



Ecosystem Goal-Setting in Coastal Waters and Reefs of South Florida

Issue:

The South Florida coastal marine environment has been altered extensively by population trends, agriculture, and industry and the impact to the living marine resources within this system have been significant. This area includes Florida and Biscayne Bays and the Florida Keys, much of which lies within the Everglades and Biscayne Bay National Parks and Florida Keys National Marine Sanctuary (FKNMS). The entire South Florida marine ecosystem is downstream and thus intimately linked to the Florida Everglades. Modifications made to the Everglades as a result of the Comprehensive Everglades Restoration Plan (CERP) could have a significant impact on habitats and living resources within Florida Bay and the surrounding marine system as well as aesthetic, resource management, or economic impacts.



The seagrass community of South Florida is the largest seagrass meadow in the world covering an area of more than 5,500 square kilometers (photo credit: Heather Dine - Florida Keys NMS)

Approach:

NOAA is responsible for management of coastal marine resources in South Florida, a responsibility that is shared with other state and Federal agencies. Thus NOAA has a critical interest in the implications of CERP-directed changes to the Everglades and their potential impact on coastal water quality, important seagrass beds, coral reef communities and harmful algal blooms. An interagency research program, which NOAA's Center for Sponsored Coastal Ocean Research (CSCOR) has funded to a large extent, has been underway for more than a decade. This program characterizes present conditions and ecosystem processes towards a goal of predicting future impacts of CERP decisions on valuable marine resources so that informed, proactive management decisions can be made. CSCOR's South Florida Program is meant to achieve measurable environmental outcomes at a regional ecosystem scale. This mission, common to most CSCOR programs, is particularly well suited to the management challenges associated with addressing the downstream influences of Everglades restoration.

South Florida historically contains some of the most rich and diverse marine resources communities in the country, which have been a magnet for tourism and commercial fishery interests.

The CSCOR South Florida Program:

Supporting the development of a comprehensive regional ecosystem modeling effort to underpin an ecosystem-based management approach is the ultimate goal of CSCOR's South Florida program. Accomplishing this goal to a point that it can unambiguously inform management decisions will, however, be complex and technically challenging. This is because of the precision and accuracy of data and information needed to support anticipated management decisions. This level of specificity does not yet exist. CSCOR has determined that the lack of a consensus for specific, quantifiable goals that define the desired condition for protection and restoration of valuable resources in the South Florida coastal ecosystem is an obstacle that

will need to be overcome before the requirements of a regional ecosystem modeling effort can be defined. Thus, CSCOR, along with many other partners, is supporting a three year project that will bring together academia, Federal and State resource managers, and the general public to use the scientific data and knowledge that has been accumulated to reach consensus on specific, quantifiable and comprehensive ecosystem goals for the South Florida coastal marine system. This cooperative Federal, state, public, private project, Marine and Estuarine Goal Setting for South Florida (MARES), will support a process for developing integrated ecosystem models and defining ecosystem goals needed to insure long term sustainability of South Florida coastal resources.



There are more than 6,000 species of plants and animals in the waters of the Florida Keys, and many of these can be found on South Florida's reefs (photo credit: Mike White - Florida Keys NMS)

FOR MORE INFORMATION VISIT:

- [MARES Press Release](#)

http://www.noaanews.noaa.gov/stories2010/20100106_southflorida.html

- [Marine and Estuarine Goal Setting for South Florida \(MARES\) Web Site](#)

<http://sofla-mares.org/>

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