



Chesapeake StREAM Internship

The Effect of Water Quality And Clarity On Video-Based Oyster Reef Monitoring Methods

The Chesapeake-Student Recruitment, Early Advisement, and Mentoring program ([C-StREAM](#)) is a collaboratively funded effort that develops and trains a diverse population of future leaders in environmental research, restoration, and protection by engaging them over multiple years in mentored engagement experiences. The program focuses on recruiting these future leaders from populations who have been historically excluded from the environmental field and are currently under-represented in environmental research and management professions.

Project Description

The Chesapeake Research Consortium (www.chesapeake.org) in collaboration with the Smithsonian Environmental Research Center (SERC) (<https://serc.si.edu/>) seek an intern for late May through mid-August (12 weeks) to provide assistance on projects connected with assessing the science and strategies. SERC is located in Edgewater Maryland and their mission is to provide science-based knowledge to meet the environmental challenges of the 21st century. SERC leads research on coastal ecosystems—where the land meets the sea—to inform real-world decisions for wise policies, best business practices, and a sustainable planet.

The Smithsonian Environmental Research Center (SERC) is developing and testing rapid, non-destructive methods for monitoring oyster reefs. A key part of the research effort is comparing reefs that are protected in no-harvest oyster sanctuaries and restored versus reefs that remain open to harvest. SERC has collected GoPro underwater videos at hundreds of sites throughout 10 restoration tributaries and 2 reference harvest tributaries in Maryland and Virginia. The quality of videos and the data we can obtain from them varies depending on local water clarity. The intern will use existing recordings to understand how water clarity and water quality affect our ability to obtain reliable data on oyster reef habitat quality and associated species like fish and crabs. They will also have the opportunity to develop a field component of the project and to participate in SERC's long-term trawl and seine surveys document fish and invertebrate communities of the Rhode River, MD.

Opportunities

This internship will provide a unique opportunity to contribute to large-scale, long-term natural resource management and policy development critical to understanding of oyster monitoring analysis and research on adaptation measures for marine science and sustainability. The C-StREAM intern will gain experience in natural resource management and environmental marine science and research. Exploring the importance of visibility and water quality in oyster reef restoration. The C-StREAM student intern will gain experience in natural resource management,

and restoration science. In addition, this internship experience will provide insights into careers in natural resource management, and science beyond those applied for and allows students to make connections with established environmental management and science professionals. In addition, this internship experience will provide an opportunity to intern at an internationally recognized marine institute. It will highlight insights into careers in natural resource management, marine science and research, aquaponics science beyond those applied for and allows interns to make connections with established environmental management and science professionals.

Deliverables

- A project abstract/literature review
- A final 12-15 min presentation to the SERC research community
- Reliable data on oyster reef habitat quality
- Presentation at the C-StREAM end of summer student symposium.

Requirements

- Basic knowledge of water quality monitoring or other water quality testing software is preferred.
- Excellent writing skills.
- Motivated self-starter with ability to work and reason independently.
- Must be a college-level student entering sophomore, junior, or senior year of undergraduate study. Students are also eligible to participate during the immediate summer following their graduation if they are pursuing graduate studies in the fall.
- Must be a U.S. Citizen and willing to undergo a security background check.

Work Location and Duration

Due to health concerns, as well as CRC and SERC policies guiding us during COVID-19 we have not yet determined if this position will be virtual or in person. Currently, we are planning for both possibilities. If we are able to offer this position as an in-person opportunity it will be stationed at SERC, Edgewater, MD. We can accommodate virtual and in person interns, and anticipate having a small amount of housing on site.

The internship is scheduled to begin Monday, May 23, 2022 and end Friday, August 12, 2022. These are our preferred dates, but the dates can be adjusted to accommodate a student's school schedule if required. We plan on providing interns with access to a SERC computer, email and phone services if this internship is offered in person. If the internship is virtual, interns will need to have access to a suitable internet, computer and communication resources. A car is required if stationed at SERC.

Compensation

The intern will be reimbursed at the end of each month (June, July, and August), for a total of up to \$6,000 (\$500/week) for the equivalent of 12 weeks (480 hours) of full-time activities.

Candidates should expect to follow a normal weekday work schedule (roughly 9-5, M-F) with occasional variations for possible field work or other activities. No benefits are provided. We offer assistance in arranging local housing if the position is an in-person opportunity if desired. A one-time housing and transportation allowance of \$1,000 is available to each intern to assist with living and transportation expenses. Funds are also available to compensate interns for occasional work-related travel and professional development activities.

Diversity and Inclusion

The Chesapeake Research Consortium and SERC are 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. CRC and SERC are 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

Application instructions, required materials, and the C-StREAM application portal can be found on the C-StREAM website (<http://chesapeake.org/c-stream/>).

The deadline for applications is February 21, 2022.