

NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE in the U.S. CARIBBEAN

CENTER FOR COASTAL MONITORING AND ASSESSMENT

MISSION

To develop products and consult on the distribution and ecology of living marine resources and their associated habitats for improved ecosystem-based management.



Elkhorn coral and blue tang in the seascape of St. Croix. Credit: NCCOS

The National Centers for Coastal Ocean Science (NCCOS) Biogeography Branch is a leader in developing cutting-edge techniques to locate, monitor and assess the condition of marine life and related habitats. For over a decade, we have worked hand in hand with numerous partners in the U.S. Caribbean to provide decision makers and managers the information they need to conserve the region's coral reef ecosystems through monitoring, mapping and assessment.

Caribbean Coral Reef Ecosystem Monitoring Project

The Caribbean Coral Reef Ecosystem Monitoring Project is a cornerstone of the NCCOS coral reef ecosystem research portfolio supported by the Coral Reef Conservation Program. The 13-year project resulted in over 11,000 surveys at more than 5,600 coral reef sites across the U.S. Virgin Islands and Puerto Rico. The robust long-term spatial and temporal data painted one of the clearest pictures yet of the changing condition of U.S. Caribbean coral reefs and coastal areas. 2013 marks the completion of this project.

PROJECT HIGHLIGHTS

Watershed Impacts: developed an ecological baseline of corals, fishes and habitats to quantify the impact of Best Management Practices in priority watersheds including Guanica Bay, Puerto Rico and Fish and Coral Bays, St. John.

Marine Protected Areas: evaluated boundary change options for the Virgin Islands Coral Reef National Monument, incorporating areas of high coral cover while addressing the needs of fishermen.

Resource Monitoring: monitored condition of coral reefs and associated biological communities and mapped habitats and the distribution, abundance and size of reef fish, Queen conch, lobster and sea urchins.

Endangered Species: provided distribution and abundance data of elkhorn and staghorn corals for the Endangered Species Act listing process.

Invasive Species: documented the introduction and spread of the invasive Pacific lionfish.

Coral Bleaching: quantified the impact of the 2005 coral bleaching event.

Incident Response: assessed vessel groundings and visitor use impacts.



<http://coastalscience.noaa.gov/>

PARTNERSHIPS

The Caribbean Coral Reef Ecosystem Monitoring Project would not have been possible without the significant contribution by partners at federal and territorial agencies, nongovernmental organizations and academic institutes throughout the U.S. Caribbean.

Partners include: NPS, TNC, USGS, UVI, VI DPNR, PR DNER and UPR Mayaguez.

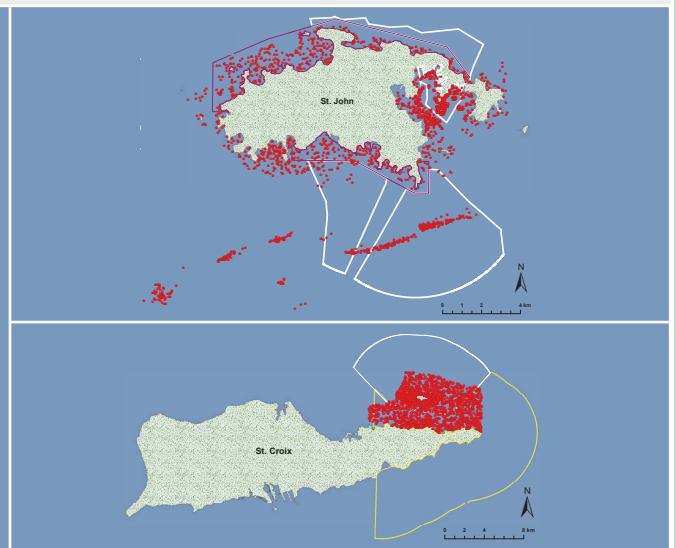
NEXT STEPS

Together with our partners located in the U.S. Caribbean, we are poised to expand our knowledge base from the Caribbean Coral Reef Ecosystem Monitoring Project and apply it to other areas of study, including:

- **National Coral Reef Monitoring Plan:** Build upon this project's historic long-term biological information and survey designs to provide the foundation for the Coral Reef Conservation Program's synoptic region-wide monitoring in the Atlantic and U.S. Caribbean
- **St. Thomas East End Reserves:** Develop an ecological characterization of fish and habitats within the reserves to support and inform management, including potential watershed restoration activities.
- **Mapping:** Use a suite of technologies to map priority regions of the seafloor in support of multiple resource management objectives.
- **Decision Support Science:** Provide tools to support permitting and planning and baseline biological data collection to aid future management decision making.



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ADDITIONAL ONLINE RESOURCES

NCCOS Biogeography Branch . . . <http://ccma.nos.noaa.gov/about/biogeography/>
Caribbean Coral Reef Ecosystem Monitoring Project . . . http://ccma.nos.noaa.gov/ecosystems/coralreef/reef_fish/

MORE INFORMATION

For more information about this project and others like it, contact:

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