

Coastal Ocean Quarterly

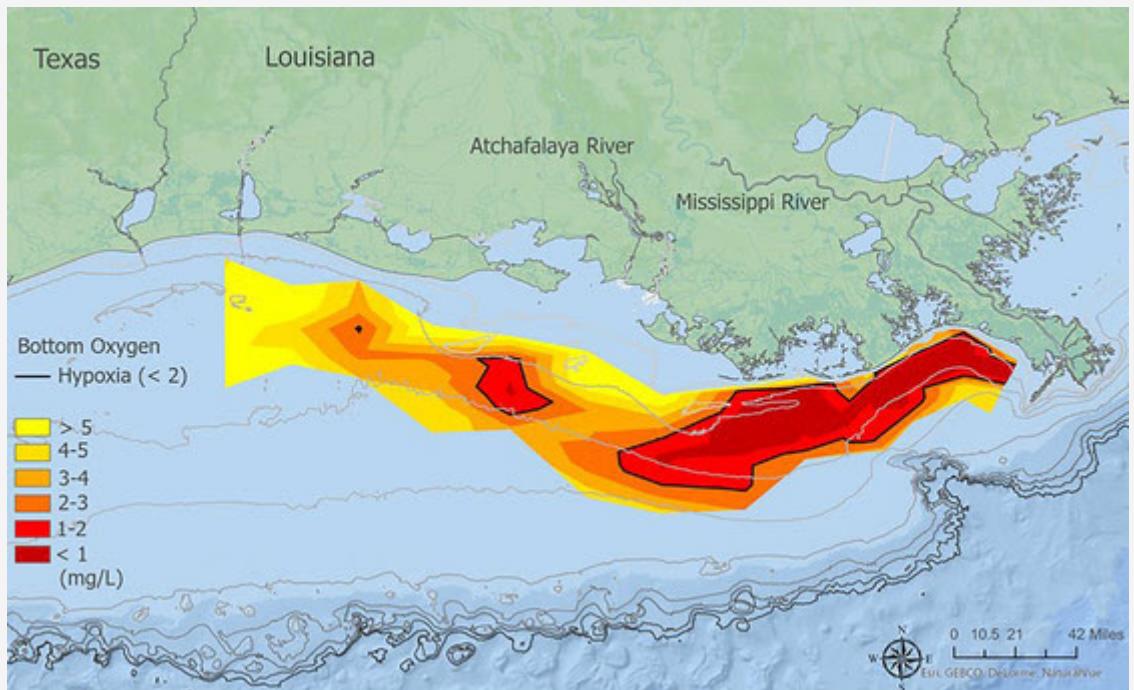
Summer 2022

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.

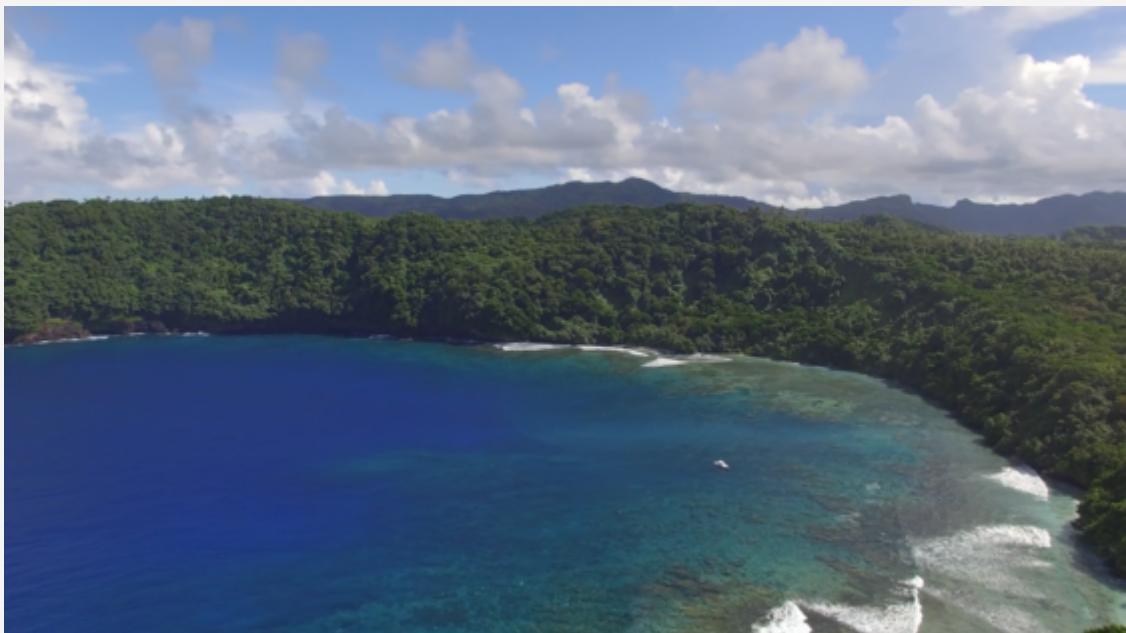
Smaller than Expected Summer 2022 'Dead Zone' Measured in Gulf of Mexico

NCCOS-supported scientists have determined that this year's Gulf of Mexico "dead zone" — an area of low oxygen that can kill fish and marine life — is approximately 3,275 square miles, equivalent to more than two million acres of habitat potentially unavailable to fish and bottom species. [Continue reading](#)



Study Finds Pollution Low in American Samoa's Fagatele Bay (VIDEO)

American Samoa's coral reefs are some of the most pristine reefs in the United States. They host more than a thousand species of marine life, including some of the oldest and largest shallow-water corals on the planet. But even these remote reefs in the South Pacific Ocean face potential threats. [Continue reading](#)



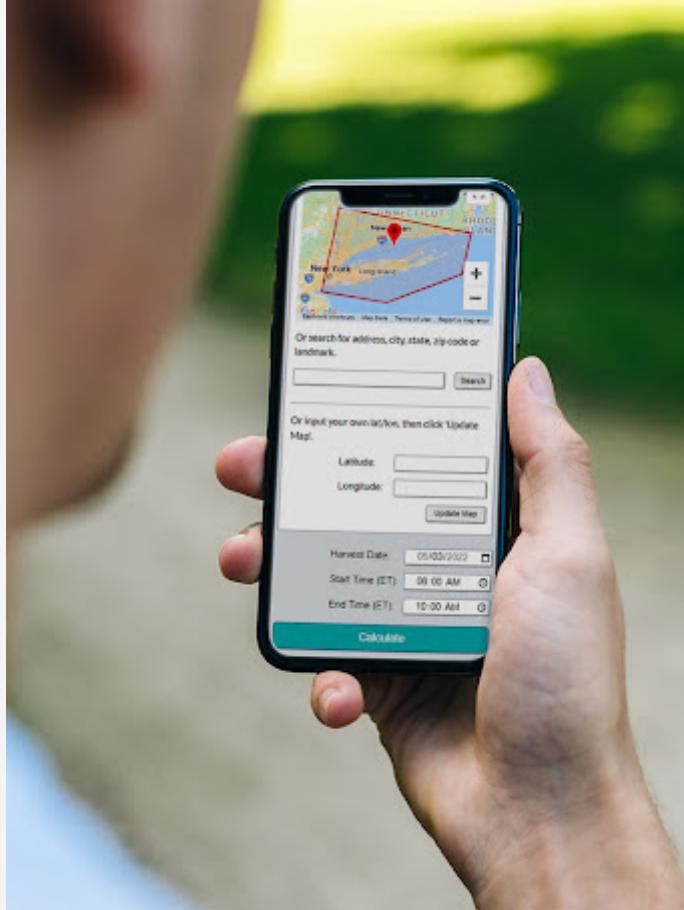
NCCOS Publishes Social Vulnerability Assessment in Support of Sea Level Rise Planning in Puget Sound

Coastal communities are increasingly vulnerable to climate-driven impacts, such as sea level rise and coastal erosion. To address these risks in the Puget Sound region of Washington, Washington Sea Grant and Coastal Geologic Services (CGS) are leading a sea level rise vulnerability assessment for use by coastal managers and decision-makers. In support of this effort, NCCOS researchers partnered with Washington Sea Grant and CGS to develop a [complementary social vulnerability assessment](#) for communities within the Puget Sound region. [Continue reading](#)



New Tool Available: Vibrio Harvest Calculator for Long Island Sound Oysters

A new web-based, mapping tool available to growers, farmers, and managers in Long Island Sound will allow users to see how much *Vibrio* bacteria growth they might encounter when harvesting oysters. [Continue reading](#)



[NOAA Harmful Algae Research Supports Resumption of Shellfish Trade with Europe](#)

In February 2022, the United States and the European Union concluded ongoing negotiations to resume trade in live bivalve shellfish. For the first time since 2010, US producers (in Massachusetts and Washington) are eligible to export live, raw and processed shellfish to the EU, including oysters, clams, mussels, and whole or roe-on scallops. [Continue reading](#)



Thin Layer Sediment Placement Boosts Marsh Growth

A new NCCOS [study](#) shows that spreading a thin layer of sediment on low-lying marshes promotes vegetation growth that builds elevation. The technique may be an effective way to restore coastal marshes and improve their resilience to sea level rise. [Continue reading](#)



Valor in the Atlantic 2022: Diving into North Carolina's Maritime History

NOAA's Office of National Marine Sanctuaries, National Centers for Coastal Ocean

Science (NCCOS), North Carolina's Office of State Archaeology (OSA), and the Global Foundation for Ocean Exploration (GFOE) are collaborating to explore and investigate historic shipwrecks in and surrounding NOAA's Monitor National Marine Sanctuary. [Continue reading](#)



Model Predicts Reducing Only Phosphorus Will Make Lake Erie Algal Blooms More Toxic

A new model from NCCOS-funded researchers describes the cellular mechanisms driving toxin production by *Microcystis*, the freshwater cyanobacteria that causes harmful algal blooms in Lake Erie. The [findings](#) suggest that reducing only phosphorus inputs to the lake could lower algal biomass, but may increase light and nitrogen availability, causing remaining algae to become more toxic. [Continue reading](#)



Gulf-Wide Research Studies the Future of Seagrass in a Changing Environment

Seagrass beds are an integral part of the Gulf of Mexico ecosystem—they stabilize the sediment and remove carbon dioxide from the atmosphere. Seagrass meadows are also a source of food and habitat for many species in the Gulf throughout their life cycles, such as shrimp, fish, and crab. But what happens to seagrass and the marine life that rely on it when the environment changes? And how do those relationships differ across the Gulf of Mexico? [Continue reading](#)





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