



AUBURN
UNIVERSITY

College of Agriculture

PhD Student Position in Termite Social and Nest Evolution

Comparative data | Phylogenetics | Modeling

Mizumoto Lab, Auburn University

The Mizumoto Lab is recruiting one student to pursue a PhD in Entomology in the Department of Entomology & Plant Pathology at Auburn University, beginning in **Fall 2027 (August)**. Applicants with a master's degree and prior research experience are preferred.

This is one of two PhD positions available in the lab. This position emphasizes comparative data analysis, phylogenetics, and modeling; the other emphasizes fieldwork, behavioral experiments, and video analysis. Applicants may apply to either or both positions.

Research focus

The student will join an NSF-funded project investigating the evolution of termite nesting systems, social organization, and collective behavior. Our lab combines phylogenetic comparative analysis, behavioral experiments, large behavioral and natural-history datasets, modeling, and simulation to understand how termite societies evolved.

The student's research will focus on termite social and nest evolution and may include:

- Phylogenetic comparative analysis of termite behavior and ecology
- Evolutionary analysis of nesting, foraging, and worker systems
- Systematic synthesis of termite life-history data
- Mathematical modeling or simulation
- Laboratory experiments testing predictions from comparative analyses and models

The student will contribute to a defined objective of the NSF project while developing an independent, student-led dissertation theme within termite behavior and evolution. The dissertation may build directly on project findings or expand into a related question using the lab's field, experimental, computational, and collaborative resources.

The position

The position includes three years of year-round RA support and tuition coverage through an NSF-funded project. If additional time is needed to complete the degree, continued support will be arranged. The student is responsible for health insurance costs and certain university fees.

The student will be expected to conduct rigorous and reproducible research, present at national and international conferences, publish first-author papers, and participate actively in lab and departmental activities. Applicants should have a strong interest in social evolution, behavioral evolution, macroevolution, quantitative biology, or a related field. Experience with R, Python, phylogenetics, modeling, simulation, or database management is helpful but not required. Motivation, analytical curiosity, communication, and sustained engagement are essential.

Application

Interested applicants should email Dr. Nobuaki Mizumoto (nzm0095@auburn.edu) with: (1) CV; (2) A one-page statement describing research interests, relevant experience, and interest in the position; (3) contact information for three references. Applicants interested in both positions should submit one application and indicate both positions and their primary preference. The first review of applications will begin on **November 2, 2026**. Applications received after this date will continue to be considered until the position is filled.

Auburn University is an R1 research university located in a vibrant college town with access to diverse natural areas. The Department of Entomology & Plant Pathology includes a collaborative community with several laboratories studying social insects.

Contact: Nobuaki Mizumoto, Assistant Professor

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