90 YEARS OF INNOVATION

The University of Maryland Center for Environmental Science celebrates 90 years of solving problems that face our natural environment, in the Chesapeake Bay and around the world, while educating the scientists of tomorrow. From a network of laboratories—from the Appalachian Mountains to the heart of Baltimore to the Atlantic Ocean—we have set the pace of scientific research on the Chesapeake Bay and made vital contributions toward protecting and improving Maryland's environment, conserving its natural resources, and helping to achieve national eminence for the University System of Maryland. Our renowned faculty have been at the core of understanding the changes in the Chesapeake Bay and what we can do to reverse those negative changes. We continue our work to advise our local and national leaders on how to achieve effective environmental policy and natural resource management, and we train the next generation of scientists—graduate students who work shoulder-to-shoulder with our faculty members to be the next scientifically trained environmental stewards.

Innovation for a better future

University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE

UNIVERSITY OF MARYLAND
CENTER FOR ENVIRONMENTAL SCIENCE

COMMENCEMENT

MAY 10, 2016

KEYNOTE SPEAKER

Benjamin H. Grumbles was confirmed as Secretary of the Maryland Department of the Environment by the Maryland State Senate on March 6, 2015. He had been nominated by Governor Larry Hogan in January 2015 to lead MDE. Prior to that, he was President of the U.S. Water Alliance, a Washington-based environmental nonprofit organization that educates the public on the value of water and the need for integrated and innovative solutions. Secretary Grumbles has served as the Presidentially-appointed, Senate-confirmed Assistant Administrator for Water at the U.S. Environmental Protection Agency, as the Senate-confirmed Director of Arizona's Department of Environmental Quality and as Environmental Counsel and Senior Staff Member on the Transportation and Infrastructure Committee and the Science Committee in the U.S. House of Representatives. Secretary Grumbles has broad experience in energy, climate, air, waste and agricultural policy and regulation. He's a member of the National Academy of Science's Water Science and Technology Board and a frequent lecturer and analyst on environmental law and policy. He has a master's degree in environmental law from George Washington University, a J.D. from Emory University School of Law, and a bachelor's degree from Wake Forest University. He is one of Baltimore's newest residents but has lived in the Chesapeake Bay watershed, with his wife and children, over the last 30 years.

PARTICIPATING GRADUATES

Alex Atkinson
Marine Estuarine Environmental Sciences/Fisheries
Influence of environmental conditions on the age, hatch dates, and growth of juvenile Atlantic menhaden in the Choptank River, MD
Adviser: Dr. David Secor, Chesapeake Biological Laboratory

Vanessa Cunningham
Marine Estuarine Environmental Sciences/Ecology
Assessing the influence of abiotic factors and leaf-level properties on the stability of growing-season canopy greenness in a deciduous forest
Advisers: Drs. Andrew Elmore and David Nelson, Appalachian Laboratory

Cassie Gurbisz
Marine Estuarine Environmental Sciences/Environmental Science
Dynamics of a large submersed plant bed in upper Chesapeake Bay
Adviser: Dr. Michael Kemp, Horn Point Laboratory

Cara Simpson
Marine Estuarine Environmental Sciences/Fisheries
Temporal and spatial dynamics of larval Atlantic menhaden on the U.S. East Coast
Advisers: Drs. Michael Wilberg and Hongsheng Bi, Chesapeake Biological Laboratory

Lori Staver
Marine Estuarine Environmental Sciences/Environmental Science
Ecosystem dynamics in tidal marshes constructed with fine grained, nutrient rich dredged material
Adviser: Dr. Court Stevenson, Horn Point Laboratory

Lindsay Tempinson
Marine Estuarine Environmental Sciences/Environmental Science
Developing numeric nutrient criteria for streams on the Delmarva peninsula
Adviser: Dr. Thomas Fisher, Horn Point Laboratory

GRADUATES 2015-16

DOCTOR OF PHILOSOPHY

Jacob Goodwin
Marine Estuarine Environmental Sciences/Oceanography
Integrating automated imaging and a novel identification technique to estimate mortality and factors that cue swimming behavior of C. virginica larvae
Adviser: Dr. Elizabeth North, Horn Point Laboratory

Cassie Gurbisz
Marine Estuarine Environmental Sciences/Environmental Science
Dynamics of a large submersed plant bed in upper Chesapeake Bay
Adviser: Dr. Michael Kemp, Horn Point Laboratory

Jacob Hosen
Behavior, Ecology, Evolution, and Systematics
Alterations to headwater stream microbial communities and carbon cycling in response to environmental change
Adviser: Dr. Margaret Palmer, Chesapeake Biological Laboratory

Lori Staver
Marine Estuarine Environmental Sciences/Environmental Science
Ecosystem dynamics in tidal marshes constructed with fine grained, nutrient rich dredged material
Adviser: Dr. Court Stevenson, Horn Point Laboratory

Roy Weitzell
Marine Estuarine Environmental Sciences/Environmental Science
Cumulative impacts of stream burial on network structure and functional connectivity in headwater stream systems
Adviser: Dr. Andrew Elmore, Appalachian Laboratory

MASTER OF SCIENCE

Alex Atkinson
Marine Estuarine Environmental Sciences/Fisheries
Influence of environmental conditions on the age, hatch dates, and growth of juvenile Atlantic menhaden in the Choptank River, MD
Adviser: Dr. David Secor, Chesapeake Biological Laboratory

Caroline Coulter
Marine Estuarine Environmental Sciences/Chemistry
Monitoring levels of dissolved methane and metals in Maryland streams overlying the Marcellus Shale prior to hydraulic fracturing
Advisers: Drs. Johan Schijf and Andrew Heyes, Chesapeake Biological Laboratory

Vanessa Cunningham
Marine Estuarine Environmental Sciences/Ecology
Assessing the influence of abiotic factors and leaf-level properties on the stability of growing-season canopy greenness in a deciduous forest
Advisers: Drs. Andrew Elmore and David Nelson, Appalachian Laboratory

Steven Epting
Marine Estuarine Environmental Sciences/Environmental Science
Using landscape metrics to predict hydrologic connectivity patterns between forested wetlands and streams in a coastal plain watershed
Adviser: Dr. Margaret Palmer, Chesapeake Biological Laboratory

Cara Simpson
Marine Estuarine Environmental Sciences/Fisheries
Temporal and spatial dynamics of larval Atlantic menhaden on the U.S. East Coast
Advisers: Drs. Michael Wilberg and Hongsheng Bi, Chesapeake Biological Laboratory

Matthew Siskey
Marine Estuarine Environmental Sciences/Fisheries
Historical effects of fishing on age structure and stock mixing in Northwest Atlantic bluefin tuna
Adviser: Dr. David Secor, Chesapeake Biological Laboratory

Jason Spires
Marine Estuaririne Environmental Sciences/Fisheries
The exchange of Eastern oyster (Crassostrea virginica) larvae between subpopulations in the Choptank and the Little Choptank Rivers: Model simulations, the influence of salinity, and implications for restoration
Adviser: Dr. Elizabeth North, Horn Point Laboratory

Lindsay Tempinson
Marine Estuarine Environmental Sciences/Environmental Science
Developing numeric nutrient criteria for streams on the Delmarva peninsula
Adviser: Dr. Thomas Fisher, Horn Point Laboratory

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COMMENCEMENT
MAY 10, 2016

President Dr. Donald F. Boesch presiding

WELCOME AND REMARKS.....PRESIDENT BOESCH

INTRODUCTION OF KEYNOTE SPEAKER.....DR. THOMAS MILLER
Professor and Director, Chesapeake Biological Laboratory

COMMENCEMENT ADDRESS.....HON. BENJAMIN H. GRUMBLES
Secretary, Maryland Department of the Environment

GREETINGS TO GRADUATES.....DR. KENNEDY PAYNTER
Director, Marine Estuarine
Environmental Sciences Graduate Program

PRESENTATION OF
CANDIDATES FOR DEGREES.....DR. EDWARD HOUDE
Vice President for Education

CONFERRAL OF DEGREES.....PRESIDENT BOESCH