

**Opportunity Title:** EPA Fellowship in Environmental Monitoring and DNA methods applications in the Great Lakes

**Opportunity Reference Code:** EPA-ORD-CCTE-GLTED-2024-02

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

**Reference Code** EPA-ORD-CCTE-GLTED-2024-02

**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** 12/6/2024 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 opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Computational Toxicology and Exposure (CCTE), Great Lakes Toxicology & Ecology Division (GLTED) located in Duluth, Minnesota.

**Research Project:** A postgraduate research training opportunity is currently available at the U.S. Environmental Protection Agency's Great Lakes Toxicology and Ecology Division (GLTED) in Duluth, Minnesota. The research participant will collaborate with a team of EPA scientists on projects addressing survey methods and indicators of ecological conditions in the Great Lakes.

Focus areas for this research are:

- Aquatic invasive species early detection monitoring, including via eDNA methods
- Great Lake ecological condition assessments as part of EPA's involvement with Coordinated Science and Monitoring Initiative (CSMI), Areas of Concern (AOC) monitoring, and National Coastal Condition Assessment (NCCA).

The research participant will receive training and hands-on experience in planning and conducting these surveys including operation of field and laboratory equipment and instrumentation, and in managing and analyzing the scientific data arising from these research efforts. The research participant will become familiar with environmental research being done by EPA and its partner agencies that contributes to the management of the Great Lakes.

Participants will develop skills in planning, conducting, and communicating scientific information



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addressing significant real-world environmental problems.

**Learning Objectives:** Under the guidance of a mentor, the research participant may be involved in any or all of the following training activities:

- Learning and applying field and laboratory methods related to DNA-based assessments of aquatic species.
- Conducting boat-based field sampling aimed at ecological assessment and management of Great Lakes waters.
- Developing and implementing data processing, analysis, visualization, and archiving.
- Presenting research results at regional and national conferences and workshops.
- Contributing to the preparation of peer-reviewed journal articles and disseminating research results to project partners.

**Mentor(s):** The mentor for this opportunity is Anett Trebitz ([Trebitz.Anett@EPA.gov](mailto:Trebitz.Anett@EPA.gov)). If you have questions about the nature of the research, please contact the mentor(s).

**Anticipated Appointment Start Date:** **October 1, 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 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 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

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[EPArpp@orau.org](mailto:EPArpp@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 (e.g., Biology, ecology, environmental studies, biochemistry, bioinformatics, chemistry, biostatistics) or be currently pursuing with degree completion before the appointment start date. Degree must have been received within five years of the anticipated appointment start date.

Preferred Skills:

- Previous research experience or independent studies, beyond lab-oriented course work alone.
- Experience and/or coursework in analytical chemistry or DNA analysis including instrumentation and extraction methods.
- Experience and/or coursework involving statistical/geospatial/graphical analysis, data management, or bioinformatics.
- Experience conducting field work, preferably in aquatic ecology or limnology or oceanographic context.
- Experience working with aquatic organisms such as fish, crustaceans, insects, plants, or algae, including identifying and counting them and conducting population or community analyses of them.
- Experience with communicating scientific information to technical and non-technical audiences.

- 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** (3 )
    - **Computer, Information, and Data Sciences** (3 )
    - **Earth and Geosciences** (2 )
    - **Engineering** (1 )
    - **Environmental and Marine Sciences** (9 )
    - **Life Health and Medical Sciences** (8 )
    - **Mathematics and Statistics** (2 )