NCCOS | NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE
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NOAA Hollings Marine Laboratory

About NCCOS

The National Oceanic and Atmospheric Administration (NOAA) formed the National Centers for Coastal Ocean Science (NCCOS) in 1999 as a focal point for NOAA's coastal ocean science efforts. NCCOS helps NOAA meet its coastal stewardship and management responsibilities, and provides 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.

About the Hollings Marine Laboratory

Located near the Charleston Harbor in South Carolina, the Hollings Marine Laboratory provides state-of-the-art laboratory spaces for NCCOS scientists and partners to conduct research to address the nation's coastal ocean challenges. NCCOS scientists at the Hollings Marine Laboratory focus on researching and addressing human, wildlife, and ecosystem health. Partners from College of Charleston, the Medical University of South Carolina, the National Institute of Standards and Technology, and the South Carolina Department of Natural Resources work side-by-side with NCCOS scientists, leveraging each other's unique expertise.

Staff

129 employees total

Federal
State
Academic
NOAA contractors

Facilities & Equipment

Small boats
Seawater system
Uncrewed systems
Marine forensics lab
Aquaculture systems
Nanobubble ozone technology
Nuclear magnetic resonance spectrometry labs

Biorepository
Biosecurity labs
Marsh microcosms
Mass spectrometry labs
High-powered microscopes
Environmental testing chambers
Deep and shallow coral culture labs

Return on Investment for Coastal Science

The facilities, research, maps, and innovative solutions from NOAA's Hollings Marine Lab support commercial and recreational fishing, national security (i.e., military), human health, and natural and cultural resources at the local and national level. We are also developing options to assess and protect South Carolina's shorelines, coastal communities, and tourism from various pollutants.

$3.4 B
Annual economic value of coral reef services provided for the U.S.

100%
Marine mammal digestive tracts examined with the presence of microplastics

$5.6 B
GDP contributed by South Carolina's ocean-dependent industries

Our Science

We grow coastal industry, economies, sustainability, and national security by:

- Safeguarding human and ecosystem health, improving seafood safety, and supporting coastal economies through harmful algal bloom forecasting and toxin detection.
- Providing insight to estuarine health and human impacts through marine mammal and coral reef health assessments.
- Evaluating the effects and response of toxic contaminants, oil spills, microplastics and other pollutants on organisms and ecosystems.
- Assessing wetland ecosystem health following oil spills and developing techniques for restoration.
- Remediating coral reefs damaged by disease and contaminants.

Local Impact

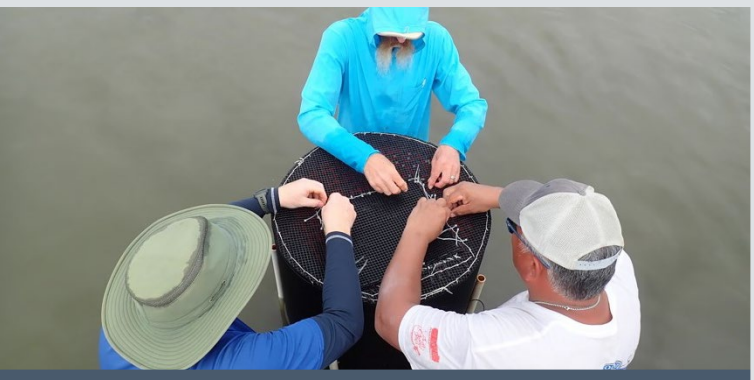
Using uncrewed aircraft systems to collect dolphin respiratory health data| Provides valuable insight to ecosystem health and impacts to humans.

Detecting contaminants in Charleston Harbor through passive samplers | Raises public awareness of chemical contaminants where people swim and fish.

National Impact

Monitoring for toxins produced by harmful algal blooms | Provides data to alert coastal managers and local communities to protect human health and the economy.

Training communities to self-monitor toxins and contaminants in local waters | Protects health and lives in communities reliant on subsistence harvesting.



Assessing the effects of contaminants on wetland ecosystems | Tracks effects on seafood, protective vegetation, and water quality, which impact economies and human health.

Restoring coral communities from contaminants and disease | Drives fisheries and tourism, and provides storm protection while protecting endangered species.

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