

**Opportunity Title:** EPA National Aquatic Resource Research Fellowship

**Opportunity Reference Code:** EPA-OW-OWOW-2021-03

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-OW-OWOW-2021-03

**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** 6/17/2021 9:13:46 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 opportunity is available at the U.S. Environmental Protection Agency (EPA) in the Office of Water (OW), Office of Wetlands, Oceans and Watersheds (OWOW) located in Washington D.C.

The mission of EPA is to protect human health and the environment. EPA works to ensure that: Americans have clean air, land and water. This position is with EPA's National Aquatic Resource Surveys team in the Office of Water (<https://www.epa.gov/national-aquatic-resource-surveys>)

The participant will be located in the Monitoring and Analysis Branch and support activities related to the National Aquatic Resource Survey (NARS) program which addresses coastal waters, lakes, rivers/streams and wetlands. NARS uses a statistically based survey design to characterize the ecological and recreational condition of the nation's waters. NARS is implemented through an EPA, state and tribal partnership and is a key activity in EPA's efforts to achieve national water quality goals under the Clean Water Act.

**Research Project:** Throughout their appointment, the selected participant will research and learn about EPA's efforts to monitor and assess aquatic resources across the United States via large-scale, statistically-based studies. Most of the participant's time will be focused on scientific research activities related to indicators of ecological/recreational significance including developing and implementing processes for improving data quality, accessibility and transparency. Specific areas of focus may include:



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- Analyzing NARS data and presenting results to EPA, state, federal and tribal partners
- Learning techniques to compile and perform quality assurance of indicator data collected in NARS including development and application of R scripts and other tools
- Developing tools for analyzing; visualizing/communicating; and transferring data, analytical approaches, and results
- Researching potential indicators (e.g., coastal acidification, microplastics, harmful algal blooms, wetland soil indicators) to assess emerging concerns
- Collaborating with EPA scientists and partners on preparations for upcoming surveys

The selected participant will gain an understanding of a national-scale aquatic resource monitoring and assessment program and other Clean Water Act programs. The participant will observe how EPA coordinates with states, tribes and other federal agencies to meet national water quality goals. The participant will have the opportunity to interact with resource managers and scientists from other agencies and across the country; and improve their ability to connect research with the needs of water quality decisionmakers. The participant will analyze data, summarize results, create outreach materials, and have opportunities to submit and present research and project results to interagency groups, professional societies and conferences, and scientific publications.

**Learning Objectives:** At the end of their appointment, the participant will have increased knowledge and experience on:

- Principles and practices used in statistically-based analysis of condition data
- Using various data and spatial analysis tools (including GIS, python, and R statistical software)
- Collaborating with a broad and diverse group of partners to accomplish water-quality assessment objectives
- Communicating results of scientific analysis to diverse audiences of estuarine and Great Lakes scientists, managers, policy makers and the public

**Mentor(s):** The mentor for this opportunity is Sarah Lehmann ([lehmann.sarah@epa.gov](mailto:lehmann.sarah@epa.gov)). If you have questions about the nature of the research please contact the mentor(s).

**Anticipated Appointment Start Date:** June 2021. 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 up to three additional years 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

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commensurate with educational level and experience. At this time, master's degree stipends are ~\$60,129 per year. 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.

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

**Qualifications** The qualified candidate should be currently pursuing or have received a master's or doctoral degree in one of the relevant fields. Degree must have been received within the past five years.

Preferred skills:

- Field experience collecting water, sediment, physical habitat data, soils, plants, fish and/or aquatic macroinvertebrate samples. Laboratory experience analyzing those samples. Experience in conducting quality assurance/quality control of field and/or laboratory data.
- Knowledge of estuarine and freshwater science and emerging concerns in aquatic ecosystems.
- Proficiency in the review of scientific resources (e.g., scientific publications and databases) to allow compilation and documentation of information and data describing estuarine and freshwaters (e.g., water chemistry characteristics, algal toxins, fish community assemblages).
- Strong organizational, oral, written, and electronic communication skills.
- Proficiency with Microsoft Excel, PowerPoint, and Word; and ArcGIS.
- Strong computational skills and experience using the R/R Shiny statistical program for data management and analysis.

**Eligibility Requirements**

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** ([1](#))
  - **Communications and Graphics Design** ([2](#))
  - **Computer, Information, and Data Sciences** ([1](#))
  - **Earth and Geosciences** ([1](#))
  - **Environmental and Marine Sciences** ([14](#))
  - **Life Health and Medical Sciences** ([4](#))
  - **Mathematics and Statistics** ([1](#))

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- **Social and Behavioral Sciences** ([1](#) )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).