



For Immediate Release

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A Flight Over the Shallows

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Why care about protecting seagrass communities? Many of the animals that inhabit seagrasses are hidden between the grass blades, so the diversity and productivity of this community may not be readily apparent to the boater or even the snorkeler. Yet, a few passes through the seagrass with a mesh dip-net reveal a variety of shrimp, crabs, snails, clams, and fish. Seagrass habitats are essential to both the commercial and recreational fisheries in Monroe County. Spiny lobsters forage in the grassbeds at night and juvenile pink shrimp inhabit seagrass meadows in Florida Bay before migrating to the Dry Tortugas harvesting grounds. In 1999, the commercial harvest for fish and crustacean species dependent upon seagrass totaled \$59.6 million. Baitfish and the many invertebrates that form the basis of the food web for snapper, tarpon, bonefish, and other recreational gamefish depend upon healthy, intact seagrass habitat.

An airplane flight over the shallow waters of the Florida Keys almost always reveals a labyrinth of long, white prop scars within the lush green seagrass beds below. Prop scarring is particularly evident at the entrance of boat channels and across the tops of shallow banks. Aerial photographs taken by the Florida Marine Research Institute documented the extent of the problem along Florida's coastline and in Monroe County, where virtually every seagrass bed exhibited some degree of scarring.

Many boat operators do not realize that when a propeller cuts across a seagrass meadow, it not only destroys the blades, it often tears up the rhizome system -- a network of runners that serves many functions, including anchoring the seagrass plants to the bottom. Repeated injuries can interfere with the ecological functions normally carried out by seagrass. Extensive scarring actually breaks the intact grassbed into smaller, disconnected "islands", creating barren sandy patches that are unsuitable for many seagrass inhabitants. Severely scarred seagrass beds release sediments into the water column that were once trapped beneath the plants. The result may be reduced water quality and clarity. Each new scar or similar injury makes the entire grassbed more susceptible to further erosion from natural forces such as storms, tides, and currents. If enough damage occurs to a single meadow, this valuable resource may be slowly eroded and along with it the important ecological functions it serves.

Many factors influence the severity of the scar injury, including water depth, size and draft of the boat and whether the boat has single or twin engines. The boat operator's knowledge and approach to the problem can also affect the degree of the damage. If after becoming grounded on the flat, the operator tries to "power off" instead of calling for assistance or poling the boat to deeper water, a circular "blow hole" about the size of the boat hull is created in the seagrass bed, further reducing the amount of intact habitat. Powering off the

grassbed also deposits unwanted sediments onto nearby seagrasses, creating unsuitable conditions for these sun-loving plants.

Boat operators can follow some simple guidelines to minimize their chances of injuring seagrasses and allow existing scars to heal. They can opt to take a safe boating course and study their charts before leaving the dock. When underway, they can stay in water that is deep in relation to their boat's draft, use marked channels, post a look-out on the bow, and abide by idle speed, no entry, and no motor zones. Wearing polarized lenses helps the operator to see the flats and other features beneath the water's surface. The phrase, "Brown, brown, run aground" is a good one for all boaters to keep in mind. Boating impacts to the seagrass community not only destroy this important fishery habitat, but they create problems for boat owners and operators. Propeller replacements, engine repairs and towing fees associated with groundings cost operators millions of dollars each year. In addition, legal and civil fines can be levied to mitigate damage done to this important resource and to implement restoration plans.

A variety of approaches designed to preserve the seagrass resource are outlined in the Management Plan of the Florida Keys National Marine Sanctuary. Channel marking, boater education, and law enforcement are all essential elements in the seagrass protection equation. In addition, no motor, idle speed, and limited closure zones have been established in many nearshore areas within the Sanctuary. These zones, many of them designated as Wildlife Management Areas under the jurisdiction of the Fish and Wildlife Service, protect shallow grassbeds before extensive damage can be done by keeping motorized vessels out. In places where injuries are extensive, restoration techniques may speed the healing process.

Better boating etiquette on the part of all operators will go a long way toward improving the view from the air. Let's each do our part to prevent boat groundings and impacts to the seagrasses and other marine communities. Remember, be aware and always boat with care.