



“Three Feet above Sea Level”

A Sea Kayaker's Quick Reference Guide to the flora and fauna of the North Florida Gulf Coast

The over 300 miles of Florida's northern Gulf Coast varies from the beach rimmed barrier islands of the western Florida panhandle to the extensive salt marshes of the northern peninsula. This disparate geography of coastal terrain is home to a variety of plants, sea life, mammals, and birds matched in few ecosystems in the coastal United States. This offers the coastal sea kayaker, whose eyes travel at an altitude of about three feet above sea level, a rare opportunity to observe and interact with Florida's native wildlife.

It is the design of the sea kayak to travel slowly and quietly along coastal waters. The craft is able to slip into coastal streams, backwaters, and marshes. The kayak becomes close to being the ideal platform to closely observe the interaction of one species of plant or animal with another. In one day, the paddler can experience the excitement of being amidst a pod of feeding dolphin, watch eagles resting on oyster bars while feeding on their catch, observe hermit crabs moving to a new home in an empty crown whelk shell, and spot redfish and sting rays fly across the shallow sea grass beds.

The purpose of this guide is to assist the kayaker in identifying the life that can be seen from the cockpit of the boat. The guide is not meant to be an exhaustive list of all plant and animal life along the Gulf coast, but is meant to enhance the paddler's travels through allowing them to know what is out there. The traveling paddler is encouraged to mentally step away from concentrating on the number of miles logged and to allow their curiosity free rein in discovering “What is that?”.

Common Plants and Animals seen by Kayakers in Gulf Waters

When paddling across the open waters of the Gulf with the shoreline just breaking up the horizon on one side and the flat water meets sky horizon on the other, wildlife may be much closer and easier to observe than you might think. With a keen eye and a good pair of polarized sunglasses a lot can be seen moving through the water looking for a meal or trying not to become one. Bottle-nose dolphins and manatees are two common favorites among kayakers as both spend much of their time near shore. In calm waters they're quite easy to spot breaking the surface to breathe and often don't mind getting close for a quick look at whose looking at them. Sea turtles can also be spotted catching a breath or simply basking at the surface. And, don't forget the possibility of spotting a shark's fin cutting the surface. Also, especially in the summer months, brown pelicans can be seen gliding along low to the water often in a formation using their shadows to scare up bait fish swimming just below the surface. Below are photos of interesting creatures a kayaker may cross paths with while navigating the open waters of the Gulf Coast.

Reptiles



The Loggerhead sea turtle (*Caretta caretta*) is the most common of the five sea turtles. Its thick neck and head gives it the name.

Mammals



Florida manatee (*Trichechus manatus latirostris*) or sea cow are actually related more to elephants than cows. They will munch up several hundred pounds of aquatic vegetation in a day.

Trees



Cypress Tree (*Taxodium* spp.) Easily identified by its flared base and knees. Leaves are 2-3 inches in length and feathery in appearance.

Fish



Flounder (*Paralichthys albigutta*) Brown flat fish with 3 distinct spots. Often found on sandy bottom in shallow water flats.



Green turtle (*Chelonia mydas*)
Second largest of the five sea turtles and the only plant eater. Feeds only on sea grasses and algae.



The American alligator (*Alligator mississippiensis*)
resides mainly in freshwater, but large adults will use coastal shorelines as hunting grounds and even venture to nearby islands.



Bottle-nose dolphin (*Tursiops truncatus*)
stay mainly in inland waters and follows their food of schooling bait fish and large mullet.



River otters (*Lutra canadensis lataxina*)
have expensive taste. They love fish, shrimp and shellfish and will frequent tidal swamps and marshes to appease their cravings



The Southern live oak (*Quercus virginiana*)
is one of the broadest spreading of the oaks, and its picturesque silhouette makes it recognizable even from a great distance.



Yaupon Holly (*Ilex vomitoria*)
was given its scientific name when it was learned the Native Americans of the panhandle used it to make a drink that would cause one to vomit.



Sting Ray (*Dasyatis sabina*)
common in estuaries and at the edge of marshes, the fish possesses a wide flat body with a long tale containing a sharp spine. It is usually brown, with juveniles being a lighter grey in color.



Spotted sea trout (*Cynosion nebulosis*)
This fish is elongated, silver in color with darker grey appearance and frequent spots above the lateral line. They are frequently found near oyster bars at the mouth of tidal creeks.

Common Plants and Animals seen in the Beach and Intertidal Zone

Whether you're just getting ready to launch from a sandy shore or coming into a landing after a day on the water, even on a calm day wildlife watching may not be the top priority at that moment. You're checking the wind speed and direction, checking for obstacles, double-checking your gear is all in place. When you can, before you head out exploring or call it a day, take a moment and check out the living conditions in this Gulf meets sand environment. Most folks are quick to understand how moving water can sculpt a landscape over time. In the inter-tidal zone, the landscape is moving in double-time as sand grains move in a dynamic cycle from sea to shore and back again. This is an environment where there are periods of exposure to air and sun only to then be submerged in turbid saltwater for the rest of the day as sunlight, temperature, air and food availability all teeter tottering from one extreme to the next with each tide. For many hardy creatures, it's the best place ever to live.

Molluses



Lightning Whelk (*Busycon perversum*) This snail grows its shell counter-clockwise giving it a distinguishable left-sided opening. The similar looking crown conch has a right-sided opening. Whelks will eat about one clam a month.

Molluses



Whelk eggcases such as this are often found washed up on a beach. Each compartment is a fluid filled chamber where the eggs are kept wet until they're ready to hatch.

Sea Grasses



Manatee grass (*Syringodium filiforme*) it the second most abundant seagrass in Florida. Usually mixed with other seagrasses, it can be distinguished by its cylindrical leaves that can get up to 20 inches long.

Crustaceans



The bright coloration of the **Calico crabs (*Hepatus epheliticus*)** provides excellent camouflage while waiting just beneath the sand to ambush its meal.



Banded tulip snail (*Fasciolaria tulipa*) The shell can vary in color, but has many fine reddish-brown lines and brown-orange axial splotches. It eats other snails and bivalves.



Lettered olive snail (*Olive sayana*) grows to about 2 ½ inches and is named for the dark surface markings that resemble letters on its cream or grayish shell.



Atlantic cockle (*Dinocardium robustum*) These bivalves can grow to about 5 ½ inches. They can be found in mud and sand from near low-tide to waters 100 ft. deep.



Pen shells (*Pinna nobilis*) can grow to about a foot long and are notorious for containing black pearls.



Turtle grass (*Thalassia testudinum*) is the most abundant and robust seagrass in Florida. These leaves are about ½ inch wide and ribbon like.



Shoalgrass (*Halodule wrightii*) is often found in waters too shallow or too deep for other grasses to grow. It is a very important colonizer species of disturbed areas.



The **horseshoe crab (*Limulus polyphemus*)** actually isn't a true crab, but more related to spiders and scorpions.



Ghost crabs (*Ocypode quadrata*) spend their days excavating burrows and their night feeding. They are omnivorous.

Common Plants and Animals seen in the Dune and Transition Areas

The sand dunes and the transitional zones located just behind them are very important economically and, often under appreciated, ecologically as well. Not only do these areas provide for wind and storm buffering and a place for big conglomerate developers to build their condominiums on, but many of the wildlife and plant species that occur just beyond the mean high tide line have become specialists to that environment and are greatly dependent on these areas remaining natural. The plants that have not only become adapted to these areas but actually thrive are very important to help maintain some stability the stresses of wind and wave shifted sands and saltwater flooding can cause. Many small mammals and reptiles, consequently, have also adapted to the ever-changing physical conditions and have become dependent on the plants species that make up the entire coastal upland landscape. In many beach areas of the Gulf, standing at the top of a sand dune and observing the seaward side of the dune, then looking landward to the interior transition zone would be the ecological equivalent of standing on a city street corner and looking across to a completely different neighborhood. When stretching your legs after a good long day on the water, take a moment to check out the different neighborhoods that nature placed so closely together.

Plants



Beach morning glory (*Ipomoea imperati*) This coastal sand-dunes native is a perennial vine that flowers in late summer and mid-fall.

Plants



False-rosemary (*Conradina canescens*) can be found in the scrub sand-dunes. As the name implies, it looks much like the hardier rosemary bush that lives in the same area, but has no relation.

Mammals



Marsh Rabbits (*Sylvilagus palustris*) are a more compact and rugged version of the cottontail.

Reptiles



The **Six Lined Racerunner (*Cnemidophorus sexlineatus*)** possesses six light stripes that extend from the eye along the sides of its body. These stripes maybe pale blue, grey, white or yellow.



Sea Oats (*Uniola paniculata*) are semitropical perennials that often dominate. The seed heads become a yellow-brown, straw color in late summer.



Coral Bean (*Erythrin herbacia*) is a semi-herbaceous member of the bean family. In frost-free places like along the coast, this plant will form woody stems and grow to 16 feet tall.



Spanish Bayonet (*Yucca aloifolia L.*) is an aloe that can be found in the back dune or transitional community. As its name implies, the tips of the leaves are very sharp.



Railroad Vine (*Ipomoea pes-caprae*) A pioneering beach species, common on dunes. Its flowers are “moonflower” size and shape.



The **Southeastern beach mouse (*Peromyscus polionotus niveiventris*)** shown here is the largest of seven recognized subspecies of beach mice.



Raccoons (*Procyon lotor*) are found everywhere in Florida and the coastal areas are not exception. They are also just as pesky.



The **Diamondback Terrapin (*Malaclemys terrapin*)** is the only turtle that spends its life in brackish water.



Suwannee cooters (*Pseudemys suwanniensis*) can be found in drainage areas of rivers and streams leading into Gulf coastal communities.

Common Plants and Animals seen in the Salt Marsh and Tidal Creeks

Salt Marshes and Tidal Creeks

Salt marshes and tidal creeks are the nurseries of life for the Gulf coast. These marshes and creeks are found in low energy areas of the coast. That is, areas without strong wave action. They are also area found behind barrier islands and at the mouths of freshwater creeks and rivers. They are visually characterized by salt tolerant grasses whose roots and foliage provide for marine animals. While these marshes generally lack trees, small elevated areas will support salt tolerant species and when close to deeper water, serve to mark islands suitable for rest stops.

Grasses in the Salt Marsh



Needle Rush (*Juncus roemerianus*). This rush has a round grayish stem culminating in a sharp dark brown or black point. Generally found in areas that are higher and not inundated by tides daily.

Crustaceans:



Blue crab (*Callinectes sapidus*)
Blue in color with brown to orange edges to its exterior shell, this crab will adopt an aggressive posture when threatened.

Mollusks



Gulf scallop (*Argopecten irradians*) The shell of this mollusk is shaped like the familiar gas station sign, though usually grey or faded blue in color. It has primitive eyes and can “swim” by clapping its valves

Trees



Cabbage Palm (*Sabal palmetto*) The Florida State Tree, this palm may grow to a height of 90 feet.



Sea purslane (*Sesuvium portulacastrum*) This succulent has leaves that grow to about 2.5 inches in length. It is edible with a taste similar to asparagus when boiled.



Smooth Cordgrass (*Spartina alterniflora*) Having a tall, more grasslike appearance, smooth cordgrass is found in areas that are flooded daily by tides.



Fiddler crab (*Uca pugnator*) There are seemingly thousands of these in and around the marshes. The males 2-3 inch crabs have a large claw used in attracting females.



Shrimp (*Penaeus*) Highly recognizable, most shrimp found in the marshes and tidal creeks will be undersized juveniles. They seek out the food and protection of this environment until growing to adulthood.



Oysters (*Crassostrea virginica*) Possessing grey, hard, irregular shells, these mollusks attached themselves to anything hard, commonly forming oyster reefs.



Crown Conch (*Melongena corona*) Averaging between 2-4 inches in length, this snail displays crown like ridges near the top of the shell. The shells have a vaguely striped camouflage patters ranging from white to brown to grey to blue.



Southern Red Cedar (*Juniperus virginiana*) This evergreen tree, which may grow to 50 feet, possesses 2 inch whorled leaves, a reddish stringy bard, and a soft red interior wood.



Slash Pine (*Pinus elliotii* var *elliotii*) Common throughout the deep south, this pine has needles about 8 inches long in bundles of 2-3.

Birds seen along the Gulf Coast

The northern Gulf of Florida is privileged to host nesting sites for breeding colonies of shore birds as well as resting and destination areas for many migratory species of shore birds. In addition to providing the beauty of a soft melodious clamor to the coastal paddling experience, each individual species contributes to the well being of the coastal system through its interaction with other animals. They provide pest control services, waste management, food services, and a barometric indicator to the health of the coast.

The paddler is cautioned to avoid approaching nesting areas during the spring and early summer breeding season. A continued healthy population depends upon the least level of disturbance during this critical time. Enjoy your observations from afar.

Representative Birds of the Northern Gulf Coast



Great Blue Heron (*Ardea herodias*) This common heron stands about 47 inches tall. It is grey-blue overall with white crown and face and a black plume extending from behind its eyes.



Egret (*Egretta thula*) A constant resident of Florida, this pure white wading bird is distinguished by its black legs with yellow feet and its black bill.



Black Skimmer (*Rynchops niger*) The Black Skimmer is a medium-sized shore bird with a red and black bill. The lower mandible is longer than the upper. Black Skimmers have a black back and back cap, white underside, and short red legs.



Brown Pelican (*Pelicanus occidentalis*) The Brown Pelican is dark and bulky with a wingspan of 6.5 feet. The throat pouch suspends from the lower half of the hooked bill and can hold 3 gallons of water and fish.



Royal Tern (*Thalasseus maxima*)
A large tern (18-20 inches) with an orange bill, deeply-forked tail, and black cap in spring and early summer.



American Coot (*Fulica Americana*) Inhabiting wetlands and open water bodies, this bird is about 16 inches long. They have a short thick white bill and white frontal shield, which usually has a reddish-brown spot near the top of the bill between the eyes.



Little Blue Heron (*Egretta caerulea*) The Little Blue Heron is a medium sized wading bird with deep blue-gray plumage, dull green legs, and a black-tipped bill.



American Oyster Catcher (*Haematopus palliatus*) This coastal species has a black head, neck, upper breast, tail, and flight feathers. Its belly and lower breast are white and it is distinguished by its orange-red bill and eye ring.



Willet (*Catoptrophorus semipalmatus*) Common along the Gulf, it has generally drab gray-brown markings. Its bill is relatively long and heavy and is used to probe in soft sediments.



Ruddy Turnstone (*Arrenaria interpres*) A migratory bird generally wintering on the Florida coast, it is a small, stocky bird with short, orange legs; a short, wedge-shaped, black, slightly upturned bill; and variegated russet plumage.



Osprey (*Pandion halioetus*)
The osprey has a length of approximately 22 inches, with a 54 inch wingspan. Dark brown above and white below. White head with prominent dark eye stripe.



Bald Eagle (*Haliaeetus leucocephalus*) Both male and female adult bald eagles have a blackish-brown back and breast; a white head, neck, and tail; and yellow feet and beak.

“One Last Thing”

It’s getting late in the day and you have paddled a long distance along the coast. During your paddle you have seen terns, gulls, pelicans, and perhaps other birds listed in this guide. There may have been a dolphin or two accompanying you for a short time. Hopefully you took the time to explore a marsh or tidal creek or had a rest on one of the beaches or islands. Perhaps there you noticed a whelk, a species of crab or two, and maybe spotted some small fish near your landing site. You probably were pricked by some needle rush. As you pull into your take out point or your campsite for the night, you may notice some yellow-brown weed that contains some small grapelike structures floating near your boat. This is probably Sargassum.

Take a few moments to pick up a double handful of this algae and look closely at it. You will probably see the movement of many small creatures. Within your hands are elemental food sources, predators and prey. Hold it over the deck of your boat and give it a gentle shake. Falling from the algae may be small crabs, developing fish, whelks and snails, perhaps a tiny seahorse. All of these grow and develop within the miniature ecosystem before you. Each organism is dependent upon the other just as all the larger organisms represented in this guide are dependent on each other in the larger ecosystem you have paddled through.

If you are fortunate, you may see something that causes you to ask, “What is that?”

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