

# PhD FUNDING OPPORTUNITIES

## ECOLOGY AND EVOLUTIONARY BIOLOGY

### UNIVERSITY OF TENNESSEE, KNOXVILLE

*This leaflet is targeted towards students considering PhD study in the Department of Ecology and Evolutionary Biology (EEB) at the University of Tennessee, Knoxville (UTK). It is intended to introduce potential applicants to one of several exciting funding and learning opportunities that are available to PhD students in EEB, in addition to more conventional Teaching and/ or Research Assistantship awards. This leaflet describes a Research Traineeship program called PEER (Program for Excellence & Equity in Research), which aims to increase representation of minority groups in quantitative biology.*



*If you are not yet sure about PhD study, are still thinking about whether EEB is the right department for you, or are interested in learning about other funding opportunities available to EEB graduate students, please read the “additional information” section at the end of this document.*

#### **The Program for Excellence and Equity in Research (PEER)**

**PEER**

Program for Excellence & Equity in Research

The PEER graduate training program provides a financial award to qualified individuals to support their first two years of study in a PhD program. The PEER award includes a generous stipend of \$25,000 per year (substantially more than those associated with Teaching and Research Assistantships), plus tuition and health care. After the initial two years, students can rely on support through traditional EEB Teaching or Research Assistantships or additional external funding.

PEER was created to increase the number of accomplished, competitive, and determined underrepresented minority students who pursue PhDs in the sciences. The program is targeted toward multi-disciplinary research, bringing together fields like physics, chemistry, math, and engineering to understand biological systems. Qualified students may be from underrepresented racial and ethnic groups, students with disabilities, and those from disadvantaged backgrounds. Only U.S. citizens and permanent residents are eligible to apply.

PEER Awards are funded through a training grant from the National Institutes of Health (NIH). While traditionally these awards have gone to students in biomedical research, students studying quantitative ecology and evolutionary biology questions are eligible for and have won these awards.

## The Department of Ecology and Evolutionary Biology (EEB)

The EEB faculty at UTK have interests ranging from mathematical ecology through evolutionary genetics to field studies of behavior. We train doctoral students with research interests in animal behavior, conservation biology, ecology, ecotoxicology, evolutionary biology, behavioral and population genetics, plant biology, computational, mathematical and theoretical ecology, evolutionary theory, and other areas of organismal biology. EEB has research links to other departments at UTK as well as outside institutions (such as Oak Ridge National Laboratory, the Tennessee Valley Authority, the US Geological Service, and the US National Park Service). We encourage research collaborations within the department and beyond.



### A Student's Perspective: Sara Kuebbing



I joined the PEER scholars program in fall 2010 as a second-year graduate student in EEB at UTK. I am interested in invasion biology, because species invasions are one of the greatest threats to biodiversity. My previous work with conservation organizations like The Nature Conservancy motivated me to enter graduate school to aide in the understanding of species invasions. Specifically, I am exploring how interactions between invasive plant species (a topic few have broached) may lead to varying impacts within invaded communities.

I have great support from my major professor (Dr. Daniel Simberloff, a luminary in the field of invasion biology) as well as other faculty members and graduate students in EEB, which allows me to focus and build upon my personal research interests. However, getting to meet and interact with other graduate students and faculty *outside* EEB has been the biggest plus of becoming a PEER Fellow. For example, PEER faculty advisor Dr. Suzanne Lenhart of the math department is helping me coordinate meetings with math graduate students to see how we can apply mathematical models to understanding species invasions. PEER has introduced me to fellow engineers, chemists, biologists and mathematicians that are all working right here at UTK. I feel collaborations and learning will continue long after my fellowship ends.

## Exemplar Questions

To get an idea of the kinds of research questions that would be eligible for PEER support, examine the following list of exemplar research questions. This list is by no means exhaustive!



**CONSERVATION:** How effective are existing and proposed investments in conservation given what we know about the distribution and dynamics of biodiversity and ecosystem services? (Contact: Paul Armsworth, [p.armsworth@utk.edu](mailto:p.armsworth@utk.edu))

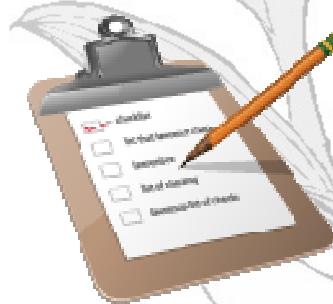
**ECOSYSTEM ECOLOGY:** Can plant-soil feedbacks help predict how ecosystems will respond to global change? (Contact: Aimee Classen, [aclassen@utk.edu](mailto:aclassen@utk.edu))

**GENOMICS:** How can combining mathematical models of cellular and evolutionary processes be used to extract biologically meaningful information from genomic datasets? (Contact: Michael Gilchrist [mikeg@utk.edu](mailto:mikeg@utk.edu))

**PHYLOGENETICS:** How have selective regimes on mammals changed after non-avian dinosaurs went extinct? (Contact: Brian O'Meara, [bomeara@utk.edu](mailto:bomeara@utk.edu))

For more research ideas, visit EEB's website and read about the faculty's research interests: <http://eeb.bio.utk.edu/researchgroups.asp>.

## Next Steps



If you are interested in pursuing a PEER Traineeship, contact the supervisor with whom you would like to work to discuss your research interests and the possibility of an application. PhD students in EEB are accepted to work with a particular faculty member, so it is important to initiate a conversation with your potential supervisor early in the application process. Your supervisor can help you formulate a research question that interests you and is eligible for PEER funding.

To actually obtain a PEER Traineeship, you need to apply to the University of Tennessee Graduate School (<http://graduateadmissions.utk.edu/apply.shtml>) and to the department of Ecology and Evolutionary Biology (<http://eeb.bio.utk.edu/admissions.asp>). There is an additional (short!) application for the PEER program itself (<http://web.utk.edu/~peer/students.htm>).

## Additional Information

For more information about PEER, please visit the program website (<http://web.utk.edu/~peer/>). NIH's guidelines on what constitutes a disadvantaged background are at [http://grants.nih.gov/TRAINING/FAQ\\_DIVERSITY.HTM](http://grants.nih.gov/TRAINING/FAQ_DIVERSITY.HTM).



For questions about PEER, please contact the Program Manager (Sekeenia Haynes, [shaynes6@utk.edu](mailto:shaynes6@utk.edu)), or EEB's Graduate Traineeship liaison (Paul Armsworth, [p.armsworth@utk.edu](mailto:p.armsworth@utk.edu)).

For more information about the Department of Ecology and Evolutionary Biology, please visit EEB's website (<http://ceb.bio.utk.edu/>). For questions about potential research projects, contact the relevant supervisor directly (<http://ceb.bio.utk.edu/faculty.asp>).

Students who are interested in pursuing a PhD in quantitative ecology or evolutionary biology may also wish to consider Scale-It (Scalable Computing and Leading Edge Innovative Technologies) traineeships (<http://web.utk.edu/~scaleit/>).

If you are wondering whether a PhD is right for you, there are several helpful links from EEB's Graduate Studies page (<http://ceb.bio.utk.edu/graduate.asp>).

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