

# ENVIRONMENTAL INSIGHTS

NEWS FROM THE UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE

**SCIENCE IN THE TIME OF COVID-19:** While UMCES researchers have had to limit what can be done to respect social distancing and State guidelines, they continue to produce important work, as seen in these highlights.



## **USM Board of Regents honors Monica Gellene and Amy Griffin with Staff Awards**

Two University of Maryland Center for Environmental Science staff members--Monica Gellene, associate director of administration at the Institute of Marine and Environmental Technology, and Amy Griffin, assistant to the vice president for education--have received the University System of Maryland's prestigious 2019-2020 USM Board of Regents Staff Award.

"This year, there were nine winners selected from only four USM institutions, and we are proud that two of them are from UMCES, proving that we are small but mighty and our staff is unparalleled in their commitment to UMCES' collegial environment, expertise, and service," said University of Maryland Center for Environmental Science President Peter Goodwin.

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## **Environmental entrepreneurship program sets up students for success in business**

Created to help young scientists cultivate leadership and business skills necessary to bring their research into commercial markets, the Ratcliffe Environmental Entrepreneurship Fellowship provides students with an appreciation of the potential business implications of their research. The program helps build skills that are often overlooked in the science field, such as intellectual property, budgeting, marketing and strategic communication, and idea pitching, and puts students in front of local business leaders to learn the ropes first hand.

Startups launched by students include Minnowtech, an aquaculture technology company that enables shrimp farmers to image shrimp abundance, and Manta Biofuels, a company that grows and harvests algae to produce a renewable and carbon-neutral crude oil. Blueblood will offer a sustainable, year-round, high-quality supply of horseshoe crab blood for the biomedical industry, and the AlgenAir team has developed the world's first natural air purifier that uses algae to remove carbon dioxide from the air and produce oxygen while filtering dust and allergens.

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## Pat Glibert elected president of international society of marine researchers

Pat Glibert has been elected by her scientific peers as the incoming president of the Association for the Sciences of Limnology and Oceanography (ASLO), a professional society of researchers who study freshwater and marine waters around the world. A phytoplankton ecologist, she is internationally renowned in the field of marine ecological research,

particularly regarding the harmful effects of algal blooms and the effects of nutrient pollution on coastal marine ecosystems, such as the Chesapeake Bay.

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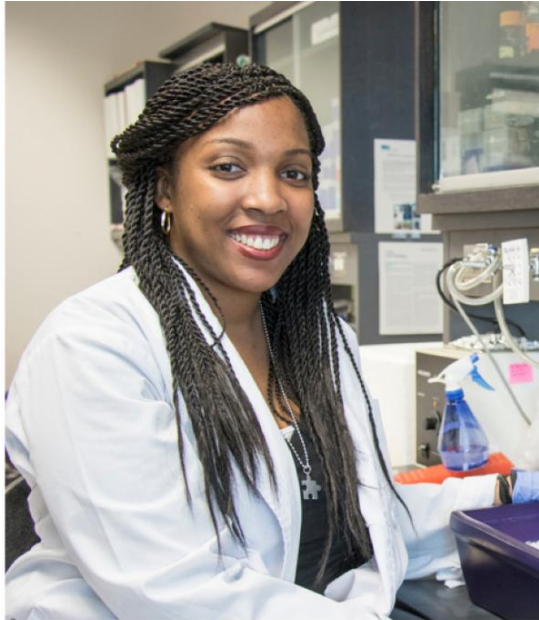
## Review of how fish hear could lead to better understanding of how fish are affected by sound disturbances in the ocean

A new literature review is the first of its kind to bring together a broad pool of studies of thousands of species of fish to help understand how fish hear. Increases in commercial development in the ocean, such as growing shipping channels and growing ocean infrastructure, increase ocean noise which may be having negative effects on fish populations, from affecting movement patterns to damaging their auditory structures.

"Our paper is the first attempt to look back at a diverse set of data and try to

pull valuable information from it that could be used to inform future management decisions in terms of fish's auditory abilities," said Caroline Wiernicki.

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### **Next Generation: Knauss Fellows will spend next year in Washington, D.C., learning about marine policy**

Two University of Maryland Center for Environmental Science graduate students, Shadaesha Green and Suzi Spitzer, have been named finalists of the John A. Knauss Marine Policy Fellowship program sponsored by Sea Grant and NOAA. They will join the 42nd class of the fellowship in 2021 and be placed in either the Executive or Legislative branches of government to work on coastal and marine science policy for one year.

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### **Don Boesch receives award for protection of natural resources**

The Renewable Natural Resources Foundation has awarded University of Maryland Center for Environmental Science President Emeritus Don Boesch with its 2020 Sustained Achievement Award for a long-term contribution and commitment to the conservation and protection of natural resources. During



more than 40 years of academic and scientific leadership, Boesch has been a champion for the importance of independent and unbiased science to inform landscape-scale policy and management actions, in coastal Louisiana, the Chesapeake Bay, and around the world.

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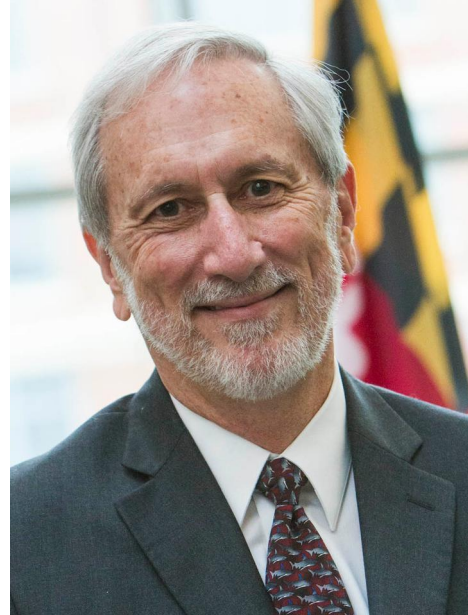


Photo by Brennan Jensen

## **Groundwater and the Chesapeake Bay**

Check out the latest issue of Maryland Sea Grant College's *Chesapeake Quarterly* magazine, featuring:

### **The case of the missing nitrogen**

Farmers in the Chesapeake Bay watershed are investing in putting best practices on the land to reduce nitrogen running off from the soil. Scientists have been trying to determine if reducing nitrogen runoff is fueling its appearance as a harmful gas. [MORE](#)

### **Detecting chemical clues**

Maryland has 420,000 septic systems, and each of them delivers about 23.2 pounds of nitrogen to the groundwater every year. Researchers are looking at where that nitrogen goes, and how to reduce it. [MORE](#)

### Ground game

The groundwater that feeds our population can also deliver to us unwanted elements: nitrogen from farm fields, wastewater plants, and septic tanks; saltwater intruding from increasing pumping that changes the water levels; and even pollutants from the air. How do we measure the problems and protect the water sources? [MORE](#)

### Keeping water freshwater fresh

A state panel is exploring ways to adapt to saltwater intrusion in wetlands, farms, and groundwater. [MORE](#)

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### UMCES IN THE NEWS

Baltimore's July heat wave set a nearly 150-year-old record. And 'it isn't going to get better' (Baltimore Sun)

Number of dolphins in the Bay on the rise this summer (The Star Democrat)

Aquafeeds from power plants? (The Fish Site)

Ballast water and biofouling: two sides of the same coin? (Riveria)

16.9 million baby oysters planted in Severn River (WTOP)

Heavy rains clobbered water quality, but it wasn't a total washout (Coastal News Today)

Research Team Receives \$10M To Transform Shellfish Farming With Smart Technology (Star Democrat)

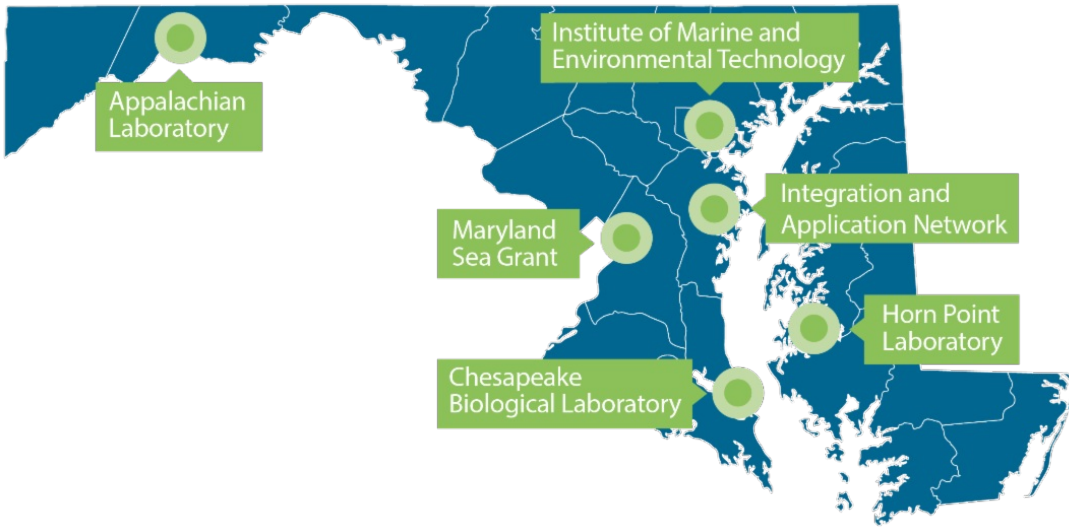
Community lab in Baltimore aims to put science in the people's hands (Baltimore Sun)

AR Girls Virtual Workshop offered during July (Morning Sentinel-Maine)

Harmful algal blooms are on the rise: Here's why stopping them is so hard (The Revelator)

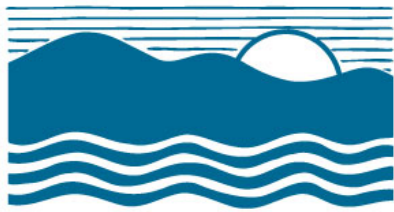
VIDEO: Dolphin Pod Wows Severn River, Sightings Rise Bay wide (Chesapeake Bay magazine)

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