

2026 Chesapeake Community Research Symposium DAY 1 (June 1)				
	Arundel A	Arundel B	Arundel C	Queen Anne Ballroom
9:00 AM	Introduction Raleigh Hood, UMCES Horn Point Laboratory and CCMP Program Coordinator			
9:15 AM	Plenary Speaker (9:15-10:00) Lauren Bridges, University of Virginia, Assistant Professor of Media Studies			
10:00 AM	Break (10:00-10:15)			
10:15 AM	Plenary Speaker (10:15-11:00) Josh Kurtz, Maryland Secretary of Natural Resources			
11:00 AM	Plenary Speaker (11:00-11:45) Brandon Jones, AGU President			
12:00 PM	Lunch (12:00-1:00)			
	<b>Session 14:</b> <i>Low-Cost Physical Environmental Monitoring Systems</i>  Michael Maddox and Taryn Sudol	<b>Session 2:</b> <i>Advancing Chesapeake Bay Water-quality Science and Management: I. Innovative monitoring techniques and modeling tools</i>  Qian Zhang, Kaylyn Gootman, Peter Tango, and Breck Sullivan	<b>Session 19:</b> <i>Advanced Data Analytics for Water Quality and Public Health</i>  Jianyong Wu, Dongmei Alvi, and Efeturi Oghenekaro	<b>Session 1:</b> <i>Estuarine Carbon Dynamics and Acidification in the Chesapeake Bay: Monitoring, Impacts, and Emerging Solutions</i>  Emma Venarde, Raymond Najjar, Janet Reimer, Cassie Gurbisz, Whitman Miller, and Amanda Knobloch
1:00 PM	<b>Drew Powell, Matthew Baker, Dillon Mahmoudi:</b> Understanding Spatiotemporal Variation in Air Quality Using Purple Air Sensors	<b>Richard Zimmerman, Victoria Hill, David Ruble, et al.:</b> A Low-Cost Spectroradiometer for Aquatic Sciences and Water Quality Monitoring	<b>Emily H. Majcher:</b> Status of PFAS in surface waters of the Chesapeake Bay Watershed and associations with sources and landscape characteristics	<b>Lisa Haber, Paul Bukaveckas, Ed Crawford, et al.:</b> Vertical, Lateral, Tidal: Towards a comprehensive net ecosystem carbon budget for a tidal freshwater marsh in Virginia
1:15 PM	<b>Tiberias Okanga:</b> Advancing Community Air Quality Monitoring Through Low-Cost Sensors in the Baltimore–Washington Corridor	<b>Victoria Hill, Richard Zimmerman, Jacob Gallagher, et al.:</b> Mapping Seasonality in Submerged Aquatic Vegetation growth in the Chesapeake Bay Using Planet Satellite Imagery	<b>Yanni Cao:</b> Environmental Indicators of PFAS in an Urban Watershed Revealed by Explainable Machine Learning	<b>Stephanie J. Wilson:</b> Long-term monitoring to calculate lateral carbon and alkalinity flux from a mesohaline tidal marsh
1:30 PM	<b>Katie Lehman, Ava Puschnigg:</b> Mesoterps: Building a Resilient Campus With High-Resolution Environmental Monitoring	<b>Maria Guardado, Victoria Hill, Richard Zimmerman:</b> Quantifying Seasonal Variability in Seagrass Extent and Density Using Physics-Based Remote Sensing Models	<b>Benjamin Schelling, Margaret Mulholland:</b> The Effects of Tidal Flooding on the Transport of Per- & Polyfluoroalkyl Substances (PFAS) into the Lafayette and Elizabeth Rivers	<b>Andrea Pain:</b> Rates and magnitudes of blue carbon sequestration in marshes created by dredged material placement in Chesapeake Bay
1:45 PM	<b>Tim Canty, Michael Maddox, Louis Uccellini, et al.:</b> Addressing Adaptation Challenges Facing the Chesapeake Bay Through Low-Cost Monitoring Supporting Impact-Based Decision Support Services	<b>Jacob Gallaher, Victoria Hill, Richard Zimmerman:</b> Using Satellite Imagery to Map Seasonal Variation of Seagrass Meadow Area and Blue Carbon in Chincoteague Bay	<b>Dongmei Alvi:</b> Explainable AI Illuminates Microbial Contributions in a Highly Urbanized Watershed	<b>Amanda Knobloch:</b> Comparing Carbon Concentrations and Composition in Tidal Marshes and Oyster Aquaculture
2:00 PM	<b>Tori Tomiczek, Lilliana Velasquez Montoya, Jasmine Wilding, et al.:</b> Monitoring Local Coastal Backflow in Storm Drains Using Low-Cost Accelerometers: Flood Frequency and Duration in Annapolis, MD Using Low-Cost Accelerometers	<b>Max Ruehrmund, Jay Lazar:</b> Leveraging Collaborative Infrastructure for Monitoring Dissolved Oxygen in Chesapeake Bay	<b>Anna Van Dongen:</b> Public Health and Water Quality: Investigating the Relationship between Bacteria and Colored Dissolved Organic Matter	<b>Richard Hale, Richard Zimmerman, Victoria Hill, David Burdige:</b> Blue Carbon Sequestration by Submerged Aquatic Vegetation in Chesapeake Bay: Where's the Peat?
2:15 PM	<b>Megan Curtiss:</b> Cities as climate labs: Measuring tree growth responses across urban stress gradients with dendrometer bands	<b>Weston M. Slaughter:</b> Sensor networks reveal salinity-dependent controls on hypoxia, diel extremes, and productivity–alkalinity coupling in a Chesapeake Bay tidal tributary	<b>Veronica Manka'a Tangiri:</b> Analysis of the Health and Population of Benthic Macroinvertebrates with Increasing development: Quantico Creek Watershed, Prince William County, Virginia	<b>David J Burdige, Richard Zimmerman, Rip Hale, et al.:</b> Alkalinity production and pyrite burial in seagrass sediments as a mechanism of Blue Carbon sequestration
2:30 PM	Break (2:30-2:45)			

DAY 1 Continued				
	<b>Session 24</b> <i>Phytoplankton Dynamics in Chesapeake Bay: Analysis, Methods and Models</i> Emily Brownlee, Greg Silsbe, and Catherine Wazniak	<b>Session 2 Continued</b>	<b>Session 4:</b> <i>Data Centers and Water, Air, and Environmental Impacts and Solution Options in the Chesapeake Watershed</i> Kevin Sellner and Charles Bott	<b>Session 1 Continued</b>
2:45 PM	<b>Michelle C. Tomlinson, Kirstin Wakefield:</b> From lab to space: Co-developing a regional prototype for a National HAB Observation Network (NHABON) in Chesapeake Bay	<b>Claire Welty, Mary McWilliams, Andy Miller, et al.:</b> Evaluation of pollutant removal effectiveness of stormwater facilities using high-frequency water quality sensors	<b>Kevin Sellner:</b> Data Centers and Water, Air, and Environmental Impacts and Solutions	<b>Cassie Gurbisz, Theresa Murphy, Hunter Walker, et al.:</b> Submersed aquatic vegetation modifies estuarine inorganic carbon and alkalinity dynamics
3:00 PM	<b>Khari Crommarty:</b> Mapping the Risk of High Chlorophyll & HAB events in the Chesapeake Bay	<b>Alexander Soroka:</b> Large sediment yield after mitigation projects, then development: The story of Foster Branch	<b>Lauren Barbir:</b> Data Centers: the water-energy nexus	<b>Anamika Das Kona, Victoria Hill, Richard Zimmerman:</b> Impact of Climate Change on Seagrass Dynamics in the Chesapeake Bay: Comparative Metabolic Responses of Widgeon Grass ( <i>Ruppia Maritima</i> ) and Eelgrass ( <i>Zostera Marina</i> )
3:15 PM	<b>Xin Yu, Michelle C. Tomlinson:</b> A short-term harmful algal bloom (HAB) forecasting system for the lower Chesapeake Bay	<b>Shuyu Y. Chang, Robert C. Walter, Mia Aaronson, et al.:</b> Cooler Waters, Reconnected Valleys: Restoration Gains from Milldam Legacy Sediment Removal	<b>Michael College, P.E.:</b> From Megawatts to Megabytes: Advancing Dry Cooling Success in the Susquehanna River Basin	<b>Madison Griffin:</b> Saturated with Data: Modeling Carbonate Chemistry Saturation State Thresholds in Mid-Atlantic Shellfish
3:30 PM	<b>Dante M. L. Horemans, Pierre St-Laurent, Marjorie A. M. Friedrichs, et al.:</b> Environmental controls on interannual Margalefidinium polykrikoides blooms in the Lafayette River	<b>Greg Noe:</b> Watershed controls and Chesapeake-wide predictions of streambank erosion rates	<b>Charles Bott, Alexandria Gagnon, Kevin Sellner:</b> Understanding the Impact of Discharges from Data Centers on Wastewater Treatment Plants: Fundamentals and Potential Impacts	<b>Tahera Attarwala:</b> Aragonite Saturation State as an Indicator for Oyster Habitat Health in the Delaware Inland Bays
3:45 PM	<b>Allen R. Place:</b> Karlodinium veneficum - The little dinoflagellate with a big bite is missing?	<b>Andrew Sekellick, Alexander Soroka:</b> Modeling Nutrient Sources, Fate, and Transport in the Chesapeake Bay Watershed Using an Updated SPARROW Framework to Support Stakeholder Decision-Making	<b>Kendra Sveum:</b> Data Center Effluent Case Study: Operations Impacts on a Wastewater Treatment Plant	<b>Gabriel Duran, Paul A. del Giorgio, Candice Aulard, et al.:</b> Quantifying the aquatic carbon budget of two Canadian boreal watersheds: a tale of two lakes
4:00 PM	<b>Danyang Zhai, Jian Shen:</b> Primary production in Chesapeake Bay: Spatial and Temporal Patterns Using Open Water Method	<b>Qian Zhang, Gopal Bhatt, Kaylyn Gootman:</b> Are we on track? Integrating monitoring and models to track load reduction progress in the Chesapeake Bay watershed	<b>Larry Band, Rouyu Zhang, Tejendra Kandell, et al.:</b> Watersheds and Data Center Development Impacts	<b>Raymond G. Najjar, Riley Westman, Devon Kerins, et al.:</b> The carbonate chemistry of rivers draining to the Chesapeake Bay viewed through a new simplifying metric: Excess dissolved inorganic carbon
4:15 PM	<b>Margaret R. Mulholland, Eileen Hofmann, Peter Bernhardt, et al.:</b> Enhanced surveillance to improve HAB monitoring and detection: toward an early warning system for HABs in the lower Chesapeake Bay	<b>Thomas Fisher, Judith O'Neil, Anne B. Gustafson, et al.:</b> Assessment of phytoplankton nutrient and light limitation in Chesapeake Bay in response to nutrient management strategies over the last 25 years	<b>Allison Welch, Daniel Koval:</b> Global Data, Local Impacts: How data center development is changing your local landscape	<b>Whitman Miller, Amanda Reynolds:</b> Continuous but contrasting multi-year comparisons of measured carbonate parameters in the mesohaline Rhode River, MD
4:30 PM	<b>Kami Lentzsch, Amy Hamilton, Catherine Wazniak, et al.:</b> Evaluating FlowCam Precision for Reliable Phytoplankton Assessment in the Chesapeake Bay	<b>Kelly Kosiarski:</b> Evaluating Riparian Buffer Zone Effectiveness at Mitigating PFAS from Surface Runoff of Biosolids Amended Fields	<b>Nafiseh Salehi:</b> Spatial Determinants and Future Patterns of U.S. Data Centers Development	<b>Novia Mann, Hunter Walker, Quinn Roberts, et al.:</b> A Comparative Analysis of Carbonate System Dynamics of the York River and Potomac River Estuaries
4:45 PM	<b>Catherine Wazniak, Jeremy Testa:</b> Benthic Microalgae in the Chesapeake Bay	<b>Kathryn Dixon, Claire Barlow:</b> Rapid Water Quality Evaluation of the Potomac River Sewage Overflow	<b>Julia Davis, Landon Marston, Majid Shafiee-Jood:</b> A Review of Data Center Water Use, Methodological Gaps, and Policy Implications	<b>Zhendong Ji, Wei-jun Cai, Jeremy Testa, et al.:</b> Quantifying the Efficacy of Wastewater Alkalinity Enhancement on Carbon Emission and Uptake in Chesapeake Bay
5:00 PM			<b>Lauren Barbir:</b> Data Centers: Trends and innovation for water use for a circular economy	<b>Alexa Labossiere, Pierre St-Laurent, Kyle Hinson, et al.:</b> Efficiency of ocean alkalinity enhancement in the Chesapeake Bay
5:15 PM				<b>Kyle Hinson:</b> A Data-Driven Ocean Alkalinity Enhancement Module for the Chesapeake Bay
5:00 PM	Poster Session, Reception, Guardian Award <i>Light refreshments provided and cash bar available</i>			
7:00 PM				

DAY 2 (June 2)				
	Arundel A	Arundel B	Arundel C	Queen Anne Ballroom
9:00 AM	Panel Discussion (9:00-10:15) <b>Big Data to Better Decisions: Leveraging AI and Machine Learning for Chesapeake Bay Research and Management</b>			
10:15 AM	Break (10:15-10:30)			
10:30 AM	Panel Discussion (10:30-11:45) <b>Hail CESR?: Weighing the benefits of deep vs. shallow restoration</b>			
12:00 PM	Lunch (12:00-1:00)			
	<b>Session 8:</b> <i>Advancing the Development and Management Applications of Next-generation Airshed, Land-use, Watershed, and Estuarine Models</i>  Zhengui Wang, Gopal Bhatt, Joseph Delesantro, and Wenfan Wu	<b>Session 3:</b> <i>Advancing Chesapeake Bay Water-quality Science and Management: II. Novel analysis and scientific communication approaches to inform management</i>  Qian Zhang, James Webber, Rebecca Murphy, and Kaylyn Gootman	<b>Session 15:</b> <i>Next Generation Tools and Team Science for Chesapeake Bay Living Resource Assessment and Management</i>  Bruce Vogt and Christina Garvey	<b>Session 11:</b> <i>Geospatial Targeting of Restoration and Conservation Actions</i>  Peter Claggett, John Wolf
1:00 PM	<b>Lewis C. Linker, Gopal Bhatt, Joseph Zhang, et al.:</b> Phase 7 Models of the Chesapeake Watershed, Estuary, and Airshed – Exploring Future Challenges of Changing Environmental Conditions and Growth	<b>Ashok Jacob, Raj Cibin:</b> A Deep Learning Framework for Continuous Stream Nitrate Estimation across the Chesapeake Bay Watersheds	<b>Hongsheng Bi, Cailian Liu:</b> High-Frequency Imaging of Phytoplankton and Zooplankton Dynamics in the Chesapeake Bay	<i>I. High-Resolution Geospatial Data and Technical Advances</i>  <b>Labeeb Ahmed:</b> Seamless Elevation Data in the Chesapeake Bay watershed
1:15 PM	<b>Joseph Delesantro, Isabella Bertani, Gopal Bhatt, et al.:</b> Characterizing annual streamflow, nutrient, and sediment loading and drivers in the Chesapeake Bay watershed through data-driven models	<b>Quinn Domanski:</b> Investigating Bidirectional Dynamics in Chesapeake Bay Tributaries Using Long-Term Monitoring Data and Machine Learning	<b>Veronica Malabanan Lucchese:</b> Fish, People, and Power: Mapping Networks Between Invasive and Native Species in Coastal Systems	<b>Michelle Katoski, Peter Claggett, Joseph Delesantro, et al.:</b> Characterizing hydrologic connectivity for water quality modeling and BMP targeting in the Chesapeake Bay Watershed
1:30 PM	<b>Joseph Delesantro, Conor Keitzer, Gopal Bhatt, et al.:</b> Closing the phosphorus modeling gap in the Chesapeake Bay watershed	<b>Xueting Pu:</b> Toward Generalizable and Interpretable Sediment Modeling with AI-Augmented HSPF	<b>Alexandria Rhodes, Victoria Hill, PhD &amp; Richard Zimmerman, PhD:</b> Mapping Submerged Aquatic Vegetation Around the Tangier-Smith Archipelago Using Satellite Imagery	<b>Jackie Pickford:</b> Mapping Sewer Service Areas and Septic Systems to Inform Management Decisions
1:45 PM	<b>Gopal Bhatt, Joseph Delesantro, Lewis Linker, et al.:</b> Progress in the development and linkage of fine-scale Phase 7 Chesapeake Bay Watershed Model	<b>Abigail Percich, Admin Husic, Allen Gellis, et al.:</b> Watershed-scale sediment source prediction using machine learning	<b>Matthew Ogburn, Allison Blanchette:</b> Leveraging Underwater Video, High-Resolution Sonar, eDNA, and Animal Telemetry for Fisheries and Fish Habitat Monitoring	<b>Sarah McDonald:</b> Four Decades of Land Use Change in the Chesapeake Bay Watershed: Integrating High Spatial and Temporal Resolution Datasets
2:00 PM	<b>Zhengui Wang, Yinglong J. Zhang, Jian Shen, et al.:</b> Status of The Phase-7 Chesapeake Bay Water Quality Model	<b>Diver Marin Palacio, Chuqiang Chen, Stanley Grant, et al.:</b> Capturing Event-Driven Salinity Pulses and Nonlinear SC Dynamics in Chesapeake Bay Tributaries using a Deep Learning Model	<b>Julie Reichert-Nguyen, Julia Fucci, Ron Vogel, et al.:</b> From Buoys, Satellites, and Models: Data Comparisons to Inform Marine Heatwave Forecasting for Fisheries Management Application	<b>Peter Claggett:</b> Simulating future development in the Chesapeake Bay Watershed
2:15 PM	<b>Richard Tian, Nicole Cai:</b> Simulation of benthic microalgae impacts on water quality in shallow water systems, Corsica River, Chesapeake Bay	<b>Lindsey Boyle, Kelly Maloney, Rosemary Fanelli:</b> Watershed wide predictions of specific conductance show increasing salinity across half of the Chesapeake Bay watershed	<b>Genny Nesslage, Vyacheslav Lyubchich, Glenn Davis, et al.:</b> Quantifying linked rare events in fish and environmental Chesapeake Bay time series	<b>Amy Freitag, Katherine Auerswald, Seann Regan:</b> A Community Risk Assessment of Flooding and Heat Hazards in the Baltimore Metropolitan Area
2:30 PM	<b>Amir Reza Azarnivand, Jeremy Mark Testa:</b> Modeling climate-driven flow increases on stratification in the Patuxent River Estuary: Implications for oxygen depletion	<b>Marina Metes, Matthew Cashman, Zachary Clifton:</b> Predicting Aquatic Physical Habitat Over a 38-Year Period Using Machine Learning	<b>Robert Daniels, Ava Ellett:</b> Chesapeake Bay Vibrio Seasonal Outlook	<i>II. Audience-Driven Design for Conservation and Restoration Tools, Maps, and Data</i>  <b>Sophie Waterman:</b> Turning User Insights into Action: Redesigning Geospatial Tools for Conservation and Restoration
2:45 PM	<b>Wenfan Wu, Zhengui Wang, Jian Shen, et al.:</b> Disentangling Drought-induced Algal Blooms in Tidal Freshwater Zones with an Interpretable Bloom Risk Index	<b>Chuqiang Chen, Admin Husic:</b> Increasing event water fraction across the Chesapeake Bay Watershed under climatic and anthropogenic change	<b>Allison Dreiss, Ryan E. Langendorf, Ryan Woodland, et al.:</b> Modeling benthic biomass responses to climate change in the Chesapeake Bay	<b>John Wolf:</b> Modernizing the Chesapeake Targeting Portal: Aligning Data, Maps, Tools, and Outcomes through User-Driven Feedback
3:00 PM	Break (3:00-3:15)			

DAY 2 Continued				
	<i>Session 8 Continued</i>	<i>Session 3 Continued</i>	<i>Session 15 Continued</i>	<i>Session 11 Continued</i>
3:15 PM	<b>Anand Gnanadesikan, Rui Jin, Marie-Aude Pradal, et al.:</b> CDOM Absorption by Phytoplankton Modulates the distribution of Hypoxia in Chesapeake Bay	<b>Lorena Pinheiro-Silva, Xiaoxu Guo, Matthew Houser, et al.:</b> Tracking Nutrient Pollution and Best Management Practice Effectiveness in the Choptank River Using Explainable Machine Learning and Satellite Data	<b>Theresa Davenport, Kenny Rose, Limin Sun, et al.:</b> Coupling hydrodynamic, water quality, and habitat suitability models to assess the habitat co-benefits from living shorelines	<b>Zhaoying Wei:</b> Designing Outcome-Centered Interactive Maps for the Chesapeake Targeting Portal 2.0
3:30 PM	<b>Jiangtao Xu, Lixia Wang, Aijun Zhang, et al.:</b> Update on NOAA's New Operational Forecast System for the Northeast US	<b>Nivedita Priyadarshini Kamaraj, Sundarabalan V. Balasubramanian, Manoochehr Shirzaei, et al.:</b> Multi-Sensor Nutrient Mapping in the Chesapeake Bay	<b>Emi McGeady:</b> Evaluating Localized Food Web Response to Oyster Restoration using a 3D Multispecies Individual-Based Model	<b>Andrew Fitch, Catherine Krikstan:</b> Building With, Not For: Developing ChesapeakeData Through Audience Engagement
3:45 PM	<b>Robin Glas:</b> When Is "Typical" Typical? Re-evaluating Hydrologic Base and Critical Periods for Chesapeake Bay Program Models	<b>Breck Sullivan, Jon Harcum, Elgin Perry, et al.:</b> Filling the Gaps: A space-time interpolation tool for Chesapeake Bay dissolved oxygen	<b>Vaskar Nepal, Mary C Fabrizio, Troy D. Tuckey, et al.:</b> Mechanistic Habitat Modeling for Chesapeake Bay Fish and Shellfish: From Individual Physiology to Management Tool	<b>Alex Gunnerson:</b> Integrating User Research Principles into Phase 7 Watershed Model Planning Tools
4:00 PM	<b>Gopal Bhatt, Lewis Linker, Richard Tian, et al.:</b> Initial assessment of future energy scenarios in Chesapeake airshed, watershed, and tidal bay nitrogen loads	<b>Jeremy Testa, Amir Azarnivand, Damian Brady, et al.:</b> The diversity of patterns and controls on oxygen depletion in Chesapeake Bay tributetse	<b>Colin A. Hawes, Marjorie A.M. Friedrichs, Pierre St-Laurent, et al.:</b> Modeling Juvenile Atlantic Croaker Habitat Suitability: Impacts of Future Climate and Nutrient Management	<i>III. Stakeholder-Driven Targeting Applications</i>
				<b>Rebecca K. Ransom, John Wolf:</b> Geographic Targeting and Source Water Protection
4:15 PM	<b>Garett Pignotti, Stephanie Nummer, Carlington Wallace:</b> Modeling Water Quality Response of Urban Watersheds to Future Management Scenarios	<b>Gabriel Duran, Jon Harcum, Elgin Perry, et al.:</b> Utilizing Cluster Analysis to Assess Water Quality Trends in the Chesapeake Bay	<b>Aaron Bever, Colin Hawes, Marjorie A.M. Friedrichs, et al.:</b> Realtime Forecasting and Seasonal Summaries of Habitat for Fishes in Chesapeake Bay	<b>Coral Howe:</b> Toward a Capacity-Informed Targeting Framework for Chesapeake Bay Restoration
4:30 PM	<b>Lewis C. Linker, Gopal Bhatt, Richard Tian, et al.:</b> Estimated Impacts of Environmental Change on Water Quality in the Chesapeake Bay Beyond Midcentury	<b>David Parrish, Carl Friedrichs, William Reay, et al.:</b> Recent Shifts in Water Clarity Across Virginia's Lower Chesapeake Tributaries: Evidence from Four Decades of Kd Observations	<b>Matthew Gray, Theresa Daven, William Nardin, et al.:</b> Designing Oyster Restoration for Today's Bay: Leveraging Next-Generation Models to Maximize and Manage Ecosystem Services	<b>David Strong, John Wolf:</b> Recognizing Organizational Service Areas to Strengthen Geospatial Targeting in Sentinel Landscapes
4:45 PM		<b>Peichen Huang, Dante M.L. Horemans, Marjorie A.M. Friedrichs:</b> The Importance of Mixotrophy for Phytoplankton Production and Nutrient Management	<b>Kenneth Rose, Mark Monaco, Thomas Ihde, et al.:</b> CESR: moving forward with assessing living resource responses for prioritizing projects and restoration plan formulation	<b>Michael Evans, David Saavedra:</b> Automatically identifying wetland conservation and restoration opportunities with AI
5:00 PM				<b>Rosemary Fanelli:</b> Taking the pulse of Chesapeake Bay Watershed stream ecosystems: A synthesis of observational data for six indicators of freshwater stream health, 2018-2023
5:00 PM	<b>Poster Session, Reception Cash bar</b>			
7:00 PM				

DAY 3 (June 3)				
	Arundel A	Arundel B	Arundel C	Queen Anne Ballroom
	<p><b>Session 25 (Panel):</b> Supporting the Next Generation: Career Development for Emerging Chesapeake Bay Scientists</p> <p>Gabriel Duran and Melissa Fagan</p>	<p><b>Session 23:</b> Molecular Approaches for Chesapeake Bay Ecology and Biogeochemical Functions: from Genes to Insights</p> <p>Sairah Malkin and Isabel Baker</p>	<p><b>Session 5:</b> Balancing agricultural and ecological goals of Chesapeake Bay restoration: Insights from interdisciplinary team science</p> <p>Lisa Wainger and Caitlin Grady</p>	<p><b>Session 21:</b> General: Estuarine and Watershed Processes and Coupled Human-Natural Systems in Chesapeake Bay</p> <p>Raleigh Hood</p>
9:00 AM	<p>Panelists:</p> <p><b>1. Curtis Bennett</b> Director of Equity &amp; Community Engagement, National Aquarium</p> <p><b>2. Kyle Hinson</b> Postdoctoral Research Fellow, Pacific Northwest Laboratory</p> <p><b>3. Julie Kiang</b> Deputy Regional Director, Northeast, USGS</p>	<p><b>Feng Chen, Changfei He, Judith M. O'Neil, et al.:</b> Chesapeake Bay metagenomes across broad organisms and spatio-temporal scales</p>	<p><b>Lisa A. Wainger, Dave Abler, Caitlin Grady:</b> Co-developing Resilient Futures: Integrating Agricultural and Ecological Goals Through Interdisciplinary Scenario Modeling</p>	<p><b>Matthew Gray, Jeffrey Cornwell, Cindy Palinkas, et al.:</b> Balancing Interests: improved understanding of shellfish aquaculture production and submerged aquatic vegetation through studies and synthesis</p>
9:15 AM		<p><b>Clara A. Fuchsman, Michael E. Kalinowski, Jacob A. Cram, et al.:</b> Examining Metagenomics Across Particle Size and Redox Gradients in Chesapeake Bay</p>	<p><b>Raj Cibin, Jesna Ismail:</b> Can dietary transition improve water quality in the Susquehanna River Basin?</p>	<p><b>Gulnihal Ozbay:</b> Assessing Interactions Between Shellfish and Seagrass Beds and Macroalgae to Promote Sustainable Aquaculture in the Delaware Inland Bays</p>
9:30 AM		<p><b>Isabel Baker, Kaley Hantsoo, Anna Hildebrand, et al.:</b> Microbial methane sinks are insufficient under continued eutrophication in the Chesapeake Bay</p>	<p><b>Caitlin Grady:</b> Identifying Leverage Points for Nitrogen Reduction With a Production-Chain Approach</p>	<p><b>Elka T. Porter, Lawrence P. Sanford, Jeffrey C. Cornwell:</b> Denitrification in the STURM Resuspension Mesocosms, Part 1: Particle Dynamics</p>
9:45 AM		<p><b>Michael E. Kalinowski, Clara A. Fuchsman, Carol Kim, et al.:</b> The Bottom Water Oxygen Impacts on Downcore Sulfur Cycling in Chesapeake Bay Sediments Inferred using Metagenomics</p>	<p><b>Kristin Fisher, Matthew Houser:</b> Leveraging natural and social science to maximize impact of agricultural stakeholder driven conservation in the Chesapeake Bay watershed.</p>	<p><b>Amy Hamilton, Catherine Wazniak:</b> Hidden Neurotoxins in Cyanobacterial Harmful Algal Mats in Maryland</p>
10:00 AM		<p><b>Anand Gnanadesikan, Rui Jin:</b> How does including heterotrophic bacteria in a biogeochemical model change the simulation of biogeochemical cycling?</p>	<p><b>Lora Harris, Cathlyn Davis, Sarah Garvey, et al.:</b> Emerging Nitrogen Technology And Sustainability Challenges From Farm To Fork : An International, Transdisciplinary Course.</p>	<p><b>Qubin Qin, Xun Cai, Jian Shen, et al.:</b> Quantifying Inter-Tributary Freshwater Connectivity and Its Implications for Flushing Time in Chesapeake Bay</p>
10:15 AM		<p><b>Anne Baldino, Dr. Tsvetan Bachvaroff:</b> Deciphering the Functional Capacity of Chesapeake Bay Microbes through Long-Read Sequencing</p>		<p><b>Kehinde Bosikun, Joel Moore, Claire Welty:</b> Quantifying urban versus natural contributions to stream chemistry in a Chesapeake Bay tributary using reactive transport modeling</p>
10:30 AM	Break (10:30-10:45)			

DAY 3 Continued

	<b>Session 18 (Panel):</b> <i>Increasing the Effectiveness and Impact of Technical Assistance Delivery to Low-Capacity Communities</i>  Elizabeth Van Dolah and Michele Romolini	<b>Session 23 Continued</b>	<b>Session 16:</b> <i>Recent Modeling Advances in Compound Flooding, a 10-year Retrospective of Technological Innovations in Hydrodynamic Modeling and Monitoring Since 2016 Hurricane Matthew</i>  J. Derek Loftis, Navid Tahvildari, Patrick Taylor	<b>Session 21 Continued</b>
10:45 AM	Panelists: <b>1. Elizabeth Van Dolah, Ayanna Healy, Joe Galarraga, et al.:</b> Applying the Sustainable Livelihoods Framework to Support Resilience Planning in Pocomoke City, Maryland	<b>Jenna Lee:</b> Drivers of temporal co-occurrence patterns and microeukaryote community dynamics in a multispecies diatom bloom	<b>Joseph Zhang:</b> A 25-year reanalysis of compound flooding hazard in US east and Gulf coast	<b>Harry Wang, Breanna Maldonado, Derek Loftis, et al.:</b> Three-dimensional, non-tidal three-layered circulation in Baltimore Harbor – Insights into harbor-bay exchange
11:00 AM	<b>2. Conor Keitzer, Katie May Laumann, Sidney Anderson, et al.:</b> Assessing and communicating climate resilience at the community-level in Maryland	<b>William F. Schroer, Shaochen Fan, Sarah P. Preheim:</b> Quantitative sequencing coupled with dilution experiments reveals taxa specific growth and mortality rates in aquatic microbial communities	<b>HaoCheng Yu, Lars Nerger, Fei Ye, et al.:</b> Elevation skill enhancement from an efficient ensemble-based assimilation method in a large application STOFs-3D-Atlantic	<b>Rebecca Hale, Megan Stallard, Katrina Lohan et al.:</b> Combining incubations, sensors, and molecular approaches to understand E. coli sources across the Anacostia Watershed
11:15 AM	<b>3. Jaline McPherson:</b> Cultivating Canopies: Artistic Approaches to Community-Based Forestry	<b>Alex Flynn, Dr. Isabel Baker, Dr. William Schroer, et al.:</b> Characterizing Microbial Communities of Baltimore Harbor's Pistachio Tide	<b>Jon Derek Loftis:</b> Hydrodynamic Modeling of Compound Flooding During 2016 Hurricane Matthew: Then, Now, and Storms Like It In The Future	<b>Patrick Bitterman:</b> Leveraging CHANS Science for Chesapeake Bay Restoration: Findings from a 2026 State of the Science Workshop
11:30 AM	<b>4. Michele Romolini:</b> Network Brokers to Facilitate Knowledge Coproduction in Community Forestry: Implementing Maryland's 5 Million Tree Initiative in Baltimore	<b>Sairah Malkin, Emily Brownlee, Alex Burns, et al.:</b> Weekly eDNA Monitoring Captures Multi-Trophic Seasonal Dynamics and Emerging Interannual Variability: 125 Weeks from the PhytoChop Observatory	<b>Zanko Zandsalimi, Mehdi Taghizadeh, Majid Shafiee-Jood, et al.:</b> Explicit Interdomain Learning of Rainfall-Tide Coupling for Compound Flood Forecasting Using Graph Neural Networks	<b>Amalia Deloney:</b> The Amphibious Council: Experiential Futures and More-Than-Human Governance in the Baltimore Harbor
11:45 AM	<b>5. Emily Eisenhauer, Katie See:</b> Technical Assistance to Brownfields Communities	<b>Katrina M Pagenkopp Lohan, Emma M. Palmer, Calli Wise, et al.:</b> Hidden Connections: Uncovering Complex Trophic Networks Through DNA Metabarcoding	<b>Hyungju Yoo, Y. Joseph Zhang, Zhengui Wang, et al.:</b> Enhancing Thermal Process Representation in Intertidal Areas through Soil-Air-Water Heat Exchange: A Case Study of Charleston Harbor	<b>Patrick Bitterman, Jason Yoo:</b> A Novel Integrated Framework for Simulating BMP Prioritization and Governance Dynamics in the Chesapeake Bay Watershed
12:00 PM			<b>Jon Derek Loftis, Yash Kishor Sanap, Sridhar Katragadda, et al.:</b> High-Precision River Stage Estimation via Passive Video Imagery Using Deep Learning and Image Segmentation	<b>Raj Cibin, Kalra Marali:</b> Impacts of a warming climate and increased land use changes on crop productivity and water quality: a case study in the Susquehanna River Basin
12:15 PM			<b>Jon Derek Loftis:</b> Spatial Evaluation of Flood Resilience Solutions Combining Real Time Water Level Sensors, Hydrodynamic Modeling, and High-Resolution Aerial Inundation Observations	<b>Farshad Hesamfar, Teresa Culver:</b> Assessing the social footprint of coastal groundwater variability under CMIP6 scenarios in Virginia's Eastern Shore
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