

Boater's Tips:

- ◆ Stay clear of the main ship channel when large ships are approaching. Some vessels entering Tampa Bay are as long as two football fields, carry hazardous materials, and are very difficult to maneuver. Many clear the 45-foot deep shipping channel by as little as 4 feet, and may require a mile or more to stop. Pilot's vision may be restricted by the large size of the vessel they are captaining. It is up to the small boat operator to keep safely out of the way of these ships.
- ◆ Monitor Channel 16 for distress calling and safety, ship-to-ship and ship-to-coast contact.
- ◆ Be sure your boat is visible at night and in poor weather conditions.
- ◆ The main shipping channels are shown on the map.
- ◆ Keep your boat in good repair with all necessary safety equipment on board.
- ◆ Watch for changing weather conditions.
- ◆ Know your boat's limitations and respect them.
- ◆ Jet skis are boats, too, and must follow all boating regulations.
- ◆ The U.S. Coast Guard Auxiliary and Power Squadrons offer free boat inspections and boating safety classes. These are interesting, fun, and informative. See Resources for information.
- ◆ Be careful to prevent spills during fueling and when adding oil.

Safety and Security:

The Coast Guard Marine Safety and Security Task Force is asking boaters to stay well away from all commercial vessels and facilities in Tampa Bay, to increase public safety and reduce the threat of terrorist attacks. Also, a security zone extends around MacDill Air Force Base and certain areas in the Port. Please refer to the map. To report suspicious activities, call **911** or **VHF Channel 16**. For more information: **727/824-7531**.



Volunteers work to create an oyster reef at Whiskey Stump Key. Photo by Doug Paul.

Habitat Restoration

Numerous habitat restoration projects have been undertaken around Hillsborough Bay. These create marsh habitat, cleanse stormwater, restore upland sites to healthy communities, and improve wildlife and fisheries values. Enhancement projects are on-going. Some projects include: ◆ Tampa Port Authority Mitigation Project—a large marsh creation and upland habitat management program on Pendola Point and a marsh creation project on the 22nd Street Causeway. ◆ Mosaic Fertilizer LLC, the Florida Department of Environmental Protection, and Water Management District created marsh and canals in the "South Parcel," south of the Alafia River. ◆ Mosaic Fertilizer LLC planted marsh grass and man-

groves along the closed gypsum stack shoreline, north of the Alafia River. ◆ Mosaic Fertilizer LLC and the Water Management District restored wetland shorelines along the Delaney Creek Popoff Canal. ◆ The Audubon Society planted marshes and created nesting, roosting, and foraging habitats on the west end of Sunken Island. ◆ Tampa Port Authority Mitigation Project on the east side of Spoil Island 2D, created a mangrove forest shoreline. ◆ The Southwest Florida Water Management District's Surface Water Improvement and Management Program and the County Park's Resource Management Program, with Concerned Citizens of Gibsonton Area, Inc. and Audubon restored the old Gardenville Landfill site as upland habitat and the north side of the old Port

Resources

- National Response Center**
To report hazardous materials, oil spills, any suspicious activities: **800/424-8802**
- U.S. Coast Guard**
Search & rescue assistance: **727/824-7506**
Tampa Marine Safety: **813/228-2191**
Boating Safety: **www.uscg.boating.org**
- U.S. Coast Guard Auxiliary**
Boating classes, boat inspections. Find classes: **http://cgaux.org/boating/class_finder/index.php**
- U.S. Power Squadrons**
Classes in seamanship, navigation, related subjects: **888/FOR-USPS**
- NOAA Weather Service Broadcast**
24-hour weather and marine forecast Radio: **162.55 Kz/VHF**
Phone: **813/645-2506**
Web: **www.srh.noaa.gov/tbw**
- Florida Department of Environmental Protection**
Oil spill, environmental problems, hazardous materials
Non-emergency: **813/744-6100**
Emergency: **800/320-0519**
Environmental crimes: **850/414-9663**

- Florida Fish and Wildlife Conservation Commission (FWCC)**
To report oil, fuel, or hazardous materials spills: **800/320-0519**. To report manatee, turtle, or dolphin injury or stranding: **800/636-0511**. Wildlife law violations: **888/404-3922**. Regional offices: **863/648-3200**, **www.myfwc.com**
- Florida Fish and Wildlife Research Institute (FWR)**
Information on research, protection, conservation, or management of Florida's fish and wildlife resources: **727/896-8626**
- Audubon Florida: Florida Coastal Islands Sanctuaries**
National conservation organization, bird colony management: **813/623-6826**
Web: **fl.audubon.org**
- Southwest Florida Water Management District, Surface Water Improvement and Management Program**
Habitat restoration and water improvement projects: **813/985-7481**
- Environmental Protection Commission of Hillsborough County**
Wetlands violations, water pollution, air quality problems, solid waste violations: **813/272-5960**
- Hillsborough County Sheriff's Office**
Non-emergency: **813/247-8200**
Emergency: **911**

Speed Restrictions

Vessel speeds are regulated for many reasons including safety concerns in high traffic areas, and to help ensure the safety of swimmers, boaters, or manatees. Please refer to motor exclusion zones and shallow water cautionary zones on the map.

Idle Speed: A vessel operating in an "Idle Speed No Wake" zone must slow to the minimum speed that will maintain steering control. An example of this is to put a car's automatic transmission in "Drive" and allow it to idle forward.

Slow Speed: A vessel operating in a "Slow Speed Minimum Wake" zone must come fully off plane and completely settle in the water. The vessel's wake must not be excessive, so as not to create a hazard to other vessels. "Slow Speed Minimum Wake" and "Slow Speed" mean the same thing and require the same operation. The terms are used interchangeably.

Resume Normal Safe Operation: When exiting an "Idle Speed" or "Slow Speed" zone, you will see a sign that states "Resume Normal Safe Operation." At this point you may increase your speed to one that is appropriate for the sea and vessel traffic conditions.

No Entry: Boats, people and pets prohibited.
Shallow Water Danger: The areas behind the signs are very shallow and have healthy seagrass beds. At high tide, proceed with caution to avoid prop scarring and damage to seagrass. At low tide, only poling or paddling across this area is appropriate, to protect seagrasses.

Seagrasses

Seagrasses are underwater flowering plants that use strong roots to anchor themselves to shallow bay bottoms. Like land plants, seagrasses use photosynthesis to make energy from sunlight. Seagrasses provide critically important food and habitat for many animals, including manatees, turtles, seahorses, seatrout, redfish, tarpon, and shrimp. Seagrasses trap sediment, cleaning the water, and dampen waves near shorelines, reducing erosion.

Please note motor exclusion zones and shallow caution areas on the map. Most seagrass beds occur in waters 3-6 feet deep, and at low tides, they are very vulnerable to "prop-scars"—damage caused by boat propellers plowing deep furrows through the grass that can take years to recover.

- ◆ Reduce bay pollution.
- ◆ Don't overfertilize lawns.
- ◆ Request the Tampa Bay Estuary Program's "Tampa Bay Repair Kit."

Redwing site as the Schultz Restoration Park, with wetlands and estuary habitat. ◆ The Water Management District's Surface Water Improvement and Management Program and the County Park's Resource Management Program are creating estuary habitat and wetlands on disturbed uplands at Apollo Beach, Simmons Park, and Wolf Branch. ◆ The City of Tampa and the Department of Environmental Protection restored a landfill at McKay Bay Nature Park as upland habitat. ◆ The Water Management District's Surface Water Improvement and Management Program and the County Stormwater Team have created stormwater/habitat projects in McKay Bay and Delaney Creek, and are working on projects for Bullfrog Creek and the Alafia River.



Hillsborough Bay Boater's Guide



Over 300 pairs of Roseate Spoonbills, Florida's native pink wader, nest each spring at the Alafia Bank Bird Sanctuary.

Photo by Claudine Laabs.

Areas of Special Interest



Tricolored Heron populations in Florida are declining due to destruction of freshwater wetlands where they feed.

Hillsborough Bay ranks as one of the most important areas in the United States due to its biological significance. The City of Tampa and the Port of Tampa are both located along the shore of Hillsborough Bay, and it receives water from several important tributaries, including the Hillsborough River, the Palm River/Tampa Bypass Canal, Delaney Creek, Archie Creek, the Alafia River, Bullfrog Creek, and Newman Branch, among others. Key biological sites and other areas of special interest are outlined below. Audubon Florida includes Hillsborough Bay in its list of 100 Important Bird Areas of Florida.

Alafia Bank Bird Sanctuary

The Richard T. Paul Alafia Bank Bird Sanctuary (the Bird Island) to the east, Sunken Island to the west) were created when the Alafia River channel was dredged in the late 1920s. Today, the Alafia Bank is a bird sanctuary, owned by Mosaic Fertilizer LLC and managed by the Audubon Society. Each year 10,000 to 18,000 pairs of 16 to 20 species of birds nest here. It is one of Florida's largest bird colonies and one of the most diverse in the continental U.S. One third of Florida's Roseate Spoonbills nest on the Alafia Bank. Large numbers of migrating and wintering birds rest and feed on the Alafia Bank shores and sandbars. The sanctuary is posted "No Trespassing" and no public access is allowed to protect nesting, resting, and foraging birds from disturbance.

Tampa Port Authority Spoil Islands 2D and 3D

Tampa Port Authority Spoil Islands 2D and 3D are large man-made spoil islands in Hillsborough Bay where dredged material removed from the shipping channels is stored. These islands provide critical nesting sites for ground-nesting birds, including American Oystercatchers, Laughing Gulls, terns and Black Skimmers. The Wildlife Commission lists these spoil islands among Florida's most important sites for colonial beach-nesting birds. Both islands are posted "No Trespassing" for port security and bird protection. The Port of Tampa is Florida's largest port, and one of the nation's largest ports, each year moving 50 million tons of products valued at over \$1 billion. Cruise ships serve over 600,000 passengers each year. The Tampa Port Authority manages the submerged lands in Hillsborough Bay, including several "Aquatic Resource Protection Areas" (ARPAs) where important natural features are protected by special management. ARPAs in Hillsborough Bay include McKay Bay, the Bullfrog Creek ARPA, Gadsden Point, and Pendola Point.

Island 2D (to the north) is where about 10% of Florida's population of American Oystercatchers nest yearly. American Oystercatchers are considered a "species of special concern," with less than 400 pairs in the state. This large black-and-white sandpiper-like bird nests on the beach, just above the high tide line. Humans and dogs on the beach disturb nesting oystercatchers, causing mortality of eggs or chicks. Island 2D is posted "No Trespassing" to protect nesting birds and for port security.

Island 3D is an extremely important nesting site for ground-nesting Caspian Terns, Royal Terns, Sandwich Terns and Black Skimmers. 3D is one of the largest nesting sites for Laughing Gulls in Florida. Island 3D is posted "No Trespassing" to protect nesting birds and for port security.

MacDill Air Force Base, on the west side of Hillsborough Bay, has some intact mangrove shoreline, winding tidal creeks, and marshes. Although off-limits to the general public, the base hosts an open house and air show every April. Shallow waters to the south of MacDill protect important seagrass flats and manatees commonly occur here. Note the "Restricted Area."

The Kitchen is a small estuary on the east side of Hillsborough Bay. Excellent water quality, seagrass beds and mangrove shores and islands make it a popular fishing spot, an area of high biological diversity and productivity, and a valuable fish nursery. Thousands of birds use the Kitchen as a feeding site, especially during winter low tides when shallow flats are exposed.

Green Key & Whiskey Stump Key, Audubon Sanctuary islands in the bay, are important bird feeding sites. They are posted "No Trespassing" year round.

McKay Bay, the northeast corner of Hillsborough Bay, provides extensive mudflat, salt marsh, and mangrove habitats for birds and other wildlife. A critical feeding and migratory stopover site, McKay Bay is among the outstanding winter sites for shorebirds in the U.S.

The TECO Manatee Viewing Center, adjacent to Tampa Electric Company's Big Bend plant in Apollo Beach, provides an opportunity to see manatees. In winter as the bay water cools, manatees converge at the power plant's warm water discharge. Over 300 manatees have been counted there at once. A boardwalk, interpretive center and observation platform are open November 1-April 30. TECO: 813/228-4289, **www.manatee-teco.com**.



Photo by Rich Paul.

White Ibis

A white bird with black-tipped wings, bright red legs, and a red bill which curves distinctly downward. About 10% of Florida's population of White Ibis nests in trees at the Richard T. Paul Alafia Bank Bird Sanctuary. The number of White Ibis in Florida has decreased 80% since the 1940s due to freshwater wetlands destruction. White Ibis is a state-listed "species of special concern." Glossy Ibis, a dark greenish-bronze ibis, also nests at the Alafia Bank.



Photo by Rebecca Field.

Hillsborough Bay is an Estuary

Like all estuaries, Hillsborough Bay is a place where freshwater and saltwater mix. This dynamic system is impacted by constantly changing tides, water levels, salinity, and water temperatures. Special adaptations of the plants and animals that live here help them survive in this demanding ecosystem. More than 95% of Florida's recreationally and commercially important fish, crustaceans, and shellfish live part of their life cycles in estuaries, including Hillsborough Bay. The shallow waters of the bay, its salt marshes, mangroves, and seagrasses provide places for young sea life to hide from larger predators. Estuaries, often called the "nurseries of the sea," are among the most productive landscapes in the world. Rivers and streams drain into Hillsborough Bay's biologically productive estuary, bringing nutrients and sediments that foster growth of salt marsh plants, mangroves, and seagrasses. These plants drop their leaves, which become food for billions of microscopic animals, beginning the food web.



The Richard T. Paul Alafia Bank Bird Sanctuary is listed by the Florida Fish and Wildlife Conservation Commission as the most important wading bird colony in Florida.

Photo by Rich Paul.

Mangrove and Salt Marsh Wetlands

The Tampa Bay area has lost more than 40% of its original mangrove and salt-marsh acreage due to shell harvest for roads, dredging, channel deepening, and land-fill development. To participate in restoring salt marshes in Tampa Bay, call Tampa Bay Watch 727/867-8166.



Red mangroves have buttressing prop roots. Photo of oyster-bars and mangroves in the Kitchen by Ann Paul.

Mangroves are trees that thrive in the salty intertidal zones of sheltered tropical shores, islands, and estuaries. These trees' special adaptations, including salt-excreting leaves and roots that can block salt, allow them to live in salty water where other plants cannot survive. Mangrove shorelines and forests are vital for healthy coastal ecosystems. The fallen leaves and branches provide nutrients for the intricate food web of the estuary. Mangroves offer refuge and nursery grounds for juvenile fish, crabs, shrimps, and mollusks, plus nesting trees for wading birds, Brown Pelicans, and cormorants. Mangroves also diminish wave action, protecting shorelines from erosion and storm damage. The International Ramsar Convention on Wetlands has identified mangrove forests as one of the most threatened habitats worldwide, with widespread losses in Thailand, the Philippines, Ecuador, and Vietnam. Some of Hillsborough Bay's shorelines and islands still host healthy mangrove shorelines and forests.

Salt marshes occur in the shoreline zone between high and low tide water levels. Many of Florida's marine fish, shellfish, and crustaceans spend the early part of their lives safely hiding from predators in the thick vegetation of the salt marsh nursery. The leaves of the salt marsh grasses die each year, becoming detritus and the basis for the food web, feeding microscopic animals. The extensive root systems of salt marshes can withstand storm surges and help protect uplands. Salt marsh plants can also trap nutrients, pollution, and sediments, keeping bay waters cleaner.

Design by Mariella Smith, InSightGraphicDesign.net

Birds of the Bay

Pelicans, herons, egrets, spoonbills, gulls, terns and skimmers nest in large groups called “colonies.” They are among the most visible, beautiful, and popular wildlife species in Florida.

The breeding population of the Tampa Bay region totals 40,000–50,000 nesting pairs annually at more than 20 sites. This includes 25 species of colonial waterbirds, one of the largest and most diverse populations in Florida. Up to half of these birds nest in Hillsborough Bay.



Black Skimmer

Only 2,000 pairs of Black Skimmers, a state-listed “species of special concern,” nest in Florida; a nesting colony on Tampa Port Authority Spoil Island 3D usually numbers about 300 pairs. Skimmers nest on sandy beaches

just above the high tide line. These colonies are very vulnerable to washout by high tides and storms. Disturbance by humans and dogs can force adults off nests leaving eggs to cook on the hot sand—another major cause of nest failure.



Photos: Black Skimmer, above, by Jim Gray; Snowy Egret, left, by Charles Lee; American Oystercatcher, below, by Jim Gray; oystercatcher eggs in the nest, below right, by Rich Paul.

Snowy Egret

Snowy Egrets use their brightly colored yellow feet to aid in catching fish. Sometimes, they wade in shallow water and move the yellow toes like worms. Fish attracted to the movement are captured. Other times, they drag the yellow feet in water near schools of fish, scaring them towards their beaks.



American Oystercatcher

With fewer than 400 pairs in Florida, this is one of Florida’s rarest birds. A large black and white sandpiper-like bird with a giant red-orange bill, oystercatchers nest in shallow scrapes just above the flotsam line on beaches. American Oystercatchers are listed by the Wildlife Commission as a “species of special concern.” About 20% of Florida’s oystercatchers nest in Hillsborough Bay on Tampa Port Authority Spoil Islands 2D and 3D, the Alafia Bank and the Fishhook Spoil area near Big Bend.

Great Blue Heron

Great Blue Herons, Florida’s largest heron, feeds its fast-growing young a variety of food items, including fish, frogs, lizards, snakes, crabs, shrimp, insects, mice, rats, and even other birds. They nest in trees.

Photo by Rich Paul.



Long-billed Curlew

Fairly rare winter visitors to Florida, these large shorebirds boast an extraordinarily long, down-curved beak, useful for probing deep into sand and mud to catch worms and invertebrates. Look for them on sandbars at the Alafia Bank and on oysterbars in the Kitchen.



Long-billed Curlew by Jim Gray.

Roseate Spoonbill

These spectacular pink wading birds have broad, flat, spoon-shaped bills that they sweep side to side in shallow water to catch small fish. Only about 1400 pairs nest in Florida, and one fifth of Florida’s spoonbills (over 300 pairs) nest in trees at the Alafia Bank.

Roseate Spoonbill by Jim Gray.

Little Blue Heron

Little Blue Herons nest in trees on the Richard T. Paul Alafia Bank Bird Sanctuary. This bird, listed by the Wildlife Commission as a “species of special concern,” hunts for food in freshwater wetlands.

Little Blue Heron, above, by Rich Paul.



People and dogs on nesting islands

create big problems for nesting birds. If people and dogs land on the Alafia Bank or Islands 2D or 3D, they may cause the parent birds to leave their nests. Fish crows or other birds will eat unprotected eggs or young. Visitors may accidentally step on well-camouflaged eggs in ground nests. In the summer sun, embryos in the eggs and young birds overheat quickly, dying in about 20 minutes if the parents cannot shade them. Dogs running through a colony will cause chicks to flee, getting separated from their parents. In the mix-up, other birds may injure a young bird looking for its parent. A brief visit for boaters can destroy an entire year’s nesting effort of a whole colony of birds.

The Alafia Bank Sanctuary, Green Key, Whiskey Stump Key and Tampa Port Authority’s Spoil Islands 2D and 3D are posted “No Trespassing” all year round.

Boaters can help. Please:

- ◆ Comply with signs on nesting islands and beaches, and stay off the land.
- ◆ Never let dogs run on nesting colony islands. Birds regard dogs as serious predators and will abandon their nests.
- ◆ Between April and August, gulls, terns and skimmers may also nest on unmarked sites. If you notice birds circling noisily over your head, you may be near a nesting colony. Leave quietly, and enjoy the colony from a distance.
- ◆ Birds resting and feeding on sandbars and mudflats should not be disturbed. Migrating birds depend on the Bay’s resources to provide a nourishing and restful stop-over. Disturbance of birds on sandbars can interfere with their feeding behavior, reducing weight gain, the endurance needed for long flights, and survival.



Laughing Gull

In spring, Laughing Gulls nest on Tampa Port Authority Spoil Island 3D (5,000–10,000 nests, one of the largest colonies in the state). They form large nesting colonies in dune grasses on islands, and also nest on Passage, Egmont, and Shell Keys.



Located in the northeastern corner of Tampa Bay, with life-giving nutrients pouring into it from strong river flows from the Hillsborough River, the Alafia River, Bullfrog Creek, and other streams, Hillsborough Bay is famous for its wildlife, including its bird population and the opportunities it offers fishermen. The bay is rich with nutrients, which foster millions of tiny plants and animals, the beginnings of a vibrant food chain. Located next to the City of Tampa and its port facilities, portions of Hillsborough Bay are well known nationwide for hosting large populations of migrating and wintering birds, as well as the fabulous bird colonies on the Richard T. Paul Alafia Bank Bird Sanctuary and the Tampa Port Authority Spoil Islands 2D and 3D. Industrial facilities including the Mosaic Fertilizer plant in Riverview, two major Tampa Electric Company power plants (Bayside and Apollo Beach), phosphate, metal-recycling, chemical storage, and gasoline terminals, ship maintenance operations, and large cruise ship terminals border the bay. Since the Clean Water Act of the 1970s, major efforts to filter stormwater and reduce pollution entering Hillsborough Bay, and the completion of the advanced wastewater treatment facility for the City of Tampa, have successfully resulted in cleaner water. As a result, seagrass beds are again growing in portions of Hillsborough Bay (see map). Oysterbars along shorelines and in the Kitchen, McKay Bay, and south of MacDill Air Force Bay also improve water quality by filter-feeding. Schools of fish are frequently noted, and the entire bay ecosystem is recovering in health. Crabbers ply their trade, harvesting blue and stone crabs. Restoration projects completed in Hillsborough Bay have created and replanted mangrove and marsh grass shorelines. But the story of Hillsborough Bay is not completed yet. All of us need to dedicate ourselves to continue to protect this beautiful, vibrant, and life-filled Hillsborough Bay treasure.



Photo of shorebirds, above, by Patrick Leary.



Brown Pelican

An expert fisherman and one of Florida’s most recognizable birds, the Brown Pelican dives powerfully into the water to scoop unwary fish into its expandable pouched bill. 300–500 pairs nest every spring in trees on the Alafia Bank. Chicks hatch out naked, with gray skin, but quickly grow white downy feathers. They reach sexual maturity at three or four years old.

Brown Pelican by James Hancock.

Mullet

Mullet congregate in shallow portions of Hillsborough Bay from January through April to spawn. During the spawning season, a female can produce nearly a pound of eggs, increasing her weight by nearly 20%. This cigar-shaped, round-headed, foot-long plus fish is a well-known jumper. Mullet are vegetarians, feeding on seagrasses and algae. At all stages of their life, eggs to adult, they are an important part of the estuary’s food chain.

Fishing Tips:

- ◆ Help fish stocks increase by practicing catch and release.
- ◆ Observe regulations and size limits.
- ◆ Properly dispose of fishing line in trash cans.
- ◆ Use chrome-plated steel, gold-plated steel, or bronze hooks as they corrode quickly in salt water. In contrast, stainless steel hooks do not corrode and will persist in hooked fish and wildlife, harming them. Cadmium/tin-plated steel hooks corrode slowly and give off toxic metals as they slowly dissolve, so they should not be used either.
- ◆ Don’t feed birds, and especially, don’t feed larger fish skeletons or fish heads to birds. Bigger bones puncture delicate digestive tissues, causing internal injuries.
- ◆ If you catch an unwanted animal (bird, turtle, etc.), cut the barb to remove the hook. If the animal is hooked deeply, call Florida Fish and Wildlife Conservation Commission enforcement, 888/404-FWCC (3922) to arrange for veterinary assistance. This will save the life of one of these rare animals. If you’ve caught a turtle, do not lift the turtle using the line; instead use a dip net or its shell (watch out for the flipper claws and beak—they are strong biters!). If you’ve caught a turtle that is too big to capture or hold, cut the line as close as possible to the turtle’s mouth before releasing it. See the section on Fishing Line for tips on handling hooked birds.

Redfish

Redfish, or red drum, are among Florida’s most popular game fish, and are large-bodied fish that can reach 4–5 feet in length. They are red-tinged with a prominent black spot near their tails. Crabs, shrimp, and smaller fish are food for redfish. Redfish spawn offshore in fall and winter, and females can lay 2–3 million eggs each. The newly hatched larvae drift with incoming tides back into sheltered bays, where seagrass meadows act as redfish nurseries. Small redfish seek out creeks with mucky bottoms and low oxygen levels, where they can safely hide from larger fish predators while feeding on sediment invertebrates. As redfish mature, their mouths shift in location to the front of their bodies, allowing them to catch swimming fish.



PLEASE: Use proper catch and release techniques. Keep only those fish you’ll eat. For information about ethical angling and recreational fishing regulations contact the Tampa Bay Estuary Program, 727/893-2765.

Photos of tarpon, above, and redfish, left, by Captain Russ Shirley, www.captruss.com.

Manatees

The West Indian Manatee is a large, grayish brown aquatic mammal, with a tube-shaped body and a flat, rounded tail. Its head, often the only part visible above water, has a blunt snout with prominent nostrils and a few coarse whiskers. Because they like shallow water and tend to swim near the surface, most manatees in Florida have been hit by boat propellers and have many scars on their thick skin. Manatees are susceptible to cold and may die if stranded in cold water in the winter. When bay water temperatures drop in the fall, manatees rely on the warm-water outfalls from local power plants, such as the Tampa Electric Company plant at Big Bend. They leave these warm-water sites during the day to forage, and may be seen throughout the bay all year, especially in shallow water areas and near seagrass beds. Manatees are regularly found in Hillsborough Bay. They use the deepwater basins in the Kitchen and the Alafia “South Mouth” area. The Kitchen is the closest feeding site to Tampa Electric’s Big Bend power plant, which hosts the biggest wintertime manatee population anywhere in Tampa Bay at over 300 manatees. The seagrass flats south of Big Bend and MacDill Air Force Base are other important feeding sites for manatees. Manatees seek out a combination of seagrass patches, quiet areas, and sites with deep “holes” for safe retreats where they can avoid boat collisions.



Manatee individuals that spend a lot of time in salty estuary or Gulf waters sometimes grow barnacles on their hides. Photo by Rich Paul.



Horseshoe Crabs

Horseshoe crabs aren’t really crabs. Surprisingly, they are related to spiders, scorpions, and ticks. Our horseshoe crabs occur along the Atlantic and Gulf coasts as far south as Mexico. The blood of horseshoe crabs uses a copper-containing molecule to carry oxygen, so they are literally “blue bloods.” Horseshoe crabs eat clams, worms, dead fish and algae. They have a 19-year life span and reach sexual maturity between 9–12 years. During spring high tides, females towing their mates swim high onto sandy beaches to lay 2,000–30,000 eggs. Most horseshoe crabs don’t travel far in their lifetimes, staying about four miles from the beaches where they hatched. Migrating shorebirds such as Red Knots, Dunlin, and Short-billed Dowitchers depend on the energy-rich eggs of horseshoe crabs to power their long trips.

Horseshoe crab photo, above, by Dan Warner, Florida Fish & Wildlife Conservation Commission.

Photo of spotted eagle ray, below, courtesy of Florida Fish & Wildlife Conservation Commission.



Sharks and Rays

The area of Hillsborough Bay near the mouth of Bullfrog Creek and the Alafia River “South Mouth” is the most important nursery site for bull sharks known on Florida’s west coast. Other sharks which occur in Hillsborough Bay include hammerheads, juvenile black-tipped sharks and bonnethead sharks. Hillsborough Bay is also well known for its large population of rays and skates, especially cownosed rays, but also southern and Atlantic sting-rays, butter rays, and spotted eagle rays.

Snook

Snook are large, silvery, predatory fish with a dark lateral stripe, pointed snouts, and protruding lower jaws. Snook frequent shallow bay waters but are susceptible to cold (water temperatures below 60° F). Snook spawn from April through December, lurking in passes near islands and at river mouths, the same locations where they lie in wait for small fish and crustaceans. Nursery habitats for young snook are shallow, brackish streams and canals with overhanging vegetation and flooded marsh grasses. Snook can weigh up to 50 pounds; females can produce millions of eggs—about 50,000 eggs/pound of body weight.

Fishing Line: A Wildlife Killer

Fishing line and other trash that entangles birds, manatees, fish, turtles and other wildlife create devastating problems in the environment. Some birds get caught when they chase fishing bait on a line, hooking themselves accidentally. Carelessly discarded fishing line and nets can get wrapped around birds’ legs or wings. Sometimes birds actually carry the material back to line their nests, perhaps mistaking it for straw or grass. In the colony, the line becomes a persistent killer, as one bird after another becomes ensnared, doomed to a slow death from dehydration and starvation. Hundreds of adult and young birds die each year from entanglement in fishing line. Sea turtles and manatees, as well as fish, are also killed.



Each year, hundreds of birds are killed by becoming ensnared in fishing line. Photo by Peter Clark, Tampa Bay Watch.

Caution: Manatee Zone!

Manatees are an endangered species, and the greatest threat to their survival is collisions with boats. Please note the manatee speed zones shown on map.

Boaters should:

- ◆ Be on the lookout for manatees, especially in shallow and coastal areas; watch for a line of “swirls” or “glassy” areas on the water, and backs, tails and snouts of manatees at the surface.
- ◆ Wear polarized sunglasses so that you can see beneath the water’s surface.
- ◆ Stay within marked channels to avoid shallow areas where manatees feed and rest.
- ◆ Go slowly in shallow water and over seagrasses. Pole, paddle, or use a trolling motor.
- ◆ Recycle your trash and dispose of it in trash cans, especially fishing line, nets, gear, ropes and plastics, which can tangle around manatees and injure them. Manatees can mistake floating plastic for seagrass and eat it by mistake.
- ◆ It is illegal to feed or provide fresh water to manatees. Their natural diet is best.
- ◆ Report dead or injured manatees to the Florida Fish and Wildlife Conservation Commission: 888/404-FWCC or 888/404-3922 (Mobile phone: *FWC)

PLEASE: Do not chase or approach manatees; let these curious and friendly creatures come to you. Be gentle with these wild animals.

Sea Turtles

Sea turtles are air-breathing reptiles remarkably suited to life at sea. Essentially unchanged for 110 million years, their hydrodynamic shapes and powerful front flippers allow them to dive to great depths and swim long distances. Once male turtles reach the water as tiny hatchlings, they never return to shore. Females climb out onto Florida’s beaches three or four times in the summer to lay about 100 eggs in sandy pits dug with their back flippers. After about two months of incubation, 2-inch hatchlings emerge from the sand all at once, usually at night, and scramble frantically for the relative safety of the seawater. Sea turtles can remain underwater for hours while resting or sleeping; while active, they typically surface several times each hour to breathe. Turtles have no teeth, but crush, bite, and tear their food with powerful jaws. Data from stranding records, aerial surveys, incidental catches, and other sources indicate that sea turtles are common inhabitants of Tampa Bay. Mortality factors include boat collisions (causing 25% of deaths), entanglement in fishing line and other line, incidental catch in nets, and disease. Scientists believe that marine turtle populations in the Tampa Bay area were once quite robust. But turtles were overharvested for food, resulting in severe population losses by 1900.

Loggerheads are listed as “threatened” by the U.S. Fish and Wildlife Service and can be found year-round in the Tampa Bay area. These are among the largest sea turtles, weighing 275 pounds with shells 3 feet long. Loggerheads have large, block-shaped heads. They eat clams, crabs, whelks, and other mollusks and animals. They nest on Gulf of Mexico beaches.

Kemp’s Ridley Turtles are listed as endangered by the federal government and as one of the twelve most endangered animals in the world by the International Union for the Conservation of Nature, with fewer than 1000 females. They nest in Mexico but juvenile ridleys seek shelter year-round in Tampa Bay. They eat mostly crabs and crustaceans, finding them in shallow, muddy-bottomed waters. These small turtles are 2–2½ feet long and weigh only 85–100 pounds.

Diamondback Terrapins are the only brackish water turtles in the eastern U.S., ranging from New England to Mexico. This small (8–10 inch shell length as adults) well-camouflaged, yellow-headed reptile lives in estuaries and shallow saltwater marshes. Terrapins eat crabs, snails and mollusks, and dead fish. Females can lay eggs at 7 years old. They dig nests in the sandy beach dunes of islands in Hillsborough Bay, especially the Alafia Bank and islands of the Kitchen.

Diamondback terrapins, right, are long-lived, active estuary turtles. Generally believed to be a species in decline, terrapins can get caught in crab traps and drown. Photo by Marius Moore.



Shrimp

Shrimp are highly valued as food and are commercially fished in Florida waters. Shrimp spawn in the Gulf, then the tiny larvae float into bays and estuaries with incoming tides, where they hide in seagrass meadows and salt marsh nurseries. Shrimp larvae molt several times, changing shape during their developmental stages. Adult shrimp return to the offshore Gulf waters to spawn.

If you hook a bird, don’t just cut the line.

If you are fishing and catch a bird by accident, reel it in carefully and remove the fishing line as gently as possible. Don’t just cut the line—that is a death sentence to that bird. Note: The bird won’t know you are trying to help and will try to defend itself. Wear sunglasses to protect your eyes and cover the bird’s eyes with a towel or shirt to calm it. Hold the wings and legs firmly and put your hat or other soft object in the bird’s beak so it will bite that and not your hand. Once the fishing line is removed, release the bird, head pointing away from you. If the bird is badly injured, transport it to Suncoast Seabird Sanctuary or Save Our Seabirds.

What can we do?

- ◆ Carefully and properly dispose of fishing line, nets, and other line which could entangle wildlife.
- ◆ Pick up fishing line if you see it in the bay and throw it away properly in a trash can.
- ◆ Participate in the Annual Monofilament Cleanup of Bird Nesting Colonies, held each fall when the birds are not breeding. Call the Audubon Society 813/623-6826, or Tampa Bay Watch 727/867-8166.