Opportunity Title: USDA-ARS Internship on Invasive Ants
Opportunity Reference Code: USDA-ARS-SE-2024-0073A

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-ARS-SE-2024-0073A
How to Apply	**Connect with ORISE...on the GO!** Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcripts – Click here for detailed information about acceptable transcripts
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

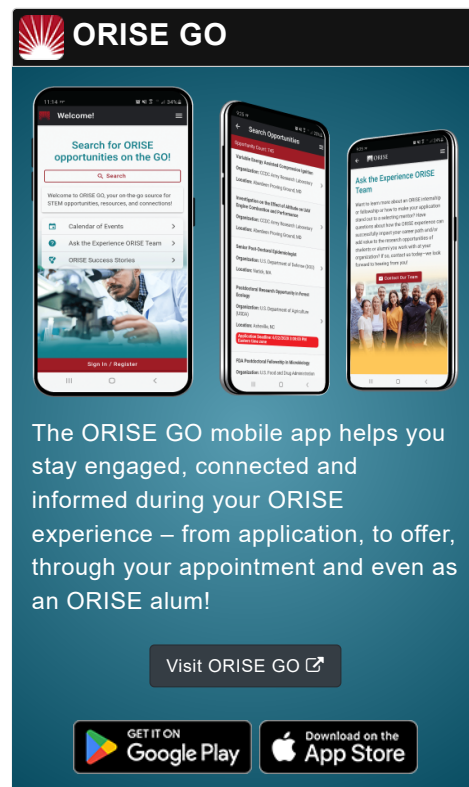|	
Application Deadline	8/30/2024 11:59:00 PM Eastern Time Zone
Description	***Applications are reviewed on a rolling-basis.**

ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), located in Gainesville, Florida.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: The selected participant will conduct studies to help advance the knowledge of population genetics and the microbiome of invasive ants. For example, the participant will help examine the prevalence of microsporidian parasites among invasive fire ant populations in the US and obtain their genetic characterization. The project also includes the genetic characterization of ants.

Learning Objectives: Under the guidance of the mentor and collaborating with technical staff, the participant will learn to conduct laboratory studies on invasive ants using genetic and microbiological tools, some field experience will be conducted. There will be specific opportunities to learn experimental design, experience the logistical considerations needed to efficiently

conduct a variety of experiments, collect and statistically analyze data, and summarize results for technical reports. The participant will conduct both basic and applied research that will develop expertise in insect/ant identification, insect rearing, behavior, and genetic and microbiological techniques as well as basic statistics and bioinformatics. The participant will have the opportunity to learn how to prepare a presentation of research they conducted for a scientific meeting and if possible, give the presentation.

While hands-on experience in techniques and approaches used in entomological research will be gained, the general scientific methodologies learned will provide a foundation of research skills and aptitude applicable to a career in science.

Mentor: The mentor for this opportunity is Marina Ascunce (marina.ascunce@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: April 29, 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for four months, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment may be part-time (10, 20, or 30 hours/week).

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process, please email ORISE.ARS.Southeast@orau.org and include the reference code for this opportunity.

Qualifications	The qualified candidate should have received or be pursuing a bachelor's or master's degree in one of the relevant fields. Degree must have been received within the last 5 years unless

currently pursuing.

Preferred Skills include:

- Experience with DNA extractions of insects and PCRs
- Aptitude/ability to conduct tedious, detailed, and repetitive laboratory research.
- Experience with basic laboratory techniques and equipment used in biological sciences.
- Experience in microbiology
- Comfortable learning statistics programs such as R and bioinformatics.
- Experience or interest in researching outdoors and documenting observations of insect behavior.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or currently pursuing.
- **Academic Level(s):** Graduate Students, Post-Associate's, Post-Bachelor's, Post-Master's, or Undergraduate Students.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (9 👁)