

2021 Chesapeake Oyster Science Symposium

Thursday, June 3rd, 2021 | 11 a.m. – 5 p.m.

SPEAKER BIOGRAPHIES

Panel 1 – The Return of the Bay Oyster: Challenges and Opportunities



Moderator – Bruce Vogt, Ecosystem Science and Synthesis Manager, National Oceanic and Atmospheric Administration (NOAA) Chesapeake Bay Office

Bruce Vogt collaborates with scientists, managers, and diverse stakeholders to develop science-based applications in support of ecosystem-based management of fish and habitat resources.



Stephanie Westby, Oyster Restoration Program Director, NOAA

Large-Scale Oyster Restoration in Chesapeake Bay under the Chesapeake Bay Watershed Agreement

Stephanie Reynolds Westby is with NOAA (National Oceanic and Atmospheric Administration). She directs a multi-agency program to achieve large-scale oyster restoration in Chesapeake Bay. This includes working with state and federal agencies, academics, and non-governmental organizations to set common goals and develop restoration plans, then implement, track, monitor, and adaptively manage the restoration work. She holds a master's degree in environmental science and policy from Johns Hopkins University, and her background includes working as an environmental lobbyist and fisheries scientist. She grew up sailing, and prior to her conservation career spent ten years working on traditional sailing vessels, eventually as captain. She lives in Annapolis, Maryland with her family, and much to their annoyance, has taken up the ukulele during the pandemic.



Karen Hudson, Shellfish Aquaculture Specialist, Virginia Institute of Marine Science (VIMS)

Assessing Aquaculture in Virginia

Karen Hudson is the shellfish aquaculture specialist in the Marine Advisory Program at VIMS and Virginia Sea Grant's Marine Extension Program. Her 20-year career at VIMS has included a variety of oyster-related research with more recent work focused on outreach and advisory service in shellfish aquaculture, mainly facilitating communication between the research community and shellfish aquaculture stakeholders. Hudson work closely with the shellfish culture industry, regulatory agencies and external groups whose actions directly or indirectly impact the conduct and expansion of shellfish culture in Virginia. She works with faculty and students to foster the development of applied research projects to address shellfish culture problems and provide advice and

resources for people that want to start growing shellfish. Hudson is the VIMS liaison to the Tidewater Oyster Gardeners Association (TOGA) and facilitator of VIMS' Shellfish Aquaculture Industry Advisory Committee.



Ward Slacum, Executive Director, Oyster Recovery Partnership

Opportunities to Grow

Ward served as Director of Program Operations for six years prior to his promotion to Executive Director. Ward was responsible for ORP strategic growth initiatives and daily operations of two offices supporting oyster restoration and sustainable fisheries programs. He has a broad background in marine and estuarine science and has been supporting Bay restoration for the past 20 years through research and cooperative programs with Bay watermen. He earned a Master's degree in Fisheries Science from the University of Maryland MEES Program and a bachelor degree in Environmental Science from the UMD Eastern Shore campus. He was born on the Eastern Shore and lives in Stevensville. In his free time, Ward enjoys being outdoors gardening, boating, fishing, and making furniture in the woodshop.



Joe Rieger, Deputy Director of Restoration, Elizabeth River Project

Virginia's First (and Sixth) Tributary for Oysters

Joe Rieger has worked for the non-profit, Elizabeth River Project, for 19 years and is the Deputy Director of Restoration. Elizabeth River Project is a not-for-profit working to restore the Elizabeth River in Southeastern Virginia for almost 30 years. Joe has managed numerous wetland, oyster, and sediment restorations projects in the Elizabeth and Lafayette Rivers. He was the project manager for the remediation of Money Point which was the first nationally recognized community-led cleanup of contaminated sediments which included oyster restoration. He was also the project manager for oyster restoration in the Lafayette River, which became the first river in Virginia to meet Chesapeake Bay Program restoration goals in 2018. His position involves working directly with federal and state governments, waterfront industries, universities and the citizens of Hampton Roads, Virginia. Joe received his Bachelors of Science from Ohio University in 1998, and received a Master's degree in Aquatic Ecology from Old Dominion University in 2002. Joe and his wife KC live in Norfolk on the Lafayette River. They have two sons, Walter and Lucas who both enjoy baseball and fishing on the river.

Lightning Talks



Moderator - Sierra Hildebrandt, Hampton University

Sierra Hildebrandt is an incoming doctoral student at Old Dominion University investigating the efficacy of various oyster-based shoreline devices to protect shorelines, sustain oyster habitat, and increase salt marsh resilience. Sierra received a B.S. in Biology with a concentration in marine science from Old Dominion University in 2018 and an M.S. in Biology/Environmental Science from Hampton University in 2021 in which her research focused on alternative oyster restoration techniques.

Panel 2 – Leveraging Oyster Ecosystem Services to Accelerate Oyster Recovery



Moderator – Allison Colden, Maryland Fisheries Scientist, CBF

Allison Colden, Ph.D. is the Chesapeake Bay Foundation's Maryland Fisheries Scientist. She develops the Foundation's fisheries policy initiatives and provides technical expertise and consultation for CBF's oyster restoration program. 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. Her graduate research focused on hydrodynamics on restoration oyster reefs to optimize reef construction for oyster survival and growth. Before joining CBF, Allison managed government relations for Restore America's Estuaries and served as a NOAA Sea Grant Knauss Legislative Fellow for Rep. Mike Thompson.

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Lisa Kellogg, Senior Research Scientist, VIMS

The Continuum of Ecosystem Services from Restored Reefs to Floating Aquaculture

Dr. Lisa Kellogg is a Senior Research Scientist in the Biological Sciences Department at the Virginia Institute of Marine Science (VIMS). Prior to starting at VIMS in 2011, Dr. Kellogg worked for the University of Maryland at College Park (UMD-CP) and for the University of Maryland Center for Environmental Sciences Horn Point Laboratory (UMCES-HPL).

Throughout her career, Dr. Kellogg's research has focused on how oyster reefs and oyster aquaculture interact with the surrounding environment. In collaboration with colleagues at the UMD and UMCES, she has studied one of the world's largest oyster reef restoration projects in Harris Creek, MD and assessed its ability to remove nutrients from the water column, provide habitat for a diverse community of organisms, and provide food for a variety of finfish species. More recently, her research has focused on studying the positive and negative impacts of oyster aquaculture and assessing interactions between oyster aquaculture and submerged aquatic vegetation.



Scott Knoche, Director, Morgan State University/PEARL Lab

Economic Impacts of Oyster Reefs

Dr. Scott Knoche is the Director of the Morgan State University Patuxent Environmental and Aquatic Research Laboratory (PEARL). As the Director of PEARL, Dr. Knoche provides oversight and guidance to two PEARL research programs: Shellfish Aquaculture & Genetics, and Coastal Ecology. Concurrently, Dr. Knoche serves as the lead of a third research program in his area of expertise: Environmental & Natural Resource Economics. Dr. Knoche also provides oversight and guidance to an Environmental Education program that provides field-based learning experiences for K-12 audiences and integrated education/research opportunities through internships for undergraduate students.

Dr. Knoche was born and raised in Michigan, receiving his B.S., M.S., and Ph.D. from Michigan State University. An avid outdoorsman with a love of fishing and hunting, he lives in southern Maryland with his wife and two children.



Matt Gray, Assistant Professor, University of Maryland Center for Environmental Science (UMCES)

Living Breakwaters and Coastal Resilience

As an ecophysiologicalist, Dr. Gray's research focuses on understanding the physiological response of marine invertebrates to current and future environmental conditions and the ecological benefits provided by these organisms over space and time. His studies are intended to broaden our knowledge base and provide relevant information to help inform stakeholders, management, and policy in Maryland and elsewhere.



Jeff Cornwell, Research Professor, UMCES

What We Do and Don't Know About Nitrogen Removal

Research Professor Jeffrey Cornwell is a biogeochemist at UMCES Horn Point Laboratory. After a B.S. in chemistry at Hobart College, his Ph.D. graduate research at the University of Alaska/Fairbanks was on nutrient and metal cycling in an arctic lake. At UMCES, his research has focused on wetland, freshwater and estuarine biogeochemistry with a more recent emphasis on denitrification associated with bivalves in restoration and aquaculture. He has advised 23 graduate students and currently chairs the Maryland Aquaculture Coordinating Council.

Panel 3 – Emerging Technologies in Aquaculture and Restoration



Moderator – Jay Lazar, Field Program Coordinator, NOAA Chesapeake Bay Office

Jay Lazar is the field program coordinator at NOAA's Chesapeake Bay Office. With over 22 years of hydrographic survey experience and a background in marine resource management, Jay has been an integral member of the Oyster Restoration team at NOAA.



Steve Pattison, Solar Oysters

Solar Powered Floating Aquaculture

Steve Pattison has over thirty-nine years of experience in both public and private sector organizations managing a variety of environmental issues. Steve is a consensus builder having managed a variety of contentious issues involving citizens, elected officials, regulators, business interests and non-government organizations. Steve has overseen a variety of environmental restoration projects. He has interacted with the news media on controversial topics. He has led a corporate level environmental compliance support organization as well as served in an appointed position at the Maryland Department of Environment. Steve has developed and implemented business, communications and strategic plans.

Since 2018, Steve has worked with personnel at Maritime Applied Physics Corporation by engaging with key stakeholders to facilitate the development of the Solar Oyster Production System technology.

EDUCATION: B.S., Wildlife Management, Purdue University

M.S., Environmental Policy & Public Administration, State University of New York, College of Environmental Science & Forestry

M.S., Environmental Policy & Public Administration, Syracuse University



Brad King, Executive Director, Marine Science Foundation

Persistent Monitoring on Reefs

Mr. King is the Executive Director of the Marine Science Foundation and Owner/Operator of Kent Island Scuba. He has served the National Intelligence Community and Military for more than 23 years as an Intelligence Officer and Special Operations Intelligence Surveillance, and Reconnaissance (ISR) subject matter expert. After honorably separating from activity duty Navy service, Mr. King served in served the DoD in several contractor/leadership positions, providing expert consultation, training, and capability development/engineering. Upon the request of government leadership, Mr. King returned to government service as a government civilian within the Intelligence Community to become the Special Operations liaison and subject matter expert for military ISR and SOF operations and serving as the Chief of Counterterrorism.

In addition to serving as an Intelligence Officer in the Department of Defense, Mr. King served as adjunct graduate professor at the National Intelligence University and Directed Research Program leader at the Naval War College Fleet Seminar Program.

Mr. King has a Bachelor's in Emergency and Disaster Management from the American Military University, a Master's in Strategic Intelligence from the National Intelligence University, and a Masters in National Security and Strategic Studies from the Naval War College. Mr. King is also a National Security Fellow at the Foundation for the Defense of Democracies.

Mr. King's is an experienced Course Director/Instructor, equipment technician, mixed gas blender, and Captain. In addition to recreational scuba, Mr. King has extensive experience in public safety, special operations, technical, CCR, and scientific diving.



Martin Kozaczek, Program Manager, Northrop Grumman

Technology for Conservation: Remote Underwater Ecosystem Monitoring

Martin Kozaczek is a Program Manager in the Emerging Capabilities Division at Northrop Grumman Mission Systems. He has over 15 years of experience at Northrop Grumman in leading highly cross functional technical teams as well as R&D programs in the space and undersea domains. His recent experience in biological technology domain includes initiating and executing an Oyster Reef Monitoring Technology Challenge in collaboration with the Chesapeake Bay Foundation which aims to develop remote sensing capabilities for conservation applications.



Allison Tracy, Postdoctoral Fellow, Smithsonian Environmental Research Center

Insights from Rapid Assessment Approaches

Dr. Allison Tracy is a postdoctoral fellow at the Smithsonian Environmental Research Center where she studies oyster reef ecology in the Chesapeake Bay. Her research focuses on marine ecology, conservation, and infectious disease in wildlife. She completed her PhD at Cornell University where she studied immunity and disease on coral reefs in Puerto Rico.

Panel 4 - Synthesis Discussion: The Future of Oyster Restoration in Chesapeake Bay



Moderator – Andy Lacatell, Virginia Chesapeake Bay Program Director, The Nature Conservancy

Andy Lacatell is the Virginia Chesapeake Bay Director for The Nature Conservancy in Virginia. Based in Richmond, his responsibilities include land protection, oyster reef restoration, philanthropy, research and stewardship. Andy has been with The Nature Conservancy for over 20 years and has been involved in the protection and restoration of over 35,000 acres in the Middle Peninsula and Northern Neck. His current work is focused on large-scale oyster reef restoration in the Piankatank and York River systems as well as the role of aquaculture in restoring the Chesapeake Bay. Before joining TNC in 2001, Andy was the Assistant Director of the Center for Environmental Studies at Virginia Commonwealth University (VCU). Andy holds a B.A. in Sociology from the University of Richmond, a Masters in Environmental Studies from VCU and a Master of Public Health from the Medical College of Virginia (VCU).



Zack Greenberg, Officer, Conserving Marine Life in the U.S., The Pew Charitable Trusts

Zack is an Officer at The Pew Charitable Trusts where he leads policy development and outreach for Pew's efforts to conserve ocean and coastal resources on the U.S. East Coast. Before joining Pew, Zack spent five years as a project manager with Dewey Square Group, where he worked on political and issue-based campaigns across the country and on issues ranging from the environment, health care, education and national security. He holds a dual bachelor's degree in environmental studies and history from Northeastern University and a master's degree in environmental law and policy from Vermont Law School.

Conserving Marine Life in the U.S. Project website: <https://www.pewtrusts.org/en/projects/conserving-marine-life-in-the-united-states>.



Andrew Button, Conservation and Replenishment Department Head, Virginia Marine Resources Commission

Andrew Button is currently the head of the Virginia Marine Resources Commission (VMRC) Conservation and Replenishment Department (CRD). He has been in this role since 2016 and with VMRC since 2014. The CRD has been in the business of large scale oyster restoration and replenishment since its inception in 1929. This work continues today, although the focus has shifted over the decades to include more than just maintaining areas for commercial harvest. The department maintains and monitors both harvest and sanctuary areas on more than 240,000 acres of public oyster ground in the waters of the Commonwealth, develops harvest regulations on both public and private oyster grounds, and coordinates with or is directly involved in a multitude of oyster and shellfish focused activities with multiple governmental and non-governmental groups. Prior to coming to VMRC, Andrew worked in the shellfish aquaculture business and captained commercial tour vessels on the Potomac River. He has lived, worked and played continuously on the waters of Virginia and Maryland for more than 18 years, from his first job on the water as a student boathouse attendant at St. Mary's College of Maryland to his current role at VMRC he is rarely a stones (or oyster shells) throw away from the water.



Angela Sowers, Integrated Water Resource Management Specialist, US Army Corps of Engineers

Dr. Sowers is an Integrated Water Resource Management Specialist. She has worked with the Baltimore District Planning Division, Civil Works Project Branch for eighteen years. She has been the technical lead and study manager for the Baltimore District's Chesapeake Bay Oyster Recovery Project since 2004. Dr. Sowers is a member of the Maryland Interagency Oyster Workgroup and represents USACE on the Maryland Oyster Advisory Committee. Her USACE experience includes plan formulation for ecosystem restoration projects; habitat restoration and benefits quantification; oyster restoration; watershed assessments; National Environmental Policy Act compliance; interagency coordination; and external peer review coordination. She has a bachelor's degree in Chemical Engineering with a minor in Environmental Engineering; a MSE in Environmental Engineering, and a Ph.D. in Chesapeake Bay Paleoecology.



Chris Moore, Senior Regional Ecosystem Scientist, CBF

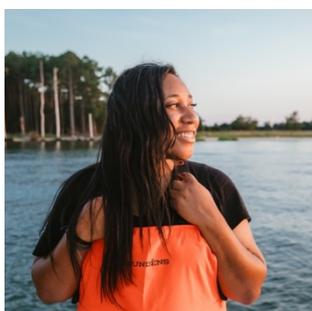
Chris joined the Chesapeake Bay Foundation in 2005. He currently serves as the Senior Regional Ecosystem Scientist where he leads policy development and technical support for a variety of Chesapeake Bay fisheries and water quality restoration efforts. He is also a US Coast Guard Licensed Captain and runs educational and restoration on the water experiences for elected officials, their staffs and decision makers.

Chris focuses much of his time working to build ecologically and economically sustainable fisheries both in the Chesapeake Bay and Mid-Atlantic Region. Specific fisheries include striped bass, Atlantic menhaden, blue crabs, and blue catfish. His work also includes on a host of oyster policy, management, and restoration efforts from funding at the state and federal levels to on-the-ground restoration, to serving on the Chesapeake Bay Program's Oyster Best Management Practice Expert Panel.

Chris' water quality work involves a wide range of activities including water quality monitoring, on-the-ground restoration, regulatory development, and working with elected officials through all levels of government to garner legislative decisions that ensure enhancement of the Bay watershed.

Chris received his undergraduate degree in Environmental Studies in 1997 from Randolph-Macon College in Ashland, Virginia. He received his master's degree in Environmental Science and Public Policy from George Mason University (GMU). At GMU his class work in Environmental Science and Engineering led to research focused on anadromous fish passage in Maryland and Virginia.

Chris currently resides in Virginia Beach, VA with his wife Kristyn, children Aubrey and Callen, and dog named "Nauset". An avid sportsman, Chris spends as many days as possible on the waters and tributaries of the Chesapeake Bay.



Imani Black, Founder & President, Minorities in Aquaculture

Imani is an African American oyster farmer building a career in the rapidly growing aquaculture industry. She was born and raised on the Eastern Shore of Maryland and her love for conservation and restoration on the Chesapeake Bay started at a young age. Imani comes from a long family history of watermen from Rock Hall, Crisfield and Cambridge, MD that dates back over 200 years.

Imani attended Old Dominion University and graduated with a Marine Biology degree and was a Division 1 student athlete in lacrosse.

During college, Imani interned for the Chesapeake Bay Foundation's VA Oyster Restoration Team which started her journey into oyster restoration and shellfish aquaculture. Following graduation, Imani was selected to participate in the VIMS' Aquaculture Genetics & Breeding Technology Center's (ABC), Oyster Aquaculture Training (OAT) program which targets those pursuing careers in all aspects of oyster aquaculture, from hatchery operations to grow-out and processing.

Imani continued to work for oyster companies in VA and MD. For the last 2 years, Imani has served at the first privately-owned hatchery in Maryland as a lead Hatchery Technician and Assistant Manager. Imani's passion for the aquaculture industry lead her to launch "Minorities In Aquaculture" (MIA). Through MIA, Imani seeks to promote the benefits and sustainability of aquaculture, both in the Chesapeake Bay and worldwide. By sharing her experiences, she works to educate and encourage minorities to pursue a career in all aspects of aquaculture.

Currently, Imani continues to grow her nonprofit while working as a Faculty Research Assistant for the University of Maryland's Center for Environmental Science (UMCES) at Horn Point Laboratory. In Fall 2021, Imani will continue at Horn Point and begin her first year as a master's student.



Sean Corson, Director, NOAA Chesapeake Bay Office

Sean Corson is the Director of the NOAA Chesapeake Bay Office (NCBO), which is dedicated to protecting and restoring the Chesapeake Bay through programs focusing on native oyster restoration, oceanographic and meteorological observations, environmental education, ecosystem-based fisheries management, and climate resiliency. NCBO serves as NOAA's representative to the Chesapeake Bay Program. Sean is the chair of the Sustainable Fisheries Goal Implementation Team under the Bay Program, which currently oversees the largest oyster restoration effort in the

world by restoring 10 Chesapeake Bay tributaries by 2025. This work is done in collaboration with federal, state, not-for-profit, and university groups.

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