Opportunity Title: Ecological Modeling Research - Master's Degree
Opportunity Reference Code: ERDC-EL-2021-0011

Organization	U.S. Department of Defense (DOD)
Reference Code	ERDC-EL-2021-0011
How to Apply	Click on *Apply* now to start your application.
Description	The Environmental Laboratory (EL) provides relevant, value-added technology supporting the environmental mission of the US Army Corps of Engineers, the Army, the Department of Defense (DoD), and the Nation. Headquartered in Vicksburg, Mississippi, the EL's interdisciplinary staff of over 220 engineers, scientists, technicians, and support personnel plans and executes all phases of the technology development process, from basic research to field implementation to commercialization. The EL staff consists of problem solvers who use research, development, experimentation, special studies, and technical support to address the needs of national and international business development partners. Partnering with Federal and State agencies, academia, and the private sector, the EL uses its distinctive technical capabilities to resolve complex, multi-disciplinary environmental sustainability problems.

What will I be doing?

Ecological models provide a means for prediction beyond observed conditions, transferability between sites and applications, and ultimately cost savings associated with development. Thus, ecological models are widely used throughout the work for the Ecological Resources Branch of the US Army Engineer Research and Development Center. This research seeks to refine existing ecological models for a variety of projects including species conservation and ecological restoration and management.

Under the guidance of a mentor, you will research existing models and participate in development of new models for a variety of ecological questions. One effort will allow for collaboration with a researcher on development and implementation of an agent based model to assess impacts of habitat management on bats. Another effort will focus on comparing the utility of different ecological models to inform river management decisions at a long-term study site. You will collaborate with multiple investigators at ERDC for these studies. Team members will jointly aspects of the projects and develop modeling approaches that address specific needs of the project.

Where will I be located? Location Varies

Why should I apply?

This internship will provide you the opportunity to be part of a team to study of species conservation and ecological restoration and management. As such, you will have numerous opportunities to observe and collaborate with scientists of varying backgrounds and expertise.

What is the anticipated stat 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.

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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

This ORISE appointment is a full-time 12 month opportunity. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Nature of the 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.

Qualifications

You should have a Master's degree in ecology, biology, forestry and wildlife management, or related areas. You must have strong quantitative skills and experience with ecological models. Additionally, excellent written and oral communication skills are needed for close collaboration with a large team of scientists and engineers, presentation of findings, and preparation of manuscripts. Desirable qualifications include familiarity with open source programming languages (R or Python), and spatial analysis. You may be asked to travel for project meetings and field data collection.

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.
- 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,

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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-2021-0011 in the subject line of the email.

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 received within the last 60 months or currently pursuing. • **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** (46 👁) 　○ **Mathematics and Statistics** (10 👁) 　○ **Physics** (16 👁) 　○ **Social and Behavioral Sciences** (28 👁)