

## 1 PhD student in the research education subject: Biology, specialisation in ecology,

### Soil microbial functioning in a changing environment

We are looking for a motivated PhD student to study the ecology of soil microbes in forest ecosystems. The project aims to explore the roles that soil microbes can play in forest ecosystems. The project will specifically address how biotic interactions and functional properties of soil microbes contribute to carbon and nutrient cycling and how these may shift in response to environmental changes. The work will involve (1) generation of dataset, through both field and manipulative experiments, (2) molecular analyses using the state-of-the-art molecular methods in molecular ecology, including metabarcoding and -omics technologies, (3) high-throughput microbiome data processing (taxonomic and functional annotation of microbial genes using bioinformatics), and (4) statistical analysis (univariate and multivariate modeling).

We welcome you to a vibrant research environment that enables high-quality research projects and to grow as a research scientist through a network of collaborations and shared projects at SLU. The Department of Ecology conducts internationally strong empirical and theoretical research and education aimed towards sustainable forestry, agriculture and conservation. Our research on populations, communities and ecosystems forms the basis for our research on the effects of land use and climate on animals, plants and soil. We aim at finding solutions that will contribute to improve greenhouse gas balances, conserve threatened species, support biodiversity and ecosystem services, sustainable wildlife management, and pest management in forest and agricultural landscapes, as well as in urban areas. However, we also work with basic questions concerning the ecology, evolution and dynamics of populations and especially from a landscape and landuse perspective.

### Qualifications

The candidate is expected to have a degree (BSc or MSc) in biology, ecology, microbiology, molecular biology, biochemistry or forestry. We are particularly looking for a candidate who enjoys working both in the field and laboratory in a collaborative environment. The candidate needs the ability and interest to use basic molecular biology techniques, bioinformatics and statistics and programming in R as well as the willingness to improve these skills during the project. The candidate also needs good communication and writing skills in English. The application must include a cover letter, describing the candidate's research interests, experiences and motivation to apply for the position. The applicant may also include other documents such as a certificate of English language proficiency (e.g. IELTS, TOEFL test scores), proof of research experience etc.

### Forms for funding or employment

Employment as PhD student

### SLU is an Equal Opportunity Employer.

**A person has basic eligibility for third cycle education** if he or she has taken a second cycle qualification or has completed course requirements of at least 240 higher education credits, including at least 60 higher education credits at second cycle education. Upper secondary school grades equivalent to English B/English 6 are a basic requirement.

**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/](http://www.slu.se/en/education/programmes-courses/postgraduate-studies/)

Use this [APPLICATION FORM](#)

### Further information:

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**Applications**, marked with **ref no SLU ua 2018.2.5.1-1960**, must have arrived at the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala or [registrator@slu.se](mailto:registrator@slu.se) no later than **2018-06-18**.