

Coastal Ocean Quarterly

Winter 2025

News from the National Centers for Coastal Ocean Science

The National Oceanic and Atmospheric Administration (NOAA) formed the National Centers for Coastal Ocean Science (NCCOS) in 1999 as the focal point for NOAA's coastal ocean science efforts. We provide coastal managers with the scientific information necessary to decide how best to protect environmental resources and public health, preserve valued habitats, and improve the way communities interact with coastal ecosystems.

NOAA Collecting Public Comments on Aquaculture Opportunity Areas

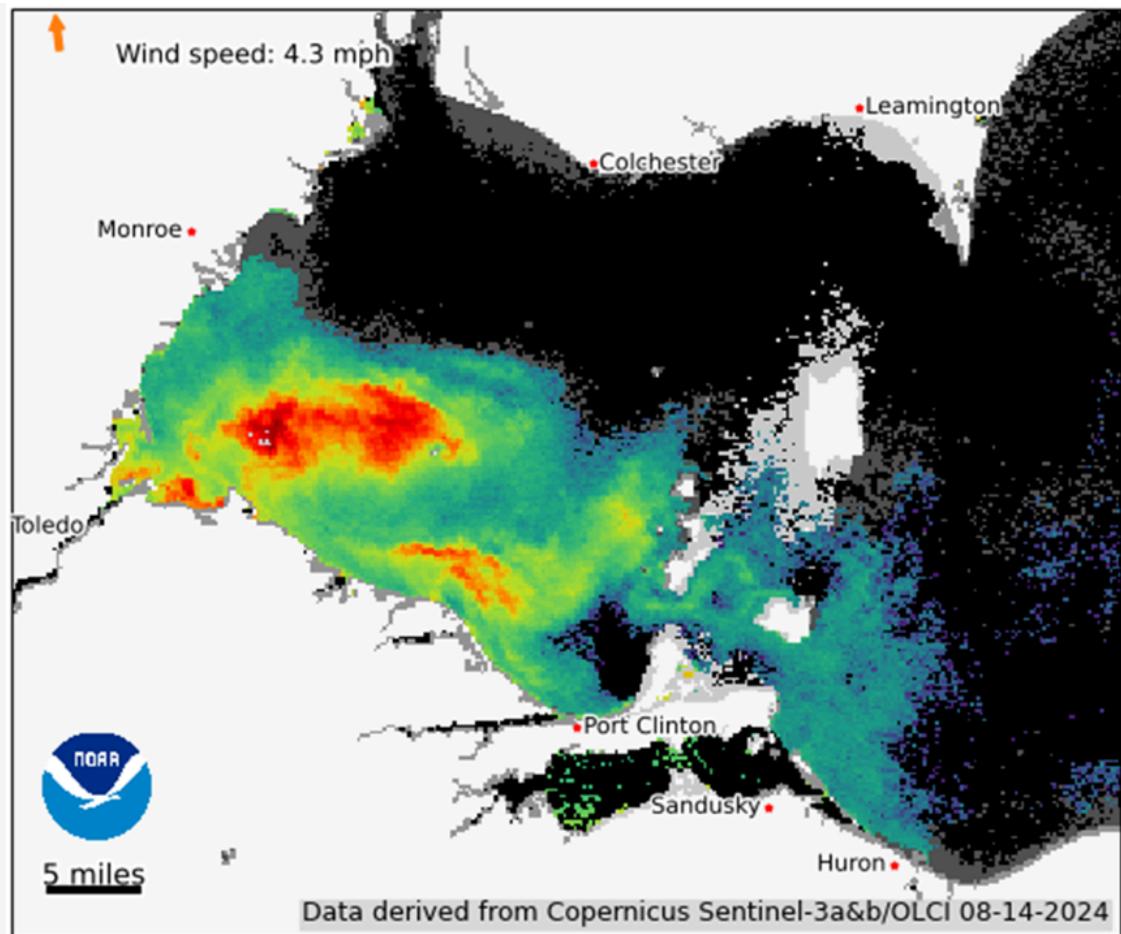
NOAA has released the Draft Programmatic Environmental Statements (DPEIS) for public comment on the U.S. Gulf of America and the Southern California Bight Aquaculture Opportunity Areas (AOAs). The public is welcome to submit comments online for both DPEIS's until February 20, 2025. Five public listening sessions are also scheduled from December to February, hosted by NOAA's Aquaculture Program. [Continue reading](#)



2024 Lake Erie Harmful Algal Bloom Seasonal Assessment

The 2024 western Lake Erie cyanobacterial bloom had a severity index (SI) of 6.6, which is moderately severe, and more intense than 2023 (SI of 5.3). The SI captures the amount of biomass over the peak 30-days of the bloom, calculated using satellite imagery.

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Exploring the Use of Microcosms to Assess the Effects of Microplastics and Contaminants of Emerging Concern

Contaminants of emerging concern, such as microplastics, have become increasingly present in coastal waters, potentially causing ecological or human health impacts. Scientists with NOAA's National Centers for Coastal Ocean Science (NCCOS) are exploring the efficacy of using Small Intertidal Microcosm PLant Exposure (SIMPLE) Systems to investigate how microplastics divide into parts within the ecosystem and what effects microplastics and other contaminants of emerging concern have on plants and animals. [Continue reading](#).



Assessing the Impact of Shellfish Mariculture on Wildlife in Alaska

Researchers with NOAA's National Centers for Coastal Ocean Science (NCCOS) are developing a scalable approach to assess the impact of shellfish mariculture on Alaskan wildlife. Oyster farming has been expanding in Alaska, although these shellfish are not native to the state. [Continue reading](#)



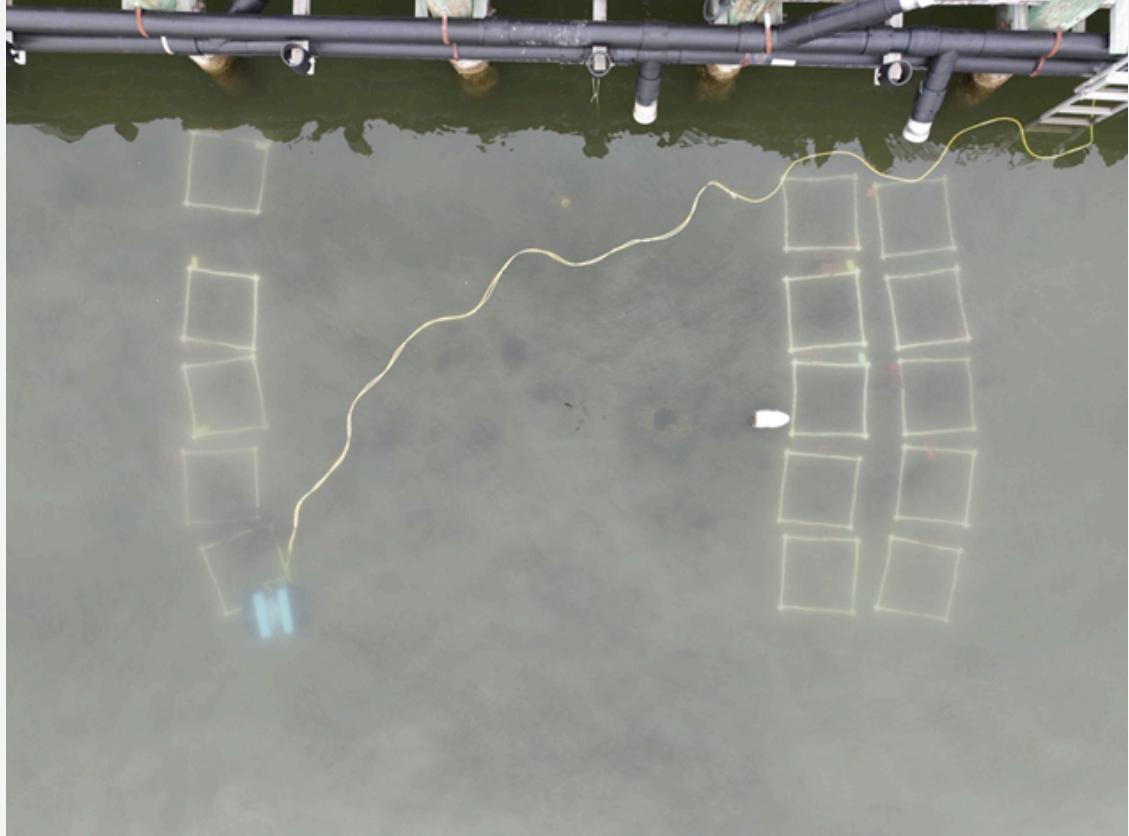
Model Identifies Septic System Discharge 'Hotspots' in Southeast Florida

Groundwater in southeast Florida's coastal zone is never far from the land's surface, posing a risk to the proper function of the more than 112,000 residential septic systems in the region. [Continue reading](#)



NCCOS Supports Smart Technologies for Oyster Farming.(VIDEO)

Last month, NCCOS divers counted oysters at the bottom of Chesapeake Bay's Tred Avon River to help train the next generation of oyster counters. A trainee had already counted the oysters, but needed the divers' numbers to verify initial counts. Without complaint, the rookie welcomed the input that would make them better at counting. And why wouldn't they? *They are a robot.* [Continue reading](#)



Understanding Socioeconomic Connections to Coral Reefs in Guam, Round Two

The Socioeconomic Component of the National Coral Reef Monitoring Program (NCRMP) gathers and monitors a collection of socioeconomic data in seven U.S. coral jurisdictions. The team continued its second monitoring cycle with data collection in Guam in 2023, and recently released their report of summary findings along with two new infographics.

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Publication Describes How to Effectively Communicate Risks of Nor'easters

NCCOS-funded researchers have published a short [guide](#) on how to communicate the impacts of extreme weather in the U.S. northeast, particularly information about nor'easters, regional storms with some of the greatest potential for damage. [Continue reading](#)



Meet Shayna Sura: A data synthesis postdoctoral scholar

With just a brief glance at Dr. Shayna Sura's [website](#), you get the sense that she is a high achieving researcher who is always ready for a new challenge. Since college, she has lived all across the country and held a variety of research positions looking at everything from grasshoppers and brine shrimp to seagrass and coral reef ecosystems. She is a resilient researcher who expertly handles any obstacles that come her way. She is eager and excited to move to new places to explore human impacts in different ecosystems. I sat down with Dr. Sura to discuss how she ultimately arrived at the [National Center for Ecological Analysis and Synthesis's \(NCEAS\) Gulf Ecosystem Initiative \(GEI\)](#) and her work as a postdoctoral researcher. [Continue reading](#)



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