Native Habitats (from the Keys Guides)

Coral Reef and Hard Bottom

Coral reefs are part of an interdependent ecosystem that includes mangroves and seagrasses. Bank reefs and patch reefs occur on the ocean side, whereas hard bottom coral communities are common on the bay side of the Keys. The coral reef ecosystem is alive with an abundance of fish, stony corals, octocorals, sponges, jellyfish, anemones, snails, crabs, lobsters, rays, moray eels, sea turtles, dolphins, sea birds, and other sea life. The reef is home to many of Florida's threatened and endangered species.

Seagrasses

Seagrasses are flowering underwater plants found at shallow depths in protected bays and lagoons and inside of the reef tract. As a nursery environment, seagrasses support small fish, shrimp, and crabs that hide among the blades. Seagrasses also help stabilize shifting sands and improve water clarity by trapping fine sediments and particles. Seagrasses are an important part of the food web. They provide food for turtles, manatees, and a variety of fish and habitat for filter-feeding organisms and foraging sea life such as sea urchins and sea cucumbers. Seagrasses provide a nursery for pink shrimp, lobster, snapper, and other sea life.

Mangroves

Mangroves are tropical trees that thrive in salty environments along the water's edge. Like seagrasses, they provide food and cover for a vast array of small fish and animals. The submerged roots are a nursery and breeding ground for most of the marine life that migrates to the reef. Mangroves trap and produce nutrients for food and habitat, stabilize the shoreline by trapping debris and silt, and filter land-based pollutants. Mangroves are the dominant shoreline plant community providing storm protection for the islands.

Native Animals (from the Keys Guides)

Spiny Lobster

Spiny lobsters get their name from the forward-pointing spines that cover their bodies. Lobsters are active at night. During daylight hours they reside under coral heads and crevices of reefs or other areas providing shelter. They emerge a couple of hours after dark to forage for food. Lobsters are predators not scavengers. Their diet consists mostly of live snails, clams, crabs, and urchins. Lobsters return to the

safety of their dens several hours before sunrise. Spiny lobsters are a favorite Florida seafood and support a valuable fishery, but they are also an important part of the ecosystem and are both predator and prey to many other animals

Queen Conch

The queen conch is a large, marine, gastropod mollusk. Queen conchs have a spiral-shaped shell with a glossy pink or orange interior. They are typically found in warm, shallow waters but some do live in deeper waters up to approximately 70 feet.-They live in sand, seagrass beds, and coral reef habitats. The queen conch is found throughout the southwest topical Atlantic, Caribbean Sea, and in isolated locations in the Gulf of Mexico, and ranges as far north as Bermuda and as far south as Brazil. Once harvested for its tasty meat and beautiful shell, the queen conch is now protected from harvest in Florida in both state and federal waters. Efforts are being directed toward replenishing native populations.

Manatees (edited to match the Guide's extent)

Manatees are year-round residents of Charlotte Harbor. In the summer, they are widely scattered throughout the Harbor, commonly in shallow waters less than six feet deep that harbor the seagrasses on which they feed. In the winter they gather near warm water power plant outfalls to stay warm.

Many manatee injuries and deaths occur as a result of blunt trauma with watercraft. Boaters can reduce the chance of harming manatees by practicing responsible boating.

YOU CAN HELP:

- Observe and follow all speed zone signs.
- Slow down. Reducing speed allows boaters to avoid manatees.
- Use marked channels whenever possible. Channel depth reduces the likelihood of pinning or crushing manatees.
- Wear polarized glasses. Polarized lenses make it much easier to see objects beneath the surface and the "swirling" that occurs when a manatee dives.
- Designate a person on board to look out for wildlife, other boaters, swimmers, or obstructions when the vessel is underway.
- Stow trash and properly discard monofilament fishing line. Manatees may swallow or become trapped in lines and other plastic debris.

- Obey state and federal laws that make it illegal to harass, capture, hunt, or kill a manatee. To report violations, distressed, or dead manatees, call FWC Wildlife Alert Hotline at 1-888-404-FWCC (3922).

Birds of the Harbor/Bay/Coast

(edited to match the Guide's extent, sometimes excluded because of space)

Despite the environmental pressures from growth and development in the region, Charlotte Harbor continues to attract a remarkable variety and number of birds. However, maintaining these bird populations in growing metropolitan areas is challenging. Many species are declining, and some have virtually disappeared due to loss and disruption of habitat.

Islands, beaches, and some inland causeways provide nesting areas for many species of birds including those classified as imperiled. Mud flats and seagrass meadows in shallow sections of the bay provide a bountiful feeding ground for resident, migrant, and wintering shorebirds. Open waters are a habitat for loons, grebes, and ducks. Ospreys and bald eagles can be found throughout Charlotte Harbor.

YOU CAN HELP:

- Observe posted signs that identify nesting colonies and try to keep a distance of 500 feet.
- Please keep pets leashed and away from posted nesting areas.
- If you happen upon a concentration of birds, you may be near a nesting colony. Carefully pick up your belongings and leave. Choose a spot 500 feet away from the birds and enjoy the view.
- If a bird becomes entangled in fishing gear, carefully remove the hook and monofilament line. Or while walking along the beach, pick up any stray fishing line and dispose of it properly. Birds and other animals that ingest or become entangled in fishing line may die.
- Stay clear of areas that may harbor nesting colonies and avoid areas where feeding birds are visible. Please do not operate a personal watercraft or airboat near the shore except to idle or to reach a destination point. Noise and prop wash from those vessels disturb wildlife and may disrupt nesting and feeding.

Sea Turtles (all Guides, just updated)

Florida's waters are home year-round to five species of sea turtles. All are protected by state and federal law. Sea turtles surface to breathe and, occasionally, bask at the surface, which makes them vulnerable to boat strikes. During their nesting season, May to October, sea turtles may gather near beaches. The

sea turtle most often seen in coastal waters is the loggerhead, followed by the green turtle, the Kemp's ridley, and the hawksbill. A fifth species, the leatherback, is typically seen in deep, offshore waters.

YOU CAN HELP:

- Keep a sharp lookout for turtles near the surface, especially on sunny days.
- Maintain a moderate vessel speed in shallow water and near beaches.
- Keep beaches and waterways clean and free of litter, such as fishing line, which can entangle sea turtles.
- Protect seagrass beds. Avoid creating propeller scars.
- Support efforts to protect sea turtles and their habitats.
- Report injured or dead sea turtles to the FWC's Wildlife Alert Hotline: 1-888-404-FWCC (3922).

Practice Safe Boating (all Guides)

- Plan your route in advance. Use the appropriate nautical charts to reference depth, bridge clearance, and other natural and man-made features before you leave.
- **File a float plan** and leave it with a reliable person at a marina or elsewhere. Include a description of the vessel, radio and safety equipment on board, planned stops, names of passengers, and an estimated time of returning from voyage. Ask that person to notify the Coast Guard or other local authority if you do not return as scheduled.
- **Wear a personal flotation device (PFD)**. Per the United States Coast Guard boating safety guidelines, a boat must have a U.S. Coast Guard-approved Type I, II, III, or V life jacket for each person aboard. Boats 16 feet and over must have at least one Type IV throwable device as well. Children under the age of six must wear a USCG-approved Type I, II or III personal flotation device while onboard a vessel under 26 feet in length while the vessel is underway. Adult-sized life jackets will not work for children.
- Observe and obey posted speed limits. When in doubt, slow down.
- Watch your wake. Remember, you are responsible for damage caused by your vessel's wake. Large wakes can overturn smaller vessels and damage boats which are moored at a dock.
- Know your navigation rules. Use the boating rules of the road to avoid accidents.
- Don't drink alcohol and operate a boat.

- Be sure your navigation lights are working and your boat is visible at night and in poor weather conditions.
- Make sure your craft has the required safety equipment on board. Visit MyFWC.com for more information.
- VHF marine radios are recommended and should monitor channel 16 at all times (when not in use) to summon help in the event of an emergency. Marine weather can also be monitored and checked on a VHF marine radio.

Boating Regulatory Zones (all Guides)

- On Florida waterways there are signs restricting boat speed. Florida regulates boat speeds in certain areas either for protection of manatees or for boating safety purposes. It is important that boat operators look for signs, understand what they mean, and abide by the speed regulations. Here are the most common signs.
- **No Entry**: All vessels and all persons, either in vessels or swimming, diving, or wading, are prohibited from entering the marked area.
- **Motorboats Prohibited Zone**: Areas where all vessels equipped with any mechanical means of propulsion are prohibited from entering the marked area, even if the mechanical means of propulsion is not in use.
- **No Power-Driven Vessels:** All vessels equipped with any mechanical means of propulsion must turn off the mechanical means of propulsion and, if possible to do so, tilt or raise the mechanical means of propulsion out of the water. The use of any motor, including an electric motor, is prohibited.
- **Idle Speed, No Wake Speed**: The slowest speed at which it is still possible to maintain steerage and headway. The vessel should not produce a wake at this speed.
- **Slow Speed, Minimum Wake Zone**: Areas where vessels must be fully off plane and completely settled in the water. Any wake created by a vessel in one of these zones must be minimal (very small). If your vessel is traveling with the bow even slightly elevated while in one of these zones, it is not proceeding at “Slow Speed” as required by law.
- **Maximum 25 MPH, 30 MPH, and 35 MPH Speed Zones**: Controlled areas within which a vessel must not exceed posted speed. “Miles per hour” means speed made good over the bottom measured in statute miles.

Catch-and-Release Information (all Guides)

Increasingly, anglers are practicing “catch-and-release” to do their part to preserve marine fisheries while they enjoy their outdoor fishing experiences. This information offers tips on how you can properly handle and release saltwater fish.

Know Before You Go

- Make sure you can identify the fish you are targeting.
- Always know (or have access to) the current regulations for the fish you target. This minimizes handling time when determining whether or not you can keep the fish you caught.
- Use tackle heavy enough to bring the fish in quickly, and avoid using multi-hook rigs or lures.
- If you have a treble hook, you can remove some of the hooks and flatten the barbs.
- Make sure you have all the proper tools and gear on your vessel before heading out for the day.

Handling Fish

- Handle fish as little as possible and only with wet hands.
- Match tackle to the targeted fish to land it quickly and minimize stress on the fish.
- Never hold a fish by its jaw, gills or eyes. Hold the fish horizontally and support its weight with both hands.
- Release the fish as quickly as possible and if possible keep the fish in the water at all times.

Removing the Hook

- Using a dehooking tool is safer for the fish and for you.
- Cut the leader as close to the hook as possible if it cannot be quickly removed.
- When using natural bait (live or dead) use circle hooks to reduce internal harm and decrease dehooking time.

The Release

- Gently place the fish head first in the water, supporting its body until it swims away.
- A fish that has been stressed by the fight or handling should be revived by moving it forward in the water to promote water flow over the gills.
- If a released fish does not swim away, recover it and try again.

Fishing the Seagrass Flats (some Guides, if space permits)

- Do not operate your boat in areas that are too shallow for your equipment.
- Use nautical and tide charts to plan your course.
- Never cut through seagrass beds with a propeller. Watch your prop wash for mud or plant life which may indicate that you are too shallow. Remember, scarred seagrass takes years to recover!
- Pole or use a trolling motor when traveling across or when fishing flats. Quiet anglers catch more fish.

- If you run aground, turn off your engine, raise the motor, and push or pole your way to deeper water. If necessary, wait for high tide to move your boat.
- Do not crowd another boat. If you see another boat fishing on the flats, do not approach unless called.

The Monofilament Recovery and Recycling Program (MRRP) is a statewide effort to educate the public on the problems caused by monofilament line left in the environment, to encourage recycling through a network of line-recycling bins and drop-off locations, and to conduct volunteer monofilament line cleanup events.

Place used or old fishing line in outdoor recycling bins mounted at many piers, boat ramps, and marinas throughout the state. Indoor recycling bins are also available at many tackle shops.

Diver Down Flag (all Guides)

It is required by law to display this flag when divers are in the water. Boaters in the vicinity of a vessel displaying the diver down flag must give 100' clearance inshore or 300' clearance in open waters. A flag displayed on a vessel must be 20" by 24" or larger. Flags attached to a buoy or float must be 12" by 12" or larger. A stiffener is also required to keep the flag unfurled.

Mooring Buoys (from the Keys Guides)

Mooring buoys are an alternative to anchoring, which can break and damage coral reef. Buoys are available on a first-come, first-served basis. Approach slowly from down wind or down current. Retrieve the yellow pick-up line with a boat hook and run your boat's bow line through the loop of the pick-up line. Cleat both end of your bow line to the bow of your boat. Inspect the buoy your boat is tied to; you are responsible for your vessel.

Stop the Release and Spread of Nonnative Species

(some Guides, if space permits)

Many nonnative aquatic species are finding their way into Florida's waters. When new animals and plants are introduced into an area, they often cannot survive there and die. However, if they can survive in the new area, they can begin to compete with native species and may end up displacing native plants and animals. This can result in major changes to the environment.

If you have unwanted aquarium plants or animals, try to find them a new home. Some pet stores may accept them, or they can be turned in at FWC Nonnative Pet Amnesty Day events. Unwanted aquarium plants can also be placed in plastic bags and disposed of into garbage bins.

For more information about nonnative species, please visit www.MyFWC.com/nonnatives/ or visit http://nas.er.usgs.gov/.

Share the Nautical Road (only on Tampa Bay and Nassau/Duval Guides, would be updated for Biscayne Bay)

Pleasure boats share the waters of the St. Johns with commercial barges transporting petroleum and fuel oil from Jacksonville up river to Palatka and Sanford. While quite large in terms of the square miles it covers, the river is, in places, very narrow, which restricts navigation for larger vessels. Barges have a limited ability to maneuver and stop in the narrow confines of the St. Johns River. They may require a mile or more to come to a complete stop.

- Stay clear of the main channel when barges are approaching. Views from the pilot house may be obstructed up to three-fourths of a mile away.
- In case of emergency, use VHF Channel 13 for bridge-to-bridge communication with barges. Keep transmissions short and simple, and never tie up the frequency.
- Exercise caution when boating around barges involved in docking or under way. Their prop-wash can easily capsize small vessels or send them into the path of oncoming traffic.
- Be sure that your boat is visible at night and in poor weather conditions.