PhD Research Assistantship – Modeling Cultural Adaptation to Climate Change

The University of Maine is seeking qualified applicants for a fully funded four-year doctoral project on the cultural evolution of human behavior under climate change. The project includes the development of novel models of climate adaptation based on human cultural evolution, and their application to data on farmer and rural community responses to climate change.

Background
The research project with collaborators at the University of Maine (Dr. Tim Waring, Dr. Brian McGill, Dr. Katie Corlew, Dr. Matthew Dube), and the University of Vermont (Dr. Meredith Niles, Dr. Nicholas Gotelli, Dr. Laurent Hébert-Dufresne) seeks to understand how both rural human communities and species populations will respond to challenges posed by climate change [1]. The project will synthesize large amounts of data and develop new modeling techniques to predict climate-driven shifts in species ranges as well as the responses and cultural adaptations of human communities. A successful applicant will work with a multidisciplinary team of biologists, social scientists and complexity researchers in Maine and Vermont.

Aims
The main aim of this position is to develop theoretical models of human cultural evolution under the influence of climate change and apply those models to existing data from farmers and rural communities in the northeast and beyond. Tasks include developing theoretical models of cultural adaptation to the effects of climate change, fitting and calibrating those models based on data assembled as part of this research project, and using the models to make predictions to help rural communities and policy makers understand and anticipate the needs of adapting to climate change.

Position
The position is one of five new hires that form the core of the four-year research project funded by the National Science Foundation. The graduate student will work with Dr. Tim Waring (timwaring.info). The position is intended to prepare a PhD with expertise in social-ecological systems, human cultural evolution, with a focus on climate change science and policy. Support includes a fellowship of $24,000/yr for up to 4 years, a tuition waiver, and a 50% subsidy for health insurance. Note that the successful candidate will also need to be accepted into a UMaine PhD program such as the Ecology and Environmental Sciences graduate program (Applications due January 15th). These applications require additional application materials.

Requirements

Essential
   - Demonstrated research and academic excellence
   - Strong quantitative analytical skills
   - Significant experience with a research computing language such as R, Python or Matlab

- Excellent communication skills and ability to work with a team
- Demonstrated ability to learn new skills
- Mature, organized, professional and courteous

Desired
- Completed master's degree in a relevant science
- Experience with evolutionary or biological modeling, e.g. quantitative genetics
- Knowledge of the extended synthesis, eco-evo or cultural evolution theories
- Interest in environmental conservation and human behavior
- Enthusiasm for open science practices

Application:

Please address questions and completed applications electronically to Dr. Tim Waring (timothy.waring@maine.edu). Applications should include:

1. A cover letter detailing your interest in the position, how you meet the essential and desired requirements, and details of past research projects
2. A CV or resume, including three references (with name, phone, email).

Review of materials will begin November 15. Applicants must also complete applications to the relevant graduate program (e.g. Ecology and Environmental Sciences) at the University of Maine. The University of Maine is committed to equal opportunities people of all types. Women and minorities explicitly encouraged to apply.