Plant Genomics Master's Student Position at Arkansas State University

The Bellis & Marsico Labs are seeking a Master's student interested in plant ecological genomics, with a desire to study the evolutionary ecology of invasive grasses that alter fire regimes. Specifically, we are seeking a driven student interested in studying the genomic diversity of wild sugarcane (*Saccharum spontaneum*), a Federal Noxious Weed, that is an emerging concern in the USA. The student will conduct genomic sequence analysis to characterize the origins of naturalizing wild sugarcane populations and their hybrids and to understand mechanisms of adaptation to novel environments in the southeastern USA.

This project is part of our ongoing collaborative research with Dr. Rima Lucardi (USDA Forest Service) that previously identified wild sugarcane as the most abundant taxon hitchhiking into the USA on air-intake grilles of refrigerated shipping containers (Lucardi et al. 2020). In addition to genomic analysis, there is potential to contribute to field work, greenhouse experiments, and vascular plant identification for the broader collaborative project depending on student interests.

A Bachelor's degree in botany, biology, genetics, bioinformatics, data science, computational biology, computer science, or related field is required. Applicants should have a strong desire for scientific discovery, a thirst for adventure, and a knowledge of or willingness to learn programming (R and/or Python) and command-line tools for genomic analysis.

Funding for this position is provided through a combination of a teaching assistantship and through a research assistantship funded through the USDA Forest Service.

Applicants who are members of historically minoritized communities including Black/African American, Indigenous, Latinx, LGBTQIA+, and/or first-generation college students are particularly encouraged to apply. The successful applicant should plan to begin in August 2022 or January 2023, though there is a possibility to start as an hourly employee prior to beginning graduate school.

Arkansas State University is a comprehensive, state-supported, doctoral university with high research activity (R2). The Department of Biological Sciences has nearly 500 undergraduate and 60 graduate students across Biology, Environmental Sciences, and Molecular BioSciences graduate programs. Jonesboro is a community of nearly 80,000 people located in Northeast Arkansas, amidst the Mississippi Alluvial Plain and Crowley's Ridge ecoregions. We are an hour away from Memphis, Tennessee, and the Ozark Highlands. Jonesboro is a regional center for quality healthcare, and it has a variety of dining and entertainment options, a low cost of living, and plenty of recreational opportunities.

If interested contact Dr. Emily Bellis at ebellis@astate.edu. You can learn more about the Bellis and Marsico labs at https://em-bellis.github.io and www.travismarsico.com.

If you plan to apply, please send an email to ebellis@astate.edu that includes 1) a cover letter describing your interests, career goals, and relevant research experiences and skills; 2) your Curriculum Vitae [including names and contact information for three references]; and 3) a copy of your academic transcripts (unofficial copies are acceptable). Review of requested pre-application materials listed above will begin on March 15, 2022 and continue until position is filled.

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