Opportunity Title: USDA-ARS Entomology Postdoctoral Research Fellowship
Opportunity Reference Code: USDA-ARS-NEA-2024-0240A

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-ARS-NEA-2024-0240A
How to Apply	*To submit your application, scroll to the bottom of this opportunity and click APPLY.*

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. 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
- A copy of an abstract or reprint of an article

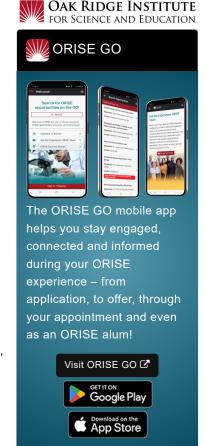All documents must be in English or include an official English translation.

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Description

*Applications are reviewed on a rolling-basis.

ARS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Systematic Entomology Laboratory (SEL), located at the National Museum of Natural History in Washington, DC.

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: Under the guidance of a mentor, the fellow will have the opportunity to image, curate, and database species of the genus *Diprion* (Hymenoptera: Diprionidae) in order to develop a taxonomic revision and identification tools focusing on *Diprion pini*. The aggregated data will be developed into an illustrated guide and key for identification of adults and larvae as well as biological and geographical information. This will all be harmonized into a searchable online database. Under the guidance of a mentor, the fellow will participate in barcoding of specimens to determine species limits will provide preliminary data for developing assay probes. Any new species identified will be described and incorporated into the revision and guide.

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Learning Objectives: The participant will have the opportunity to learn techniques including imaging with extended focus Macropod system and Hitachi tabletop scanning electron microscope. The fellow will learn how to incorporate images and other data into searchable database via TaxonWork; develop species limits with morphology and CO1 barcoding, and update taxonomy, including description of any new species. The fellow will also learn to develop morphology-based revision including biological data and a key to species, both adults and larvae where possible which will subsequently be migrated to Lucid format and uploaded to the Symphyta idTools.org website for public use along with updated taxonomy and data.

Mentor(s): The mentor for this opportunity Michael Gates (michael.gates@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 2024/2025. Start date is flexible and will depend on a variety of factors.

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

Level of Participation: The appointment is full-time.

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, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the Guidelines for Non-U.S. Citizens Details page of the program website for information about the valid immigration statuses that are acceptable for program participation.

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.Northeast@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields or be currently pursuing the degree with anticipated completion by the start of the appointment.

Preferred skills:

- Knowledge of the principles, theories, and practices of morphology,
- Experience in molecular (including high-throughput sequencing and targeted-enrichment) and biological systematic methods and techniques
- Knowledge in entomology and evolutionary theory
- Knowledge of the classification, literature, and morphology of

Hymenoptera

- Skills in data analysis and data management

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Communications and Graphics Design** (1 👁)
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (3 👁)

Affirmation

I affirm that:

- I am a US Citizen, OR
- I am a non-US citizen currently living in the United States