



AUBURN
UNIVERSITY

College of Agriculture

PhD Student Position in Termite Collective Behavior and Nest Building

Fieldwork | Behavioral experiments | Video analysis

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 fieldwork, behavioral experiments, and video analysis; the other emphasizes comparative data analysis, phylogenetics, and modeling. Applicants may apply to either or both positions.

Research focus

The student will join an NSF-funded project investigating the behavioral mechanisms and evolution of collective nest building in termites. Our lab combines fieldwork, behavioral experiments, video analysis, comparative analyses, and computational and theoretical approaches to understand how social behavior evolves across species.

The student's research will focus on termite tunneling and collective building and may include:

- Domestic and international fieldwork to observe and record termite behavior
- Laboratory experiments on tunneling and nest construction
- Quantitative video analysis and behavioral tracking
- Comparative analysis across termite species
- Opportunities to connect behavioral findings with modeling or simulation

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 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 animal behavior, collective behavior, natural history, ecology, or evolution. Experience with insects, fieldwork, behavioral observation, experiments, video analysis, programming, or quantitative methods is helpful but not required. Motivation, careful observation, 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.

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