

## **Modeling species distribution under past and future climate**

Understanding the past and present patterns of species distributions is a core topic in ecology, biogeography, evolutionary biology, global change biology and conservation. Despite centuries of research, the spatio-temporal dynamics and determinants of species distributions remain poorly understood. Models of species distributions provide the basis for generating hypothesis of the drivers of species distribution, as well as how they might change in the future.

In this PhD course, we will cover basic and advanced ecological and evolutionary theory on species distributions, the theory and methodology of species distribution modeling (SDM), the acquisition and handling of data, as well as examples of the application of SDMs to a broad range of research questions related to understand species past and future distributions.

The course last four days and will consist of a mixture of lectures on ecological and evolutionary aspects of species distributions and methodological approaches, discussion of scientific papers, and computer practicals (all students need to bring a laptop).

During the course, all students are required to make a short presentation (3 minutes) of their research projects, participate in lectures, paper discussions and practicals. Full attendance will give 2 ECTS.

**Dates:** 20-23 April 2015.

**Place:** Evolutionary Biology Centre (EBC), Uppsala University, lecture room 4.

### **Teachers**

Signe Normand, Aarhus University, Denmark  
Jens-Christian Svenning, Aarhus University, Denmark  
Peter Pearman, University of the Basque Country's, Spain.

### **Course organizer**

Laura Parducci, Uppsala University, Sweden

**Registration:** The course is free of charge and number of participants is limited to 25. Everyone can apply, but priority will be given to PhD students from the EBC graduate school on Genomes and Phenotypes at Uppsala University.

Deadline for application: February 15<sup>th</sup> 2015.

Apply by sending a mail with your name, affiliations and a short description of your research interests to [laura.parducci@ebc.uu.se](mailto:laura.parducci@ebc.uu.se). In the mail specify also if you are a PhD student from the EBC graduate school student at Uppsala University.