A two-year postdoctoral fellowship is available at Lund University, Sweden.

Project description

Microscopic organisms are widespread and many species have a cosmopolitan distribution. This pattern suggests that microorganisms (such as phytoplankton), in contrast to most larger organisms, have unlimited dispersal. Unlimited dispersal implies high migration rates and gene flow within a species, and consequently no opportunity for populations to differentiate. However, many studies show that phytoplankton populations are genetically highly differentiated. This implies limited gene flow despite high dispersal, posing a dispersal–differentiation paradox. Explanations to this paradox may include the importance of founding individuals (founder effects), and rapid local adaptation in phytoplankton. Within this project we will experimentally test these hypotheses using a model green algal system.

Tasks

The postdoctoral fellow will be involved in the research on the dispersal-differentiation paradox in phytoplankton, utilizing the model species *Chlamydomonas*. The project encompasses both experimental laboratory studies as well as some field work. The postdoctoral fellow will be responsible for experimental work testing founder effects and local adaptation in *Chlamydomonas* populations. The work will include algal culturing, PCR, and preparation of RADseq libraries, in the laboratory. Downstream analyses will include bioinformatic analyses, population genetic analyses, as well as writing manuscripts. The postdoctoral fellow is expected to conduct high quality research and to disseminate results in international scientific publications.

The postdoctoral fellow will join the Rengefors lab at the Aquatic Ecology unit of the Department of Biology at Lund University. In this group we work with evolutionary and ecological questions related to phytoplankton, including harmful algal blooms. We utilize various molecular and genomic methods, ecophysiological studies, as well as field studies. The successful candidate will have the opportunity to work in a dynamic and international environment, listen to and meet with invited seminar speakers from around the world, as well as have the possibility to supervise Bachelor or Master students.

Eligibility

Appointment to a post-doctoral position requires that the applicant has a PhD, or an international degree deemed equivalent to a PhD, within the subject of the position, completed no more than three years before the last date for applications. Under special circumstances, the doctoral degree can have been completed earlier.

Qualifications

The main criteria for evaluation of candidates is scientific skills and the potential to contribute to the research profile of the group.

Requirements

- A PhD in limnology, marine ecology, phycology, microbial ecology, evolutionary ecology or similar is required
- Strong record of publishing in peer reviewed scientific journals
- Documented experience working with high throughput sequencing data, such as population genomics, transcriptomics, or genomics, is necessary
- The candidate should be fluent in written and spoken English
- The candidate should have excellent writing skills
- Good communication skills, must be able to collaborate in teams, but also be able to work independently.

Desirable skills

- Experience of culturing microalgae or other microorganisms
- Experience or knowledge of population genetics is an advantage

Terms of employment

The position is a full-time, fixed-term employment for two years.

Application: Follow the link below and the instructions found there

Postdoctoral fellow in Biology, PA2019/75

Closing date for application March 6th, 2019

For questions:

Please contact Karin Rengefors (details below)

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