Opportunity Title: Invasion & Restoration Ecology Research - Postgraduate
Opportunity Reference Code: ERDC-EL-2024-0003

Organization U.S. Department of Defense (DOD)

Reference Code ERDC-EL-2024-0003

How to Apply Click on *Apply* now to start your application.

Description The Environmental Laboratory (EL) is one of the seven laboratories of U.S. Army Engineer Research and Development Center (USACE-ERDC), which is the Army Corps of Engineers' integrated research and development (R&D) organization. EL provides solutions to environmental challenges for the U.S. Army, the Department of Defense and the Nation through environmental science and engineering research and development. Researchers in EL conduct research in ecosystem science and technology, environmental resiliency, environmental sensing, ecological modeling and forecasting, risk and decision science, environmentally sustainable material, systems biology, climate change, computational chemistry, environmental chemistry and environmental security.

What will I be doing?

Under the guidance of a mentor, you will be part of a plant ecology team comprised of research biologists/ecologists collaborating with federal and non-federal partners conducting laboratory, greenhouse, mesocosm, pond, and field studies related to invasion and restoration biology/ecology and management of non-native and native aquatic, wetland, and riparian plant species. Research examines factors limiting establishment and persistence of invasive and native plants, including competitive interactions between native and introduced plants and the effects of disturbance and nutrient loading on plant communities. Additional applied research investigates adaptive restoration/ecosystem management techniques. As an offshoot to this approach, researchers are developing, refining, and applying technologies for establishing native plants as the basis for ecosystem restoration and nuisance plant management. This includes ongoing study and development of methods of propagation and production of aquatic and riparian plants for use in ecosystem restoration projects, field-testing of methods to establish plants, assessment of plant community development, and analyses of the ecological role of the aquatic plant community.

You will have the opportunity to participate in aquatic and riparian habitat restoration projects involving large-scale horticulture and field work (restoration plantings, plant community surveys and mapping, assessment of plant community development) and applied/foundational ecological research that includes experimental design and set-up/break down of studies, maintenance, data collection, synthesis and analysis, and technology transfer. Fieldwork takes place year-round in natural riparian and aquatic environments in varied weather conditions and typically involves physical exertion (plant restoration and monitoring survey efforts).

Why should I apply?

This internship provides the opportunity to independently utilize your skills and engage with experts in innovative ideas to move the proposed research forward. There are multiple opportunities available to engage in your applied research and evaluation interests.

Where will I be located? Lewisville, Texas

What is the anticipated start date?

ERDC-EL is ready to make an appointment immediately. The exact start date will be determined at the time of selection and in coordination with the selected candidate.

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What is the length of the appointment?

This ORISE appointment is a full-time twelve-month research appointment, with the possibility to be renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

What are the benefits?

You will receive a stipend to be determined by ERDC-EL. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through ORISE.
- Relocation Allowance
- Training and Travel Allowance

About ORISE

This program, administered by Oak Ridge Associated Universities (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 DoD. Participants do not enter into an employee/employer relationship with ORISE, ORAU, DoD or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. For more information, visit the ORISE Research Participation Program at the U.S. Department of Defense.

Qualifications

Master's or Doctoral degree or will receive by 12/31/24 in biology, ecology, environmental sciences, geography, or a related field.

Required Skills:

- Familiar with data analysis software
- Technical writing skills
- Background in invasion or restoration ecology, wildlife or conservation biology/ecology
- Developed critical thinking skills
- Tolerant of participating in varied weather conditions (heat, cold)
- Ability to participate independently as well as in teams
- Demonstrated organizational skills and is task oriented
- Strong written, oral, and electronic communication skills

Desired Skills:

- Prior experience in plant propagation/culturing, habitat restoration, or fieldwork
- Working knowledge of invasion or restoration ecology of aquatic ecosystems
- Working botanical knowledge of taxonomic identification of aquatic and riparian plant species (native and non-native)
- Experience in field measurements/data collection
- Familiarity with mapping/survey techniques
- Experience compiling and managing scientific data via spreadsheet or database

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- Basic statistical analyses and associated use of statistical software

Application Requirements

A complete application consists of:

- Zintellect Profile
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - For this opportunity, an official 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.
- One recommendation. Your application will be considered incomplete and will not be reviewed until one recommendation is submitted. We encourage you to contact your recommender(s) as soon as you start your application to ensure they are able to complete the recommendation form and to let them know to expect a message from Zintellect. Recommenders will be asked to rate your scientific capabilities, personal characteristics, and describe how they know you. You can always log back in to your Zintellect account and check the status of your application.

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system. All documents must be in English or include an official English translation. If you have questions, send an email to usace@orise.orau.gov. Please list the reference code of this opportunity in the subject line of the email. Please understand that ORISE does not review applications or select applicants; selections are made by the sponsoring agency identified on this opportunity. All application materials should be submitted via the “Apply” button at the bottom of this opportunity listing. Please do not send application materials to the email address above.

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!

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 12/31/2024 11:59:00 PM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Communications and Graphics Design** (6 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (51 👁)
  - **Mathematics and Statistics** (11 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (2 👁)
  - **Social and Behavioral Sciences** (30 👁)
- **Age:** Must be 18 years of age