

ENVIRONMENTAL INSIGHTS

NEWS FROM THE UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE

NSF awards \$1 million for coastal ocean research to understand ecology where Chesapeake Bay and Atlantic Ocean meet

The National Science Foundation awarded \$1 million to a team of researchers at the University of Maryland Center for Environmental Science 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. This knowledge is important to update estuary-ocean food web models to include long-term shifts in climate and the frequency and severity of extreme weather events.



“We'll be going out to the inner continental shelf over the next several years with the ultimate goals of developing a hydrodynamic model of the Chesapeake Bay plume and gathering data focused on understanding how the plume drives productivity at the base of the coastal food web,” said UMCES ecologist and Assistant Professor **Ryan Woodland**, who is leading the three-year project.

MORE

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.



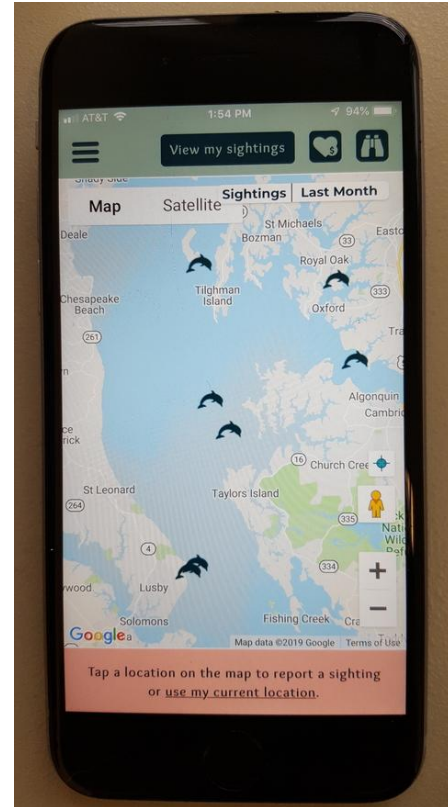
Cardin, U.S. Senator from Maryland. **REGISTER** to participate online or tune into our **Facebook** page to watch live.

Chesapeake DolphinWatch is back

Associate Research Professor **Helen Bailey** founded the **Chesapeake DolphinWatch** project to learn more about bottlenose dolphins in the Chesapeake Bay. Citizen scientists report their dolphin sightings through a mobile app to help Bailey and her team identify the best locations in the Bay to set up underwater microphones to record dolphins and learn more about where they find food and navigate the Bay. More than 7,500 registered users are keeping their eyes on the water, and there have already been reports of dolphins in the Potomac River and off of Dorchester County.

Find out more about the project during a Science for Citizens virtual seminar with Helen Bailey on **May 13, 6:30-8 p.m.**

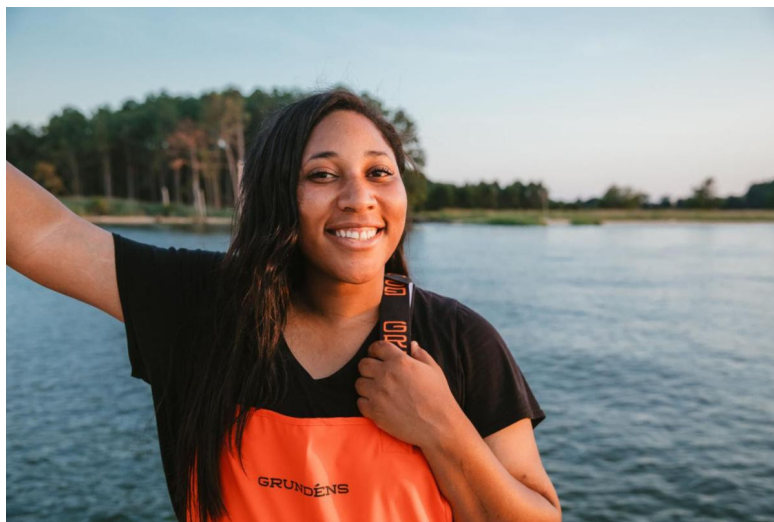
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NOTEWORTHY Professor **Eric Davidson**, an international leader in global nitrogen cycle research, made **Reuters' Hot List** of the world's top climate scientists.

NEXT GENERATION: Diversity grows in aquaculture

When Fourth Generation "oyster drudger" **Imani Black** entered the aquaculture business, she rarely saw anyone who looked like her, even though her family has plied the waters of Dorchester County for over a hundred years. She founded Minorities in Aquaculture, a nonprofit dedicated to encouraging more women and



people of color to enter the field.

Now she is a faculty research assistant working with Assistant Professor Matt Gray at the Horn Point Laboratory and eyeing the master's program this fall. Read more about her and others' journey in aquaculture in Maryland Sea Grant's *Chesapeake Quarterly*.

MORE

ALUMNI PROFILE: IMET graduate student-turned entrepreneur is converting algae into a successful biofuel business



This winter, UMCES alumnus Ryan Powell '14 and his company Manta Biofuel tested out an innovative heating oil blend--made with a carbon-neutral and affordable biofuel made from algae--in a boiler on the Horn Point Laboratory campus.

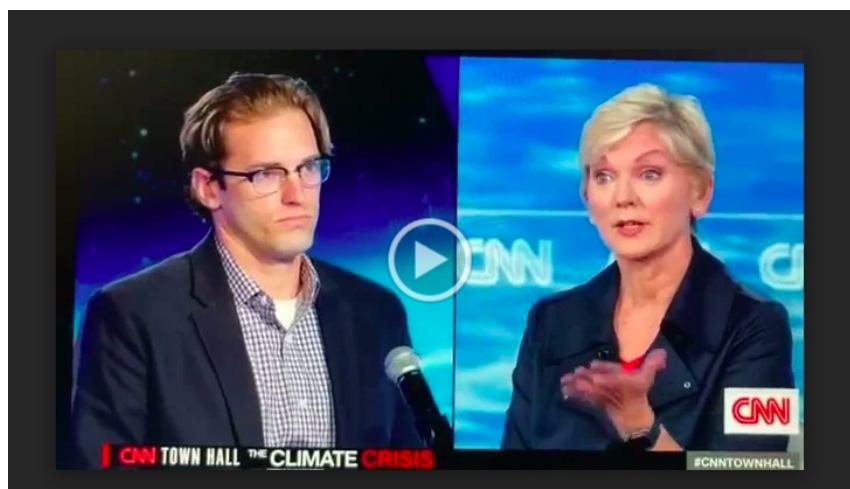
As a graduate student at the Institute of Marine and Environmental Technology, Powell discovered a technique to harvest algae cheaply enough to produce algal biofuels economically. He decided that he

wanted to make sure his technology made a difference in the world.

“The traditional path in academia is publishing something in a scientific journal and you hope someone picks it up. I wanted to do the work to bring it to life,” he said.

Since graduating, he has been awarded funding from the U.S. Department of Energy, the Small Business Innovation Research program, and the State of Maryland’s TEDCO, and the University of Maryland’s MTech programs to develop the company and be part of a green energy transition

MORE



UMCES IN THE NEWS

Congratulations to **Matt Gray**, **Dan Read** and **Sarah Jones**—a faculty member, post-doc and graduate student—for being selected to ask their questions and represent UMCES at the **CNN Town Hall on the Climate Crisis**

What do Americans think about Biden's new pledge? **Victoria Coles** (BBC News)

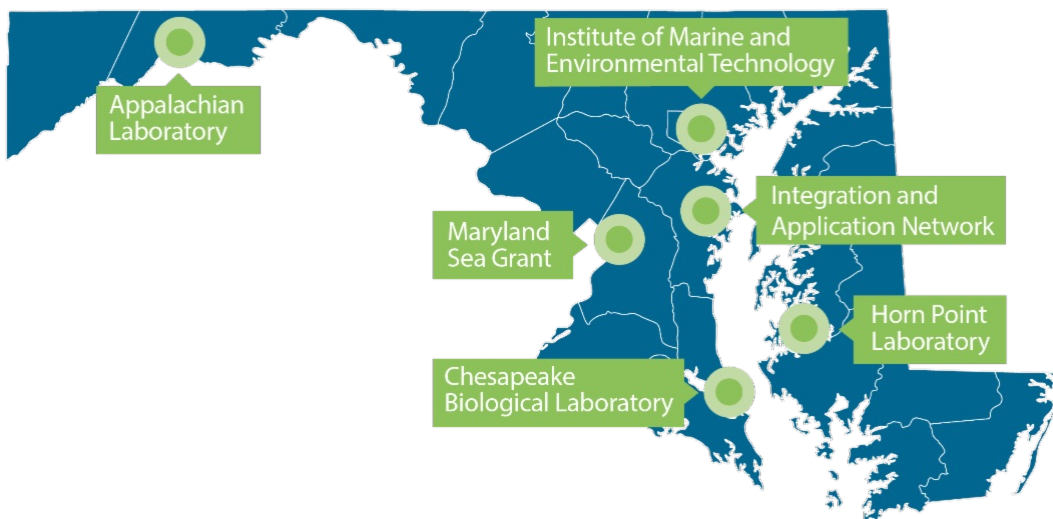
Imani Black: Aquaculture basics and minorities in aquaculture (WHCP radio-Cambridge)

At Long Last: The Choptank Promising Vital Signs with Horn Point's **Tom Fisher** (Spy Newspapers)

Cold War legacy: Investigation of cesium-137 in U.S. Honey -**Andrew Elmore** (Phys.org)

Nuclear fallout in U.S. honey (The Weather Channel)

Spring speeding up around the Bay, research shows -**Emily Cohen** (Chesapeake Bay magazine)



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