COOPERATIVE INSTITUTE FOR CLIMATE AND OCEAN RESEARCH
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The Cooperative Institute for Climate and Ocean Research (CICOR) at the Woods Hole Oceanographic Institution (WHOI), a not-for-profit research institute that has fostered collaborative research between NOAA scientists and university scientists and students since its inception in 1999. CICOR provides a framework at WHOI for coordinating NOAA-funded research, to build ties between WHOI investigators and colleagues at NOAA laboratories, and for developing cooperative NOAA-funded research at academic institutions in the northeastern United States. At the same time CICOR provides NOAA investigators with access to WHOI facilities, including 4 ships and 2 submersibles (one manned and one operated remotely), and the Northeast National Ion Microprobe Facility. In collaboration with WHOI's Academic Programs' Office, CICOR supports graduate education through a joint program with MIT, as well as postdoctoral and undergraduate summer student fellowships. Major research and planning activities have been carried out in partnership with several NOAA laboratories: Atlantic Oceanographic and Meteorological Laboratory, Pacific Marine Environmental Laboratory, and Earth System Research Laboratory; the Northeast Fisheries Science Center; the NOAA Climate Office; and the Center for Sponsored Coastal Ocean Research.

CICOR research focuses on three themes: (1) The **Coastal Ocean and Near-shore Processes** – Includes scientific research on fundamental processes of coastal biology, physical oceanography, and sediment and sand transport, as well as the effects of contaminants and the changing environment upon coastal ecosystems and habitats for marine mammals, fish, and humans; (2) **The Ocean's Participation in Climate and Climate Variability** – Recognizes the critical role of (sub-basin scale) oceanographic processes in the dynamics of the overall climate system and that these processes, which operate on seasonal to millennial and beyond timescales, require sustained observational studies; and (3) **Marine Ecosystem Processes Analysis –** Encompasses a wide range of community and ecosystem level studies, many of which concern the interaction of biology composition and structure with physical, chemical or geological characteristics of the marine environment.

CICOR research activities have resulted in approximately 43 scientific publications annually, of which 70% appear in peer-reviewed publications. Environments studied have ranged from coastal estuaries, salt marshes, offshore shelves, and bank regions to the oceanic water column, the abyssal sea floor, and the hydrothermal vents of ocean ridges. Research on the species composition, trophic structure, and evolutionary history of a variety of marine ecosystems as well as the development of instrumentation have long been central strengths of WHOI and are aligned with NOAA's goals through CICOR research.

CICOR's research activities assist NOAA in three of its Mission Goals: (1) Protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management; (2) Understand climate variability and change to enhance society's ability to plan and respond; and (3) Provide critical support for NOAA's mission.

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