

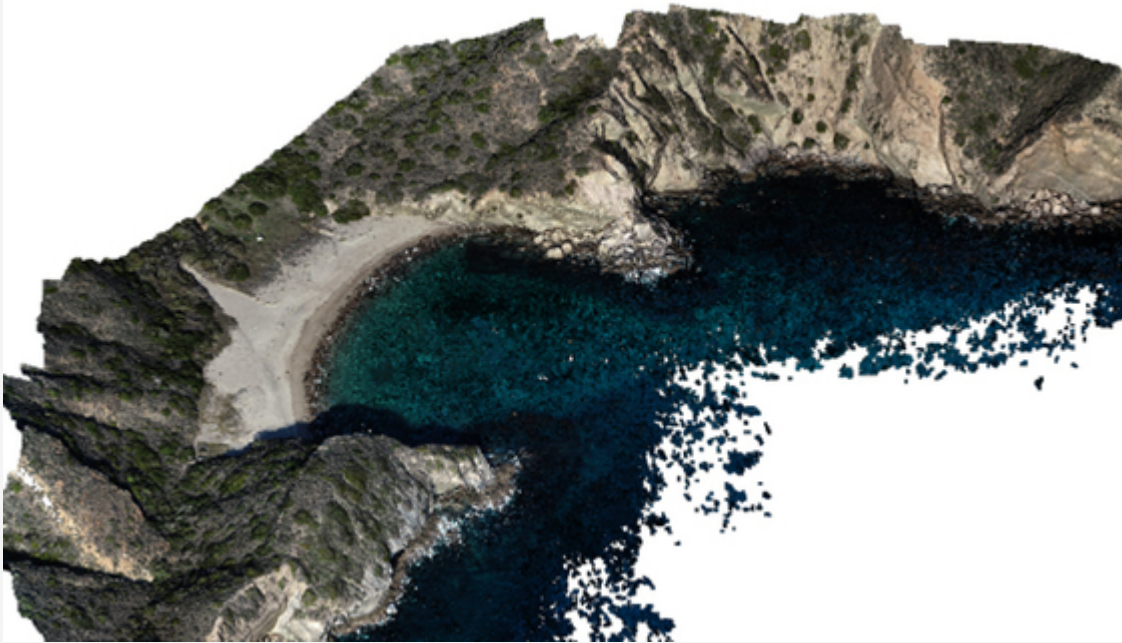


News from the [National Centers for Coastal Ocean Science](#)

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.

NCCOS Tests Drones to Map Coastline and Nearshore Waters

In December, NCCOS scientists and their partners used both airborne and water surface drones to map land elevations and water depths around Santa Cruz Island, the largest of the Channel Islands, off the coast of southern California. The depth soundings collected by the water surface drones will be used to validate the depths derived from the digital aerial photos taken by the airborne drones. Following the team's successful testing of several airborne drones in a tropical environment [last spring](#), the researchers sought to identify the potential of drone technology in a more challenging, temperate environment, such as the Channel Islands. [Continue reading](#)



NPR Highlights New Hypoxia and Pacific Northwest Dungeness Crab Fishery Project

On October 28, 2018, the [National Public Radio \(NPR\) Weekend Edition](#) program featured a new NCCOS project that is tracking the extent and effect of hypoxia (low oxygen) on commercial marine fisheries in the Pacific Northwest, particularly Dungeness crab. Offshore oxygen has declined along the U.S. west coast, while wind-driven coastal upwelling has increased, exposing benthic habitats to low oxygen annually. The Dungeness crab fishery is already experiencing impacts from the intensification of hypoxia, with traditional fishing grounds often yielding no crabs or pots full of dead crabs. [Continue reading](#)



Mussel Watch Detects New Contaminants in Great Lakes (VIDEO)

Scientists from NOAA's National Centers for Coastal Ocean Science (NCCOS) have published an [assessment of contaminants of emerging concern in the Great Lakes](#). Of the 237 chemicals the team analyzed, they detected 99 of them in the mussels sampled for

the study. New kinds of chemicals enter the environment every year. Often, they are unregulated, and their toxicological effects on fish and wildlife are poorly understood. These contaminants of emerging concern include pesticides, hormones, flame retardants, pharmaceuticals, personal care products, and chemicals in household and industrial detergents. [Continue reading](#)



NCCOS, Partners Publish Environmental Assessment of Bristol Bay, Alaska

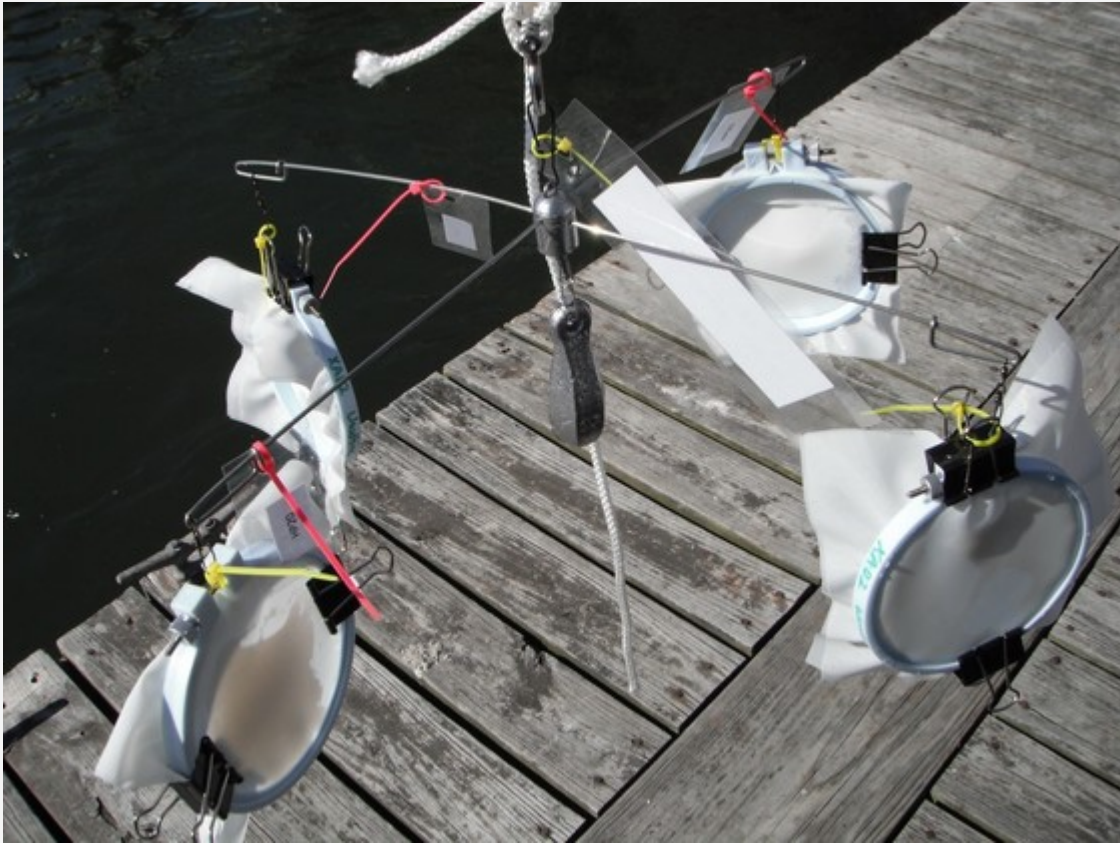
NCCOS and its partners have published an [environmental assessment](#) of Nushagak and Kvichak Bays, two of the most important salmon fishing grounds in Bristol Bay, Alaska. Bristol Bay supports the largest commercial sockeye salmon fishery in the world, as well as strong runs of other salmon species. The bay is also an important destination for millions of birds migrating to the Arctic. State fisheries and water quality managers need habitat condition data to administer Bristol Bay's resources, and information in this region is sparse. [Continue reading](#)



Study Evaluates Technologies for Early Warning of Algal Toxins in Shellfish

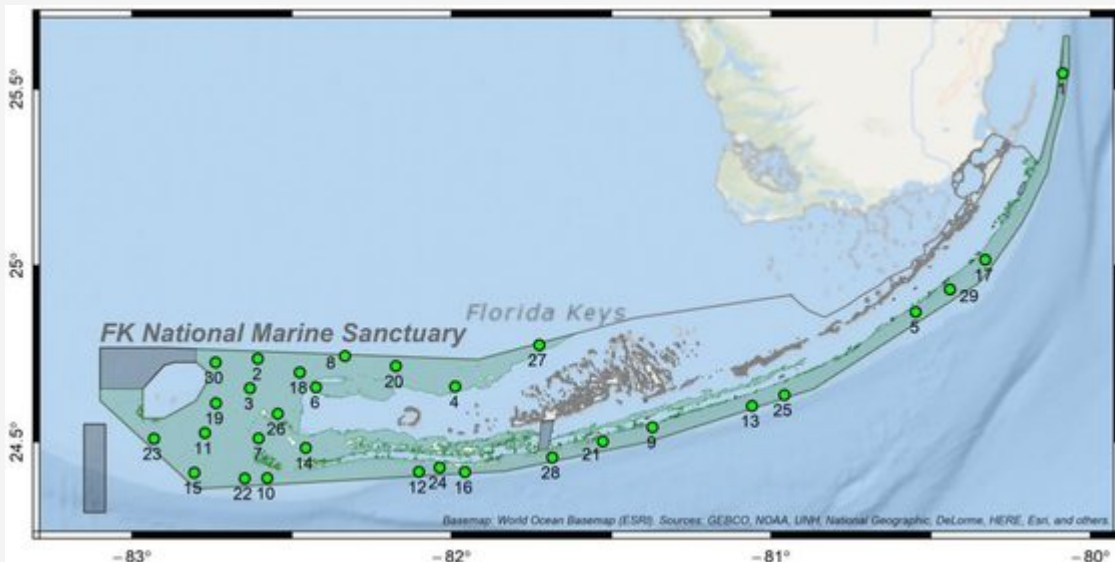
As harmful algal blooms and related human health concerns increase, there is a growing need to identify and test technologies that may improve existing monitoring programs. An NCCOS-funded [study](#) published in the journal *Marine Drugs* evaluated promising technologies to detect toxins linked with recurrent *Alexandrium* and *Dinophysis* blooms off of Long Island, New York. These algae are capable of producing toxins that can result in

paralytic and diarrhetic shellfish poisoning (PSP and DSP), respectively, in people who eat contaminated shellfish. [Continue reading](#)



New Report Characterizes Offshore, Soft-bottom Habitats in Florida Keys National Marine Sanctuary

NCCOS scientists completed a [study](#) of the soft-bottom habitats in offshore areas of the Florida Keys National Marine Sanctuary (FKNMS). While FKNMS is known for its coral reefs and extensive seagrass beds, soft-bottom sediments are very common in the sanctuary. These habitats support diverse communities of bottom-dwelling (benthic) invertebrates living in the sediments (infauna), which play vital roles in detrital decomposition, nutrient cycling, and energy flow to higher trophic levels. [Continue reading](#)



Ecological Assessment of Maryland's Tred Avon River Published

NCCOS scientists have analyzed how land use has affected the aquatic ecosystem of the Tred Avon River, an important tributary of Maryland's Choptank River in the Chesapeake Bay. Their assessment of the system from 2015 to 2017 shows that, overall, the Tred Avon River is in relatively good condition compared to other areas of the Choptank River and the Chesapeake Bay. However, there are signs of degradation—such as excess nutrients, and seasonal low oxygen in bottom waters—especially in areas with rapid, human population growth and urban development. The team's model simulations revealed that oyster aquaculture and oyster reef restoration are nutrient removal mechanisms that may alleviate some of the negative impacts detected ... [Continue reading](#)



Study Assesses Social Values Related to Offshore Wind Energy Development in Carolinas

NCCOS researchers are using survey data to assess the social values and opinions of coastal residents in North and South Carolina, both for and against offshore energy development. The research addresses information gaps concerning the perceived effect of offshore wind energy development on coastal communities. The Bureau of Ocean Energy Management (BOEM) will use the data to inform decisions about offshore wind energy areas. [Continue reading](#)



Expanded Observing System in Mobile Bay Reaches Over 7,000 Users

Heading Out? You'll see a new sign at the mouth of Mobile Bay connecting boaters and other visitors to mymobilebay.com. The user-friendly, web-based portal serves observations updated every 30 minutes from the Alabama Real-time Coastal Observing System, and is a valuable source of real-time weather and water conditions for anyone who wants to enjoy or make their living out on the waters of the Bay. With support from NOAA's RESTORE Science Program, the Dauphin Island Sea Lab has expanded the spatial and temporal coverage of the Alabama Real-time Coastal Observing System and is ensuring its high-quality and system-wide information reaches those who need it through mymobilebay.com. [Continue reading](#)



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