

## How can you help protect seagrass?

### BE AWARE

If you live near the coast or along a river, be careful when applying fertilizers and pesticides to your lawn. Use only the amount of fertilizer required and consider using a slow release fertilizer. Gutters and storm drains transport excess lawn chemicals to the water.

### READ THE WATERS

Wear polarized sunglasses when boating to reduce the surface glare to help you see shallow areas and seagrass beds. Polarized sunglasses can also help you see and avoid manatees and underwater hazards.

### KNOW YOUR BOATING SIGNS AND MARKERS

Operate your boat in marked channels to prevent running aground and damaging your boat and seagrass beds. Know the correct side to stay on when approaching channel markers. Learn the shapes and markings of signs warning boaters of dangerous shallows and areas where boats are prohibited by law.

### KNOW YOUR DEPTH AND DRAFT

When in doubt about the depth, slow down and idle. If you are leaving a muddy trail behind your boat, you are probably cutting seagrass. Tilt or stop your engine

if necessary. If you run aground, pole or walk your boat to deeper water. Never try to motor your way out. This will cause extensive damage to seagrass and may harm your motor. Know the times for your low and high tides.

### BE ON THE LOOKOUT

When your boat is underway, always keep a sharp lookout ahead of you and be aware of your surroundings. This will keep you and your passengers safe, as well as keep seagrass and marine animals out of danger.

### BE CONSIDERATE

Docks, boathouses, and even boats can block sunlight from reaching the seagrass below. When building or repairing a dock, consider building the dock five feet above the water and using grating rather than planks. Extend the dock to deeper water so your boat does not shade seagrass.

### STUDY YOUR CHARTS

Use navigational charts, fishing maps, or local boating guides to become familiar with waterways. These nautical charts alert you to shallow areas so you don't run aground and damage seagrass. Know before you go.

## What is being done to protect seagrass?

As Florida has become more urbanized, thousands of acres of seagrass meadows off the coast have been lost. Scientists use aerial photographs and geographic computer systems to monitor the status of seagrass off Florida. As a result, many efforts are underway to educate residents about the benefits of seagrass and how they can help protect the seagrass meadows.

**Water Quality Efforts:** Government regulations aimed at protecting water quality also protect seagrass. Private industry is also helping by ensuring that their industrial discharges and stormwater runoff meet acceptable levels of quality. Some private industries have organized and are collectively reducing pollutants from entering coastal waters.

**Volunteer Organizations:** Several organizations have implemented programs to plant and monitor the health of seagrass. Community action groups organize clean up days for shorelines near their neighborhoods.

**Local Efforts:** Planning and zoning regulations have been implemented in many communities to protect seagrass by ensuring compatible land-use practices along Florida's shorelines.

**Citizens:** Through good landscape management practices and the prevention of debris from going down storm sewers, individuals are helping to protect the seagrass. Many citizens are taking safe boating courses and learning more about the marine environment before venturing out into coastal waters.

## How can you learn more?



**Florida Fish & Wildlife  
Conservation Commission  
Florida Marine Research Institute**  
100 Eighth Avenue S.E.  
St. Petersburg, Florida 33701  
Telephone: (727) 896-8626

To learn more about seagrass, please contact the Fish & Wildlife Conservation Commission (FWC) or any one of the several agencies and organizations that work together to protect Florida's seagrass meadows so that residents and visitors can continue to enjoy the many benefits of our marine resources.

The Florida Marine Research Institute is the leader in providing information for conservation and management of seagrass. Additional information is available on the following topics:

Seagrass Physiology  
Horticulture Techniques  
Monitoring Programs  
GIS Mapping  
Restoration Techniques

For information, visit these helpful Web sites at:

**[www.floridamarine.org](http://www.floridamarine.org)**  
**[www.floridaconservation.org](http://www.floridaconservation.org)**

To report fish and wildlife violations, oil spills, injured wildlife, or boating accidents, please call the FWC Law Enforcement Hotline at:

**1-888-404-FWCC (3922)**  
**Cell Phones Dial \*FWC**

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# Florida's Seagrass Meadows

## Benefiting Everyone



# What is seagrass?

Seagrasses are underwater flowering plants that live in Florida's protected bays, lagoons, and other shallow coastal waters. Because seagrass requires sunlight, most seagrass is found in clear shallow waters. These grass-like plants form small patchy beds that develop into large continuous beds known as seagrass meadows. In good quality water with minimal disturbances, seagrass meadows can grow lush and thick. These meadows may take many decades to form.

Seagrass provides many benefits to the wildlife and people of Florida. Seagrass is fragile and can be inadvertently harmed by human activities in and around the coastal waters of Florida. We can all do simple things to help protect these valuable underwater plants.



# Why is seagrass so valuable to us?

Seagrass is **economically and ecologically valuable** to humans as well as marine life. Seagrass is one of the most productive natural communities in the world and is a principal contributor to the marine food web.



**Hundreds of marine plants and animals live among seagrass** and form a complex and fragile community. Sea turtles and manatees graze upon seagrass. Many types of shrimp, crabs, worms, snails, and small fish spend their entire lives within seagrass meadows. Larger fish and seabirds visit seagrass meadows to eat these smaller animals.

Seventy percent of Florida's **marine recreational fish depend upon seagrass** communities at some time in their lives. Seagrass largely supports Florida's thriving recreational and commercial fishing industries.

Seagrass also **improves the water quality** by stabilizing loose sediment and filtering some pollutants out of the water. Without seagrass, many areas would be a seascape of unstable shifting sand and mud.

Seagrass communities are an **integral part of the web connecting shallow water habitats** that link wetland and mangrove communities to hardbottom and coral reefs.

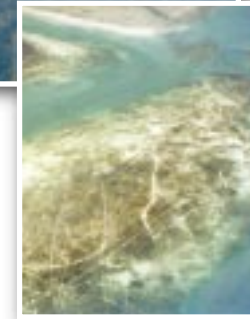
# Seagrass provides benefits for everyone

Seagrass is fragile and can be inadvertently damaged by human activities. Boat propellers can cut blades and roots. Severe damage can require as long as ten years for recovery. Contaminated stormwater runoff, dirt, chemicals, and excess algae can reduce water clarity making it difficult for sunlight to penetrate down to seagrass on the bottom. Without bright sunlight, seagrass can not survive and grow.



**Above:** Effects of residential docks on seagrass include areas under and around docks where seagrass does not grow.

**Right:** White streaks show damage of boat propellers on seagrass meadows. White patches are where seagrass is completely destroyed.



## How do we harm seagrass?

We can harm seagrass several ways. Being aware of how seagrass can be damaged is the first step in protecting these valuable marine environments.

**Storm Runoff:** Water runoff containing chemicals, fertilizers, silt, and debris is a major threat to seagrass. Runoff from residential, industrial, and agricultural areas contain contaminants that are carried through storm drains to Florida's waterways.

**Careless Boating:** Improper boating activity in shallow waters is an ongoing concern. Boat propellers can rip up seagrass and dig trenches through seagrass meadows. This "prop dredging" damages seagrass and can eventually create barren areas where fish and other animals once flourished.

**Dredging and Building:** Dredge and fill projects, construction of marinas, and building of docks and bridges also contribute to the damage to seagrass. Docks shade out seagrass so that it can not grow.

## While Florida's population has been steadily growing, our seagrass meadows have been declining

Notable areas of seagrass loss include:

- **Tampa Bay:** 40% of the seagrass has been lost since 1950,
- **St. Joseph Sound north of Clearwater:** 72% loss of seagrass since 1950,
- **Biscayne Bay near Miami:** 43% of seagrass beds in the northern section no longer exist,
- **Indian River Lagoon:** 30% of the seagrass from Stuart north to Titusville has been lost,
- **Charlotte Harbor between Naples and Sarasota:** 29% of seagrass lost since 1950.

