

**Postgraduate Research Participation Program
U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Assessment
Cincinnati, Ohio**

Project #: EPA-ORD/NCEA-CIN-2009-01

Up to three postgraduate research project training opportunities are currently available at the U.S. Environmental Protection Agency's (EPA) National Center for Environmental Assessment (NCEA) in Cincinnati, Ohio.

Project Description: The participant will be mentored by scientific staff at NCEA to improve and expand the technical content hosted on the Causal Analysis/Diagnosis Decision Information System (CADDIS, www.epa.gov/caddis). CADDIS is a knowledge base with decision-support tools that enable environmental managers to determine the probable causes of biological impairments in aquatic systems. The research participant will join EPA scientists in developing methods for integrating, deriving, and synthesizing ecological information for the purpose of understanding and identifying causes of ecological effects and degradation of aquatic systems.

Specific Tasks: The selected individual will be exposed to many activities related to ecological assessment. This may include the development or review of multiple, concurrent health assessments, response to peer review comments and interaction with other scientists to identify and resolve scientific issues. The participant will also learn from interaction with other individuals aspects of scientific issues that arise in the conduct of human health assessments. With guidance from his/her mentor, the participant may be involved in the following training activities:

- Developing statistical models of stressor response relationships that can be used by states to determine causes of biological impairment or to set benchmarks for remediation or protection.
- Performing causal or risk assessments case studies to advance the science of ecological assessment and to illustrate the process to other assessors.
- Arranging peer reviews for EPA products, respond to peer review comments from scientists in NCEA, other parts of EPA, and external reviewers.
- Devising scientific approaches and guidances in conjunction with other scientists in EPA to improve risk assessment methodologies and implementation.

The participant will have latitude in exercising independent initiative and judgment commensurate with their level of experience and education. EPA will be responsible to review completed projects for adherence to NCEA principles and policies, quality, and soundness of scientific conclusions.

Qualifications and Skills: Applicants must have received at least a master's degree in ecology or a related field within four years of the desired starting date. Applicants should have practical experience with state programs preferably in determining causes of biological impairment in streams. Knowledge of

quantitative population and community aquatic ecology, landscape ecology, specific experience with stream ecology and experience with linking environmental stressors and stressor sources to ecological effects is desired. Programming skills and knowledge of web based information and decision-support tools is helpful. The applicant should have research experience with routine statistics and its application to environmental problems. Candidates must have the ability to review bodies of literature and develop sound conclusions based on information from multiple sources. Experience in providing substantive initiatives in a teamwork environment, demonstrated excellence in oral and written communication, and mastery of ecological, toxicological, and risk assessment principles is strongly desired.

The program is open to all qualified individuals without regard to race, sex, religion, race, age, physical or mental disability, national origin, or status as a Vietnam era or disabled veteran. U.S. citizenship or lawful permanent resident status is preferred (but can also hold an appropriate visa status, however, an H1B visa is not appropriate). **The participant does not become an EPA employee.**

The appointment is full-time for one year and may be renewed for up to two additional years upon recommendation of NCEA and subject to availability of funds. The participant will receive a monthly stipend. The participant must show proof of health and medical insurance.

The Research Participation Program for EPA is administered by the Oak Ridge Institute for Science and Education. ***Please reference Project # EPA-ORD/NCEA-CIN-2009-01 when calling or writing for information.*** For additional information and application materials contact: Research Participation Program/EPA, Attn: Betty Bowling, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, Tennessee 37831-0117, Phone: (865) 576-8503 FAX: (865) 241-5219 e-mail: betty.bowling@ornl.gov.

An application can be found at www.ornl.gov/orise/edu/EPA/app-gugrgpd.pdf.