

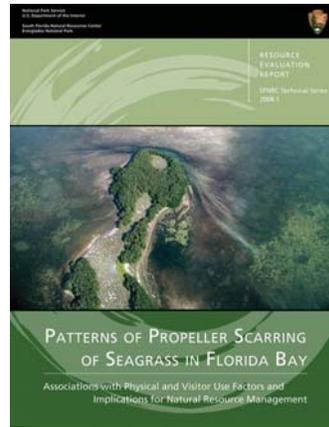
NPS IN PRINT

Patterns of propeller scarring of seagrass in Florida Bay

NATURAL RESOURCE MANAGERS OFTEN STRUGGLE to obtain accurate estimates of damage caused by recreational activities in national parks. Understanding the factors that affect recreational impacts is an important step in the development of management plans that seek to reduce impacts on natural resources. In Florida Bay, Everglades National Park, hundreds of thousands of acres of submerged wilderness are visited by recreational boaters that come from the park's primary access in Flamingo and various entry points throughout the Florida Keys. Although the principal environmental stressors on Florida Bay are related to watershed management, recreational boat use also has resulted in damage to benthic resources. Identification of propeller-scarred seagrass beds has been a critical data need of park managers and the public in the development of the park general management plan and for natural resource management. To learn more about seagrass scarring by motorboat propellers and potential ways to address this problem, scientists at Everglades National Park mapped and geostatistically analyzed seagrass damage in Florida Bay.

This study (South Florida Natural Resources Center 2008) found that seagrass scarring in Florida Bay is widespread, with dense areas occurring in shallow depths, near all navigational channels, and around sites that are most heavily visited, such as shorelines. Scientists identified substantially more scarring in this study than in a previous statewide study conducted in 1995, and scarring is increasing at specific sites in Florida Bay. In light of the worsening problem, the study concludes that new management strategies are needed to protect seagrass beds as part of an ecosystem approach to managing Florida Bay. Several options for minimizing propeller-caused damage are available to managers: education programs, improved navigational aids, pole/troll zones, idle and speed zones, limiting access of particular motorized watercraft, and area-specific seasonal access limits or closures.

NPS PHOTO/LORI OBERHOFER



Reference

South Florida Natural Resources Center (SFNRC). 2008. Patterns of propeller scarring of seagrass in Florida Bay: Associations with visitor use factors and implications for natural resource management. Resource Evaluation Report. SFNRC Technical Series 2008:1. National Park Service, Everglades National Park, Homestead, Florida, USA. Available at <http://www.nps.gov/ever/naturescience/technicalreports.htm>.

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