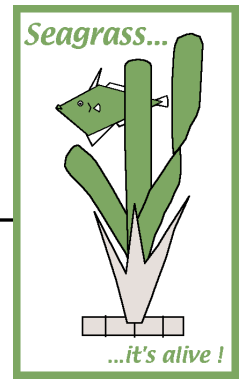


# Seagrass FACT SHEET

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- ❖ "The Seagrass community of south Florida is the largest seagrass meadow in the world and has helped create the world class fishing of the Florida Keys." (J. Fourqurean, WQPP, 1999)
- ❖ Seagrasses stabilize the bottom sediments and help to absorb excess nutrients from land run-off. Damaging Seagrass beds leads to continually resuspended bottom sediments and nutrients that further damage the quality of our waters.
- ❖ Our Seagrass community supports hundreds of species of fish at various stages of their lives. Without healthy Seagrass beds, these fish populations are compromised -- as is commercial and recreational fishing, our coral reefs, and our wading birds.
- ❖ In 2006 alone, Seagrass communities in the State of Florida supported an estimated harvest of roughly \$71.4 million for shrimp, stone crab, spiny lobster, yellowtail snapper, gray snapper, and blue crab! (FFWCC, Annual Landings, 2006)
- ❖ In Florida there are over 173,000 acres with light, moderate, and severe propeller scarring. Scarred seagrasses were observed in all areas of the state, mostly in shallow coastal waters less than six feet deep. (Sargent, et. al 1995)
- ❖ Damaging Seagrass with your boat's propeller will fragment the grass bed and severely restrict the movement of marine wildlife in needed habitat. This can create barren areas where fish and others once flourished.
- ❖ A moment's carelessness can quickly impair this precious resource -- a propeller scar cut into Seagrass today can be around in seven years or longer!
- ❖ Running aground costs millions of dollars each year to boaters in towing fees, propeller replacement, engine repair, and legal fines.
- ❖ The shallow waters of Florida pose a particular challenge - even to the most experienced boaters.....

STUDY YOUR CHARTS.

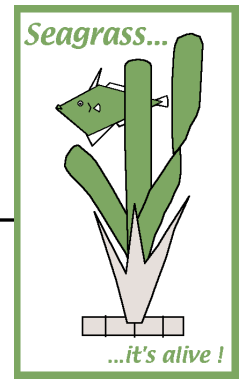
READ THE WATERS.

KNOW YOUR DEPTH AND DRAFT.

Losing our Seagrass means more than a few blades of grass.

# Seagrass and the Economy

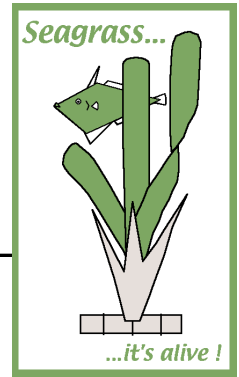
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- ❖ Many commercial fishery species rely on seagrass habitat during some part of their life cycles including pink shrimp, lobster, red fish, and stone crab.
- ❖ Seagrass habitat helps to support a thriving, multi-million dollar recreational fishery including flats fishing for bonefish and tarpon.
- ❖ The estimated total value for the State of Florida in 2006 for six seagrass dependent species added up to about \$71.4 million.
- ❖ More than 70% of Florida's recreational and commercial fish, crustaceans, and shellfish spend part of their lives in shallow water estuaries.
- ❖ In 2006, the estimated annual value of the pink shrimp industry in the State of Florida was \$18.3 million.
- ❖ The value of the stone crab fishery in the State of Florida in 2006 was estimated at \$13 million.
- ❖ The 2006 spiny lobster fishery in the State of Florida was valued at \$18.1 million.
- ❖ Snapper, including yellowtail and gray, brought in \$3.1 million in 2006 to the State of Florida.
- ❖ Over 30 species of tropical invertebrates dependent on seagrass habitats are collected in the Florida Keys for the marine collection industry yearly.

# Seagrass Boating Skills

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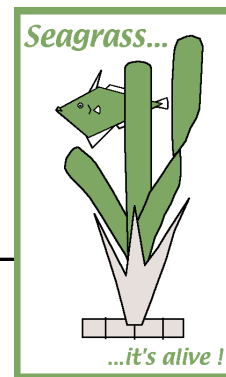


You have probably noticed, either from the air or from the bridges, all the zig-zag patterns on seagrass flats. These are prop dredge scars caused by inadvertent or careless boating practices. Damage to seagrass flats from boats is an increasing problem in the State of Florida. Please pay attention to the following tips for boating in near shore habitats.

- ❖ Familiarize yourself with the local waters where you plan to boat.
- ❖ Always use up-to-date nautical charts of the area.
- ❖ Use marked channels where they exist and stay in deep water.
- ❖ Remember this jingle...  
"Brown, Brown Run Aground; White, White You Just Might;  
Blue, Blue Sail on Through; Green, Green Nice and Clean"  
Shallow water appears very dark to the observer while deeper water appears blue or green. Sand covered bottoms appear white and may or may not be deep enough for your vessel to navigate.
- ❖ When in doubt about the depth, slow down and idle. Make sure the bow of the boat is down and the motor is trimmed or tilted up.
- ❖ Wear polarized sunglasses. Polarized sunglasses reduce surface glare to help you spot and avoid seagrass beds and animals such as manatees that feed in them.
- ❖ Keep track of the tides. The greatest range of tides (shallowest and deepest water) occurs during a full-moon and new-moon. Use extra caution when boating on a low tide.
- ❖ If you do run into a seagrass flat, you will be leaving a sediment trail behind your boat, making the water murky and probably cutting seagrass roots. Stop immediately and tilt your engine. Pole or push the boat into deeper water.
- ❖ Prop-dredging and seagrass scarring is an unnecessary impact to the natural resources that you can control. **Study your charts. Read the waters. Know your depth and draft.**

# Your Connection to Seagrass Habitats

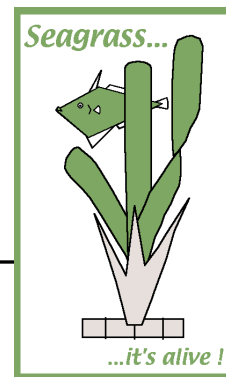
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- ❖ The State of Florida has 2,658,290 acres of seagrass.
- ❖ Seagrasses, which are a valuable part of Florida's marine environment, are disappearing at an alarming rate.
- ❖ Threats to seagrasses include dredge and fill projects, degraded water quality, and physical impacts by boat propellers.
- ❖ Recent biological surveys show that seagrasses are being destroyed at an alarming rate by careless boating activity in the nearshore waters of the State of Florida.
- ❖ Seagrass destruction is a serious problem and has become more intense and widespread near shoreline communities and popular boat access areas.
- ❖ Damaging seagrass with your boat's propeller will fragment the grass bed and severely restrict the movement of marine wildlife in needed habitat. This can create barren areas where fish and other species once flourished.
- ❖ Boats are becoming more numerous, larger, and more powerful, compounding the problem.
- ❖ Seagrass loss has a direct, long-term economic impact on commercial and recreational interests in the State of Florida.
- ❖ Damage to seagrasses compound with each grounding or prop dredging incident.
- ❖ Sediment plumes behind boats are a sign of an inexperienced or careless boater...Look over your shoulder and size up your boating skills.
- ❖ The damage caused by a boat propeller in 10 seconds can take years to heal.
- ❖ The destruction of seagrass can be stopped...**It's up to you!**

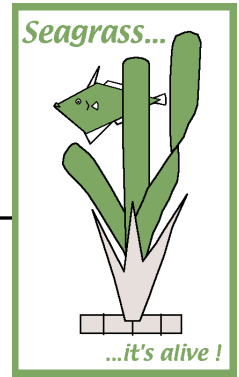
# Damage Costs in Seagrass Habitats

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- ❖ Grounding and prop dredging in seagrass habitat has consequences to both habitat and personal property.
- ❖ Damage to vessel engines, hulls, and propellers often occur when a vessel grounds in seagrass or shallow bottom habitat.
- ❖ Gouging of seagrass habitat by propellers damages the blades and underground roots of the plant.
- ❖ Seagrasses require anywhere from 2 to 10 years to recover from propeller damage depending on the species of seagrass.
- ❖ Towing fees charged by companies who assist grounded vessels cost approximately \$125/hr. dock to dock during the day, and \$150/hr. dock to dock at night. The fee for refloating a grounded vessel is \$5-10/foot of vessel.
- ❖ Groundings resulting in damage to seagrass habitats are offenses subject to both federal and state fines and penalties including civil penalties, and costs of assessment of damage, restoration of habitat, and long-term monitoring of restored habitat.

# The Bottom Is Alive!



- ❖ Seagrasses are flowering plants that live underwater.
- ❖ There are 7 species of seagrasses in Florida. Turtle grass, manatee grass, and shoal grass are the most common types.
- ❖ Seagrasses serve other important functions, such as:
  - helping maintain water clarity by trapping sediments
  - stabilizing the bottom with their roots (rhizomes)
  - serving as food to many marine animals.
- ❖ Species diversity of seagrass communities can range from 292 individuals to 10,644 per square meter.
- ❖ Seagrass communities are an integral component of the web connecting shallow water habitats that link wetland and mangrove communities to hardbottom and coral reefs. Damaging one habitat has severe consequences on the others.
- ❖ Seagrass species are critical for stabilizing sediments and providing a system that comprises hundreds or thousands of associated plant and animal species. Without seagrasses many areas would be a seascape of unstable shifting sand and mud.
- ❖ Taking the time to look closely at a seagrass bed allows one to realize the complexity of the miniaturized living community that depends upon protection, shelter, and food from the seagrass meadow.