



Chesapeake  
**OYSTER ALLIANCE**  
*10 Billion for the Bay*

# 2023 Chesapeake Oyster Science Symposium

Thursday, September 26, 2022 | 10:30 a.m. – 4:00 p.m. ET

## Welcome



**Tanner Council, Chesapeake Oyster Alliance Senior Manager, Chesapeake Bay Foundation**

Tanner manages the Chesapeake Oyster Alliance (COA), a coalition of 102 (and counting) regional and national non-profits, aquaculture operations, academic institutions, businesses, and more, all of which are working to support a restored oyster population and robust aquaculture industry in the Chesapeake Bay. COA has a top-line goal to add 10 billion new oysters to the Chesapeake Bay by 2025 and coordinates a wide-range of advocacy, funding, and public engagement programs year-round to support its many partners. There is room for everyone who loves the oyster at COA. Learn more about this coalition at [chesapeakeoysteralliance.org](https://chesapeakeoysteralliance.org).

## **Panel 1: Gaining Ground: Increasing Returns in Restoration and Aquaculture**

### **Matt Pluta, Choptank Riverkeeper and Director of Riverkeeper Programs, ShoreRivers**



Matt is dedicated to safeguarding the long-term health of the river, guarding against illegal and harmful pollution, and building a stronger voice for the protection of the river's natural resources.

Matt has a degree in biology and environmental studies from Penn State University and has an advanced degree in environmental policy. His professional experience includes water quality monitoring, environmental policy, community organizing, and advocacy. He transplanted to the Eastern Shore from the Great Lakes region, bringing with him his passion for clean water and outdoor recreation.

Matt joined the ShoreRivers' team in 2015 and serves as the organization's representative on the Maryland Department of Natural Resources' Oyster Advisory Committee and the Maryland Department of Agriculture's Phosphorus Management Tool Advisory Committee. He is also the Chesapeake Region representative for the Waterkeeper Alliance's Waterkeeper Council and the chair of the Cambridge Clean Water Advisory Committee.

### **Mike Congrove, Owner/Operator, Oyster Seed Holdings**



Mike Congrove got his start in marine science at Old Dominion University, but found his passion for oysters with Chesapeake Bay Foundation working on the Patricia Campbell after receiving his bachelor's degree in Marine science. He went on to receive a master's degree in fisheries science at VIMS which launched his career in shellfish aquaculture. He has operated Oyster Seed Holdings since its inception in 2009 and has been the majority owner and president since 2014. In the last couple years OSH has expanded its focus as a shellfish company and is striving to be a leader in hatchery production, hatchery technology, and shellfish aquaculture advocacy.

## **Olivia Caretti, Coastal Restoration Program Manager, Oyster Recovery Partnership**



Olivia works with a variety of stakeholders and partners to enhance oyster production, ecosystem function, and health of the Chesapeake Bay through restoration and fisheries management. Olivia has served as the Oyster Best Management Practices Expert Panel Coordinator since 2021. Olivia received a BA from St. Mary's College of Maryland and is currently completing her PhD in Marine Science at NC State University.

## **Allison Colden, Maryland Executive Director, Chesapeake Bay Foundation**



Allison provides strategic vision and leadership for policy initiatives at the local and state level to achieve ambitious Bay restoration goals. Previously, as CBF's Maryland Senior Fisheries Scientist, she developed the Foundation's state and federal fisheries policy initiatives and provided technical expertise and consultation for the organization's oyster restoration program. Before joining CBF, Allison served as the Senior Manager of External Affairs for Restore America's Estuaries where she managed coalition strategy and initiatives in support of advancing coastal habitat restoration. She also served as a 2015 NOAA Sea Grant Knauss Legislative Fellow in the office of Congressman Mike Thompson. Allison holds a B.S. in Biology with a concentration in Ecological Conservation from the University of Virginia and a Ph.D. in Fisheries Science from the Virginia Institute of Marine Science.

## **Lightning Talks: Rapid-fire Presentations by Emerging Scientists**

Alexus Stelfox, Chesapeake Oyster Alliance (astelfox@cbf.org)

*Moderator*

Sierra Hildebrant, Old Dominion University (shild005@odu.edu)

*Oyster Reef Development on Oyster Based Structures*

Matthew LaGanke, Virginia Institute of Marine Science (mjlaganke@vims.edu)

*Enhancing Off-Bottom Oyster Aquaculture Efficiency through Farm Management and Inventory Practices*

Charlye Levine, Chesapeake Bay Foundation (charlyeinvb@gmail.com)

*Subtidal Oyster Reef Monitoring Using New GoPro Rig Technology*

Muhammad Sulymman, Morgan State University Patuxent (musul2@morgan.edu)

*Modeling Impacts of Habitat Change on Commercial Fisheries in Virginia's Middle Peninsula*

Alan Williams, UMD Center For Environmental Science, Horn Point Lab (awilliams@umces.edu)

*Environmental and Aquatic Research Laboratory (PEARL) Drone Imagery, Sonar and the Impact of Oyster Harvesting*

## **Panel 2: Understanding Our Impact: New Developments in Monitoring**

### **Ben Fertig, Restoration Manager, Severn River Association**



Dr. Ben Fertig is responsible for overseeing all aspects of Severn River Association's restoration programming throughout the watershed (e.g. green infrastructure), shoreline (e.g. living shorelines), and in the river (e.g. oyster restoration). Ben uses sound science, community partnerships, and advocacy to drive restoration priorities. He identifies and develops new restoration projects and ensures projects are appropriately designed, permitted, constructed, monitored, and maintained. Previously, he was Program Director for Howard EcoWorks where he managed watershed restoration projects and environmental workforce development in Howard County, and before that he was Community Outreach and Volunteer Coordinator at Irvine Nature Center in

Owings Mills. He has taught ecology, evolution, GIS, and other courses to hundreds of students at Stevenson University and at the Community College of Baltimore County. He completed his doctorate in Marine, Estuarine, and Environmental Science through the University of Maryland, College Park in 2010. Subsequently, he held a postdoctoral position at Rutgers University Department of Marine and Coastal Sciences and later monitored the health of restored oyster reefs in various Chesapeake tributaries. Dr. Fertig has published over a dozen scientific peer reviewed journal articles on using oysters and other biological indicators of ecosystem health.

### **Emma Green, Executive Director, St. Mary's Watershed Association**



Emma holds a Master's Degree in Marine Science from the University of Maryland Center for Environmental Science and a Bachelor of Science in Biology and Environmental Studies from St. Mary's College of Maryland. At St. Mary's Watershed Association, she works with a wide range of partners to protect, improve, and promote the sustainability of the St. Mary's River.



### **Leonard Nelson, Co-Founder and CEO, Natrx**



Leonard is co-founder and CEO of Natrx, Inc, a technology firm focused on nature based solutions. Mr. Nelson has an engineering and business background and started his career with IBM Corporation, where he attained over \$1B in data software sales. After IBM, he successfully founded three successful technology firms specializing in image processing, RFID, and data analytics. At Natrx, Leonard helped scale up advanced manufacturing technology for reef restoration and apply artificial intelligence to resilience monitoring. Mr. Nelson holds two US patents and received a BS in Chemical Engineering from North Carolina State University and an MBA

from the University of Notre Dame.

### **Matt Gray, Assistant Professor, Horn Point Laboratory**



Oysters and other marine invertebrates provide numerous benefits to coastal communities and local environments. As an ecophysiologicalist, Matt's research focuses on understanding the physiological response of marine invertebrates to current and future environmental conditions (e.g. ocean acidification) and the ecological benefits provided by these organisms over space and time. Matt's studies are intended to broaden our knowledge base and provide relevant information to help inform stakeholders, management, and policy in Maryland and elsewhere.

## **Panel 3: Briny New World: Incredible Advances in Oyster Tech**

### **Scott Budden, Partner, Orchard Point Oysters**



Scott, together, with his two other business partners and intrepid field crew teams, have built a national oyster brand from scratch. Scott is an Eastern Shore native. In 2007, he graduated from Bucknell University and worked as a corporate financial analyst for a decade prior to founding OPOC. He currently serves on the board of the Oyster Recovery Partnership, MD Sea Grant, CBF's Chesapeake Oyster Alliance, and is Treasurer of ShoreRivers. He serves at the Governor's behest on the MD Tidal Fish Advisory Commission and the MD Aquaculture Coordinating Council.

### **Steve Pattison, Business Director, Solar Oysters**



Steve is responsible for bringing the Solar Oysters Production System (SOPS) to market. Solar Oysters is a start-up company developing a new innovative oyster production technology. SOPS is a floating, high density oyster production system powered by solar energy. Solar power provides energy to automate the grow process and ancillary systems. Solar energy powers a basket rotation system, navigation lighting, platform surveillance, spray wash system, water quality monitoring, oxygenation, and ship-to-shore communication. A prototype has been developed and is deployed in the Baltimore Harbor during 2021 – 2023. The technology is envisioned to be used by the oyster

aquaculture industry as well as organizations focused on oyster restoration. Steve has Masters Degrees from Syracuse University and the State University of New York's College of Environmental Science & Forestry. He also has a B.S. in wildlife management from Purdue University.

**Stephanie Westby, Oyster Restoration Program Director, National Oceanic and Atmospheric Association (NOAA)**



Stephanie Reynolds Westby works for NOAA's Restoration Center, primarily on Chesapeake Bay oyster restoration. Prior to that she worked as a lobbyist and fisheries scientist for the Chesapeake Bay Foundation, and earlier as the captain of several educational vessels, both power and sail. She holds a master's degree in environmental science and policy from John Hopkins University, and a 100-ton master's license ('captain's license'). When not on the water, she paints and plays the ukulele (but not simultaneously).

**Don Webster, Principal Agent (Full Professor) and Specialist, University of Maryland Extension Program in the College of Agriculture and Natural Resources**



Don has decades of experience working with many species to develop modern methods for commercial aquaculture. He serves as the Extension representative on the Maryland Aquaculture Coordinating Council which reports to the Governor and legislative Environmental committees and is on the Board of Directors for the Chesapeake Agriculture Innovation Center. He also serves as the Maryland member to the Technical and Industry Advisory Council of the US Department of Agriculture's Northeastern Regional Aquaculture Center. One of his main projects currently is working with a USDA funded project to develop robotics and advanced technology aimed at increasing the production of oysters raised on bottom leases.



## **Panel 4: Beyond the Horizon: Forecasts Across Our Oyster Sectors**

### **Jordan Shockley, Co-Founder and CEO Blue Oyster Environmental**



Jordan oversees the development and direction of short and long term goals of the company, including the development of environmental markets utilizing oysters as a Best Management Practice. Prior to founding Blue Oyster, he served as Senior Manager of Oyster Production for Hoopers Island Oyster Co, overseeing all aspects of oyster production from the hatchery to the farm. Jordan holds a B.S in Biology from Salisbury University.

### **Bill Walton, A. Marshall Acuff, Senior Professor of Marine Science & Shellfish Aquaculture Program Coordinator, Virginia Institute of Marine Science**



Bill Walton developed and leads two new graduate courses focused on shellfish aquaculture and mentors several students: Shellfish Aquaculture in Practice focused on Chesapeake Bay in even years and focused on other regions in odd years. He conducts applied research with local shellfish farmers, resource managers, and national and local organizations addressing challenges and opportunities for shellfish aquaculture in Virginia and the United States. His interests include all aspects of shellfish aquaculture, including opportunities for public fisheries and restoration.

### **James Tweed, General Manager, Hollywood Oyster Company**



James grew up in Cape May County, NJ on the shores of the Delaware Bay. He started oyster farming over 25 years ago with Atlantic Capes Fisheries, producing the Cape May Salt brand of oysters. For the past 9 years James has been the General Manager of the Hollywood Oyster Company in Hollywood, MD, which was founded in 2010 and is located on the Western Shore in Hollywood, MD on the Patuxent River. Hollywood Oyster sells its Sweet Jesus, Hollywood and VaVa Voom brands nationally, grows with cages in the water column and tumbles its oysters.

The Company has a packing house and 15 team members.

James lives with his wife and 2 children in Davidsonville, MD.

### **Ben Ford, Miles-Wye Riverkeeper, ShoreRivers**



Ben is dedicated to improving the water quality in these rivers and Eastern Bay, and ensuring that they remain bountiful, safe, healthy, and beautiful. He joined the staff of ShoreRivers in 2023.

Ben was born and raised in Talbot County, and spent his early years on the water as a sailing instructor at the Chesapeake Bay Maritime Museum, as a living shoreline technician, and as professional crew on a sailing yacht.

For the last 13 years, Ben has deepened his passion for the Chesapeake's people and places as the program manager for the Chesapeake Semester with Washington College's Center for Environment and Society. During the Chesapeake Semester, a 16-credit interdisciplinary experiential education program for undergraduates, students study the complex history, ecology, and culture of the Chesapeake and learn about the challenges and transitions confronting coastal communities around the world. As part of the initiative, Ben led short-term study abroad programs for undergraduates in Peru, Guatemala, Belize, and Baja Mexico.

### **Chris Moore, Senior Regional Ecosystem Scientist, Chesapeake Bay Foundation**



Chris leads policy development and technical support for Chesapeake Bay water quality and fisheries restoration efforts. His water quality work involves a wide range of activities, from on-the-ground restoration to working with elected officials through all levels of government to support legislative decisions that ensure enhancement of the Bay watershed. Chris also works to build sustainable fisheries issues through oyster restoration efforts and proactive management of important Bay fisheries such as blue crab and Atlantic menhaden. He is also a US Coast Guard Licensed Captain and runs educational and restoration boat trips for volunteers, media, elected officials, and decision makers.