



NOAA Beaufort 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 Beaufort Laboratory

The NOAA Beaufort Laboratory occupies a portion of Pivers Island in Beaufort, North Carolina. The lab is also home to NOAA’s National Marine Fisheries Service and Office of the Chief Administrative Officer, as well as the North Carolina Coastal Reserve and National Estuarine Research Reserve.



Video

125 years at
the NOAA
Beaufort
Laboratory

Staff – 100 employees



Federal
State
NOAA contractors



Facilities & Equipment

Classroom & auditorium
High-tech labs
Seawater system
Small boats
Drones
Remote operated vehicles
Autonomous underwater vehicles



Return on Investment for Coastal Science

The research, maps, and tools from NOAA’s Beaufort Lab support commercial and recreational fishing, national security (i.e., military), navigation and transportation, energy and industry infrastructure, and natural and cultural resources at the national level. We are also developing options to protect North Carolina’s shorelines, coastal communities, and tourism from coastal storms and rising seas.

\$2.56 B

Estimated value of North
Carolina wetlands storm
protection

\$1.8 B

Estimated annual value of
U.S. coral reef flood
protection

\$4.0 B

GDP contributed by North
Carolina’s ocean-dependent
industries



Our Science

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

- Collecting data and developing models that inform ocean industry construction and conflict avoidance.
- Implementing natural and nature-based solutions to protect coastal communities and ecosystems from natural hazards and coastal change.
- Assessing the efficacy of various practices to restore and reinforce coast areas and ecosystems.
- Safeguarding human and ecosystem health, and coastal economies through forecasting harmful algal blooms.
- Advancing ecosystem restoration by harnessing artificial intelligence, uncrewed systems, and remote sensing.

Local Impact



Protecting critical Department of Defense infrastructure | Safeguards Camp Lejeune from flooding through nature-based shoreline management



Using uncrewed aircraft to monitor oyster reefs | Informs management decisions for North Carolina's economically and environmentally critical oysters reefs

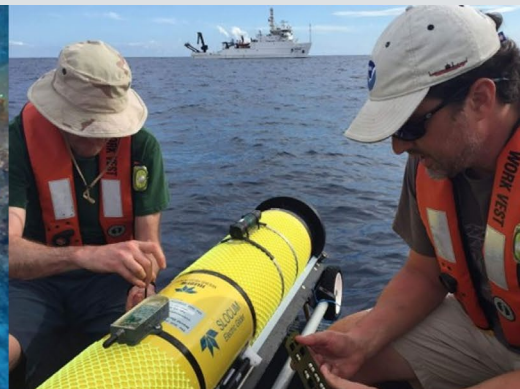
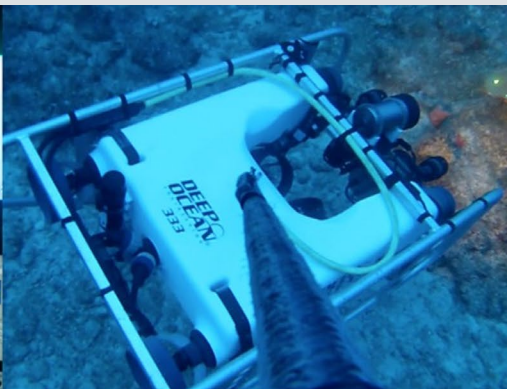
National Impact



Identifying locations suitable for commercial aquaculture | Boosts the economy and improves U.S. food safety



Delivering harmful algal bloom forecasts | Predicts location, duration, and direction of toxic algal blooms to protect drinking water, fisheries, and recreation



Accelerating shallow and deep water coral restoration through machine learning | Drives fisheries and tourism and provides storm protection