

FOR A SAFE AND ENJOYABLE BOATING TRIP, PLEASE FOLLOW THESE TIPS:

- **Review your planned course on a navigation chart before departure.** Take note of shallow areas that you may encounter. Carry the chart on the boat for later reference. It is also important to make note of the estimated tides. Low tides can create shallow conditions in otherwise navigable waters.
- **Stay within marked channels.** Know what different navigation markers indicate. **Remember: RED, RIGHT, RETURN.** Keep the red marker to the right when returning from the ocean, or when moving toward the Intracoastal Waterway, or when motoring south.
- **Do not operate the boat in water less than 3 feet deep.** This protects the seagrass beds from turbidity and prop dredging. Should you run aground, stop the engine and immediately trim the motor up. Pole or walk the boat out to deeper water or wait until the tide rises. If you notice a turbidity plume behind your boat, immediately trim the motor up as much as possible and return to deeper water. If the plume continues, stop the engine. Pole or walk the boat to deeper water.
- **Obey all restricted access signs.** Stay a minimum distance of 100 yards from bird roosting, nesting and feeding areas. If your boat appears to be flushing birds from their activities, you are too close. Move farther away. All natural resource laws are strictly enforced.
- **If available, always use mooring buoys in the anchorages.** If mooring buoys are not available, please be careful not to drag anchors and chains across the seagrass beds. If your anchor becomes stuck, move up to the anchor and retrieve from directly above its position. Use the appropriate anchor for the size of the boat and bottom type.
- **Be safe.** Carry extra gear, leave a float plan with someone on shore, listen to weather forecasts in advance and watch the sky for sudden approaching storms.
- **Be aware of swimmers and divers in the water.** While swimming, diving or snorkeling in open water, either from a boat or from shore, a "Diver Down" flag must be displayed.

LEARN TO READ THE WATER

*Blue blue, sail on through
Green green, nice and clean
Brown brown, run aground!*

Color changes in the water indicate differences in depth and bottom types. This information is useful in determining where channels and shoals are located. Shallow seagrass beds, hardbottom, patch reefs and sand shoals in nearshore areas will appear beige, brown, or light green in color. Deeper adjacent waters are slightly darker green. Wearing polarized sunglasses greatly enhances subtle differences in water color. Keep in mind, however, that reading water can be difficult or impossible on windy or overcast days or when the sun is low in the sky. **Reading the water color is an enhancement and not a substitution for reading a navigation chart!**

Preventing damage to seagrass beds depends on each boater's courteous and responsible use of the resources of the Florida Keys. Your cooperation is also needed to pass the word to support these efforts.

Operating boats outside of marked channels damages shallow seagrass beds and can result in citations and fines. Know before you go!



Boating in shallow waters can cause prop scars in seagrass beds. These damaged areas may take many years to heal.

LET'S SAVE THE SEAGRASS MEADOWS!

Show your concern for the seagrass beds and the abundance of marine life they support. Your responsible actions while boating in the waters of the Florida Keys will help preserve our natural resources for the enjoyment of this and future generations.



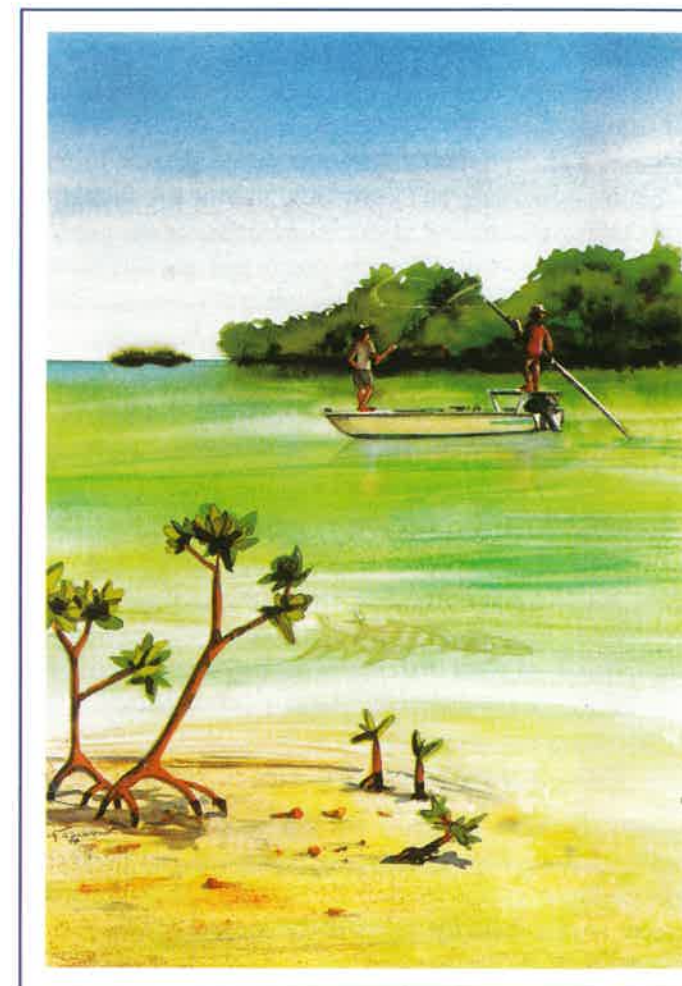
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If You're Boating In The Lignumvitae Key Area

Be Cautious In The Seagrass Beds



AT HOME IN THE SEAGRASS BEDS

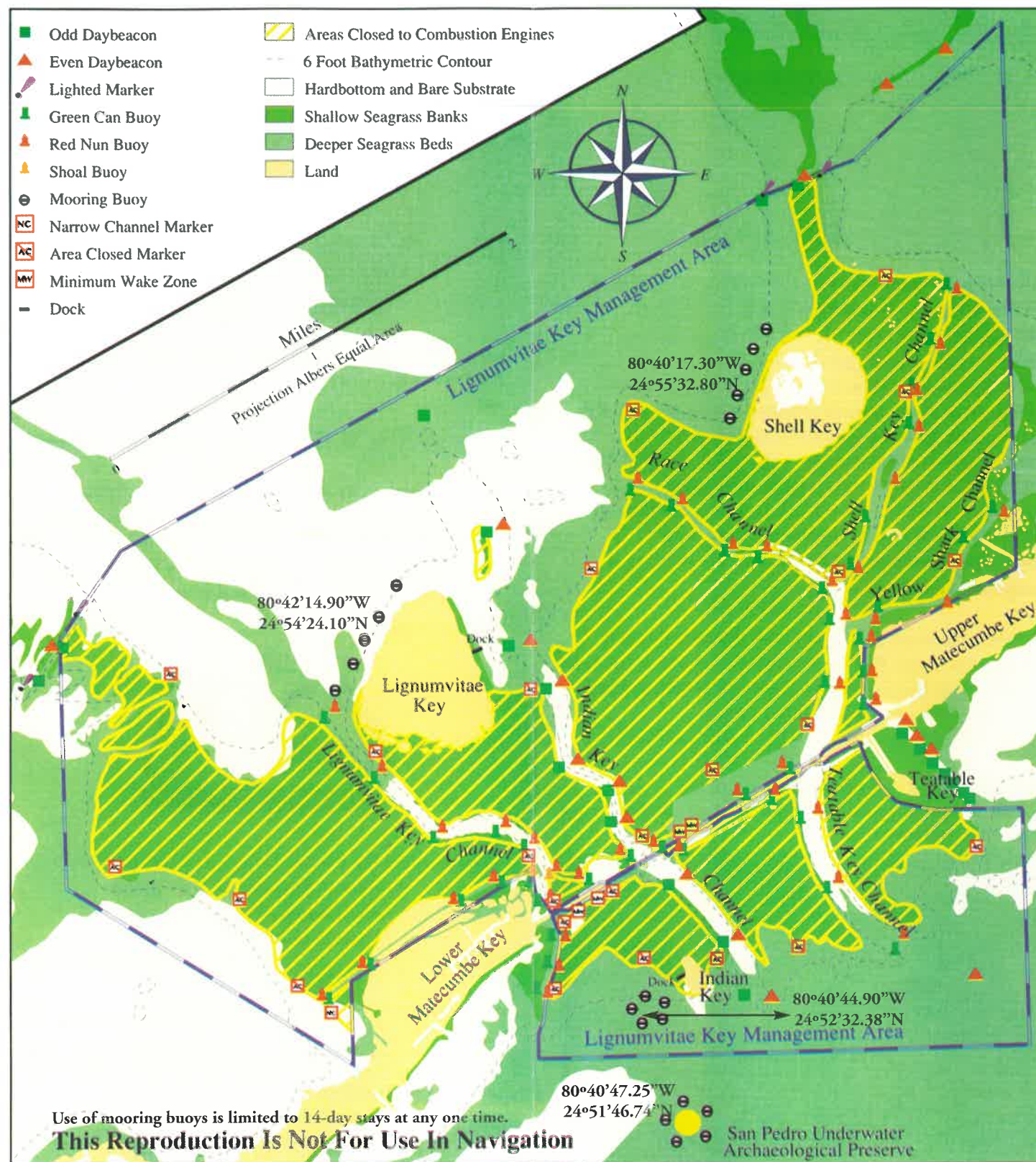
The seagrass beds found in the waters of the Florida Keys provide nursery areas, feeding habitat and shelter for a wide variety of marine life. Alert and knowledgeable boaters can help protect this precious resource.

Seagrasses are unusual plants. They are one of the few flowering plants that grow entirely underwater. Like plants that grow on land, seagrasses have a connecting root system, leaves and flowers. As tides flow through the shallow meadows, friction with the grass blades slows the currents. This allows sediments in the water to settle to the bottom. This baffling action adds sediments and nutrients to the seagrass meadows and plays an important part in maintaining the clear, transparent waters that are critical to the survival of the adjacent coral reefs.

Under ideal conditions, seagrass beds become very dense and provide shelter for smaller plants and animals. The entwined and overlapping blades of the seagrasses provide shelter for encrusting and burrowing marine life including algae, crabs, worms and clams. The surface of the grass blades provides a home for tiny plants and animals known as "epiphytes". These epiphytes are often so dense that the shallow seagrass beds (or "flats"), which are frequently exposed at low tide, appear brown in color. Starfish, urchins, crabs, lobster and fish forage on the grasses and the epiphytes that live upon the grass blades. These plants and animals do not harm the grasses and add a rich source of protein for the animals that feed on them.

The canopy of grass blades also provides shelter and hiding places for juvenile fish, many of which are important to local recreational and commercial fisheries. Huge schools of parrotfish and surgeonfish commute daily from the reef to browse in the underwater meadows. Adult fish that forage in seagrasses include snappers, grunts, small sharks, rays and bonefish.

Marine turtles and manatees are also fond of browsing seagrass leaves. Porpoise, tarpon, barracuda and other large predators patrol the flats for unwary fish or crabs that venture too far from the cover of the grasses. These intricate food chains are essential to the biological richness and stability of the marine ecosystem of the Florida Keys.



BOATING DAMAGE TO SEAGRASS BEDS

Unfortunately, the activities of fishermen and boaters may, at times, damage seagrasses. In the Florida Keys, large areas of seagrass occur in shallow waters. Boaters who traverse these areas should be aware that many locations are too shallow to navigate. Accidental boat groundings, propeller scarring and turbidity from boat wakes contribute to the destruction of seagrass beds. Once damaged, recovery of this plant community may take as long as ten years.

The loss of seagrasses from boat groundings and prop scarring adversely affects the ability of these habitats to support the many marine species that are important to the local economy. If seagrass losses continue at current rates, other values such as water quality, recreation and the overall quality of life for residents and tourists visiting this area, will be severely impaired.

Major navigation routes in the Lignumvitae/Indian Key area have been marked to prevent additional damage to shallow seagrass beds. These major channels are marked with traditional green and red channel markers. To avoid damaging their vessel or the seagrass beds, boaters should remain in these channels.

Shallow areas, with primarily three feet of water or less at low tide, do not have adequate water depth for navigation. **These areas are closed to boats with internal combustion engines (gas or diesel/inboard or outboard).** These boats may enter non-combustion engine zones only if the engines are turned off and tilted up. Poling the boat across the flats is allowed when fishing. Canoes, kayaks, windsurfers or shallow-draft vessels with electric engines may traverse those areas with adequate water depth but should courteously avoid boats that are poling or fishing on the flats.

To further assist with the protection of seagrass beds, the non-combustion engine zones are marked to help boaters identify them. **Careless boaters and those who intentionally enter these areas with internal combustion engines, will be cited for violations and may incur fines.** Boaters should use navigation charts and attend a safe boating course if they are not familiar with boating or navigation in an area.