

Opportunity Title: Lichen Biology and Ecology Research - Graduate Student

Opportunity Reference Code: ERDC-CERL-2021-0006

Organization U.S. Department of Defense (DOD)

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

Description The U.S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) Construction Engineering Research Laboratory (CERL) develops and infuses innovative technologies to provide excellent facilities and realistic training lands for the Department of Defense, the U.S. Army and many other customers while also supporting ERDC's research and development mission in geospatial research and engineering, military engineering, and civil works.

What will I be doing?

Under the guidance of mentors, you will conduct basic research related to lichen biology and ecology. To include: identifying and conceptualizing research needs; designing and conducting experiments and studies; collecting, analyzing, and managing data; publishing results in peer-reviewed journals; transferring new information and technology to users; and staying abreast of and applying new methods and technology.

Why should I apply?

This fellowship 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? Champaign, Illinois

What is the anticipated start date?

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

What are the benefits?

You will receive a stipend to be determined by ERDC-CERL. 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

This ORISE appointment is a twelve month full-time appointment. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Nature of Appointment

You will 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.



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Qualifications You should have strong and diverse skills related to microbial ecology, lichen taxonomy, molecular biology, and standard laboratory techniques will be required. You will require providing assistance with identifying the current state of the art in lichen, fungi, and bacteria culturing; application of this knowledge in creation of new culturing techniques, utilization of standard techniques for identification of lichens and their biotic composition, including morphological, molecular, and chemical methods; establishment of pure biont cultures from field collected lichen tissues, and development and execution of experiments subjecting various microorganisms to a variety of environmental stressors. An attention to detail, detailed record keeping, trial and error experimentation, and ability to maintain laboratory conditions free from contamination are part of the desired skill set.

A complete application consists of:

- **Zintellect profile**
- **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.
- **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-CERL-2021-0006 in the subject line of the email.

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- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Currently pursuing a Master's Degree or Doctoral Degree.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Earth and Geosciences** ([21](#) )
 - **Engineering** ([27](#) )
 - **Environmental and Marine Sciences** ([14](#) )
 - **Life Health and Medical Sciences** ([45](#) )
 - **Physics** ([16](#) )
 - **Age:** Must be 18 years of age