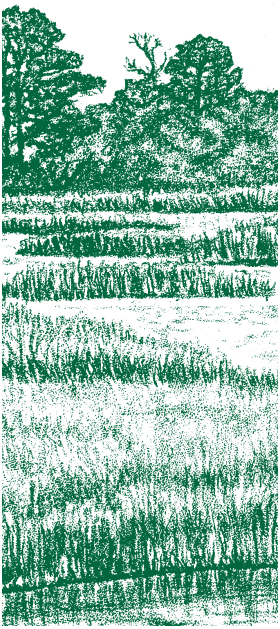
U.S. Fish & Wildlife Service

Sabine

National Wildlife Refuge Marsh Trail

Nature Trail



This one and one-half mile trail is open to the public daily from official sunrise to official sunset. Along the trail you will encounter many types of vegetation and wildlife which will acquaint you with a Gulf Coast marsh and its inhabitants. Allow yourself about two hours to walk the trail.

The plants and animals you see along the trail are protected. Please allow them to remain for other visitors to enjoy. Help us keep the trail free of litter - take out what you carry in. Mosquitoes and deer flies may be a problem. You may wish to apply insect repellent. Binoculars and field guides will enhance your tour and knowledge of what you observe.

Caution

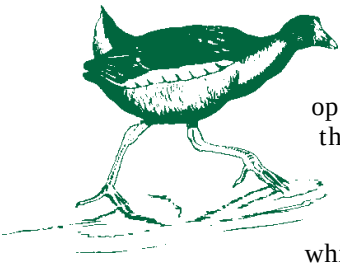
Do not approach or touch alligators or attempt to move an alligator which may be blocking the trail. As a safety precaution, leave your pet in your vehicle. Alligators eat dogs.

Most people assume that a marsh and a swamp are the same. Actually they are very different and the only similarity between the two is standing water. A marsh is a wet grassland and a swamp is a wet forest. A marsh is also a much more dynamic area. It is a complex, fragile, and frequently changing environment. As you look out over the area, you realize the vastness of the Gulf coast marshes, but its complexity is completely hidden. A coastal marsh is the wintering ground for many species of waterfowl, the permanent home of furbearers, deer, freshwater fishes, alligators, resident birds, and the nursery area for many different marine species.

Marsh

The most common plant of the marsh is salt-meadow cordgrass. It is tolerant of salt water and is found growing from the water's edge to higher, drier sites. Cordgrass is considered a climax species. This means the marsh would eventually become all cordgrass if left undisturbed. Pure stands of cordgrass are not desirable because this plant has no food value for most wildlife; it mainly provides shelter and concealment. On the refuge, burning and winter cattle grazing are used to control cordgrass and keep the area in a subclimax stage. This permits species to increase and helps maintain the marsh in a condition more attractive to wildlife.

Common Moorhen



The most common bird to be seen as you walk the trail is the Common Moorhen (formerly known as the Common Gallinule). Common Moorhens are at home swimming in the open water or wading along the shoreline. These small dark chicken-like birds are characterized by a short, pointed red bill, and a white rump. A closely related species found in the marsh is the brilliantly colored Purple Gallinule. It has a light blue forehead, yellow and red bill, and yellow legs.

Waterfowl

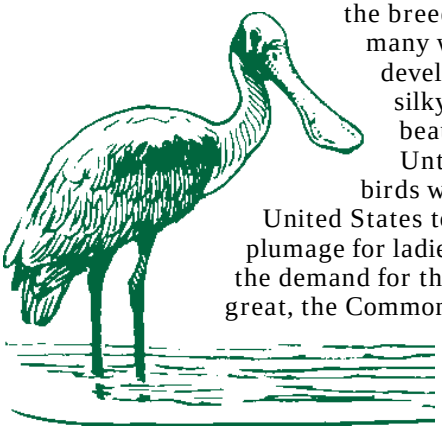
Ducks frequent the marsh all year, but are more common during the fall, winter and early spring. You may observe both dabbling and diving ducks. The dabbling ducks feed by tilting with heads down and tails up, on seeds and vegetation in shallow water. The diving ducks disappear completely as they feed, usually in open water which sometimes may be as deep as 50 feet or more. Dabblers spring from the water to fly while divers patter across the water before taking flight.

The following species are normally seen from the nature trail: Green-winged Teal, Gadwall, Shovelers, Blue-winged Teal, Pintail, Wigeon, Mottled Duck, Mallard, and Scaup.

Phragmites

The tall thick stands of cane on each side of the trail are known as Phragmites or Roseau cane. This cane grows on mineral soil in higher sites of the marsh. It provides cover and nesting areas for many animals. By looking into the thick stands, you may be able to observe trails created by different animals and birds.

Wading Birds



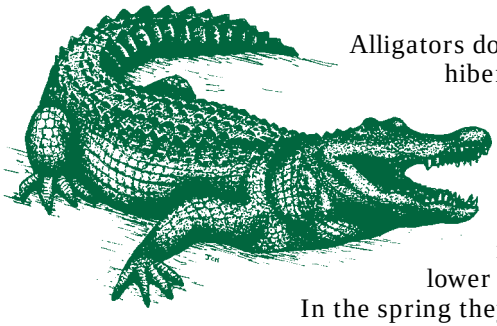
Wading birds are common here throughout the year. Shallow ponds and mud flats are the most likely areas to see them. During the breeding season, many wading birds develop feathers with silky textures and beautiful colors. Until 1909, wading birds were killed in the United States to obtain their plumage for ladies hats. Because the demand for the plumes were so great, the Common and Snowy Egrets nearly vanished. Roseate Spoonbills were taken by plume hunters until only 30 birds were left in the State of Florida by 1939. Protection by federal laws has enabled most of the wading bird populations to recover from the danger of extinction. Only the Wood Stork now remains threatened. Occasionally, a few Wood Storks migrate through the refuge in the late summer and early fall.

Alligatorweed

Growing adjacent to the trail is a free-floating dense mat of plants with lance-shaped leaves and white flowers. This is alligatorweed, an exotic plant from South America. The plant is an excellent biological indicator of freshwater areas in a marsh because it cannot tolerate salt or brackish water. It is considered a serious pest plant because it is so prolific it can clog open ponds and waterways. Alligatorweed does have some value as a forage plant for deer, nutria, and cattle. Alligators may use the dense mats as basking (sunning) areas. Many species of herons and egrets are attracted to alligatorweed to feed on numerous small crayfish and other crustaceans found living in the tangles.

American Alligator

The alligator is king of the marsh. It is the ultimate predator other than man. Also, it is the chief sanitarian of the marsh because it can eat sick or diseased animals without being harmed. The "gator" is vitally important to the ecology of a coastal marsh.



Alligators don't really hibernate during the winter; their metabolic rate is drastically reduced by lower temperatures. In the spring they emerge from their den holes.

The male begins bellowing in late spring. Courtship activities take place during late May and early June. The females start to build their nests during June. The nest is a mound of grass and resembles a

muskrat nest, but has a bare area around it which may extend eight feet from the nest. The nest can contain from 20 to 80 eggs. The female stays near the nest, frequently opening it when she hears the hatching young grunting. The young remain close to the female's den hole until they are about three feet long.

You may like to know the length of the alligator which you are observing. Estimate the distance in inches from the tip of the snout to the line across the base of the eyes. One inch is equivalent to one foot in length.

Animal Signs

Marsh Rabbit

Most animals found in the marsh are more active at night. Except for the alligator during warm weather, you will probably see few animals as you walk this trail. However, they do leave telltale signs of their presence. Alligators, nutria, raccoon, rabbit and mink tracks and droppings are often found along this trail. Look for worn appearances of the ground and smooth paths. These are animal trails. Like people, animals use the easiest routes; different animals often travel the same trail.

Muskrat

Nutria

One of the most common tracks along the trail and water's edge is that of the nutria. Compare any tracks you see with the drawings in this leaflet. Can you identify them?

Raccoon

Droppings are another sign by which an animal's presence can be noted. Along this trail, the most common droppings you will

see are those of nutria and rabbits. Both are composed of vegetative material. The rabbit droppings are round, light-colored pellets while nutria droppings are dark brown and elongated in shape.

Muskrat and Nuria

Throughout the marsh, especially during the fall and winter months, you may see the wedge-shaped head of a brown furred animal swimming the channels or eating various marsh plants. Most of these animals are nutria, but occasionally a few muskrats may be seen.

Nutria - Large heavy body; Average body length—22 inches; Reddish brown fur; Round tail.

Muskrat - Small slender body; Average body length—12 inches; Dark brown to blackish fur; Elliptical tail

Which animal have you seen?

Marsh Soil and Topography

Why is a marsh wet? A marsh would be a grassland prairie if it didn't have impervious clay underlying it. This layer prevents water from penetrating or seeping into the earth. Also a marsh has a lower elevation than the surrounding areas so water collects in it, or it is kept inundated by a replenishable water source.

In this deltic plain, elevation differences are measured in inches; only a few can result in a change in the vegetative type. From this vantage point you can see numerous differences in the vegetation. Each of these represents a different species, many associated with slight changes in topography.

The offensive odor sometimes associated with the marsh is hydrogen sulphide, generated in the upper surface by plant decay.

Detritus

Healthy marshes can be much more productive per acre than good agricultural land. Marsh vegetation produces an amazing amount of organic material, up to five tons per acre, compared to a wheat field which may produce four tons. As plants die and decay they form detritus, the material which provides food for bacteria, protozoa, and other micro-organisms. Thus, detritus is the first stage in the food chain of the marsh.

The marshes outside the impoundment contain brackish water. Because of the large amounts of detritus in them, they serve as a nursery ground for many important marine species. Young forms of crabs, shrimp, and many fish hatch in the waters of the Gulf of Mexico and migrate to the marshes where they feed on detritus. As juveniles or adults, they migrate back to the Gulf and the cycle starts again.

Bullwhip

Looking around, one should see a tall, slender, dark green, round-stemmed plant known as bullwhip. It is usually found in permanent water areas where the water may be as much as 2 feet deep. By looking over the marsh as you continue along the trail, you will be able to determine the deeper areas by the stands of bullwhip.

Nesting Birds

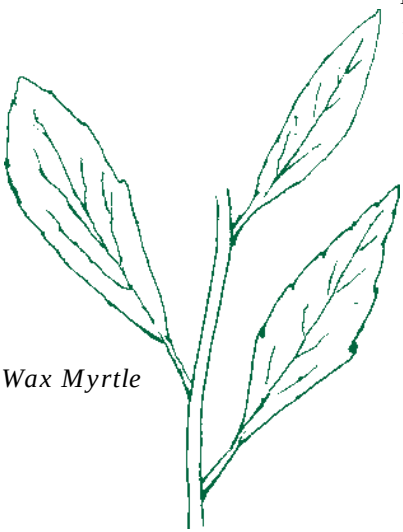
Over 250 kinds of birds can be seen on Sabine Refuge. Of this number, about 50 species nest on the refuge. Each bird builds a nest unique to that species, utilizing certain

materials, and constructing the nest in a different type site.

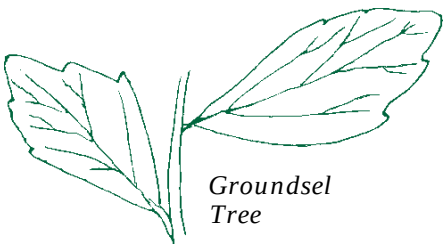
Look carefully into the bullwhip, cane and shrubs to see as many different types of nests as possible. If it is springtime, the bird may be in or near the nest and you can associate the type nest with the species that builds it.

Marsh Shrubs

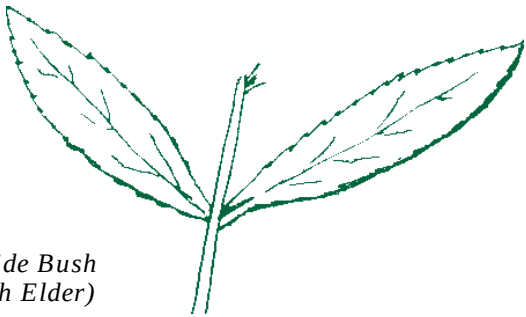
There are three common species of shrubs in the coastal marsh. They grow best on drier sites and will be found on ridges and levees throughout the refuge. Shrubs are used by many species of birds for perching, roosting, and nesting. Usually these shrubs are the only woody plants present which can support the numerous nests built by colonies of large wading birds.



Wax Myrtle



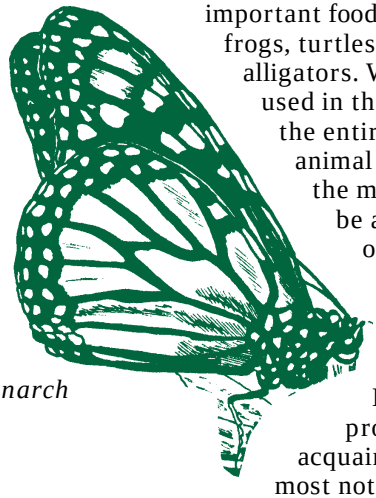
Groundsel Tree



Hightide Bush (Marsh Elder)

Insects

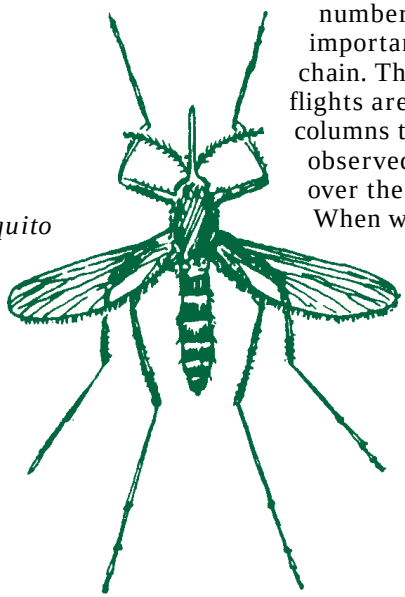
Insects, considered pests by many, are important in the ecology of a marsh. In both their aquatic larval and adult flying stages, they are important food sources for birds, frogs, turtles and even young alligators. When insecticides are used in the marsh, they affect the entire community of animal life associated with the marsh. Man may also be affected if he eats fish or ducks that have consumed insecticide-treated insects.



Monarch

By now you have probably become acquainted with Sabine's most noticeable insect, the mosquito. It is sometimes humorously called the State Bird of Louisiana. Stories of old claim that Indians, the first settlers of South Louisiana used boiled alligator fat as a repellent.

Often mistaken for mosquitoes; the non-biting midges are numerically the most common insect of the marsh. Because of their numbers they are very important in the food chain. The midges' mating flights are swirling columns that may be observed moving slowly over the marsh at dusk. When walking through a flight, you must guard against inhaling them.



Mosquito

An unwelcome summer resident of the marsh is the deerfly called the "greenhead". Similarly to the mosquitoes, only the females are bloodsucking feeders. They can be most annoying as they continually buzz around your head and occasionally inflict a burning bite.

Sighting Notes

Date _____

Time _____

To _____

Locality _____

Weather _____

_____

Temperature _____

_____

Total Species _____

_____

Comments _____

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