PhD student position in microbial community ecology

Climate change and trophic cascade effects on community assembly processes and ecosystem functioning in plankton

Uppsala University is a comprehensive research-intensive university with a strong international standing. Our mission is to pursue top-quality research and education and to interact constructively with society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden’s most exciting workplaces. Uppsala University has 46,000 students, 7,300 employees and a turnover of SEK 7.3 billion.

The PhD student position in Microbial community ecology is available at the Department of Ecology and Genetics, Limnology.

The Department of Ecology and Genetics is an international environment with staff and students from all over the world. Our research spans from evolutionary ecology and genetics to studies of ecosystems. For more information, see www.ieg.uu.se.

The limnology programme includes 3 major, highly interactive and collaborative research groups: microbial ecology, population and community ecology and biogeochemistry. See https://www.ieg.uu.se/limnology/

Project description: The composition of communities differs across space and it is generally accepted that communities are structured by a combination of different ecological processes, which include species sorting, dispersal and drift. Moreover, spatial patterns cannot be understood without considering historical processes, such as priority effects caused by differences in the arrival order of species during initial colonization of a habitat. The PhD student will work within a research project funded by the Swedish Research Council that has the following main aims: (1) to specifically investigate how several global environmental change factors interactively affect the strength of different community assembly processes and how that affects ecosystem functioning, and (2) to investigate to what extent priority effects that occur at higher trophic levels cascade through food webs and cause differences in community composition and functioning at lower trophic levels. The PhD-student will conduct a number of experimental studies using natural microbial communities, which will include both laboratory and field mesocosm experiments.

Qualifications required: To be eligible for a PhD-student position the applicant must hold a master degree (or equivalent) in a field of relevance for ecology. To be qualified, candidates should have good knowledge and experience in the fields of community ecology and microbial ecology. Candidates must be able to express themselves very well in spoken as well as written English. In the evaluation of candidates, we will emphasize personal qualities such as independence and teamwork skills.
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**Qualifications desired:** The ideal candidate has previous experience in conducting lab and field experiments and with molecular methods to characterize microbial communities. Further, good knowledge of statistics (in particular multivariate methods), metacommunity theory and aquatic ecology, as well as basic skills in programming in R and bioinformatics are highly valuable.

**Salary:** According to local agreement for PhD students.

**Starting date:** 2021-01-11 or as otherwise agreed.

**Type of employment:** Temporary position according to the Higher Education Ordinance chapter 5 § 7. The graduate program covers four years of full-time study. The position can be combined with teaching or other duties at the department (maximum 20%), which prolongs the employment with the corresponding time. The salary will be set according to local agreements. Rules governing PhD candidates are set out in the Higher Education Ordinance Chapter 5, §§ 1-7 and in Uppsala university's rules and guidelines [http://regler.uu.se/search/?hits=30&languageId=1&search-language_en=English](http://regler.uu.se/search/?hits=30&languageId=1&search-language_en=English). More information about postgraduate studies at Uppsala University is available at [http://www.teknat.uu.se/education/postgraduate/](http://www.teknat.uu.se/education/postgraduate/).

**Scope of employment:** 100%.

**For further information about the position please contact:** Prof. Silke Langenheder, silke.langenheder@ebc.uu.se, +46 18 471 2710.

**Application:** The application should include 1) a letter of intent describing yourself, your research interests and motivation of why you want to do a PhD, and why you are suitable for the position, 2) your CV, 3) a short description of your education, 4) a copy of your master degree, your course grades and a copy of your master thesis, 5) the names and contact information to at least two reference persons (e-mail address and phone no.), and 6) publications produced The application should be written in English.

**You are welcome to submit your application no later than 15 September 2020.** UFV-PA 2020/2628

Are you considering moving to Sweden to work at Uppsala University? If so, you will find a lot of information about working and living in Sweden at [www.uu.se/joinus](http://www.uu.se/joinus). You are also welcome to contact International Faculty and Staff Services at ifss@uadm.uu.se.