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PhD student in evolutionary genetics at the program Evolutionary Biology

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Uppsala University is a comprehensive research-intensive university with a strong international standing. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in 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 over 45,000 students, more than 7,000 employees and a turnover of around SEK 7 billion.

A PhD student position in evolutionary genetics is available at the Department of Ecology and Genetics, Evolutionary Biology.

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 Evolutionary Biology Centre (<http://www.ebc.uu.se/?languageId=1>) is one of the world's leading research institutions in evolutionary biology. It is part of Uppsala University, which has been ranked very high among all European Universities in the subject of evolutionary biology. Our lab is part of the Program of Evolutionary Biology that excels in many aspects of genetics and evolution and offers an inspiring international atmosphere. There are ample opportunities for interaction with PhD-students, PostDocs and researchers working on related topics. We are tightly linked to the Science for Life Laboratory (<https://www.scilifelab.se/>) and have access to advanced laboratory infrastructure, high performance computing resources and bioinformatics support.

Note that we are announcing two PhD student positions at Evolutionary Biology. In this announcement we are looking for a student to work on Y chromosome evolution and in the other position (#ADD LINK to other position) on comparative genomics of phenotypic plasticity.

Project description/duties: This project will investigate the evolution of Y chromosome within the conceptual framework of sexual antagonism. It will involve long-term experimental evolution methods as well as phylogenetic and comparative transcriptomic analysis to investigate the origins, maintenance and function of non-neutral genetic variation in a heteromorphic Y chromosome. The project utilizes the seed beetle *Callosobruchus maculatus* where we have recently discovered unusually high amount on Y-linked variation important for male fitness related traits, and isolated different Y-haplotypes to a common genetic background. Using experimental evolution the aim is to test whether negative frequency dependent selection operates on different Y haplotypes by varying sexual selection and resource competition scenarios. RNA-sequencing will be utilized to examine the role of epistasis in Y-linked regulatory variation affecting gene expression. The project will also investigate the frequency of different Y-haplotypes in the natural populations of *C. maculatus* and examine their evolution across seed beetle species using phylogenetic analysis. The PhD student position includes research, courses and literature studies.

Qualifications required: To be eligible for a PhD-student position the applicant should hold a master degree (or equivalent) in evolutionary biology, or other fields of relevance to the position example cell and molecular biology or developmental biology. Candidates must be able to express themselves fluently in spoken as well as written English.

Qualifications desired: The ideal candidate is highly motivated and enthusiastic about evolutionary biology, particularly evolutionary genetics. Experience with laboratory experiments, common molecular laboratory methods (DNA/RNA extractions, PCR), bioinformatic analysis and programming are advantageous.

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. More information about postgraduate studies at Uppsala University is available at <http://www.teknat.uu.se/education/postgraduate/>.

Scope of employment: 100%.

Salary: According to local agreement for PhD students.

Starting date: 2022-04-01 or as otherwise agreed.

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.), 6) publications produced. The application should be written in English.

For further information about the position please contact: Assistant Professor, Elina Immonen, elina.immonen@ebc.uu.se.

You are welcome to submit your application no later than 31 January, 2022.
UFV-PA 2021/4925

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Please do not send offers of recruitment or advertising services.

Submit your application through Uppsala University's recruitment system.

Placement: Department of Ecology and Genetics

Type of employment: Full time , Temporary position longer than 6 months

Pay: Fixed salary

Number of positions: 1

Working hours: 100 %

Town: Uppsala

County: Uppsala län

Country: Sweden

Union representative: ST/TCO tco@fackorg.uu.se

Seko Universitetsklubben seko@uadm.uu.se

Saco-rådet sacco@uadm.uu.se

Number of reference: UFV-PA 2021/4925

Last application date: 2022-01-31

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