

Opportunity Title: Avian Toxicology Technician Opportunity Reference Code: EPA-NSSC-0010-18-8-13-24

Organization U.S. Environmental Protection Agency (EPA)

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- How to Apply Click HERE to Apply
 - **Description** The EPA National Student Services Contract has an immediate opening for a full time Avian Toxicology Technician position with the Office of Research and Development at the EPA facility in Duluth, MN.

The Office of Research and Development at the EPA supports high-quality research to improve the scientific basis for decisions on national environmental issues and help EPA achieve its environmental goals. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

What the EPA project is about

The Center for Computational Toxicology and Exposure (CCTE) provides the science needed to understand potential effects on non-human species of exposure to environmental contaminants. Within CCTE, the Great Lakes Toxicology and Ecology Division (GLTED) focuses on the development of quantitative laboratory, field and mathematical methods for predicting exposure to and effects of environmental contaminants.

As part of their mission, GLTED supports EPA's mission to protect human health and the environment by developing new laboratory and field methods for toxicity testing and development of new mathematical and statistical methods for analysis of toxicity data. An important research effort at GLTED is the avian tools project, which has resulted in several software packages for avian risk assessment, including MCnest (https://www.epa.gov/chemical-research/markov-chain-nest-productivitymodel), which was developed for predicting the effects of pesticides on breeding birds. Over the coming years, MCnest will be generalized to a wider range of avian life-histories and a wider range of environmental contaminants. Polyfluoralkyl substances (PFAS) will be a major focus of MCnest research, including a large-scale field study, concomitant laboratory work to support field studies, literature search and database curation. These tasks are underway and will improve the suite of tools available to EPA risk assessors in evaluating the risks associated with avian exposure to PFAS.

What experience and skills will you gain?

As a team member, you will conduct laboratory analyses, field work, data management, and data curation support for the MCnest project. The team member will process field-collected samples, help coordinate sample mailing to contract laboratories, and assist in managing the location and inventory of biological samples generated for the project. During the field season, the team member will serve on the field crew, checking nest-boxes, collecting biological samples, and recording field-based observational data. The team member will also provide support for the MCnest project by

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> helping to expand and populate the MCnest library for North American birds using available literature. The position will include opportunities to learn and assist with data analysis and scientific programming/computing for interested candidates.

Laboratory Analysis responsibilities will include:

- Centrifugation of blood samples;
- Tissue dissection;
- Fecal sac processing;
- Invertebrate sample sorting and processing;
- · Sample preservation and management;
- Chain of custody tracking; and
- Sample inventory.

Laboratory Analysis responsibilities will include:

- Nest-box maintenance and monitoring;
- Egg and nestling collection;
- · Fecal sac collection; and
- Field support for a variety of activities and measurements, including respirometry, water and sediment sampling, and invertebrate collections.

MCnest programming support will include:

- Assist with literature-based surveys of avian vital rates;
- · Assist with database expansion and curation; and
- Assist with model-testing and evaluation.

Required Knowledge, Skills, Work Experience, and Education

- Experience with preparing and processing biological samples in a laboratory setting;
- · Experience in population biology through course work or research; and
- Strong written, oral and electronic communication skills.

Desired Knowledge, Skills, Work Experience, and Education

· Experience with birds, preferably in a field setting.

Location: This job will be located EPA's facility in Duluth, MN

Salary: Selected applicant will become a temporary employee of ORAU and will receive an hourly wage of \$21.80 for hours worked.

Hours: Full-time.

Travel: Occasional overnight travel may be required.

Expected start date: The position is full time and expected to begin September 2024. The selected applicant will become a temporary employee of ORAU working as a contractor to EPA. The initial project is through May 14, 2022, with up to 3 additional option periods.

For more information, contact EPANSSC@orau.org. Do not contact EPA



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directly.

Qualifications	٠	Be at least	18	years	of age	and
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- Have earned at least a Bachelor's degree in the fields of ornithology, biology, ecology, environmental science, toxicology, or a related field of study from an accredited university or college within the last 24 months and
- Be a citizen of the United States of America or a Legal Permanent Resident.

EPA ORD employees, their spouses, and children are not eligible to participate in this program.

Eligibility • Citizenship: LPR or U.S. Citizen

- Requirements
- Degree: Bachelor's Degree received within the last 24 month(s).
- Overall GPA: 2.00
- Discipline(s):
 - Earth and Geosciences (1.))
 - Environmental and Marine Sciences (14 (1)
 - Life Health and Medical Sciences (46)
- Affirmation I certify that I am at least 18 years of age; a recent graduate with at least a Bachelor's degree in the fields of ornithology, biology, ecology, environmental science, toxicology, or a related field from an accredited university or college within the last 24 months; a citizen or a Legal Permanent Resident of the United States of America; and not a current employee of EPA ORD or the spouse or child of an EPA ORD employee.

ORAU is an Equal Opportunity Employer (EOE AA M/F/Vet/Disability); visit the <u>ORAU website</u> for required employment notices.