

Opportunity Title: Aquatic Plant Ecology Research - Part-Time

Opportunity Reference Code: ERDC-EL-2022-0003

Organization U.S. Department of Defense (DOD)

Reference Code ERDC-EL-2022-0003

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

Description Team Mission: The Aquatic Plant Ecology Team supports the concept that an ecosystem approach is necessary for sustainable management of aquatic and riparian nuisance plant species. This approach goes beyond stand-alone efforts to remove targeted species, incorporating additional methodologies aimed at developing a sustainable plant community dominated by beneficial, native species. Study of the biology and ecology of nuisance and native plant species provides a foundation of knowledge of the relative strengths and weaknesses of each species and is critical to development of sustainable management strategies.

> Team research includes laboratory, greenhouse, mesocosm, pond, and field studies on 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, the team is 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.

What will I be doing?

Under the guidance of a mentor, your research will include aquatic and riparian habitat restoration and applied/foundational ecological research. You will be involved in the set-up, maintenance, and break down of studies and plant propagation cultures, large-scale restoration plantings, plant community surveys and mapping, and assessment of plant community development. Field work takes place year round in natural riparian and aquatic environments in varied weather conditions and typically involves physical exertion (plant restoration and survey efforts).

Where will I be located? Lewisville, Texas

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.

What is the anticipated start date?

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

What is the appointment length?

This appointment is a part-time, six 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.



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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

Nature of Appointment

You will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

- Qualifications Enthusiasm for ecology and field assessments
 - · Developed critical thinking skills
 - Tolerant of varied weather conditions (heat, cold)
 - · Demonstrated organizational skills
 - · Strong written, oral, and electronic communication skills

Desired Skills:

- Prior experience in plant propagation/culturing, habitat restoration, or field-assessment
- · Knowledge of restoration or wetland ecology
- · Knowledge of taxonomic identification of aquatic and riparian plant species (native and nonnative) of the southern United States
- Experience in field measurements/data collection (i.e. knowledge of instrumentation to collect water quality data, instrument calibration)
- · Familiarity with mapping/survey techniques (GPS rover, GIS, HEP, FQA)
- Experience compiling and managing scientific data via spreadsheet or database
- · Basic statistical analyses and associated use of statistical software
- · Experience in water quality analyses
- · Experience in field facility maintenance

This opportunity will include overnight travel to conduct field assessment. Travel frequency varies, but averages 1-2 weeks per month for 2-3 nights per trip.

A complete application consists of:

- · Zintellect profile
- Educational and Employment History
- . Essay Questions The application includes questions specific to the opportunity
- · 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.

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- Current Resume/CV
- One (1) Recommendation Applicants are required to provide contact information for at least
 one recommendation. You are encouraged to request a recommendation from a professional
 who can speak to your abilities and potential for success as well as your scientific capabilities
 and personal characteristics. Recommendation requests must be sent through the Zintellect
 application system. Recommenders will be asked to complete a recommendation in Zintellect.
 Letters of recommendation submitted via email will not be accepted.

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 ERDC-EL-2022-0003 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:** Bachelor's Degree or Master's Degree received within the last 60 months or currently pursuing.
- Discipline(s):
 - Business (<u>11</u> <a>)
 - Chemistry and Materials Sciences (12.
 - Communications and Graphics Design (6)
 - Computer, Information, and Data Sciences (16 ●)
 - Earth and Geosciences (21 ●)
 - Engineering (27 ●)
 - Environmental and Marine Sciences (14 🍩)
 - Life Health and Medical Sciences (45 ♥)
 - Mathematics and Statistics (10 ●)
 - Other Non-Science & Engineering (<u>13</u>.
 - Physics (<u>16</u> ●)
 - Science & Engineering-related (1.●)
 - Social and Behavioral Sciences (28
- Age: Must be 18 years of age

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