

NOAA CONDUCTS RESEARCH MISSION OF UNDERWATER HABITATS IN THE U.S. CARIBBEAN

A Partnership Between the National Oceanic & Atmospheric Administration, the Caribbean Fisheries Management Council, the University of Puerto Rico (Mayaguez) and the Caribbean Coral Reef Institute

NOAA's Center for Coastal Monitoring and Assessment's (CCMA) Biogeography Team will be conducting a scientific research mission on board the NOAA ship NANCY FOSTER from April 14 to April 24, 2007. The purpose of the mission is to explore and characterize nearshore habitats (10 to 300 meters) within Puerto Rican waters. Scientists will collect high-resolution bathymetry; habitat hardness and habitat roughness; and complementary video data that will provide information about the characteristics of seafloor coral reef ecosystems. Kongsberg EM1002 & Reson 8124 multibeam echosounders will be used to collect bathymetric depth information and backscatter imagery. A remotely operated drop camera will capture underwater video imagery of seafloor habitats.

Data from multibeam surveys and under-water imagery will be combined with biological coral ecosystem and fish census data to produce maps of the sea floor topography and habitats. Priority areas for 2007 included Mona Island, Monito and several protected grouper spawning areas along Puerto Rico's western coast (i.e., Bajo de Cico, Abrir La Sierra Bank, and Tourmaline Bank).

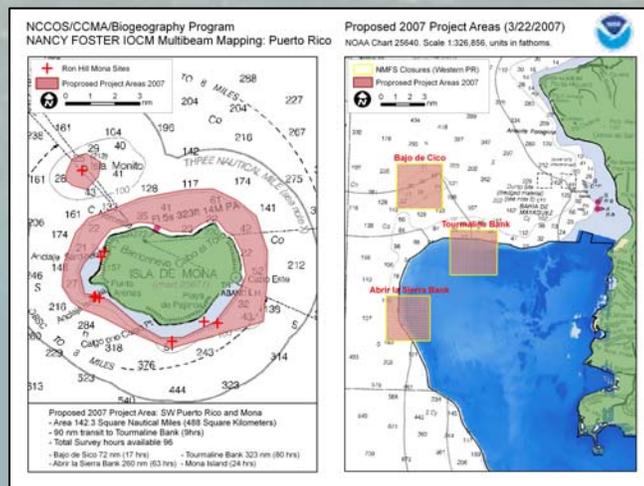


Figure 2. Project areas for the 2007 mapping effort in southwest Puerto Rico. Priority areas for 2007 include Mona Island, Monito, Bajo de Cico, Tourmaline Bank and Abrir La Sierra Bank.

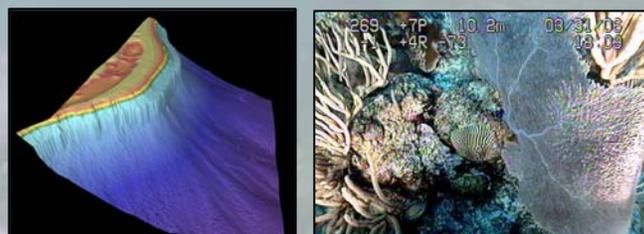


Figure 3. a & b. a) 3-D bathymetric model of El Hoyo in southwest Puerto Rico (NF-06-04). b) ROV underwater imagery collected in southwest Puerto Rico (NF-06-04).

Data generated during this mission will support natural resource management in Federal and Territorial waters of Puerto Rico, as well as help NOAA continue to meet its commitment to the U.S. Coral Reef Task Force to map moderate depth coral reef ecosystems.

NOAA's National Centers for Coastal Ocean Science is pleased to be able to collaborate with four other NOAA programs, including the National Marine Fisheries Service (NMFS), the Office of Coast Survey (OCS), NOAA's Marine Aircraft and Operations (NMAO) and the Center for Operational Oceanographic Products and Services (CO-OPS), as well as with the Caribbean Fisheries Management Council, the University of Puerto Rico (Mayaguez) and the Caribbean Coral Reef Institute. This study is funded by NOAA's Coral Reef Conservation Program.

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http://ccma.nos.noaa.gov/products/biogeography/usvi_nps/overview.html

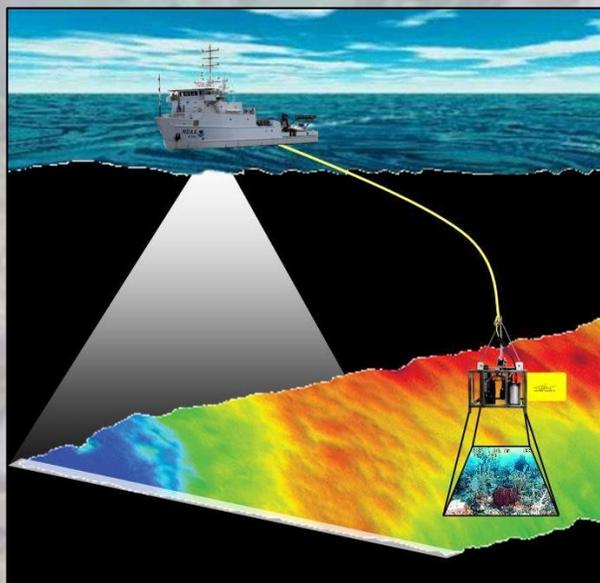


Figure 1. Multibeam data collection and ground truthing diagram. Kongsberg EM1002 & Reson 8124 echosounders will be used to collect bathymetric & backscatter information. A remotely operated drop camera will capture underwater imagery of seafloor habitats.