

**PUERTO RICO PROGRESS REPORT
UPDATES ON THE DEVELOPMENT OF THE LOCAL ACTION
STRATEGIES**

**US CORAL REEF TASK FORCE MEETING
March 1 - 2, 2007, Washington DC**

Good morning, distinguished members of the U. S. Coral Reef Task Force, Government officials, environmental and community representatives, and members of the public. On behalf of our Governor, Honorable Aníbal Acevedo Vilá, I would like to give you some updates in a few activities undertaken thru our Coral Reef Program. The Commonwealth of Puerto Rico acknowledges the invaluable collaboration of the National Oceanic and Atmospheric Administration (NOAA) to undertake actions that support our joint announcements at the Puerto Rico October 2002 Task Force meeting. As Designee of the Governor of Puerto Rico, I am proud to inform you of the successful progress on these joint initiatives that are strengthening Coral Reef Management in Puerto Rico.

Although among our Coral Reef Conservation and Management Program has implemented several strategies to reduce the impact to corals, we are sad to report that the bleaching event had drastic effects on some areas. As part of the U.S. National Coral Reef Monitoring Program (NOAA/DNER) have been monitoring the status of the coral reefs communities within the Natural Reserves with marine components around Puerto Rico coasts. In December 2006 we received the report of the monitoring undertaken at six Natural Reserves located in the west, south and southwest coast of Puerto Rico (Garcia, et al 2006). The sampled areas were the following Puerto Botes Reef (Isla Desecheo), Tourmaline Reef (Mayaguez Bay), Cayo Coral Reef (Guánica), Derrumbadero Reef (Ponce), West Reef of Isla Caja de Muerto (Ponce), and Tres Palmas Reef (Rincón). As part of this effort it was documented the effects of the 2005 bleaching event at those area, due to extended high Sea Surface Temperature (SST).

For instance in Desecheo Island where some of the most pristine and healthy corals had been monitored in the last four years, reported high levels of mortality (over 50%) in some areas and different depths. The live coral cover decline was driven by reductions in cover of the Boulder Star Coral, *Montastrea annularis*. Another result of this bleaching event particularly affecting the *M. annularis* it is related to the failure to reproduce during 2006.

Similar results were obtained in the other reserves monitored during 2006, Tourmaline Reef (Mayaguez), Cayo Coral (Guánica), West Reef (Caja de Muerto - Ponce), and Derrumbadero Reef (Ponce). In Ponce a 63% of mortality of the sessile benthic community at the reef systems was reported. The decline of (total) live coral cover at the reef community level was largely driven by mortality of Boulder Star Coral, *Montastrea annularis* (complex), a highly dominant species in terms of reef substrate cover and the principal reef building species. Corresponding increments of reef substrate cover by benthic algae were measured.

On the other hand, the Tres Palmas Reef reserve does not exhibit any major structural changes of live coral coverage. This is a bright note since the predominant species at this reserve are the elkhorn and staghorn coral which has been designated as threaten species in the Atlantic and Caribbean areas. The fringing shoreline reef at Tres Palmas is largely an Elkhorn Coral (*Acropora palmata*) biotope, and is dominated by encrusting Great Star Coral (*Montastrea cavernosa*) at the patch reef formations of the mid-shelf (10 m depth). These coral species appear to have been more tolerant to the increased SST than Boulder Star Coral.

During the process of creating the LAS one of the most important aspects that were discussed by all participants was the economic value of coral reefs. Thru the funds received for the Conservation and Management of Coral Reefs, PR issue a RFP to undertake such study. The funds available were not enough to contract the study. The

Coastal Zone Management Program has contributed with many of the endeavours to protect our coral reefs. Thanks to their contribution the economic valuation of the coral reefs will finally have the funds needed to undertake this important study. So far a draft contract has been prepared and is under evaluation to be signed by the contractor and the Department of Natural and Environmental Resources (DNER). Hopefully this contract will start by the end of March 2007.

As mentioned at the last meeting in St. Thomas DNER is undertaking the first DNER coral reef symposium. It will take place in April 11, 2007 at the Puerto Rico Convention Center, in San Juan. This activity is co-hosted by the Puerto Rico Tourism Company, the Sea Grant College Program and the Caribbean Coral Reef Institute (CCRI). A committee was established with representatives of Sea Grant, CCRI and DNER personnel to evaluate the papers received. A total of 30 oral presentations and 15 posters were selected to be presented at the symposium. We are more than glad to invite you all to attend this activity if you happen to be in San Juan, Puerto Rico at that time.

Much progress has been achieved into the development of the Puerto Rico Local Action Strategies (LAS). In the past year and a half, Puerto Rico has finalized the Local Action Strategies document to address the four key threats to the island coral reef ecosystems: land based sources of pollution, over fishing, recreational use and misuse, and lack of awareness. The focus given to the recreational use and misuse threat was to direct efforts to identify the impact of this activity in highly visited natural reserves. The priority areas in which the LAS focused were La Parguera Natural Reserve, Canal Luis Peña, La Cordillera and Guánica. Several studies were undertaken at different time in the past three years to characterize the benthic habitat in the shallow areas, assess the damage done by grounding, anchoring or trampling at target coral reefs and sea grass beds within these reserves. These studies finalize in 2005, not only for the above mentioned reserves, it also included the Caja de Muertos Reserve in Ponce. It was required that these studies recommended specific activities to reduce the impacts on the habitat, and to increase the awareness of visitors to these areas.

We have been implementing the recommendations made by our contractors in two reserves, La Cordillera and Canal Luis Peña. We are in the process of installing mooring buoys, navigational aids and educational signage in those areas to help prevent direct impacts to coral reefs and sea grass beds.

As part of the continuous efforts to help build capacity within our enforcement agents two workshops were undertaken. The first workshop was funded thru a NOAA General Coral Reef Conservation Grants. Participants to this workshop included all maritime rangers, maritime State Police, Municipal Police, members of DNER legal division, PR Department of Justice, and US Coast Guard. The topics covered in the workshop included legal principles and procedures to build better cases.

The second was sponsored by USDoJ and NOAA, with a participation of a total of six federal agencies. The participating federal agencies included besides DoJ and NOAA, Environmental Protection Agency (EPA), Department of Interior (Fish and Wildlife), Coast Guard, Corps of Engineers. Topics covered in the workshop were directed to implement federal regulations to maintain healthy marine resources such as the Clean Water Act (NPDES and 404 Dredge and fill), Clean Vessel Act, Ocean Dumping Act Oil Pollution Act, Vessel groundings, Treatment of oil spills, Lacey Act, Magnuson Stevens Act among others.

NOAA' s and DoJ continuous support for this and other activities is a major contribution to the strengthening of our enforcement capabilities and assisting us in fulfilling our mission to protect, conserve, restore, and wisely use our coral reef resources.

On behalf of the Governor of Puerto Rico, and on my behalf, thank you very much for this opportunity to share our efforts with you, and for your commitment to assist us in our quest to restore coral reef health in Puerto Rico.