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Opportunity Title: EPA Fellowship on Evaluating Stream and River Habitat Quality at Regional to Continental Scales
Opportunity Reference Code: EPA-ORD-CPHEA-PESD-2023-14

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CPHEA-PESD-2023-14

How to Apply ***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!

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. All transcripts must be in English or include an official English translation. 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. Click here for detailed information about recommendations.

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

Application Deadline 1/26/2024 3:00:00 PM Eastern Time Zone

Description ***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.** Click **here** for information about the selection process.

EPA Office/Lab and Location: A research training opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Public Health and Environmental Assessment (CPHEA), Pacific Ecological Systems Division (PESD) in Corvallis, Oregon.

Research Project: This research project seeks to characterize and improve our understanding of the role of physical habitat integrity in determining ecological conditions of streams and rivers across the conterminous U.S. This research aims to develop a quantitative foundation for integrating physical and ecological data to improve our capacity to make strategic decisions regarding important current and future policy needs and support the EPA's capacity to protect the nation's water resources as mandated under the federal Clean Water Act.

The research participant will have the opportunity to participate in research at Pacific Ecological Systems Division (PESD) in Corvallis, Oregon to support national assessments of status and trends in fish habitat quality and biotic integrity. The research participant may use a geographically extensive dataset of thousands of streams from the National Rivers and Streams Assessment (NRSA) to develop indices of instream habitat condition and examine relationships of these indicators with watershed features and fish assemblages. The research will primarily be conducted using existing datasets.

Under the guidance of a mentor, the research participant may have the opportunity to be involved in the following activities:

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- Conducting data analysis, documenting code, and interpreting results.
- Conducting and documenting quality assurance and review of data analysis and databases.
- Preparing reports, presentations, and summaries of data.
- Presenting results at professional meetings.
- Publishing results in peer-reviewed journals.

Learning Objectives: The research participant will have the opportunity to collaborate with a team of aquatic ecologists, hydrologists, ecological modelers, and other environmental scientists, and will be provided with opportunities to integrate concepts from aquatic ecology, fluvial geomorphology, and riverscape analysis.

Mentor(s): The mentor for this project is Joseph Ebersole (ebersole.joe@epa.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: Winter/Spring 2024. All start dates are flexible and vary depending on numerous factors. Click **here** for detailed information about start dates.

Appointment Length: The appointment will initially be for one year and may be renewed upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click **here** for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

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 EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please see the FAQ section of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's or master's or doctoral degree in one of the relevant fields, or be currently pursuing one of the degrees with completion by the appointment start date. Degree must

have been received within five years of the appointment start date.

Preferred skills/experience:

- Knowledge of spatial analysis techniques and the ability to manage and analyze spatially explicit datasets.
- Knowledge of watershed science, aquatic ecology, fluvial geomorphology, fish-habitat relationships, or geographic information systems (including remote sensing methods and products related to vegetation, topography, and landuse).
- Experience in performing quantitative statistical analyses on large datasets to test and develop empirical fish-habitat relationships that are informed by published literature and process-based understanding of the controlling influence of habitat attributes on biota.
- Data management skills, fluency in R statistical language, experience working with spatial data, experience documenting activities, and writing reports and scientific manuscripts.
- Exceptional communication skills, including writing skills, verbal skills, and public speaking.
- Since this is a collaborative team effort, preferred candidates will have demonstrated experience effectively interacting as a part of a group. Desired skills include the ability to search electronic literature and critically evaluating the quality of published science.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Earth and Geosciences** (3 👁)
  - **Engineering** (2 👁)
  - **Environmental and Marine Sciences** (9 👁)
  - **Life Health and Medical Sciences** (5 👁)
  - **Mathematics and Statistics** (1 👁)