

FLORIDA MANATEES:  
**MIGRATION PATTERNS**

Florida manatees are migratory mammals. In summer months, manatees have been spotted as far west as Texas and as far north as Massachusetts.



During the winter, migrating manatees traditionally return to Florida seeking warmer waters.

Many manatees stay year-round in environments like the Indian River Lagoon. Manatees can often be seen gathered together and socializing near warm-water springs, in shallow canals, or near power plant outfalls and other warm-water discharges, which have become permanent winter destinations for manatees in search of warm temperatures.



**68°+**  
MANATEES REQUIRE WATER TEMPERATURES OVER 68°F (20°C)

**IDEAL MANATEE HABITAT:**

- Warm water (at least 68°F or 20°C)
- Plentiful seagrass and aquatic vegetation
- Fresh water sources such as rivers or springs
- Channels at least 6 ft (3m) deep

**MANATEES: A SENTINEL SPECIES**

Florida manatees have a very special place in the ecosystem.

Due to their large size and the vast amount of aquatic vegetation they consume, manatees have a significant influence on the structure and function of their environments.

By feeding on aquatic plants, manatees clear waterways and allow other fish and aquatic animals to thrive. Manatees play a crucial role in the nutrient cycle and their grazing is an effective form of mosquito and weed control.



Manatees feed on seagrasses and mangroves, two of the crucial components of the Indian River Lagoon ecosystem.



Seagrasses and mangroves provide spawning, nursery, and foraging habitat for many aquatic species including fish, seahorses, crabs, shrimp, scallops, clams, and more. Essential to the health of the lagoon, seagrasses are negatively affected by man-made pollution, which can block sunlight from reaching seagrass and prevent healthy growth.

Reductions in seagrass or mangrove habitat affect the ability of manatees to find adequate food sources, which is an indicator of environmental changes that can impact their entire interdependent ecosystem.

Keep reading to learn more about what you can do to enjoy and protect Florida's manatees.

Florida's Original  
WATER PLAYGROUND

**THE INDIAN RIVER LAGOON**

The Indian River Lagoon provides Florida's Space Coast visitors and residents many recreational opportunities, from boating and fishing to paddling, waterskiing, birding, wildlife viewing, and more. The lagoon is home to many species including dolphins, otters, sea turtles, egrets, herons, spoonbills, pelicans, seatrout, redfish, tarpon, snook, sharks, and of course, manatees. To learn more about recreational opportunities and what you can do help the lagoon, visit

[visitspacecoast.com](http://visitspacecoast.com)  
[lagoonloyal.com](http://lagoonloyal.com)

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**INFORMATION SOURCES**

- myfwc.com
- fws.gov
- nationalgeographic.com
- noaa.gov
- savethemanatee.org
- smithsonianmag.com
- seaworld.org



FUNDED IN PART BY BREVARD COUNTY'S 1/2 CENT SALES TAX INITIATIVE



**MANATEE FIELD GUIDE**

**Discover MANATEES**



**MEET THE FLORIDA MANATEE**

Florida manatees are gentle, slow-moving aquatic mammals with elongated round bodies and flat paddle-shaped tails. Despite their large size, they have relatively little body fat and migrate seasonally in search of warm water. Shallow, slow-moving rivers, estuaries, saltwater bays, canals, and coastal areas are all great places to find manatees.

Sometimes called "sea cows" due to their size and vegetarian diet, manatees thrive in Florida's coastal waters and natural springs, particularly where seagrass beds or other aquatic vegetation are present. Manatees are uniquely suited to Florida, where they can feed on more than 60 different species of aquatic plants.



The Florida manatee is the world's largest manatee. They are the largest herbivore in the sea.

Manatees can live in fresh, brackish, or salt water. Many Florida manatees live year-round in the shallow, brackish water of the Indian River Lagoon, where they spend most of their days eating, resting, investigating objects, and socializing with other manatees.

FLORIDA MANATEE HABITAT:  
**THE INDIAN RIVER LAGOON**

Over 70% of the Indian River Lagoon is located on Florida's Space Coast.

One of the most diverse estuaries in North America, the Indian River Lagoon is home to thousands of plant and animal species, including nearly a third of our nation's manatees.



**2,100+**  
PLANT SPECIES



**2,200+**  
ANIMAL SPECIES

FLORIDA'S SPACE COAST INDIAN RIVER LAGOON

**72**  
MILES NORTH TO SOUTH



**1/3** OF THE US MANATEE POPULATION lives in or migrates through the lagoon

Florida's Original  
WATER PLAYGROUND

TDCLF08.21

# Space Coast MANATEE FIELD GUIDE

## MANATEE FACTS



ADULTS CAN REACH  
**8-13 ft**  
(2.6-4.3 M)  
IN LENGTH



ADULTS CAN WEIGH  
**800-1,300**  
POUNDS  
(363 - 590 KG)



CAN EAT UP TO  
**150 lbs**  
(363 - 590 KG)  
OF FOOD PER DAY



EAT UP TO  
**60**  
PLANT SPECIES INCLUDING  
turtle grass, manatee  
grass, shoal grass,  
mangrove leaves, various  
algae, water hyacinth,  
acorns, and hydrilla

OR UP TO  
**10%**  
OF THEIR BODY WEIGHT



AVERAGE LIFESPAN  
**40 YEARS**  
IN THE WILD



CAN SWIM  
**20 MPH**  
(32 KM/H)  
IN SHORT BURSTS

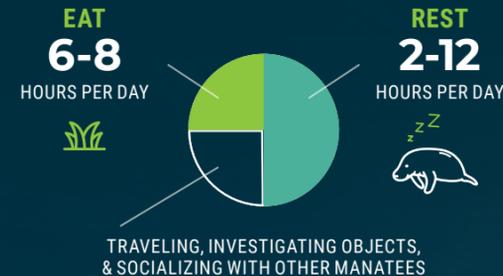
CAN STAY SUBMERGED  
**20 min**  
WHEN RESTING

**3-5 MPH**  
(32 KM/H)  
ON AVERAGE

SURFACE TO  
BREATHE EVERY  
**3-5 min**  
ON AVERAGE

**90%**  
OF AIR IN LUNGS IS  
REPLACED WITH EVERY BREATH

### How do manatees spend their time?



### How do manatees communicate?

Manatees communicate using a wide range of sounds including chirps, squeaks and whistles. They also communicate through touching, smelling, tasting, and visual signals.

### Are manatees social animals?

Manatees swim individually, in pairs, and also gather casually in groups. They have been observed participating in seemingly playful activities such as bodysurfing and follow-the-leader. When bodysurfing on strong currents, manatees often nuzzle one another and vocalize between rides.



When playing follow-the-leader, two or more manatees move together in a single file formation and synchronize all of their activities including breathing, diving, and changing direction.



### Are Manatees Intelligent?

Manatees have the smallest brain of all mammals in relation to their body size. Despite having small and smooth brains, these friendly mammals have shown some of the same problem-solving skills as dolphins.

### Do Manatees Have Teeth?

Manatees have 4 sets of 6-8 molars and a never-ending supply of teeth. Their vegetarian diet contains tiny granules of sand, which eventually causes teeth to be worn down. As their front molars wear down, they fall out and the next set move forward into place.



### Do Manatees Have Whiskers?

Manatees have thousands of thick, whisker-like hairs called vibrissae on their faces and bodies, which help them sense and explore their world. Manatee facial whiskers may be as sensitive as our fingers!



### What Color are Manatees?

Manatees have finely-wrinkled, leathery-looking, thick gray skin that continuously flakes off. Algae often grows on the backs and tails of manatees, which makes their skin appear green or brown. Algae may help block harmful UV rays from the sun.

### What are Manatee "Footprints"?

When manatees swim they create oval shaped ripples referred to as footprints. This is a great way to spot manatees, especially since they camouflage so well with their surroundings.

### Can Manatees See Underwater?

Instead of eyelids or eyelashes, manatees have a special membrane that protects their eyes and allows them to see underwater. Manatees can see in both dim and bright lighting and are near-sighted. Studies suggest they can see in a limited color palette including blue, green, and gray.

### How Do Manatees Eat?

Manatees use their front flippers and large, flexible lips to gather, grasp and manipulate food. Their split upper lip has right and left sides that move independently, which helps move food into place.

### Why Do Manatees Travel in Pairs?

Young manatees, called calves, stay close to their mothers for up to 2 years to learn the location of food, rest areas, and warm water refuges. Mothers carry their babies for 12-13 months and give birth to a single calf every 2-5 years.

### Manatees are agile swimmers.

They can swim upside down, vertically, and do somersaults and barrel rolls.



### Manatees have unusual necks.

Manatees are the only aquatic mammals with six cervical vertebrae instead of seven. To turn its head, a manatee has to move its entire body.



### Manatees have toenails.

Manatees have 3-4 tiny nails at the end of each flipper, similar to an elephant's toenails. Researchers speculate the toenails may assist manatees when navigating or feeding in shallow water.



### Manatee ears look like pinhole dimples.

Manatees ears can be hard to see. Look for small pinhole dimples 4-6 inches behind each eye. Manatees can hear well, but studies suggest they hear at higher frequencies than humans. Researchers can tell how old a manatee is by counting the annual growth rings in the ear bone.



### Keep an eye out for noses.

When manatees surface for air, they often bring only their nostrils above water. Manatee nostrils close automatically when going back underwater.



### Manatees are related to elephants.

Both manatees and elephants have tough skin, bristle-like hair covering their entire body, teeth that are continuously being replaced, and toenails on each forelimb.

Manatee calves begin supplementing their diet with grazing at only a few weeks of age. Manatees nurse their calves with milk from mammary glands, with a nipple located under each armpit.



## MANATEE HISTORY

### Are manatees native to Florida?

Florida manatees (*Trichechus manatus latirostris*) are one of four living species in the order Sirenia. Scientists believe modern manatees have inhabited Florida waters for over one million years.

### Are manatees related to mermaids?

Ancient sailors mistook manatees for mermaids. On his voyages to the New World, Christopher Columbus claimed he spotted several mermaids in the waters of what is now the Caribbean. Evidence shows these mystical mermaids were actually manatees.



### Do manatees have predators?

Manatees do not have natural predators. They are rarely targeted by killer whales, crocodiles, alligators, or sharks. The largest threat to manatees is human activity. Manatees were once hunted for their meat and oil. Florida passed its first protections in 1893 by prohibiting manatee hunting. Today, human and natural threats such as cold stress, habitat loss, boat collisions and algal blooms threaten the lives of many manatees each year.



### Are manatees endangered?

Florida manatees were added to the US Endangered Species List in 1967. Their status was changed from endangered to threatened in 2017. Today's estimated population of over 6,000 Florida manatees is a dramatic turnaround from the 1970s, when just a few hundred remained. It is our responsibility to ensure our actions do not jeopardize the continued existence of these gentle giants.



Learn more about what you can do to enjoy and protect Florida's manatees on reverse

# Space Coast MANATEE VIEWING MAP

## MANATEE VIEWING SPOTS

### 1 Manatee Observation Deck at Haulover Canal

A great spot to see manatees and dolphins traveling between the Indian River and Mosquito Lagoons. Watch for both rolling in the deep water below.  
 ▼ Manatee Viewing Road, Mims, FL 32754

### 2 Bairs Cove

The place to see manatees year-round. They enjoy the protected waters of this cove on the Haulover Canal. The nearby manatee observation area is a great spot for an elevated view of the canal's manatees, dolphins, and occasional large alligator.  
 ▼ End of Bairs Cove Rd, Mims, FL 32754

### 3 Parrish Park

A large open parking area and boat launch. Look for dolphins around the causeway and the occasional manatee patrolling the shoreline. Plenty of access for shore fishing and rocket launch viewing.  
 ▼ 1 A. Max Brewer Memorial Pkwy, Titusville, FL 32796

### 4 Kennedy Point Park

Look for manatees in the protected boat ramp cove. Another great spot for viewing rocket launches.  
 ▼ 4749 S Washington Ave, Titusville, FL 32780

### 5 Manatee Cove Park

A pretty reliable spot to see manatees throughout the year! Also features a kayak launch, playground, and restrooms.  
 ▼ 4905 N Tropical Trail, Merritt Island, FL 32953

### 6 KARS Park

The small boat ramp cove at this park is a great nook to spot manatees. The "No Motor Zone" to the north is a great place to launch paddle craft for fishing or wildlife viewing. No combustion engines are allowed, so the wildlife is more at ease. Watch out for gators.  
 ▼ Audobon Rd, Merritt Island, FL 32953 (From State Rd 3 / N Courtenay Pkwy, take Hall Rd East to Audobon Rd)

### 7 Kelly Park

Big public park with plenty of shoreline to scope out manatees and dolphins. Manatees will sometimes hang out in the boat ramp cove.  
 ▼ 2455 N Banana River Dr, Merritt Island, FL 32952

### 8 Banana River Park

A large, open park with a dock and kayak launch. Good place to see dolphins and the occasional manatee.  
 ▼ 901 Puerto Del Rio Dr, Cape Canaveral, FL 32920

### 9 Manatee Sanctuary Park

Close to Port Canaveral and Cocoa Beach, this park boasts plenty of shoreline to explore. More dolphins than manatees here, but in the warmer months the manatees will seek out the deep, cool water and nearby flats to feed.  
 ▼ 701 Thurm Blvd, Cape Canaveral, FL 32920

### 10 Watts Park

Manatees like the deep, cool waters of Sykes Creek in the summer and will come by in the winter to warm up. Dolphins will chase schools of mullet along the shoreline.  
 ▼ 695 Needle Blvd, Merritt Island, FL 32953

### 11 Kiwanis Island Park

Look for manatees and dolphins in surrounding Sykes Creek.  
 ▼ 951 Kiwanis Island Park Rd, Merritt Island, FL 32952

### 12 Osteen Park

Manatees will feed here in the shallows during the warmer months. A great spot to watch a sunset or picnic under the oaks if the manatees don't show.  
 ▼ 425 S Tropical Trail, Merritt Island, FL 32952

### 13 Ramp Road Park

Small park with boat ramp in Satellite Beach. Great spot to launch a kayak and explore mangrove forests in search of manatees.  
 ▼ 401 Ramp Rd, Cocoa Beach, FL 32931

### 14 Shoreside Park

Walk out on the pier for a chance to spot manatees and dolphins in shallow water spring through fall.  
 ▼ 5010 N Harbor City Blvd, Palm Shores, FL 32940

### 15 Desoto Field

These narrow canals in Satellite Beach provide a winter shelter for dozens of manatees during the cooler months. One of the best spots to see manatees when it gets cold!  
 ▼ 499 Desoto Pkwy, Satellite Beach, FL 32937

### 16 Oars and Paddles Park

This is a large park on the Banana River where manatees visit throughout the year to either cool off or warm up. Amenities include a floating launch dock open to the public, a small pavilion with picnic tables, restrooms, parking, and a playground all connected by a pedway.  
 ▼ 1329 Banana River Dr, Indian Harbour Beach, FL 32937

### 17 Ballard Park

Manatees and dolphins can be seen from the shoreline and boat ramp at this large park.  
 ▼ 924 Thomas Barbour Dr, Melbourne, FL 32935

### 18 Douglas Park

Manatees travel back and forth under the adjacent bridge and dolphins can often be seen feeding at this park. While you're there, check out the oyster reef restoration and native plant garden.  
 ▼ 100 Riverside Pl S, Indialantic, FL 32903

### 19 Kiwanis Park at Geiger Point

A right turn off the busy causeway yields a great spot to overlook the Indian River Lagoon. Manatees cruise this shoreline year-round. Watch for dolphins feeding in the cove to the south.  
 ▼ 1313 Melbourne Causeway, Melbourne, FL 32901

### 20 Crane Creek Promenade

A boardwalk and popular manatee and dolphin viewing park in the heart of downtown Melbourne.  
 ▼ 990 E Melbourne Ave, Melbourne, FL 32901

### 21 Melbourne Beach Pier / Ryckman Park

Manatees will occasionally venture through these shallow flats in the warmer months, but it's a great spot for fishing and sunset viewing.  
 ▼ 509 Ocean Ave, Melbourne Beach, FL 32951

### 22 Castaway Point Park

Watch from the pier as manatees make their way into the mouth of Turkey Creek. Also a popular spot to see dolphins.  
 ▼ 2990 Bay Blvd NE, Palm Bay, FL 32905

### 23 Pollak Park

This is a small boat launch park on Turkey Creek where manatees can occasionally be seen heading upstream.  
 ▼ 141 Main St NE, Palm Bay, FL 32905

### 24 Turkey Creek Sanctuary

Features creek overlook areas to gaze down on passing manatees, gators and turtles.  
 ▼ 1518 Port Malabar Blvd NE, Palm Bay, FL 32905

### 25 Goode Park

Public boat launch and park with a fishing pier. Manatees come up into this creek to feed on the vegetation and drink freshwater. They can be found here year round.  
 ▼ 1300 Bianca Dr NE, Palm Bay, FL 32905

### 26 IRL Preserve Trailhead

This network of trails through a mixture of scrub, oak, and mangrove forests eventually leads to the open lagoon. Manatees can sometimes be seen in the summer months on the shallow flats. If not, it's an easy hike showcasing the unique beauty of the barrier island.  
 ▼ 500 Old Florida Trail, Melbourne Beach, FL 32951

### 27 Long Point Park

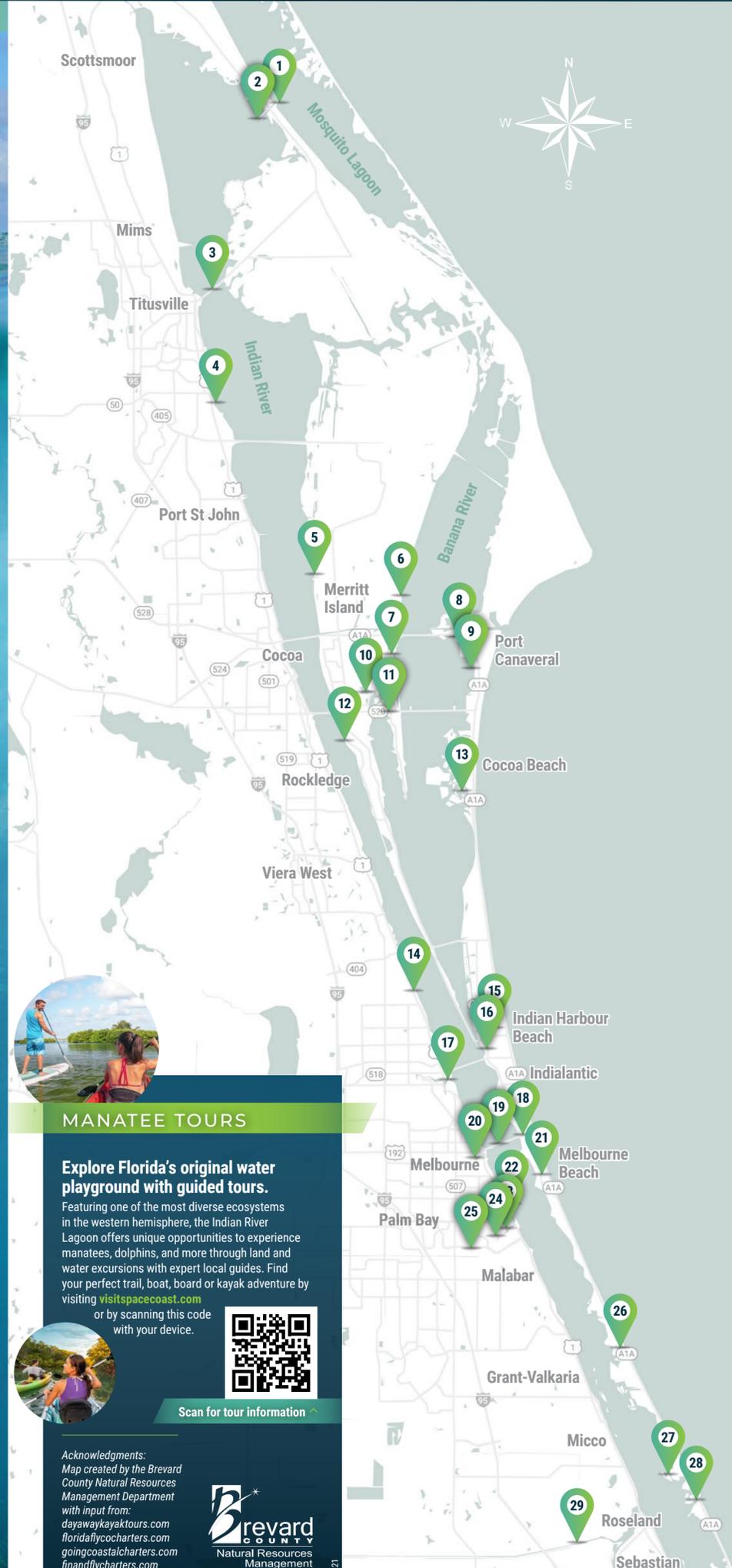
This large Brevard County campground and park is a great place to explore the Indian River Lagoon near Sebastian Inlet. Look for manatees from atop the Scout Island bridge, or keep an eye out for them along the nature trails.  
 ▼ 700 Long Point Rd, Melbourne Beach, FL 32951

### 28 Sebastian Inlet State Park Tidepool

Manatees come into Sebastian's protected tide pool to take a break from swimming in the inlet's strong currents. There's plenty to explore if the manatees don't show. Colorful reef fish roam the pool while crabs and snails creep around rocks.  
 ▼ Sebastian Inlet Swimming Cove, 9700 S Hwy A1A, Melbourne Beach, FL 32951

### 29 Sebastian River North Prong Observation Area

This spillway regulates water flow from the C-54 Canal into Sebastian River. It's a good spot to get a birds-eye view of manatees. Watch for flashes of silver as tarpon—a large dragon-like fish—roll or gulp air from the surface. The adjacent St. Sebastian River Buffer Preserve is a wildlife haven not to be missed—it's natural Florida at its best.  
 ▼ 1000 Buffer Preserve Dr, Fellsmere, FL 32948. Follow Buffer Preserve Rd east until the road ends at the viewing area.



## MANATEE TOURS

### Explore Florida's original water playground with guided tours.

Featuring one of the most diverse ecosystems in the western hemisphere, the Indian River Lagoon offers unique opportunities to experience manatees, dolphins, and more through land and water excursions with expert local guides. Find your perfect trail, boat, board or kayak adventure by visiting [visitspacecoast.com](http://visitspacecoast.com) or by scanning this code with your device.



Scan for tour information

Acknowledgments:  
 Map created by the Brevard County Natural Resources Management Department with input from:  
[dayawaykayaktours.com](http://dayawaykayaktours.com)  
[floridaflycocharters.com](http://floridaflycocharters.com)  
[goingcoastalcharters.com](http://goingcoastalcharters.com)  
[finandflycharters.com](http://finandflycharters.com)



## MANATEE VIEWING TIPS



### Polarize your eyes.

Wear polarized sunglasses so you can see where manatees are located underwater.



### Watch for footprints.

Manatee "footprints" look like circular wave patterns on the water's surface created by the manatee's tail.



### Listen and scan.

Listen for manatee breathing and scan the area for manatee snouts as they break the surface.

## MANATEE MANNERS



### Watch manatees from a safe distance.

Watching manatees from a boardwalk or viewing platform is a great way to see their natural behavior and avoid disturbing them.



### Be mindful of resting manatees.

Speak quietly and avoid making loud noises when you are near wildlife areas. A resting manatee might be conserving energy or trying to stay warm. Loud noises can cause manatees to leave a warm water area for a less safe area with vessel traffic.



### Look, but don't touch.

Never touch, approach, or chase a manatee. If a manatee stops feeding, swims toward you or changes its behavior, you are too close. These actions are considered harassment, which is against the law.



### Don't give food or water to manatees.

Feeding or giving water to manatees could cause them to change their natural feeding behavior. It's not healthy for manatees to eat items that are not part of their natural diet. Manatees are adept at finding their own food and fresh water sources. If manatees become accustomed to receiving rewards from humans, they could associate any human with rewards and approach a boat or put themselves in dangerous situations.



### Respect mothers and calves.

Never disturb or separate a mother and calf. Curious calves may seem like pets, but they are wild animals that are dependent on their mothers to learn essential survival skills. Calves could ultimately die if they are separated from their mothers.



### Be courteous in the water.

Avoid excessive noise and splashing if a manatee appears nearby. The manatee may be resting and may surface without being aware of your presence. Noise and activity may startle the animal awake, which may put it in harm's way if it becomes frightened and leaves the area.



### Be aware while on the water.

Wear polarized sunglasses and scan for manatee snouts, tails, and backs. While paddling, observe manatees from a distance of at least two kayak or board lengths. Don't paddle over manatees.



### Be a responsible boater.

Abide by posted speed zone signs and stay in deep-water channels whenever possible. Avoid boating over seagrass beds and shallow areas. Wear polarized sunglasses and scan for manatee snouts, tails, and backs. If you spot a manatee close by, turn off your motor. Remain at least 50 feet away from a manatee when operating a powerboat. Always use marine pump-out facilities.



### Be sure to stash your trash, especially fishing line or hooks, that could injure or entangle manatees.

## Manatees are Protected by Law

Manatees are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. It is illegal to disturb, harass, hunt, capture or kill Florida manatees. Fines range from \$500 to \$50,000 and imprisonment for up to a year.

## MANATEES & YOU

### Humans are the biggest threat to manatees.

Since manatees have no known natural predators and reproduce only every 2-5 years, their long-term survival is most threatened by human-related causes. Irresponsible boating practices, coastal construction, and pollution from sewage discharge and stormwater runoff result in increased rates of manatee mortality.

But there are things we can all do to help preserve and protect this gentle species.

## HOW TO HELP



### Be aware of your actions, especially near water.



### Throw your trash away.

Fishing line, rope, cigarette butts, plastic, and trash can entangle and kill manatees and other aquatic fish, birds, and animals.



### Pick up after your pets.

When pet waste is left on the ground, bacteria washes into the lagoon, which reduces water quality and negatively impacts seagrass growth.

### For Residents

Many everyday actions impact lagoon water quality, seagrasses, and manatee habitat. When pollution from chemicals and fertilizer washes into our streets and storm drains, it can end up in the lagoon. Pollutants in the lagoon cloud the water, reduce sunlight, cause algae growth, inhibit seagrass growth, and ultimately harm manatees, fish, birds, and other aquatic species.



### Wash your car over your lawn or at a commercial car wash.

When cleaning your car at home, use biodegradable soaps and wash over your lawn. Your yard can act as a filter to help keep chemicals out of the lagoon.



### Reduce fertilizer use.

If you do fertilize, use fertilizer with zero phosphorus (P-0) and at least 50% slow-release nitrogen.



### Avoid fertilizer from June to October.

80% of Florida's rainfall occurs during the summer. Rain can wash fertilizer off your property and into local waterways.



### Keep grass clippings on your lawn.

Grass clippings are a natural fertilizer. If grass clippings left on the sidewalk or street end up in the lagoon, they contribute to pollution and muck.



### Regularly inspect your septic system or sewer lines and maintain your system.

Leaking septic systems or sewer laterals can leech pollution into the lagoon. Schedule a professional inspection and repeat every 3-5 years. For septic systems, avoid planting trees or shrubs over your drainfield and do not drive over it. Protect your septic system by throwing waste in the trash and keeping harmful items out of drains and toilets.

For more information visit [lagoonloyal.com](http://lagoonloyal.com)

### If you see an injured manatee:

Call the Florida Fish & Wildlife Conservation Commission  
 1-888-404-3922

If possible, note the location of the manatee and the location of the closest public boat ramp.

### For an interactive version of this map

Scan this code with your device

