



C-StREAM Internship Program Fish Ecology Internship

Project Description The NOAA Chesapeake Bay Office (NCBO) and Chesapeake Research Consortium (CRC) seek a summer intern for late May through mid-August 2024 (12 weeks) to assist with collecting fish biodiversity data (fish species composition) in support of understanding the impact of Chesapeake Bay conservation and restoration efforts. This Field-based internship will support NCBO's fisheries-related survey operations. During the summer the selected intern will support:

- Fish community sampling in salt marsh habitats.
- Fish collection and tagging for acoustic telemetry projects.
- Processing of fish samples (identification and enumeration).
- Entering Data from sampling events.

The intern will also have the opportunity to work on independent projects that will provide further analysis of available fisheries data:

- Conduct weekly summaries of fish telemetry contacts from Bay-wide acoustic receiver arrays.
- Analyze length frequency data from long-term fisheries datasets to identify demographic trends in fish communities from restored and natural salt marsh habitats.
- Compare the geomorphology of restored and natural saltmarsh habitats with LIDAR elevation data.

Opportunities

Nearshore and tidal wetland habitats are at risk along the East Coast from sea level rise and subsidence. These habitats serve an important ecological function in supporting nursery habitats for different fish species. Restoration of these habitats is a tool to mitigate climate impacts and maintain their fish habitat functions. This project will enhance the understanding of restoration success in terms of fish usage using passive acoustic telemetry and traditional sampling methods. The results will serve as a guideline for future restoration projects in the Chesapeake Bay.

During this internship, the selected candidate will gain experience using passive acoustic techniques and fish monitoring methods. Students will be working in boats, tag fish, data collection, basic GIS skills, synthesis of information, organizing data, data management and analysis, presentation skills, and scientific writing.



The overarching goal of this internship is to provide mentorship and tangible work experience that will support professional development for individuals aspiring to enter careers in natural resource conservation, science, management, policy, or communications.

Deliverables

In addition to the general project support activities, the successful candidate will provide:

- A report and visualizations that describe basic demographics and population dynamics of selected fish species using restored and natural habitats.
- A presentation to NCBO staff at the conclusion of the internship summarizing the experiences gained and work conducted.

Required Qualifications

- An interest in fisheries science and ecology
- Willingness to engage in physically demanding outdoor work that will include around-the-clock operations in marsh habitats on a boat and on foot,
- Experience in fish handling and willingness to learn how to perform fish surgeries.
- Willingness to work in aquatic environments and occasionally snorkeling in dark water.
- Knowledge of and/or comfort in using reference sources on scientific methods and fauna of the Chesapeake Bay.
- Motivated self-starter with the ability to work and reason independently.
- Must be a college-level student entering sophomore, junior, or senior year of undergraduate study.
- Must be a U.S. Citizen and willing to undergo a security background check.

Desired Qualifications

- Experience with spreadsheet-like data structures (e.g., Excel)
- Basic experience with analytical software such as R, R Studio, and/or ArcPro GIS
- Experience on research vessels
- Multi-lingual
- Customer service experience

Work Location and Duration

We envision that this position will be an in-person position and will be based out of the NOAA Cooperative Oxford Lab in Oxford, MD.

The position will begin in mid-May and conclude in mid-August and will be in place for 12 weeks. We plan on providing interns with access to a NOAA computer, email, and phone services (in the office).



Compensation

The intern will receive a stipend at the end of each month, for a total of up to \$6,000 for the equivalent of 12 weeks of full-time activities (422 Hours). Funds are available to compensate interns for occasional work-related travel and a one-time \$1000 housing stipend will be available to support housing costs and related needs. Candidates should expect to follow a normal weekday work schedule (roughly 9-5, M- F) with occasional variations for possible fieldwork or other activities. No benefits are provided.

Diversity and Inclusion

The NOAA Chesapeake Bay Office is committed to supporting a diverse and inclusive science-oriented workforce. Our internship program endeavors to recruit from a diverse, qualified group of potential applicants to secure a high-performing workforce drawn from all segments of American society. NOAA is strongly supportive of broadening the participation of historically black colleges and universities, Hispanic serving institutions, tribal colleges and universities, and institutions that work in underserved areas. We highly encourage applications from students at any of the above institutions as well as students that identify as black, Indigenous, person of color, or 1st generation college student.

Application Instructions

Applicants are instructed to the online application on this website: <https://chesapeake.org/c-stream/> to apply. Comprehensive application instructions are found on this web page. You will be instructed to submit an application form, a transcript, a resume, and a cover letter. You will also be asked to review the suite of placements and determine which ones you want to pursue and request letters of recommendation. **The deadline for applications is by midnight on January 28, 2024. The reference form is due by February 4, 2024.**