PhD student in environmental science

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Lund University, Faculty of Science,

Lund University was founded in 1666 and is repeatedly ranked among the world’s top 100 universities. The University has around 46 000 students and more than 8 000 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition.

Lund University welcomes applicants with diverse backgrounds and experiences. We regard gender equality and diversity as a strength and an asset.

Subject description
This PhD project in environmental science is part of the MISTRA-funded project BIOPATH, which aims to map, evaluate and co-develop existing and new approaches through which biodiversity is integrated into financial decision-making, in the same way as is often done nowadays with climate impact. The aim is to contribute to creating incentives for companies and financial investors to reduce their negative impact on biodiversity, by developing methods that reliably and quantitatively describe how their activities affect biodiversity. The focus is on sectors with an impact on land use, such as the food, forestry and energy sectors.

Work duties
A central issue when it comes to credibly mapping the impact of companies and financial investors on biodiversity is to develop methods that relate a company’s operations to land use, and subsequently the impact on biodiversity. Increased demands are being made that this impact be reported, which means that a number of different methods for this are being developed, all with different resolution, data needs, choice of indicators, etc. The choice of indicators is dictated by the availability of data and which values of biodiversity one wants to reflect; a central question is therefore how sensitive evaluations are to the choice of indicators and which values one can and wishes to reflect. The doctoral student’s task in the project is to map, evaluate, develop and test various indicators for biological diversity used by companies and financial investors. To this end, the doctoral student will investigate which indicators for biological diversity are used in existing systems and how these reflect the different values of diversity. Through analyses of existing data, the PhD student will investigate how sensitive assessments are to the choice of indicator, and to what extent the choice of indicator reflects the values that stakeholders intend to capture with the systems. Indicators will be tested in case studies in the food and energy sector.

The PhD student will work in an attractive, transdisciplinary research environment that includes contacts with a wide range of stakeholders and a range of different scientific disciplines, with placement at the Center for Environmental and Climate Science, Lund University.

The main duties of doctoral students are to devote themselves to their research studies which includes participating in research projects and third cycle courses. The work duties can also include teaching and other departmental duties (no more than 20%).

Admission requirements
A person meets the general admission requirements for third-cycle courses and study programmes if he or she:

1. has completed courses at the undergraduate level equivalent to at least 180 ECTS credits in relevant subjects,
2. has a background in environmental science or a related field,
3. demonstrates a strong interest in the research area and the ability to conduct independent research,
4. has good oral and written communication skills in English.
• has been awarded a second-cycle qualification, or
• has satisfied the requirements for courses comprising at least 240 credits of which at least 60 credits were awarded in the second cycle, or
• has acquired substantially equivalent knowledge in some other way in Sweden or abroad.

A person meets the specific admission requirements for third cycle studies in environmental science if he or she has:

• Completed an independent project (e.g. a thesis) in a relevant subject comprising at least 30 higher education credits.

Additional requirements:

• Very good oral and written proficiency in English.
• Documented knowledge of biological diversity, including its various values
• Documented knowledge of statistical analysis

Assessment criteria
Selection for third-cycle studies is based on the student’s potential to profit from such studies. The assessment of potential is made primarily on the basis of academic results from the first and second cycle. Special attention is paid to the following:

Knowledge and skills relevant to the thesis project and the subject of study. An assessment of ability to work independently and to formulate and tackle research problems. Written and oral communication skills Other experience relevant to the third-cycle studies, e.g. professional experience.

Other assessment criteria:

• Good knowledge of Swedish since contact with stakeholders is a part of the tasks
• Experience using R and/or Matlab

Consideration will also be given to good collaborative skills, drive and independence, and how the applicant, through his or her experience and skills, is deemed to have the abilities necessary for successfully completing the third cycle programme.

Terms of employment
Only those admitted to third cycle studies may be appointed to a doctoral studentship. Doctoral studentships are regulated in the Higher Education Ordinance (1993:100), chapter 5, 1-7 §§.

Instructions on how to apply
Applications shall be written in English and include a cover letter stating the reasons why you are interested in the position and in what way the research project corresponds to your interests and educational background. The application must also contain a CV, degree certificate or equivalent, and other documents you wish to be considered (grade transcripts, contact information for your references, letters of recommendation, etc.).

The Faculty of Science conducts research and education within Biology, Astronomy, Physics, Geosciences, Chemistry, Mathematics and Environmental Science. The Faculty is organized into nine departments, gathered in the northern campus area. The Faculty has approximately 1500 students, 330 PhD students and 700 employees.

The Centre for Environmental and Climate Science, CEC (http://www.cec.lu.se) conducts research, education and communication on environmental science and climate research at Lund University.
We kindly decline all sales and marketing contacts.

**Type of employment**  
Temporary position

**First day of employment**  
according to agreement

**Salary**  
Monthly salary

**Number of positions**  
1

**Full-time equivalent**  
100

**City**  
Lund

**County**  
Skåne län

**Country**  
Sweden

**Reference number**  
PA2023/1007

**Contact**
- Henrik Smith, professor, +46462229379, henrik.smith@biol.lu.se
- Johanna Alkan Olsson, senior university lecturer, +46462221793, johanna.alkan_olsson@cec.lu.se

**Union representative**
- OFR/ST: Fackförbundet ST:s kansli, 046-2229362
- SACO: Saco-s-rådet vid Lunds universitet, kansli@saco-s.lu.se
- SEKO: Seko Civil, 046-2229366

**Published**  
27.Mar.2023

**Last application date**  
22.May.2023 11:59 PM CEST

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