

Applications are welcome for a Postdoctoral Associate to work on the biomechanics of sexual selection and insect cuticle at the University of Florida in Gainesville.

Position description: The Miller Lab at the University of Florida welcomes applications for an NSF-funded postdoctoral researcher to take a functional and biomechanical approach to understanding the influence of nutrition on the structure and composition of sexually selected weapons in insects. This work is interdisciplinary and will involve collaborations with researchers at Imperial College London (David Labonte) and the University of Cambridge (Walter Federle). The postdoctoral associate will work within this international research team and have opportunities to develop complementary projects within the context of the funded research.

Project description: Tens of thousands of animal species have evolved morphological weapons that are used within a sex to physically compete over reproductive opportunities. In insects, these structures are built of cuticle. We have recently discovered strong effects of nutrition on insect cuticle, affecting the ability of weapons to withstand the rigors of combat. This project will follow up on those findings and test the consequences for male-male competition, selection, and evolution using the leaf-footed cactus bug, *Narnia femorata* (Hemiptera: Coreidae).

See Woodman et al (2021) on the Publications page to see the initial results that sparked this research direction. This position will begin in March 2024 and is funded for 2.5 years. For this position, we are looking for creative problem solver with excellent self-motivation, and someone who works well independently as well as in a group.

Qualifications: Well-qualified candidates will:

- * Hold a PhD in evolutionary biology, functional morphology; biomechanics, behavioral ecology or a related field;
- * Have demonstrated skills in data collection, statistical analyses, and academic writing;
- * Demonstrate excellent communication and interpersonal skills.

Desirable qualities include:

- Experience conducting research in functional morphology and/or biomechanics;
- Involvement and/or interest in outreach and mentoring students.

Responsibilities will include:

- Working as part of a team to rear insects under a variety of environmental conditions;
- Using state-of-the-art equipment to conduct quantitative mechanical, morphological, and/or behavioral research;
- Data analysis and writing up research results.

Interested applicants can learn more about this position (Postdoctoral Associate #2), including how to apply, at: <http://www.millerlab.net/opportunities.html>

Diversity and inclusion are more than just words for us. These are central in guiding how we come together as a research team, cultivate excellence, and go forth into the world to share our discoveries and our love of our work.

Information about Gainesville, Florida:

Situated in the rolling countryside of north central Florida, Gainesville, is close to world-class fishing, snorkeling, canoeing, tubing, and kayaking. On land, those so inclined may enjoy birding, hiking, biking, and fishing. Home of the University of Florida, seat of Alachua County's government and the region's commercial hub, Gainesville is progressive, environmentally conscious, and culturally diverse. The presence of many students and faculty from abroad among its 99,000-plus population adds a strong cross-cultural flavor to its historic small-town Southern roots. Its natural environment, temperate climate and civic amenities make Gainesville a beautiful, pleasant, and interesting place in which to learn and to live.