicate in spoken and written English is an absolute requirement, this can be proven through scholarly works written in English by the candidate (e.g., an MSc thesis or other published or informal material). Knowledge in one or more of the following areas: plant biology, plant or forest pathology, quantitative and population genetics, molecular biology or bioinformatics is meritorious. Proven previous experience of or skills in collecting field data and Swedish or international driver's license are desirable.

Application:

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. A Swedish or international driver's license is desirable.
Place of work:
Uppsala

Form of employment:
Employment as a Ph.D. student

Extent:
100%

Starting date:
According to agreement.

Application:
We welcome your application no later than 2022-01-20, use the button below.

Academic union representatives:

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.

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