



Stockholm
University

PhD student in Ecology and Evolution

Ref. No. SU FV-0222-22

at the Department of Ecology, Environment and Plant Sciences. (Closing date: 28 february 2022.) Prolonged application time – new closing date: 14 March 2022.

Research and education at Stockholm University at the Department of Ecology, Environment and Plant Sciences (DEEP) is located in the Arrhenius Laboratories, situated at the University Campus at Frescati. Research carried spans across a broad range of biology subject areas including Ecology and Evolution, Ecotoxicology, Marine Biology, Plant Physiology and Plant Systematics. Presently around 140 people are working at DEEP using state-of-the-art methodologies in an international research environment characterized by world-recognized researchers and a high level of professionalism.

Project description

The Department of Ecology, Environment and Plant Sciences invites applications for a four-year PhD position part of the project "Interactions and dependencies on the free-living microbial world". Moreover, this project will be conducted in close collaboration with SciLife Lab (www.scilifelab.se). The main goal of the project is to understand and characterize microbial associations in aquatic environments.

To do this, a combination of cultivation-based or cultivation-independent techniques (such as shotgun sequencing and mathematic modeling) will be used. Free-living bacteria are the most abundant in aquatic systems and they feature a reduced genome size which leaves them depending on interactions with other organisms. These interactions develop over time as microorganisms lose genes because they can utilize metabolites that are released by other organisms sharing the same external environment. Eventually, a form of symbiosis is established lead by a synergistic coevolution. As examples, interactions in microorganisms take the form of metabolic auxotrophies and ecological dependencies.

The PhD student will be able to develop and test research hypothesis about microbial ecology, genetic population structures, test models of species interactions and direct evolution of interactions and genome streamlining in microorganisms. The theoretical knowledge which the project generates can then be used in biotechnology.

Qualification requirements

In order to meet *the general entry requirements*, the applicant must have completed a second-cycle degree, completed courses equivalent to at least 240 higher education credits, of which 60 credits must be in the second cycle, or have otherwise acquired equivalent knowledge in Sweden or elsewhere.

In order to meet *the specific entry requirements*, the general syllabus for doctoral studies in the field of Ecology and Evolution stipulates, that applicants must have completed at least 60 higher education credits in the second cycle, of which 15 credits must be from a course in one of the areas Ecology or Evolution, and 30 credits from a project in one of the areas Ecology or Evolution. Applicants may also have otherwise acquired equivalent knowledge in Sweden or elsewhere.

The qualification requirements must be met by the deadline for applications.

Selection

The criteria used in the selection for admittance to research training in Ecology and Evolution are knowledge of theory and applications in the research field, ability to communicate orally and in writing, knowledge of English, creativity, analytic competence, initiative, independence and collaboration ability.

Following qualifications will be considered as an advantage:

- Experience with spatial analysis tools (GIS)
- Experience with field work
- Experience filtering water samples with peristaltic pump
- Experience with microbial cultivation techniques, in particular cultivation of model communities

- Experience with flow cytometry
- Experience with molecular biology techniques, in particular DNA extraction
- Knowledge of statistics and statistical computing packages
- Experience with bioinformatics tools and network analysis.

Admission Regulations for Doctoral Studies at Stockholm University are available at: [www.su.se/rules and regulations](http://www.su.se/rules-and-regulations).

Terms of employment

Only a person who will be or has already been admitted to a third-cycle programme may be appointed to a doctoral studentship.

The term of the initial contract may not exceed one year. The employment may be extended for a maximum of two years at a time. However, the total period of employment may not exceed the equivalent of four years of full-time study.

Doctoral students should primarily devote themselves to their own education, but may engage in teaching, research, and administration corresponding to a maximum of 20 % of a full-time position.

Please note that admission decisions cannot be appealed.

Stockholm University strives to be a workplace free from discrimination and with equal opportunities for all.

Contact

For more information, please contact project leader Sarahi Garcia, telephone: +46 8 16 12 11, sarahi.garcia@su.se. Further information about the position can be obtained from the Subject Representative Tanja Slotte, telephone: +46 8 16 37 52, tanja.slotte@su.se.

Union representatives

Ingrid Lander (Saco-S), telephone: +46 708 16 26 64, saco@saco.su.se, Alejandra Pizarro Carrasco (Fackförbundet ST/Läraryrket), telephone: +46 8 16 34 89, alejandra@st.su.se, seko@seko.su.se (SEKO), and PhD student representative, doktorandombud@sus.su.se.

Application

Apply for the position at Stockholm University's recruitment system. It is the responsibility of the applicant to ensure that the application is complete in accordance with the instructions in the job advertisement, and that it is submitted before the deadline. We recommend that you hand in your application, including necessary documents, in English.

Please include the following information with your application

- Your contact details and personal data
- Your highest university degree
- Your language skills
- Contact details for 2–3 reference persons

and, in addition, please include the following documents

- Cover letter (2-3 pages), containing
 - Your expectations from, and intentions with the education
 - Why you are interested in the specific project
 - What makes you suitable for the specific project
- CV – degrees and other completed courses, work experience and a list of degree projects/theses
- Degree certificates and grades confirming that you meet the general and specific entry requirements (no more than 6 files)
- Degree projects/theses (no more than 6 files).

The instructions for applicants are available at: [How to apply for a position](#).

You are welcome to apply!

Stockholm University contributes to the development of sustainable democratic society through knowledge, enlightenment and the pursuit of truth.

Closing date: 14/03/2022

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