Opportunity Title: Building Tools and Models to Protect Coral Reefs and their Ecosystem Services
Opportunity Reference Code: EPA-ORD-NHEERL-GED-2018-07

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-ORD-NHEERL-GED-2018-07
How to Apply	A complete application consists of:

- An application
- Transcripts – 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 references

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

If you have questions, send an email to EPArpp@orau.org. Please include the reference code for this opportunity in your email.

Description

A research training opportunity is available at the U.S. EPA, Office of Research and Development/National Health and Environmental Effects Research Laboratory. The research training opportunity will be located at Gulf Ecology Division (GED) in Gulf Breeze, Florida. This research supports both EPA's Safe and Sustainable Water Research (SSWR) and Sustainable and Healthy Communities (SHC) research programs. The research participant will be collaborating with a team developing biological criteria for coral reefs, by contributing to the evaluation, analysis, and integration of evidence on the ecological effects of environmental stressors to the condition of coral reefs. The stressors examined will include chemical, biological, and physical effects on reef-building corals, fish, sponges, gorgonians, algae and other invertebrates. The research will characterize spatial and temporal trends of coral reef condition related to communities exposed to effluent waste water treatment plants (WWTPs). SHC-related research focuses on identifying and applying existing data sets of biophysical measures for final ecosystem goods and services which are those aspects of nature that directly benefit people. The research is developing decision-support tools to inform stakeholders and decision-makers how environmental management actions may affect the health and well-being of coastal communities.

The research participant will gain experience and learn techniques which can be applied across life sciences research fields. The research participant will learn to evaluate data quality, trouble shoot research results, apply statistical methods for data analysis and interpretation.

The research participant may be involved in the following training activities:

- Collecting data, evaluating data quality, compiling and analyzing data
- Analyzing water quality and other stressor data
- Statistical analysis and interpretation of data, using and writing with R code or another package
- Creating maps from spatial data using Geographic Information Systems (GIS)
- Database management to create, retrieve, update and manage data
- Compiling, reviewing, and interpreting scientific literature
- Calibrating models using literature or experimentally-generated data
- Participating in project team meetings
- Contributing to the preparation of reports, presentations, and peer-reviewed journal articles to disseminate research results to project partners and stakeholders
- Presenting research results at professional meetings

The research participant will be part of a transdiciplinary research team and be engaged in project

planning, communication and coordination, research implementation, and analysis in a Federal government laboratory. The research participant may interact with internationally recognized leaders, both within and outside EPA. This interaction will lead to increased understanding of the ways in which scientific research efforts influence and support scientific policy and EPA scientific activities.

The research participant will have an opportunity to:

- Learn how multidisciplinary research is used to help solve environmental problems of national significance
- Apply scientific skills to achieve practical solutions
- link environmental condition to the health and well-being of people and society

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. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time in the Gulf Breeze, Florida area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

The qualified candidate must have received a master's level degree in ecology/biology, environmental science, marine science, or oceanography with a strong background in coastal or coral reef ecology, and/or spatial analysis or a related field. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Experience and demonstrated skills for data collection and data management
- Strong written and verbal communications
- Experience writing reports and scientific manuscripts
- Proficiency with R script, GIS software and mapping, and water quality analyses
- Research experience with coral reef ecology, assessments, and analyzing geospatial data

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Environmental and Marine Sciences** (5 👁)
  - **Life Health and Medical Sciences** (4 👁)
  - **Mathematics and Statistics** (2 👁)