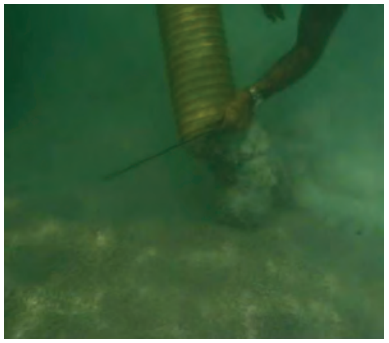


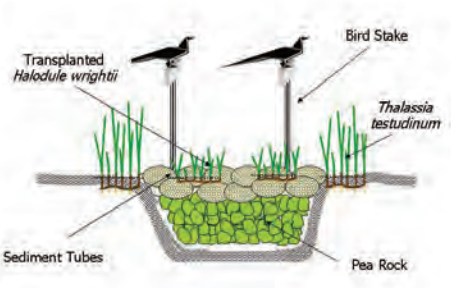
Experimental evaluation of a technique to restore severe boat damage in Florida seagrass habitats

Introduction:
Many Florida sea grass beds show damage caused by boat propellers and hull groundings. Vessel damage in sea grass systems can take decades to recover, especially in deeper excavations. As the Florida boating population increases, the problem of propeller scarring and hull grounding is likely to get worse. Resource agencies need options for enhancing recovery rates of extensively scarred sea grass habitats under their management.

Objective:
To develop a cost-effective, reliable procedure to accelerate recovery of severe boat damage in sea grass habitats by combining topographical restoration techniques (pea rock fill and biodegradable, sediment-filled tubes) with biological restoration techniques (sea grass transplantation and nutrient addition via bird stakes).

Approach:
Eight sea grass blowholes in the Florida Keys will be filled with pea rock to stabilize the scars and prevent further erosion. Four of the filled blowholes will be capped with sediment-filled tubes (Sediment Tubes® – developed by Seagrass Recovery, LLC) to provide the fine carbonate sand needed for sea grass colonization and growth. Shoal grass units will be planted, and bird stakes will be installed to provide nutrients for the shoal grass transplants. We will test the hypothesis that there is no significant difference in sea grass recovery between regraded excavations capped with sediment tubes and those that are left uncapped.

Benefits:
Successful restoration of sea grass communities hastens the return of lost ecological functions (e.g. providing food and shelter for sea grass associated fauna). By developing reliable restoration techniques, recovery of vessel damage in sea grass habitats will be accelerated. This project will provide key scientific information to assist resource managers to plan and implement restoration of damaged sea grass communities. In addition, the collaborative nature of this work will increase public awareness and appreciation for sea grass ecosystems.



Location:
Florida Keys, but results apply statewide.

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