



2023 Intern Symposium

Thank you for joining us as we celebrate the work and contributions of students participating in the CRC and NOAA Chesapeake Bay Internship and UMCES Programs and the CRC C-StREAM internship program. If you have not already, please be sure to register here: [Please RSVP here:](#)

August 4, 2023, 9:00am – 3:00pm

HYBRID

In Person at the (SERC Campus – Mathias Building Room 1013 (Same as Orientation) or

Virtual Attendants Zoom Link:

August 4th Symposium:

<https://us02web.zoom.us/j/82393554212?pwd=ZWdOeElReElhRHlETIVaT1RGSVFqdz09>

9:00 Arrival & Light Breakfast

10:00 Welcoming Remarks by [Suzanne Dorsey](#) (5-8 minutes)

- Mackenzie Smith, C-StREAM Alumni (**5 minutes**)
- Randy Rowel – Program Coordinator for C-StREAM Program and Bart Merrick the Education Coordinator, NOAA Chesapeake Bay Office (**5 minutes**)

10:15 Alexis Stelfox – University of Maryland

- **Title:** CapAgcity Building in the Bay: Best Practices and Lessons Learned
- **Abstract:** Alexis Stelfox spent her summer as a WQGIT intern cumulatively documenting and compiling case studies about best practices for effective capacity building in the agricultural sector for partners to learn from. She reviewed and researched Maryland, Virginia, Pennsylvania, and Delaware BMP and conservation plan implementation and its overlap with organizational capacity levels, to help aid in pushing towards the 2025 Chesapeake Bay WIP goal.



10:30 Bria Dixon – *Penn State*

- **Title:** "Stream Restoration: Does It Work?"
- **Abstract:** Bria Dixon spent her summer as a DOEE intern determining if the stream restoration work that DOEE has been doing is effective or not, alongside data migration, stream site visits (both restored & unrestored), and performing rapid stream assessments using GIS mapping. She collected and analyzed results from multiple stream restoration monitoring reports, looking at several parameters including but not limited to water temperature, pH, turbidity, E. coli presence, and the index of biological integrity for macroinvertebrates and fish while working closely with external partners to perform successful data migration.



10:45 Brooke Kline – *St. Mary's University of Minnesota*

- **Title:** Calculated Biosolid Application in Chesapeake Bay Watersheds
- **Abstract:** Per- and Polyfluoroalkyl substances (PFAS) have been called "forever chemicals" because they don't degrade in the environment. Land-applied biosolids act as a sort of carrier for PFAS into waterways. We have been creating maps to spatially visualize biosolid applications in the Chesapeake Bay Area.



11:00 Lena Mahyoub - *Virginia Tech College of Natural Resources and Environment*

- **Title:** Arlington House: Navigating Difficult History and Shifting Attitudes at the Robert E. Lee Memorial
- **Abstract:** The experience of building a National Park Service Interpretive Program about the Black History of Arlington House, navigating difficult conversations with visitors, telling the truth of our history, and why it matters.



11:15 Mackenzie Smith – *Towson University*

- **Title:** Policy for the Future
- **Abstract:** My presentation will be explaining the tasks that helped me construct a detailed policy memo on how MDE can increase its outreach to local communities that have the potential for increasing their carbon sequestration. In addition, I will give information about what Blue carbon is, how I conducted research, and a little bit about myself and my mentor Rach Lamb.



11:30 Hannah Brown - *Binghamton University*

- **Title:** Saltwater intrusion into coastal shallow aquifers as a result of sea level rise in Norfolk, VA
- **Abstract:** Hannah spent her summer as a research intern under Dr. Xixi Wang of Old Dominion University. She modeled groundwater conditions under different sea level scenarios in Norfolk. She also researched the impacts of sea level rise and saltwater intrusion on coastal communities.



11:45 Allison Welch, *Pennsylvania State University*

- **Title:** Clean Water Program Intern at the Izaak Walton League of America and Earth Sciences and Sustainability Student at the Pennsylvania State University
- **Abstract:** Allison spent her summer interning for the Izaak Walton League's Clean Water Program and their volunteer monitoring programs, Nitrate Watch, Save Our Streams, and Salt Watch. She has been cultivating volunteer success stories, performing data analysis, and creating outreach material.



12:00 William McGrath - *Rensselaer Polytechnic Institute*

- **Title:** Accelerating Progress on Riparian Forest Buffer Goals: Financial and Human Capacity Factors
- **Abstract:** Will McGrath has spent his summer gathering data and accounts from various partners around the bay about the staffing and financial capacity of their organizations. He has analyzed this information in order to try and find ways to increase Riparian Forest Buffers in the Bay Watershed



12:15 Anoosh Taquir - *George Washington University*

- **Title:** C-StREAM Intern with the Integrated Trends Analysis Team
- **Abstract:** Development of a StoryMap template of Tributary Basin Summary reports to create accessible and visually engaging content to enhance understanding of spatial and temporal patterns in water quality. The StoryMap displays information - how tidal and nontidal water quality changes over time, what factors drive those changes and how they change, and the current state of the science on connecting change in aquatic conditions to its drivers - through dynamic maps, descriptions, and external resources.



LUNCH 12:30 - 1:10 pm

NBCO Interns:

1:15 Emma Chuang – *Oregon State University*

- **Title:** Building Resource Guides for Tribal Nations in Virginia
- **Abstract:** Emma has spent her Summer as an intern working with mentors Lauren Taneyhill and Nicole Bartlett, both of whom have experience with tribal engagement. As an intern, she is conducting research about tribal needs, meeting with representatives from the Virginia Marine Science Institute, and plans to visit the region in person very soon.



1:30 Catherine Carrion – *Virginia Tech*

- **Title:** Understanding the Value of Chesapeake Bay backbone acoustic arrays: science to Management Collaboration
- **Abstract:** NOAA Chesapeake Bay collaborates with state, federal, and universities to maintain a set of arrays in the Chesapeake Bay called the backbone arrays; this data is managed by the Mid-Atlantic Acoustic Telemetry System (MATOS), a resource designed to facilitate collaboration among researchers in the Atlantic region. The data were then summarized to look at the movement of different species to see where they are going and if their movement has changed throughout the years due to different factors. The results of this project will be used to demonstrate the value and services provided by the NCBO-sponsored Chesapeake Bay telemetry arrays to ACT/MATOS researchers and fishery managers.



1:45 Emma Venarde – *Brown University*

- **Title:** Buoys, Blue Crabs, and Bass, Oh My! Hypoxia Buoy Maintenance and Poplar Island Fish Sampling
- **Abstract:** The water-column hypoxia monitoring system is a network of vertical monitoring buoys that assess water quality in the Chesapeake Bay that I am supporting with weekly field maintenance, quality control threshold testing, and annual report development. Poplar Island is a restoration site in the Chesapeake Bay where ongoing fyke net and gill net sampling measure the abundance and species composition of finfish in restored marsh cells on the island in comparison to nearby reference sites; I contributed field work, fish sample processing, and data entry and analysis to the project.



2:00 Claire Burnet – *Dickinson College*

- **Title:** Climate Change Education: Mapping Resources and Expertise
- **Abstract:** Educating young people about climate change is essential to building an informed society, but systemic and action-oriented climate change education is perceived as far-off. Claire spent her summer working with the NCBO Environmental Literacy Team and interviewing professionals engaged in climate change education work to identify and evaluate curricular resources that might help bridge this gap.



2:15 Faith McCarthy – *Johns Hopkins University*

- **Title:** "Marine Biology at COL: Applications for Fisheries and Aquaculture"
- **Abstract:** Faith spent her summer as a lab intern at the Cooperative Oxford Laboratory, working alongside NOAA and Maryland DNR. She worked on various projects, including fish health surveys, Vibrio research in oysters, and oyster aquaculture modeling.



2:30 Seychelle Brainard – *Smith College*

- **Title:** Testing nature-based substrates for *Crassostrea virginica* settlement
- **Abstract:** Settlement trials were conducted to evaluate the ability of *C. virginica* larvae to settle on nature-based pliable materials that can be used to create a veneer of oyster mesh to be used for restoration projects or aquaculture applications. Seychelle also worked on upgrading the oceanographic monitoring station at the Cooperative Oxford Lab, supported dive operations, and modeled oyster growth.



Lightning Presentations:

2:30 Kameryn Overton – *Tuskegee University*

- **Title:** Diversifying Stakeholder Engagement
- **Abstract:** During the four stakeholder engagement events called listening sessions this summer organized by the University of Maryland Center for Environmental Science and their Integration and Application Network, it was seen that many key demographics were not being accounted for. In her project, Kameryn facilitated a fifth listening session with a faith-based group that showed the importance of diversity in environmental conversations and the necessity of connecting with these groups to promote environmental literacy.



2:38- 2:50

Q and A

2:50 - 3:00 pm

Closing Remarks

*Student is a participant in the CRC-NOAA Chesapeake Bay internship program.

**Student is a participant in the CRC C-StREAM internship program.

**Student is a participant in the UMCES Internship program.