

Opportunity Title: Aquatic Plant Ecology Research - Part-Time Opportunity Reference Code: ERDC-EL-2020-0020

Organization U.S. Department of Defense (DOD)

Reference Code ERDC-EL-2020-0020

How to Apply How to Apply

Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- · Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records
- Recommendation

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.

If you have questions, send an email to <u>USACE@orise.orau.gov</u>. Please list the reference code of this opportunity in the subject line of the email.

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

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.

Assist research biologists with aquatic and riparian habitat restoration and applied/foundational ecological research. Research associate 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).

Appointment Length

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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.

Participant Benefits

Participants 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

The participant 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 non-

native) 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.



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Eligibility • Citizenship: U.S. Citizen Only

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