Opportunity Title: NOAA Harmful Algal Bloom Laboratory and Field Support Research Fellowship
Opportunity Reference Code: NOAA-2025-02

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. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations

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

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 Kodiak, Alaska. The opportunity is located in Kodiak, Alaska.

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, and data analytics. This opportunity will also include 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 better monitoring and HAB forecasting products to help mitigate these blooms but much of Alaska is lacking in 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 help support forecasting data collection to mitigate the impacts of such blooms. This will involve collaborating with a variety of NOAA partners and interacting with stakeholders to support data collection from water, plankton and other biota, collection of environmental data with oceanographic sensors, and supporting laboratory processing of samples for analysis.

Learning Objectives: The fellow will:

- Develop an understanding of *Alexandrium* blooms, the cause of paralytic shellfish poisoning in Alaska.
- Gain familiarity in keeping field data records and collection of data with oceanographic instruments.
- Gain familiarity with collection of seawater, plankton, fish and invertebrates for microscopy and toxin analysis.
- Gain familiarity with processing samples of seawater, plankton, sediment and biota for analysis.
- Gain experience collaborating with diverse sets of partners and stakeholders.
- Learn about HAB-F capabilities in monitoring and modeling, including exposure to hydrographic and other field data, and maintaining laboratory and field records.

Mentor: The mentor for this opportunity is Steven Kibler (steve.kibler@noaa.gov), with co-mentor Julie Matweyou (jamatweyou@alaska.edu). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: April 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be until **September 30, 2025**, 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 commensurate with educational level and experience. The anticipated stipend range for full-time participation is $5,100 per month, which includes

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a $300 per month health insurance allowance. The selected participant will also be awarded a travel allowance to attend training and/or to participate in a scientific meeting.

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR).

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 bachelor's or master's degree in one of the relevant fields (e.g. Oceanography, Aquatic Sciences, Marine Sciences, Limnology, Biological Sciences, Ecological Sciences, Physical Sciences or related field). Degree must have been received within the past five years.

Preferred skills:

- Field and laboratory research experience.
- Demonstrated ability to work independently and part of a team.
- Working knowledge of marine coastal systems.
- Data collection and record keeping skills.
- Ability to work on small boats or from the shore.

Point of Contact Keri

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Earth and Geosciences** (21)
  - **Environmental and Marine Sciences** (14)
  - **Life Health and Medical Sciences** (51)