NOVEMBER 2023

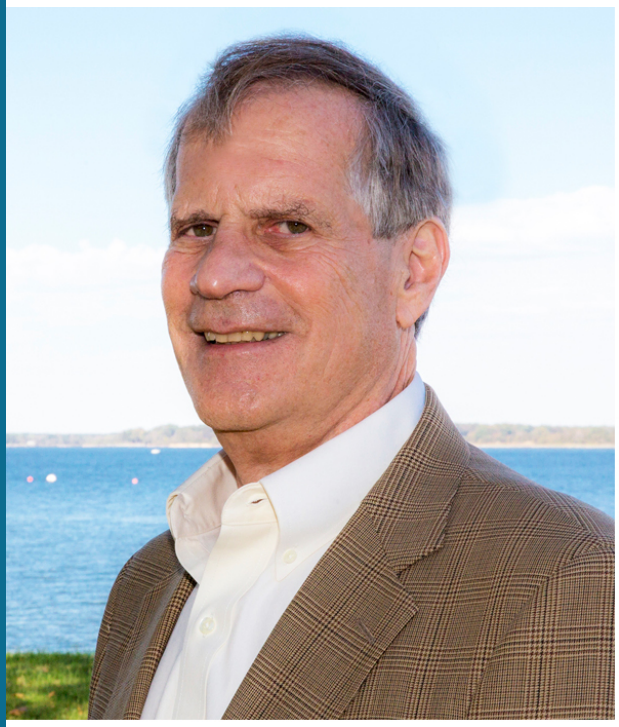
ENVIRONMENTAL INSIGHTS

NEWS FROM THE UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE

NOAA award funds project that could help oceans mitigate climate change

A nearly $2 million award from NOAA will support a three-year project led by the University of Maryland Center for Environmental Science to explore how existing infrastructure like wastewater treatment plants could be used to help mitigate global warming. Oceans absorb about a third of carbon dioxide generated by human activities on our planet, helping to slow climate change, but the oceans are also becoming more acidic as a result, with impacts ranging from dying corals to struggling fisheries. This project will investigate how changing the chemistry of the wastewater using a technique called *ocean alkalinity enhancement* could help remove carbon dioxide from the atmosphere and counteract deleterious impacts of ocean acidification on the marine ecosystem.

"When you make water more alkaline, changes in chemistry convert the dissolved carbon dioxide in the water into bicarbonate, a form of the inorganic carbon similar to baking soda dissolved in water," said **Jeremy Testa**, UMCES Associate Professor. "The effect is that there is less dissolved carbon dioxide in the water, meaning the ocean can take more carbon dioxide up from the atmosphere. **MORE**

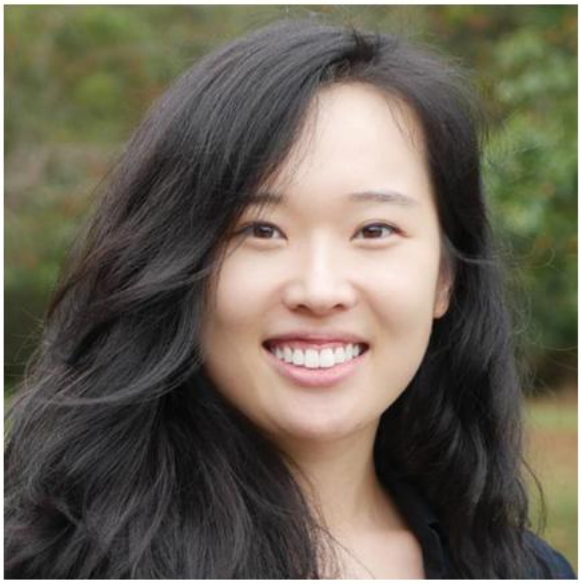


New faces and fond farewells on UMCES' Board of Visitors

Gary Epstein steps into the role of UMCES Board of Visitors Chair, as we bid farewell to former chair Charlie Monk and welcome new member Crystal Upperman.

"We thank Charlie for his commitment to UMCES and the Chesapeake Bay. He led the organization through a leadership change in 2016—first in 26 years—and we will always be grateful for his calm, steady counsel that brought us to the strong place we are today," said **Bill Dennison**, UMCES Interim President. "Gary has been deeply engaged as a member of our Board of Visitors since 2017, and I am excited that he is our new chair."

"Crystal brings an incredible depth of understanding around climate change, equity, and business with an interdisciplinary mindset across various sectors to UMCES's Board of Visitors," said Dennison. **MORE**



UMCES Ph.D. candidates named finalists for 2024 Knauss Policy Fellowship Program

Paulina Huanca-Valenzuela (pictured left) and Carol Kim (right), as part of the 45th Knauss Fellowship class, will serve a year-long fellowship in the legislative or executive branch of the federal government in Washington, D.C.

"I'm excited to have been selected as a Knauss Sea Grant Fellow and given this amazing opportunity to work as a NOAA Ocean Exploration Policy Fellow in the upcoming year," said Kim. "This fellowship will allow me to gain exposure to the policy and decision-making process as well as build long-term relationships with an extensive network of people."

Huanca-Valenzuela echoed that sentiment. "The Knauss Fellowship constitutes an incredible opportunity to continue developing my professional career," she said. "As a Knauss Fellow, I will work in the NOAA Communications office. I am excited about the future and about this new professional challenge." **MORE**

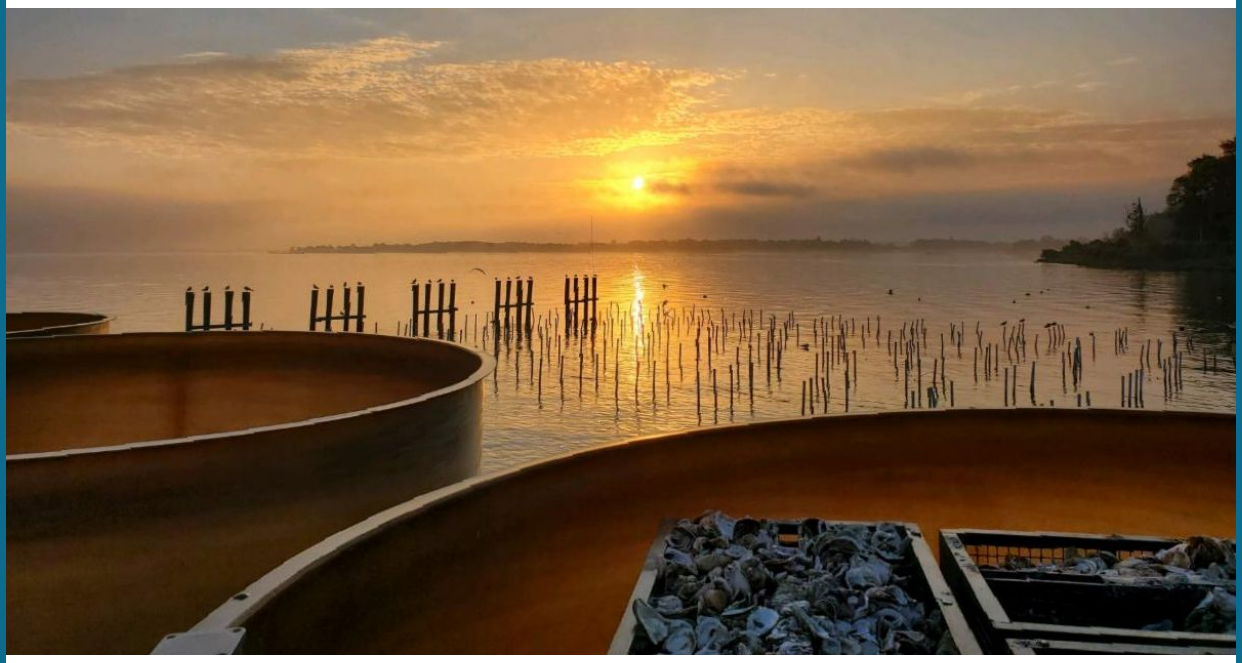
A Passion for Oysters, a *Bay Journal* film

In the fall of 2023,*A Passion for Oysters*—a film focused on Maryland's bay-wide oyster picture with its farms, free-range watermen and the world's biggest oyster sanctuaries—was released. In addition to being tasty, these gems of the ocean cleanse polluted waters, provide habitats for marine creatures and barriers to storms, prevent erosion and protect estuary waters; and yet they are one of the world's most depleted ecosystems. To that end, Maryland scientists and environmentalists strive to save the oysters and related commerce. The film features interviews with UMCES' Hatchery Manager Stephanie Alexander (12:30) and Professors Matt Gray (21:30) and Mike Wilberg (6:45 & 11:09). **MORE**

Study to explore new low-oxygen zones impacting the nation's richest fisheries

More than $1.4 million has been awarded to UMCES to study a newly recognized form of coastal hypoxia—or low-oxygen zones—found on the West Florida Shelf, home to one of the nation's most diverse and productive fisheries.
The study will be led by Horn Point Laboratory Professor Ming Li, along

with Professors Patricia Glibert and Elizabeth North, and Cynthia Heil who is a senior scientist and director of Mote Marine Laboratory's Red Tide Institute in Florida. This research is part of NOAA's $20M project geared towards the study of harmful algal blooms (HABs) and hypoxia research projects and monitoring activities throughout U.S. coastal and Great Lakes waters. **MORE**



UMCES IN THE NEWS

Are you ready to swim in Baltimore's harbor? (WYPR)

Healthy Harbor members swim in Inner Harbor, invite people to join next year (SouthBmore)

Environmental groups concerned by upcoming construction along Herring Run in NE Baltimore (Baltimore Sun)

Maryland sets record for oyster planting (Bay Journal)

Warming waters bring new 'tropical visitors' to the Bay (The BayNet)

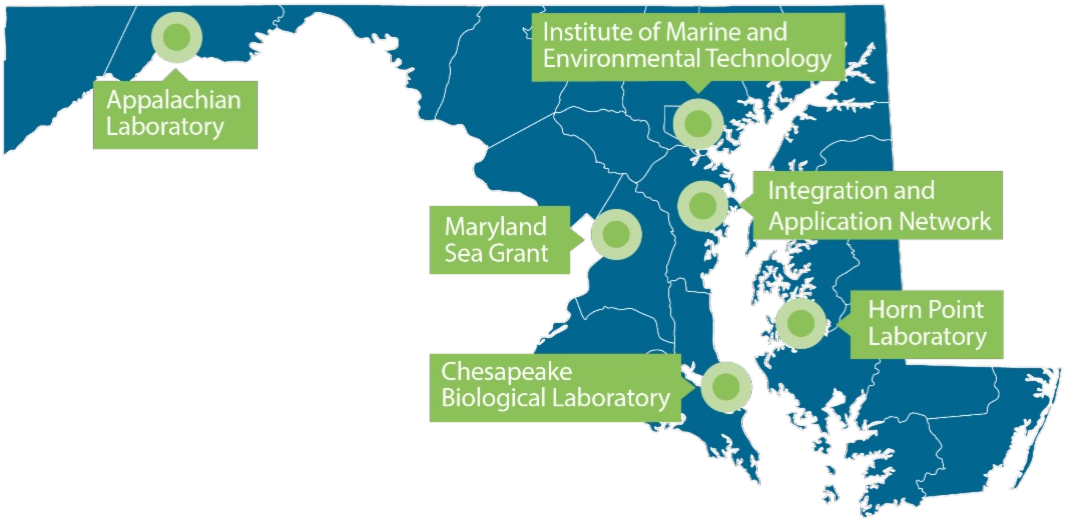
Health of Maryland coastal bays shows slight improvement in latest report card (OC Today)

Gov. Moore announces new annual record for Chesapeake Bay oyster planting (Office of Gov. Wes Moore)

Local scientist impacts arctic research: Gray whale die-offs driven by food supply swings as a result of arctic changing conditions (The BayNet)

SHARE THE SCIENCE BEHIND THE NEWS

Sign up for the Environmental Insights newsletter **HERE**.



SUPPORT SCIENCE

Your tax-deductible gift will help us continue unbiased scientific research and the education of the next generation of science leaders. **DONATE**

University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE

Appalachian Laboratory - Chesapeake Biological Laboratory

Horn Point Laboratory - Institute of Marine and Environmental Technology

Integration and Application Network - Maryland Sea Grant

AN INSTITUTION OF THE UNIVERSITY SYSTEM OF MARYLAND

University of Maryland Center for Environmental Science | umces.edu

University of Maryland Center for Environmental Science | 2020 Horns Point Road, Cambridge, MD 21613