THE UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE –
Horn Point Laboratory

APRIL 2021

Research Highlights: Resilience, Innovation and Predictions

UMCES: Scientific Advice for Environmental Management

We invite you to take a moment to review the important work the University of Maryland Center for Environmental Science (UMCES) accomplished in 2020. The Horn Point Laboratory's contributions are widespread and contribute to the quality of life for all Marylanders. UMCES has a unique statutory mandate to conduct a comprehensive scientific program and apply predictive ecology for the improvement and preservation of Maryland's physical environment. This mission is accomplished through research, education, and public service.

FULL REPORT

NSF Award to Help Understand Ocean Ecology Where the Chesapeake Bay and the Atlantic Meet

The National Science Foundation has awarded $1 million to a team of researchers at the University of Maryland Center for Environmental Science (UMCES) to study how the nutrient plume of the nation's largest estuary, the Chesapeake Bay, changes over the course of the year and what those changes mean for food webs and nutrient cycles in the coastal Atlantic Ocean. HPL Professor Ming Li, will create a computer model of the water moving to predict how wind, waves and tides

affect the size, shape and location of the plume. This knowledge is imperative to accurately update estuary-ocean food web models for long-term shifts in regional climate and the changing frequency and severity of extreme weather events in many regions.
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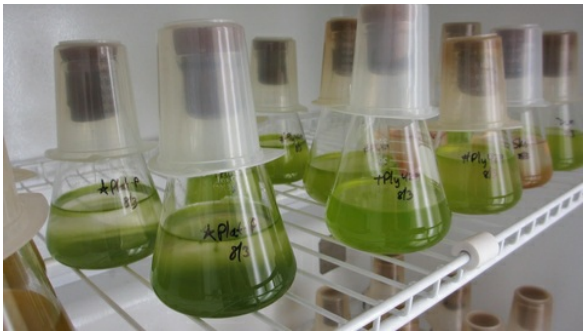
"At Long Last: The Choptank Promising Vital Signs with Horn Point's Tom Fisher" An interview with Spy Editor Dave Wheelan

For a countless number of painful years, Tom Fisher, now professor emeritus at the Horn Point Laboratory, didn't have much good to say about the Choptank River's ecological health. Year after year, Fisher would need to share increasingly alarming news about the Choptank's vital signs and its devastating impact on the Chesapeake Bay's ecosystem. It was not a pretty story. But that didn't stop Tom. Tom explains why for the first time in decades there is encouraging news!

Creating a Full Course Meal for Oyster Larvae



Oyster larvae at the Horn Point Laboratory's hatchery receive a gourmet selection of algae, both flagellates and diatoms, grown in house, to aid in their growth and survival in their early stages of life. Their specially curated diet by hatchery employees gives larvae the best possible chance at growing into its final oyster form and Horn Point's Hatchery has it down to a science.
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In Chesapeake oysters' future: underwater drones, shellfish barges?

Using a video game controller, University of Maryland research fellow Randy Ganye pilots "underwater autonomous

Working with a $10 million grant from the National Institute of Food and Agriculture, a group of researchers from the University System of Maryland and other institutions on the Gulf and West coasts is developing a submersible drone that could increase the efficiency of planting and harvesting oysters on the Bay's bottom. Matt Gray, an assistant

vehicle," or drone, around tank at UMCES' Horn Point lab.Watching the action are UM fellow Behzad Sadrfaridpour, UMCES Assistant Professor Matt Gray and UMCES graduate student Laura Wiltsee.
Photo by: Dave Harp

professor at Horn Point, said the initial tryout went well. “We’re just getting started,” he said. The goal, he explained, is to perfect machine learning algorithms that can enable the device to analyze what its sensors pick up and quickly distinguish between live and dead oysters.
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FACULTY, STUDENT and ALUMNI

IMANI BLACK: Changing the Face of Marine Science

Former oyster farmer and college athlete, Imani Black is now a Faculty Research Assistant (FRA) at the Horn Point Laboratory and is working to bring minorities to aquaculture. In 2020 Imani started Minorities In Aquaculture (MIA), a nonprofit whose mission is to identify, mentor and support other women of color who are interested in the commercial aquaculture industry. In the fall of 2021, Black hopes to enter the Marine Estuarine Environmental Sciences (MEES) graduate program to start her graduate studies at the Horn Point Lab. Mike Roman, lab director, said, “"We are delighted that Imani is part of our Horn Point community and look forward to helping in her career training".

READ MORE
LISTEN TO AN INTERVIEW WITH IMANI ON WHCP RADIO

SHANNON HOOD: Extension Specialist and HPL-PhD Student

Shannon Hood grew up on Kent Island and though her education and outdoor adventures took her around the world she knew she wanted to return to the Eastern Shore for a career that would focus on the ecology of the outdoor environment as well as the culture of the seafood industry. Shannon came to Horn Point in 2015 and started working in the oyster hatchery. She is now working towards completing her PhD while managing the aquaculture demonstration facility at Horn Point. A Maryland Sea Grant Extension Specialist, Shannon is part of a team that helps oyster farmers run their operations more effectively by exploring new technologies and techniques.
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Ryan Saba Memorial Student Fellowship 2021 Award Presented

Friday, April 16 a group gathered virtually to celebrate Ryan and his boundless joy and enthusiasm for life by presenting the 7th Ryan Saba Memorial Student Fellowship award.

Many of you were able to join the presentation. Several past fellows shared their story of where they are today and how Ryan's Fellowship helped them achieve personal success.

This year's recipient is Sophia (So Hyun) Ahn.

Earth Day 2021

Thursday, April 22: Celebrating Earth Day, members of the Horn Point Lab Community recycled thousands of pounds of electronics and metal. A dedicated crew of faculty, students and staff, collected trash from the ditches on roads bordering the campus. Spade, the campus dog, acted as Chief Supervisor.

Out and ABOUT: HPL Faculty sharing their knowledge

The Magic of Plankton

Jamie Pierson, associate professor, shared a talk with the Natural History Society of Maryland, "Born to Float Alone: The Natural History of Plankton". **Watch the recording**

CNN Town Hall meeting

Friday, April 23: CNN hosted a Climate Crisis Town Hall with Biden administration officials to discuss the remaking of US climate policy. Assistant Professor, Matt Gray, was invited to share his question with the panel.
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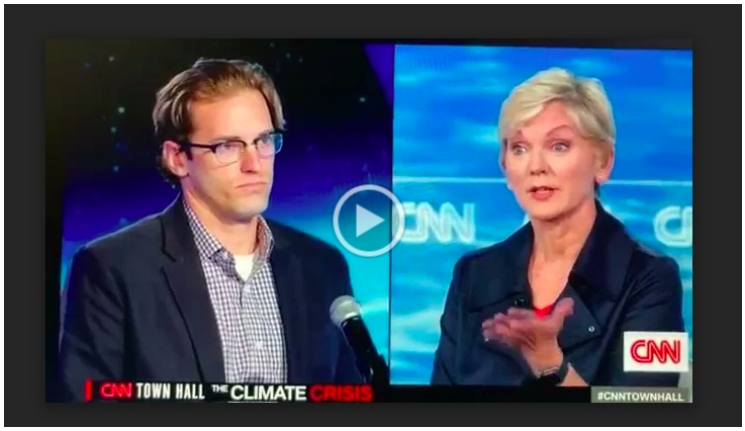

Victoria Coles in BBC news

Thursday, April 22: Covering the White House Earth Day Climate Summit, BBC News interviewed experts from around the world and across generations.
Speaking as a scientific expert, HPL Associate Professor, Victoria Coles, shared her thoughts on "What do Americans think about Biden's new pledge?", part of the full story, "As it happened: New US emissions target hailed as a "game changer."
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Wish List: Outboard Motor

Much of HPL's field research depends on faculty and students getting out on the water. HPL's small craft outboard must be replaced. Due to budget cutbacks replacing is not an option this year. A 250 hp outboard, in good working order, is needed. Please spread the word or consider making a donation if you have one no

longer needed or being replaced.
For more information contact
Jeff Miley

EVENTS: Growing Engagement and Education

Horn Point is pleased to continue hosting scientific conversations with our Spring Seminar Series.
Free, Virtual on Wednesdays at 11:00 AM
Register HERE and receive Zoom invitations and reminders

May 5: **20,000 year history of the Choptank River**
Doug Levin, Washington College

May 19: **Fate of trace organic contaminants in urban stormwater green infrastructure**
Dr. Elodie Passeport, University of Toronto

Commencement 2021

Join us for a virtual commencement ceremony on Thursday, May 27, 2021, at 1 p.m.

Featuring
the conferral of master's and doctorate degrees,
distinguished speakers and university awards,
and keynote speaker,

The Honorable Benjamin L. Cardin
U.S. Senator from Maryland.

RSVP to receive link to virtual ceremony

Give Now

Located in Cambridge, MD, Horn Point Laboratory is part of the University of Maryland Center for Environmental Science -- a fully-accredited graduate school and research facility conducting environmental research on a variety of ecosystems spanning from the estuarine waters of the Chesapeake Bay to the open waters of the world's oceans. Horn Point is a national leader in applying environmental research and discovery to solve society's most pressing environmental problems.

VISIT OUR WEBSITE

UMCES/HPL remains closed to the public until further notice. We look forward to sharing time with you on campus as soon as it is safe and possible. Until then, please stay safe and follow us on facebook

University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE
HORN POINT LABORATORY