

Announcement for PhD student position in Forest Ecology and Management

Exploring peatland methane exchanges in response to climate and vegetation controls using an eddy covariance flux tower infrastructure

A PhD student position for exploring peatland methane (CH₄) exchanges is available at the Department of Forest Ecology and Management, SLU. The goal of this PhD project is to improve our understanding of the peatland CH₄ exchanges in response to climate and vegetation controls. The project is based on eddy covariance CH₄ flux and environmental measurements in four adjacent boreal peatland sites. Within a larger research framework, these EC-based flux data will be joined with detailed information of soil biogeochemistry, microbial dynamics and plant phenology to further improve process-based modeling of peatland CH₄ emissions. The study sites include the well-established Degerö peatland field station (www.slu.se/en/departments/field-based-forest-research/experimental-forests/vindelns-experimental-forests/degero_stormyr/) and recently established sites within the same mire complex. The sites are located close to Vindelns, Västerbotten, and combine the ICOS (www.icos-weden.se/station_degero.html) and SITES (www.slu.se/en/departments/field-based-forest-research/experimental-forests/vindelns-experimental-forests/) research infrastructures.

The successful candidate will join a collaborative group of graduate students and senior scientists conducting unique research in boreal peatland ecosystems. The research group has multi-decadal long experience of in depth research on methane biogeochemistry. The student will be given opportunities for cross-project collaborations and to use existing data to explore additional areas of interest.

Qualifications

We are searching for a highly motivated student with the following qualifications:

- MSc degree in Environmental Sciences, Physical Geography, Ecology or any related field
- The candidate must have good communication skills, a strong work ethic and be a team player and work well in a research environment
- The candidate must be fluent in English to be able to interact in an English-speaking work environment
- A driving license valid in Sweden is required for accessing the field sites
- Ability to conduct field work and in helping with instrument maintenance is required
- Knowledge of peatland methane dynamics as well as an understanding of their main drivers is desired
- Previous experience with i) collecting and processing eddy covariance flux data, ii) working with spatial information from UAV-, aircraft-, satellite- platforms and iii) computer program skills (Matlab, R) for handling large, high-frequency data sets is considered a strong merit

Application information

Students interested in this position should send a statement of interest outlining relevant research qualifications and a CV including contact information for three academic references via email to Prof. Mats Nilsson (Mats.B.Nilsson@slu.se) who also serves as contact for additional information. Applications should be submitted no later than **January 13, 2020**.

The position start date is flexible but is anticipated to be at the latest in May 2020. Full funding is available for 4 years and the holder of the position is expected to achieve a PhD degree at the end of this project period. The affiliation of the PhD student will be the Department of Forest Ecology and Management, SLU, in Umeå, Sweden (www.slu.se/en/departments/forest-ecology-management/). Umeå is one of Sweden's fastest growing cities and is a lively student town that offers world-class art, drama, films, industries, music and research (www.visitumea.se/en).