Jill Anderson and Susana Wadgymar at the University of Georgia are searching for an enthusiastic undergraduate with a strong interest in evolutionary ecology for field research in an NSF REU position (National Science Foundation, Research Experience for Undergraduates) from June-August 2017.

We study the ecological and evolutionary consequences of climate change for natural plant populations. We focus on research on Drummond’s rockcress (Boechera stricta in the plant family Brassicaceae), a mustard plant native to the Rocky Mountains. Our studies take place around the Rocky Mountain Biological Lab (http://www.rmbl.org/), which is located in Gothic, Colorado near the wildflower capital of Colorado (Crested Butte). We quantify plant fitness and traits to ask whether climate change could disrupt long-standing patterns of local adaptation, and to test whether phenotypic plasticity will enable populations to persist in the short-term. We perform large-scale reciprocal transplant experiments to examine patterns of adaptive evolution and natural selection in contemporary landscapes. Since fall 2013, we have planted ~60,000 seeds and seedlings into five experimental gardens ranging in elevation from 2500 m to 3340 m (8202 feet to 11000 feet). Our summer research involves intensive monitoring of these experimental plants to record data on germination success, survival, growth, reproductive success, as well as life history and morphological traits. We conduct most of our work in the field, with a small proportion of indoor lab work.

The successful candidate will assist with ongoing fieldwork. In addition, there are many opportunities for students to develop independent projects associated with our overall objectives, including studies on: 1) population divergence in ecologically-relevant traits, especially drought, UV tolerance, and herbivore resistance; 2) phenotypic plasticity at multiple spatial scales; 3) population density and species composition of the herbivore community that attacks Drummond’s rockcress; 4) flower color polymorphism; and 5) the importance of maternal effects in biological responses to climate change.

We are offering a stipend of $500/week for a full time REU student (40 hours/week) for 10 weeks. The exact start and end dates are flexible. We will cover room and board at the Rocky Mountain Biological Laboratory and reimburse travel expenses up to $500. Fieldwork will involve hiking to experimental gardens through rough terrain (1-3 miles one-way daily).

The University of Georgia is committed to maintaining a fair and respectful environment for living, work, and study. To that end, all qualified applicants from individuals with a strong interest in evolutionary biology will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, gender identity, disability status, or age. The application consists of a cover letter listing your qualifications, a CV/ résumé, and contact information for two references, all of which can be emailed to Dr. Jill Anderson at: jta24@uga.edu
Applications are due by March 24th, 2017.

Feel free to contact Jill or Susana (susanaw@uga.edu) if you have any questions about the position. Additional information about the our work can be found at: http://andersonlab.genetics.uga.edu/Home.html