

Opportunity Title: Fellowship in Harmful Algal Bloom Laboratory and Field Support

Opportunity Reference Code: NOAA-NCCOS-2022-04



Organization National Oceanic and Atmospheric Administration (NOAA)

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A complete application package 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. Selected candidate must provide proof of completion of the degree before the appointment can start. Click [Here](#) for detailed information about acceptable transcripts.
- A current resume/CV
- One educational or professional recommendation

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

Application Deadline 1/26/2022 3:00:00 PM Eastern Time Zone

Description **Applications will be reviewed on a rolling-basis.*

NOAA Office/Lab and Location: A research opportunity is currently available with the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Centers for Coastal Ocean Science (NCCOS), Stressor Detection and Impacts Division (SDI), Harmful Algal Bloom (HAB) Forecasting Branch located in Beaufort, North Carolina.

The National Oceanic and Atmospheric Administration (NOAA) formed the National Centers for Coastal Ocean Science (NCCOS) in 1999 as the focal point for NOAA's coastal ocean science efforts. NCCOS uses cutting-edge research and high-tech instrumentation to provide citizens, coastal managers, public health officials, and other decision makers with reliable information needed to determine how best to protect environmental resources and public health, preserve valued habitats, and improve the way communities interact with coastal ecosystems. The NCCOS is headquartered in Silver Spring, MD but also has research labs across the nation. The NCCOS also has many assets including research programs, vessels, satellites, science centers, laboratories, and a vast pool of distinguished scientists and experts.

The HAB-F Branch delivers near real-time forecasting products for predicting the intensity/severity, location, and the potential health risk HABs pose in the Great Lakes and coastal regions of the U.S. While national in scope, forecasting efforts and products address regional needs and specific HAB species. The product sets are intended to support coastal resource managers, public health officials, researchers, and the public.

Research Project: Under the guidance of a technical mentor, the selected participant will gain experience in various research activities including performing and otherwise supporting collection of field data, including use of oceanographic monitoring instruments, collection of water, sediment and/or tissue samples and other activities. As well as conducting laboratory studies including toxin analysis, microscopy, molecular methods development and validation, data analytics. This opportunity will also require regular engagement with and training of stakeholders in Alaska as well as generating outreach materials and technical documentation.

The specific project includes supporting ongoing research efforts in Alaska in support of HAB forecast development. Alaska experiences annual blooms of the toxic dinoflagellate *Alexandrium catenella*, as well as other HAB species that can cause shellfish toxicity and vector toxins through the marine food web. There is a need for HAB forecasting products to help mitigate these blooms, but much of Alaska is lacking in

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environmental monitoring data to support a HAB forecasting effort. The overarching goal of this project is to learn about data collection for HAB monitoring, and to assist in development of forecasting products to mitigate the impacts of such blooms. This will involve working with a variety of NOAA partners and interacting with stakeholders to support data collection from water, plankton and other biota, monitoring sensors and remotely sensed data.

Learning Objectives: The fellow will

1. Develop an understanding of Alexandrium blooms and other HABs in Alaska
2. Gain familiarity in field collection of data with oceanographic instruments
3. Gain familiarity with collection of seawater, plankton, fish and invertebrates for toxin analysis
4. Gain experience in working with diverse set of partners and stakeholders
5. Learn about HAB-F capabilities in monitoring and modeling, including exposure to satellite data products and models.
6. Develop skills in multivariate statistics using PRIMER, R, and other software tools.

Mentor: The mentor for this opportunity is Steve Kibler (steve.kibler@noaa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: January 2022. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of NOAA and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend of \$4,250, a health insurance supplement of \$300 per month, and a travel allowance of \$5,000.

Citizenship Requirements: This opportunity is available to U.S. citizens and legal permanent residents (LPRs).

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 NOAA. Participants do not become employees of NOAA, 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: If you have questions about the application process please email NOAA@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's or doctoral degree in Oceanography, Aquatic Sciences, Marine Sciences, Limnology, Biological Sciences, or a related field.

Preferred skills:

- Research experience
- Demonstrated ability to work independently and part of a team
- Working knowledge of open ocean and coastal systems

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree.
- **Discipline(s):**
 - **Environmental and Marine Sciences** (9 )

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- **Life Health and Medical Sciences** (8 )