

# UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE

# COMMENCEMENT

MAY 29, 2020

# ORDER OF COMMENCEMENT

President Dr. Peter Goodwin presiding

WELCOME & GREETINGS	Dr. Peter Goodwin
President, Uni	iversity of Maryland Center for Environmental Science
REMARKS FROM THE GOVERNOR	The Honorable Lawrence Hogan, Jr.
GREETINGS FROM THE BOARD OF REGENTS	Regent Robert Rauch Board of Regents, University System of Maryland
GREETINGS FROM THE VICE CHANCELLOR	nior Vice Chancellor for Academic and Student Affairs University System of Maryland
PRESIDENT'S AWARD FOR OUTSTANDING RESEA	RCH SUPPORT
Janet Barnes Senior Faculty Research Assistant	Dr. Mario Tamburri Professor
OUTSTANDING FACULTY MENTOR AWARD	
Dr. Matthew Fitzpatrick Associate Professor	Claire Nemes Graduate Student
PRESIDENT'S AWARD FOR EXCELLENCE IN APPLICATION OF SCIENCE	
Dr. Michael Wilberg Professor	Dr. Peter Goodwin President
INTRODUCTION OF SPEAKER	Dr. Peter Goodwin
COMMENCEMENT ADDRESS	Lisa Palmer
National Geographic Visiting Professor of Science Communication George Washington University School of Media and Public Affairs	
GREETING TO GRADUATES Director, Marine	Dr. Timothy Canty Estuarine Environmental Sciences Graduate Proaram
PRESENTATION OF CANDIDATES FOR DEGREES Vice President for Education, Uni	iversity of Maryland Center for Environmental Science

CHARGE TO GRADUATES.....Dr. Peter Goodwin

### **KEYNOTE SPEAKER**

#### Lisa Palmer Science Journaiist



Award-winning environmental and science journalist Lisa Palmer joined the George Washington University School of Media and Public Affairs as the inaugural National Geographic Visiting Professor of Science Communication in January 2020. She mentors students in science communication and teaches courses in building compelling narratives around the science.

Palmer has an extensive background in science communications. She has spent the past four years working for the National Socio-Environmental Synthesis Center (SESYNC), serving as a senior fellow for Socio-Environmental Understanding where she writes about science, the environment, agriculture and sustainability.

Previously, she was a public policy scholar at the Woodrow Wilson Center in Washington, D.C., where she conducted research on global food security, resilience, and policies related to sustainable agriculture which resulted in her book "Hot, Hungry Planet: The Fight to Stop a Food Crisis in the Face of Climate Change," which chronicles her travels around the world and the urgent innovations needed to feed a growing population.

She has been a fellow at the Vermont Law School's Environmental Law Center, the Knight Center for Specialized Journalism, and a grantee of the Solutions Journalism Network. Her writing has been featured in The Guardian, the New Republic, Nature journals, Yale e360, Slate, The New York Times, Scientific American, and others.

In 2018, Palmer was awarded a Rockefeller Foundation Bellagio Center residency on science for development. She is a professional member of the Society of Environmental Journalists, the National Association of Science Writers, and the D.C. Science Writers Association. She is a graduate of Boston University and Simmons College in Boston. She lives in Maryland near the banks of the Severn River and her back yard borders a riparian forest that is a protected area for its sensitive streams and ponds that provide critical habitat for terrestrial wildlife species.

#### President's Award for Excellence in Application of Science

Professor Michael Wilberg



Dr. Michael Wilberg is professor in fisheries science at UMCES' Chesapeake Biological Laboratory, working on understanding population dynamics and management of a range of fish and shellfish species, including oysters and blue crabs. He is recognized for his ongoing and impactful efforts on the science and outstanding communication of oyster management with stakeholders, partners, and policymakers. He led the first Oyster Stock Assessment for the State of Maryland in more than 135 years, resulting in estimates of the abundance and level of sustainable exploitation to help guide policy on oyster management. He was also lead modeler for the OysterFutures research program, an experiment in consensus building and testing a new approach for making regulations and policies. He is recognized as an international expert on stock assessment and has served as technical adviser to the Mid-Atlantic Fishery Management Council, the International Whaling Commission, and South Africa in developing their fisheries management plans.

## **Outstanding Faculty Mentor Award**

Associate Professor Matthew Fitzpatrick



Dr. Matt Fitzpatrick, an Associate Professor at UMCES' Appalachian Laboratory, is a spatial ecologist studying the responses of ecosystems to global change. During his time at UMCES, Matt has made a clear mark as a mentor, making mentoring a priority within his lab and throughout the broader community. He often adopts "orphaned" students when their original advisors have had to leave UMCES, and he has also worked with and mentored students from neighboring Frostburg State University. He is broadly known around the Appalachian Laboratory to have an open- door policy for anyone on campus to discuss both science, as well as outside interests like astronomy and photography. He guides, while also allowing students to develop their own paths, supporting them "unreservedly in whatever their goals may be."

#### President's Award for Outstanding Research Support

Senior Faculty Research Assistant Janet Barnes



Janet Barnes, Senior Faculty Research Assistant, has been a mentor and a positive role model for UMCES' faculty research assistants, exhibiting long-term commitment to excellence, a genuine scientific curiosity, analytical thinking, and always going above and beyond with support of research and the UMCES community. She started at Chesapeake Biological Laboratory in summer of 1978 and was the first female mate on research vessel at UMCES. She helped start the Solomons Harbor Monitoring Project, worked with the National Science Foundation's Antarctic program coordinating logistics and science support, and led the Coastal and Estuarine Research Federation as Chief Operating Officer. She was brought on to help with the Alliance for Coastal Technologies and later the Marine Environment Resource Center to serve as research coordinator, where she does both hands-on science and management, coordinating with private sector and agencies to facilitate the development and adoption of green ship and green port innovations.

# PARTICIPATING GRADUATES

#### DOCTOR OF PHILOSOPHY

#### **Andrew Gougherty**

Marine Estuarine and Environmental Sciences/Environmental Science Integrating Genetic Information with Macroscale Models of Species' Distribution and Phenology: A Case Study with Balsam Poplar (*Populus balsamifera L*.) Adviser: Dr. Matthew Fitzpatrick, Appalachian Laboratory

#### **Ammar Hanif**

Marine Estuarine and Environmental Sciences/Environmental Molecular Biology and Biotechnology Diet and Stomach Microbiota of Juvenile Menhaden, a Key Forage Filter Feeding Fish Species Adviser: Dr. Rosemary Jagus, Institute of Marine and Environmental Technology

#### **Katherine Hornick**

Marine Estuarine and Environmental Sciences/Ecological Systems Population Genetics of Eastern Oyster *Crassostrea virginica* Restoration in the Chesapeake Bay Adviser: Dr. Louis Plough

#### **Hadley McIntosh Marcek**

Marine Estuarine and Environmental Sciences/Chemistry Year-round Determination of Methane (CH4) Sources and Sinks in Arctic Lakes Using Continuous and Autonomous Sampling Adviser: Dr. Laura Lapham, Chesapeake Biological Laboratory

#### **Aimee Renee Neeley**

Marine Estuarine and Environmental Sciences/Biological Oceanography An Evaluation of Methods for Measuring Phytoplankton and Ecosystem Status in the Chukchi Sea Adviser: Dr. Lora Harris, Chesapeake Biological Laboratory

#### Wenfei Ni

Marine Estuarine and Environmental Sciences/Oceanography The Long-term Change of Chesapeake Bay Hypoxia: Impacts of Eutrophication, Nutrient Management and Climate Change Adviser: Dr. Ming Li, Horn Point Laboratory

#### Wencheng Katherine Liu Slater

Marine Estuarine and Environmental Sciences/Oceanography Surviving the Dead Zone: Interactions Among Jellyfish, Copepod, and Fish in the Chesapeake Bay Adviser: Dr. James Pierson, Horn Point Laboratory

#### Vanessa Vargas Nguyen

Marine Estuarine and Environmental Sciences/Environment and Society The Role of Socio-environmental Report Cards in Transdisciplinary Collaboration and Adaptive Governance for a Sustainable Future Adviser: Dr. William Dennison, Horn Point Laboratory

#### MASTER OF SCIENCE

#### Stephanie Barletta

Marine Estuarine and Environmental Sciences/Environmental Science Spatial and Temporal Variability in Suspended Sediment Characteristics in the Surface Layer Of The Upper Chesapeake Bay Adviser: Dr. Lawrence Sanford, Horn Point Laboratory

#### Nicole Basenback

Marine Estuarine and Environmental Sciences/Earth and Ocean Systems Phenology of Estuarine Response to Anthropogenic and Climate Drivers, a Study of the Chesapeake Bay and Chester River Estuaries Adviser: Dr. Jeremy Testa, Chesapeake Biological Laboratory

#### **Mathew Biddle**

Marine Estuarine and Environmental Sciences/Physical Oceanography Modeling Impacts of Submersed Aquatic Vegetation on Sediment Dynamics Under Storm Conditions in the Upper Chesapeake Bay Advisers: Dr. Cindy Palinkas and Dr. Lawrence Sanford, Horn Point Laboratory

#### Edward Andrew Hobbs Jr.

Marine Estuarine and Environmental Sciences/Earth and Ocean Systems Investigating Controls on Nitrous Oxide Distributions and Air-sea Flux in Shallow Tidal Waters Using an Efficient, Non-toxic Sampling Method Adviser: Dr. Jeremy Testa, Chesapeake Biological Laboratory

#### **Ella Rothermel**

Marine Estuarine and Environmental Sciences/Ecological Systems Seasonal Migrations of Atlantic Sturgeon and Striped Bass through the Maryland Wind Energy Area Adviser: Dr. David Secor, Chesapeake Biological Laboratory

#### Jessie Todd Long

Marine Estuarine and Environmental Sciences/Ecological Systems Evaluating Substrate Rehabilitation Techniques for Bottom Culture of the Eastern Oyster (*Crassostrea Virginica*) In Chesapeake Bay Adviser: Dr. Jeffrey Cornwell, Horn Point Laboratory

#### Alana Todd-Rodriguez

Marine Estuarine and Environmental Sciences/Environment and Society Co-Producing Environmental Knowledge with Community Stakeholders Advisers: Dr. Michael Paolisso, UMCP, and Dr. William Dennison, Horn Point Laboratory

#### **Caroline Wiernicki**

Marine Estuarine and Environmental Sciences/Ecological Systems The Effects of Summer Storm Events as Disturbance on the Movement Behaviors of Black Sea Bass in the Southern Mid-Atlantic Bight Adviser: Dr. David Secor, Chesapeake Biological Laboratory

# GRADUATES 2019-20

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Marine Estuarine and Environmental Sciences/ Environmental Molecular Biology and Biotechnology

Diet and Stomach Microbiota of Juvenile Menhaden, a Key Forage Filter Feeding Fish Species Adviser: Dr. Rosemary Jagus, Institute of Marine and Environmental Technology

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#### **Gregory Ziegler**

Marine Estuarine and Environmental Sciences/ Environmental Science Algal Toxicity and Formation of Halogenated Organic Compounds in Ballast Water after Oxidative Treatment Adviser: Dr. Mario Tamburri, Chesapeake Biological Laboratory

#### MASTER OF SCIENCE

#### **Stephanie Barletta**

Marine Estuarine and Environmental Sciences/ Environmental Science Spatial and Temporal Variability in Suspended Sediment Characteristics in the Surface Layer of the Upper Chesapeake Bay Adviser: Dr. Lawrence Sanford, Horn Point Laboratory

#### **Nicole Basenback**

Marine Estuarine and Environmental Sciences/ Earth and Ocean Systems Phenology of Estuarine Response to Anthropogenic and Climate Drivers, a Study of the Chesapeake Bay

and Chester River Estuaries Adviser: Dr. Jeremy Testa, Chesapeake Biological

Laboratory

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Marine Estuarine and Environmental Sciences/ Physical Oceanography

Modeling Impacts of Submersed Aquatic Vegetation on Sediment Dynamics Under Storm Conditions in the Upper Chesapeake Bay

Advisers: Drs. Cindy Palinkas and Lawrence Sanford, Horn Point Laboratory

#### **Thomas Butler**

Marine Estuarine and Environmental Sciences/ Ecological Systems

Assessing the Impacts of Non-point Source Freshwater and Nutrient Inputs on a Shallow Coastal Estuary Adviser: Dr. Raleigh Hood, Horn Point Laboratory

#### Samantha Gleich

Marine Estuarine and Environmental Sciences/ Earth and Ocean Systems Nutrient Effects on Phytoplankton Community Composition in the Eutrophic Anacostia River and a Focus on Diatom Physiology Adviser: Dr. Patricia Glibert, Horn Point Laboratory

#### **Zachary Gotthardt**

Marine Estuarine and Environmental Sciences/ Ecology Quantifying the Ecosystem Metabolism of a Eutrophic Estuary as a Consequence of Engineered Destratification Adviser: Dr. Lora Harris, Chesapeake Biological Laboratory Edward Andrew Hobbs Jr.

Marine Estuarine and Environmental Sciences/ Earth and Ocean Systems Investigating Controls on Nitrous Oxide Distributions and Air-sea Flux in Shallow Tidal Waters Using an Efficient, Non-toxic Sampling Method Adviser: Dr. Jeremy Testa, Chesapeake Biological Laboratory

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The University of Maryland Center for Environmental Science leads the way toward better management of Maryland's natural resources and the protection and restoration of the Chesapeake Bay. From a network of laboratories located across the state, UMCES scientists provide sound evidence and advice to help state and national leaders manage the environment, and prepare future scientists to meet the global challenges of the 21st century.