

## NCCOS Mission

*The National Centers for Coastal Ocean Science (NCCOS) was formed in the National Ocean Service in February 1999 to consolidate NOAA's coastal research capabilities. Its directive is to conduct and support research, monitoring, assessment, and technical assistance to strengthen NOAA's role in managing the Nation's coastal ecosystems and society's use of them. NCCOS science activities focus on five key categories of ecosystem stress:*

- Climate change
- Extreme natural events
- Pollution
- Invasive species
- Land and resource use



## Addressing Coastal Problems

Understanding how these complex issues affect ecosystem health and resource abundance is vital for assessing the impacts on coastal communities and effectively managing our Nation's ocean and coastal resources. Currently NCCOS is focusing on four ecosystems: coral reefs, estuaries and National Estuarine Research Reserves, National Marine Sanctuaries, and coastal oceans. NCCOS addresses these environmental, societal, and economic issues through the development of Integrated Assessments (IAs). These IAs describe the ecosystem, assess its current condition or health, forecast future ecological health with current management strategies, and evaluate alternative management strategies and their consequences. IAs are intended to support sound management decision making through the availability of focused, relevant, and timely science.

NCCOS is comprised of five Centers whose capabilities are integrated to address national coastal problems. Each Center possesses a unique set of capabilities and research expertise in a broad range of important ocean and coastal issues. The Centers include:

### The Center for Sponsored Coastal Ocean Research (CSCOR)

CSCOR, located in Silver Spring, Maryland, contains the Coastal Ocean Program (COP) which is a federal-academic partnership providing predictive capabilities for managing coastal ecosystems. COP supports research in three areas: coastal fisheries ecosystems, cumulative coastal impacts, and harmful algal blooms/eutrophication.

### The Center for Coastal Monitoring and Assessment (CCMA)

CCMA, located in Silver Spring, Maryland, assesses and forecasts coastal and marine ecosystem conditions through research and monitoring. CCMA maintains national monitoring programs in coral reef ecosystems, marine protected areas, estuaries and the coastal ocean. CCMA's major assessment and forecasting activities include determining the status of U.S. coral reef ecosystems, partnering with other agencies to assess U.S. coastal conditions, assessing the efficacy of marine protected areas and forecasting harmful algal blooms.



## The Center for Coastal Fisheries and Habitat Research (CCFHR)

Located in Beaufort, North Carolina, CCFHR is developing an understanding of the biological productivity of estuaries and ocean ecosystems to enhance coastal habitats and living marine resources. Major research areas include: habitat restoration, harmful algal bloom research, fisheries response to environmental changes, and biological productivity in estuaries.



## The Center for Coastal Environmental Health and Biomolecular Research (CCEHBR)

CCEHBR at Charleston, South Carolina, provides scientific information required to resolve important issues related to the health



of coastal ecosystems. Major research areas include: marine toxins and harmful algal blooms; environmental quality and coastal ecosystem health; land use and presence of chemical contaminants in the marine environment; and genetic characterization of fish and shellfish. The Oxford Cooperative Lab, affiliated with Charleston, specializes in shellfish pathology and habitat restoration research.

## Hollings Marine Laboratory (HML)

At Charleston, South Carolina, HML is a newly established multi-institutional, multi-disciplinary laboratory providing science and biotechnology applications to sustain, protect, and restore coastal ecosystems, emphasizing linkages between the environment and human health. Major research areas include: environmental/analytical chemistry; marine genomics; contemporary use of pesticides; ecotoxicology; proteomics; and aquaculture production and disease.

		Stressors				
		Pollution	Land & Resource Use	Invasive Species	Climate & Long Term Change	Extreme Natural Events
Ecosystems	NMS	◐	◐	◐	○	●
	Coral Reefs	◐	◐	◐	○	◐
	NERRS/Estuaries	●	●	●	○	●
	Coastal Ocean	◐	○	◐	○	●

○ Low      ◐ Medium      ● High



### National Centers for Coastal Ocean Science

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