Opportunity Title: USGS Eastern Ecological Science Center - Coastal Wetlands Environmental Change - Research Fellow 2025
Opportunity Reference Code: DOI-USGS-2025-09

Organization U.S. Department of the Interior (DOI)

Reference Code DOI-USGS-2025-09

How to Apply ***To submit your application, scroll to the bottom of this opportunity and click APPLY.***

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial 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.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. At least one recommendation must be submitted in order for the mentor to view your application.

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

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Application Deadline 6/13/2025 3:00:00 PM Eastern Time Zone

Description **USGS Office/Lab and Location:** A research opportunity is available with the U.S. Geological Survey (USGS), Eastern Ecological Science Center, located at Laurel, Maryland.

The USGS mission is to monitor, analyze, and predict current and evolving dynamics of complex human and natural Earth-system interactions and to deliver actionable intelligence at scales and timeframes relevant to decision makers. As the Nation's largest water, earth, and biological science and civilian mapping agency, USGS collects, monitors, analyzes, and provides science about natural resource conditions, issues, and problems.

Research Project: The USGS Eastern Ecological Research Center seeks a participant that will help advance our understanding of coastal wetland responses to sea level rise as part of a human managed system and learn about developing tools to transfer research to actionable science for coastal wetland managers to anticipate and prepare for the effects of future changes in environmental change. We envision that the participant will use their existing skills and develop new expertise and skills in measuring and monitoring coastal wetland ecosystems. The participant will aid in the establishment of a pre-management data acquisition and post-management action monitoring network at Blackwater National Wildlife Refuge which is impacted by coastal erosion and sea-level rise. The science questions being explored will involve field surveying, sample collection, and field

installation of wetland monitoring apparatus. Alongside the mentor and the rest of the coastal wetland lab team, the participant will be involved in the collection, analysis, and data entry of biological, physical, and chemical samples from Atlantic coastal wetlands; learn to use and maintain scientific instrumentation, including operation of surveying equipment and data loggers. This project seeks to analyze the effectiveness of marsh restoration practices in enhancing the resiliency of refuge lands in the face of sea-level rise (SLR). The knowledge gained from this work will help inform the design and appropriateness of future restoration projects along the United States Mid-Atlantic and Northeast Atlantic Coast.

Learning Objectives: The selected mentee will learn the theory behind and techniques to examine the resilience of tidal wetlands and explore the impact of management. Field techniques explored will include elevation monitoring via rod surface elevation tables, sediment coring through marker horizons, RTK and conventional surveying, vegetation surveys, and more. Additionally, the mentee will be educated in the use and care of various scientific equipment in the field including portable greenhouse gas analyzer, water level loggers, salinity loggers, and others. Some lab research may include vegetation and sediment analysis: biomass measurements, soil organic content and grain size. The mentee will have the opportunity to conduct data analysis, using environmental data collected remotely and in the field, and analyzed to inform management decisions.

Mentor: The mentor for this opportunity is Joel Carr (jcarr@usgs.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: June 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of DOI and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: Stipend rates may vary based on numerous factors, including opportunity, location, education, and experience. If you are interviewed, you can inquire about the exact stipend rate at that time and if selected, your appointment offer will include the monthly stipend rate. **The Stipend is anticipated to be $68,405.00 annually, with $2,000 available for travel and supplies.**

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by 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 USGS. Participants do not become employees of USGS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is

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required for participation in this program. Health insurance can be obtained through ORISE.

Questions: If you have questions about the application process please email USGS@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a master's degree in one of the relevant fields (Environmental sciences, Geology, or closely related field). Degree must have been received within the past four years.

Preferred skills:

1. Experience with Microsoft Office products.
2. Experience using geospatial software
3. Experience with coding in R, or similar software
4. Experience using ecological and geomorphological knowledge to study how climate change affects coastal environments
5. Desire to learn and apply field techniques in tidal wetland systems

Point of Contact

Keri

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree received within the last 48 month(s).
- **Discipline(s):**
  - **Earth and Geosciences** (14)
  - **Environmental and Marine Sciences** (14)