

Position – PhD Student opportunity, Molecular Ecology / Population Genomics, University of Texas at El Paso

University of Texas at El Paso: PhD opportunity in Ecology and Evolutionary Biology (EEB): A NSF-funded graduate student position is available to study the "Molecular Ecology and Local Adaptation in a Dominant Arctic Tundra Sedge (*Eriophorum vaginatum*)" in the Plant Evolution Lab of Asst Prof Michael Moody at the University of Texas at El Paso. The position will be funded through 3 yrs starting Fall 2015.

Project: Local adaptation of plant populations into ecotypes is a potentially crucial limitation on range expansion in the face of a rapidly changing climate. A 30-year reciprocal transplant experiment with the tussock-forming sedge, *Eriophorum vaginatum*, revealed local ecotypic specialization as well as adaptational lag. This project will: 1) investigate the genetic factors that lead to local adaptation in *E. vaginatum* using genetic markers and 2) examine natural disturbance as a mechanism for genotypes from warmer climates to establish in tussock tundra of northern regions by seeding a recent burn site *E. vaginatum* and identifying genotype success utilizing molecular markers. This research aims to provide students with a multi-disciplinary training as part of a collaborative team that also includes Drs. Ned Fetcher (Wilkes University) and Jim Tang (Marine Biological Laboratory; MBL).

Qualifications: Candidates with background in Molecular Ecology and Evolutionary Theory are strongly encouraged. Preference will be given to students with some background in Next Generation Sequencing (NGS) methods, particularly RADseq and the requisite bioinformatics tools (but not required). Further preferred skills include excellent English writing and verbal communication, the ability to work in a team, and comfort in both the field and lab. At least two trips to northern Alaska will be required (one trip June-July 2015). Basic skills with Linux systems and R will also be useful.

The UTEP EEB program (<http://science.utep.edu/eeb/>) has a focus on global climate change and biodiversity with a growing group of arctic research faculty. The Department of Biological Sciences

(<http://science.utep.edu/biology/index.php>) has extensive state of the art research facilities including newly developed NGS capabilities and a close affiliation with the Bioinformatics program and their computing systems.

Students interested in pursuing graduate research in my lab should email me at mlmoody@utep.edu. Please include the following information: a summary of your educational and research experience, future research interests, copy of transcripts. Formal applications for the UTEP Graduate Program can be found at: <https://apply.embark.com/grad/UTEP/22/> and for the EEB program at: <http://science.utep.edu/biology/index.php/2014-04-22-20-30-52/2014-04-22-20-55-16/on-line-application-for-department-of-biological-sciences>

Applications due: April 1, 2015