Double-crested Cormorant:
Phalacrocorax auritus

Double-crested Cormorants are found along inland waterways and in coastal areas and is widely distributed across North America and down to Mexico. Its diet consists mainly of fish, which the cormorant hunts by swimming and diving. This species measures 28-35 in. long.

Normally all-black birds, both males and females gain a small double crest of black and white feathers during breeding season. The feathers of all cormorants are not waterproof, so they must spend time drying them out after being in the water which is why they are often seen perched with wings spread. Once threatened by use of DDT (synthetic pesticide), the numbers of this bird have increased markedly in recent years.

Gulf Menhaden: *Brevoortia patronus*

Gulf Menhaden are small (5-8 in. long) marine filter feeding fish in the Gulf of Mexico nearshore waters, and support the second largest fishery, by weight, in the United States. Larval, juvenile and adult menhaden are important prey for many fishes and birds. The Gulf Menhaden live in estuaries and in the Gulf of Mexico. Spawning takes place in the Gulf of Mexico and larvae are carried into estuaries within 3-5 weeks after hatching.

Bay Anchovy: *Anchoa mitchilli*

The Bay Anchovy is a common and often extremely abundant fish of the coastal and inshore waters of the western Atlantic. Bay Anchovies are economically important as a “trashfish” harvest fishery species used for fish oil and fishmeal. It also represents a critical component of marine and estuarine food webs, both as a predator and a prey species.

Blue Crab: *Callinectes sapidus*

The Atlantic Blue Crab is a crustacean found in the waters of the western Atlantic Ocean, the Pacific coast of Central America and the Gulf of Mexico. The Blue Crab is an omnivore, eating both plants and animals, including carrion as well as other Blue Crabs. In Louisiana the Blue Crab is the second largest shellfish industry and an important part of recreational fishing as well.

Male and female Blue Crabs are distinguished from one another by their abdomens, which are narrow in males, but wide and rounded in females. When the female is about to become sexually mature, she molts (sheds outer covering) and then mates with a male. The male's sperm is transferred to special sacs inside the female for use at a later time. After mating, and toward the end of the season, the impregnated "sooks" (female crabs) will migrate to the high-salinity waters. Here, she actually fertilizes her eggs with the previously stored sperm and spawns (releases eggs into the water).

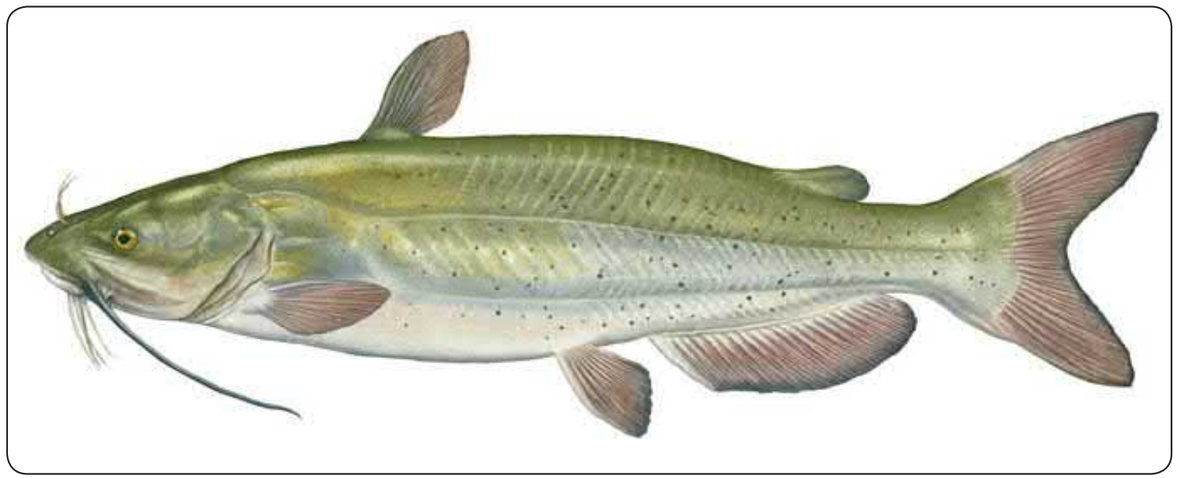
The female will mate only once in her life, but can produce from 750,000 to as many as 8 million eggs. The eggs hatch in water between 66-84°F and in salinities between 23-35 parts per thousand (normal seawater salinity is 35 parts per thousand). Only a tiny fraction of these eggs will result in a mature adult. Juvenile Blue Crabs migrate into the lower saline and even fresh water areas of the system where they continue to grow, reaching maturity after 18-20 post-larval molts with a life expectancy of 2-4 years.

Blue Catfish: *Ictalurus furcatus*

The Blue Catfish is one of the most abundant catfishes in the Lake Pontchartrain Basin. Morphologically, the Blue Catfish resembles the Channel Catfish, but differs in its lack of spots on the back and sides. Blue Catfish primarily occupy freshwater lakes, rivers, and oxbows, but are capable of brackish water habitats. Maximum size is more than 100 lbs.

Channel Catfish: *Ictalurus punctatus*

Channel Catfish are native to lower Canada and the eastern and northern United States, as well as parts of northern Mexico. They thrive in small and large rivers, reservoirs, natural lakes and ponds. Channel “Cats” are cavity nesters, meaning they lay their eggs in crevices, hollows, or debris in order to protect them from swift currents.



Channel Catfish possess very keen senses of smell and taste with a very high concentration of olfactory receptors in their nostrils and taste buds distributed over the surface of their entire body. These taste buds are especially concentrated on the Channel Catfish’s four pair of barbels (whiskers) surrounding the mouth.

Red-shouldered Hawk: *Buteo lineatus*

The Red-shouldered Hawk is a medium-sized hawk, 16-24 in. long and a wingspan of up to 40 in., with reddish shoulders and a long white narrowly banded tail. This hawk is found in lowlands near water, especially in swamps and bogs. Its distinctive, screaming “kee-aah” call is usually repeated 3-4 times. In forested areas, these hawks hunt by sitting quietly on a low perch before dropping down on their prey. When in clearings, they will fly low in order to surprise their prey which consists of small mammals, snakes, frogs, large insects and small birds. During winter months, they sometimes prey on birds found at bird feeders.

Red-shouldered Hawks are permanent residents throughout most of their range, although the birds in the northern reaches will migrate south all the way to central Mexico. Their nests are made of leaves and twigs, built 20-60 ft. high in trees. Deforestation is a major modern threat to the Red-shouldered Hawk, leading to an increase in habitat for the Red-tailed Hawk.

Bald Eagle: *Haliaeetus leucocephalus*

The Bald Eagle is unique to North America and is found throughout most of the continent, from Alaska and Canada to northern Mexico. They migrate south to Louisiana in the fall and stay all winter to breed, although some are suspected to remain as year-round residents. In 1967, Bald Eagles were officially declared an endangered species in all areas of the United States south of the 40th parallel and that status remained until 1995, when the US Fish and Wildlife Service upgraded their status in the lower 48 states to “threatened.” As with other birds, the pesticide DDT was a major problem for this species before it was banned.

Bald Eagles mate for life and communicate with each other by loud, high-pitched, screeching calls. A bird of prey, the Bald Eagle lives near large bodies of water where food is abundant and there are plenty of old trees for building large nests as wide as nine feet in diameter. Bald Eagles usually live to be around twenty years old, though sometimes as long as thirty. The adult species, both male and female, has a brown body, with a white head and tail. The Bald Eagle’s diet consists mostly fish, but can also include small mammals, birds, reptiles and crustaceans (especially crabs).

Young, immature eagle

Brown Pelican: *Pelecanus occidentalis*

The Brown Pelican was designated the state bird of Louisiana in 1966 and appears on both the state flag and state seal, which is why Louisiana is often referred to as “The Pelican State.”

There are seven species of pelicans, but the Brown Pelican is the smallest species measuring 42-54 in. long, weighing as much as 12 lbs., with a wingspan of up to 8 ft. The only dark pelican, it is also the only one to plunge into the water to catch its food.

It can be found along the ocean shores, bays and of course, the Lake Pontchartrain Basin. Groups of Brown Pelicans can be seen flying low over the water’s surface in single file. They nest in colonies on the ground on an island or in a bulky stick nest in a low tree.

The use of the pesticide DDT caused pelicans’ nesting attempts to fail and population decline along the Louisiana coast in 1961, and it is thought that the species completely disappeared by 1966. However, Louisiana repopulated its coastline by transporting fledglings from Florida. By 1995, the Federal Government declared the Brown Pelican “recovered,” with about 40,000 Brown Pelicans calling “The Pelican State” their home today.

Rangia Clam: *Rangia cuneata*

The Rangia Clam is a non-selective filter-feeder that turns large quantities of plant detritus and phytoplankton into clam biomass. Rangia was an important food source for early primitive peoples along the coast, but the meat is not very nutritious. However, the clams were eaten so much by indigenous people that the discarded mounds of shells were created along the waterway, called “middens,” some of which can still be seen today throughout the Lake Pontchartrain Basin.

From 1933-1990 Rangia Clams were harvested in Lake Pontchartrain. The shells were used for the construction of roadways, parking lots, levees and in the production of cement. However, this harvesting produced an increase in water turbidity and as a result, dredging in Lake Pontchartrain was banned in an effort to improve the overall health of the lake. Since then, the lake and the clams have rebounded fully.

Shell Midden

Laughing Gull: *Larus atricilla*

Summer breeding plumage

Laughing Gulls are medium-sized gulls (14-16 in. long with a 39-43 in. wingspan) common along the Atlantic and Gulf coast. This species has a black “hood” in the summer, but loses it in winter. The Laughing Gull is found from Maine to the Caribbean and northern South America, in marshes, bays and estuaries with the northernmost populations migrating further south in winter. It gets its name from its loud, high-pitched, “ha-ha-ha-ha-haah-haah-haah” laughing call.

Laughing Gulls use mostly grasses to build large nests constructed on the ground. Omnivores like most gulls, this species often scavenges for food and preys on small fish and other small animals. These birds are very agile on the wing and are known for following boats and catching food tossed into the air. The larger Herring Gulls prey on the Laughing Gulls’ eggs and, together with the loss of coastal marshes, the Laughing Gulls’ numbers may be in decline.

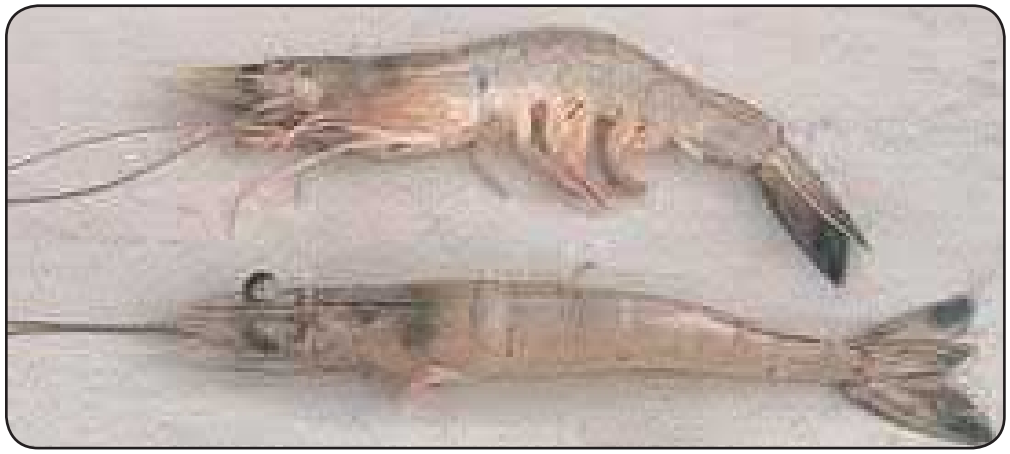
Winter plumage

Brown Shrimp: *Farfantepenaeus aztecus*
White Shrimp: *Litopenaeus setiferus*

Two species of saltwater shrimp are harvested in waters off the coast of Louisiana. The Brown Shrimp are abundant in the spring and early summer and the White Shrimp are predominant towards the end of summer until late December. Brown Shrimp are usually harvested at a smaller size than White Shrimp with Brown Shrimp having an average count of 70-80 shrimp per pound as opposed to 30-40 White Shrimp per pound.

Both species of shrimp reproduce in the offshore waters of the Gulf of Mexico. When the fertilized shrimp eggs hatch, the larvae, known as nauplius, grow into the second larval stage, called protozoea, and begin to develop a more shrimp-like appearance. In the third larval stage, called mysis, the larvae now look even more like tiny shrimp and are carried by current into the near shore waters. Next, the postlarvae are pushed into the inland coastal wetlands, an important nursery for these juvenile shrimp to feed as they grow toward adulthood. Young shrimp spend several months feeding and growing in the wetlands before they begin their journey back to the Gulf of Mexico to spawn.

Brown Shrimp



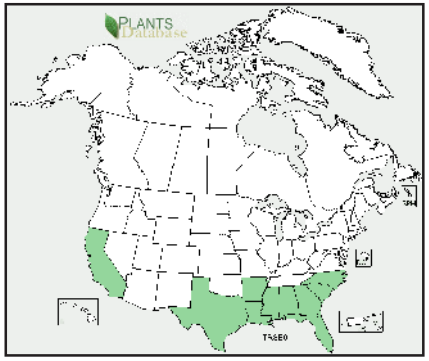
White Shrimp

Chinese Tallow: *Sapium sebiferum*
(Non-native)

Chinese Tallow displaces oak trees in Bottomland hardwood Forests after storms, lowering the habitat's ability to sustain the wildlife dependent upon the acorns for over wintering.

Chinese Tallow is a tree native to eastern Asia and was introduced to the United States in colonial times by Benjamin Franklin. ***Sebiferum*** means "wax-bearing," and refers to the vegetable tallow that coats the seeds. This species is considered to be a noxious invader in the U.S., displacing many native species.

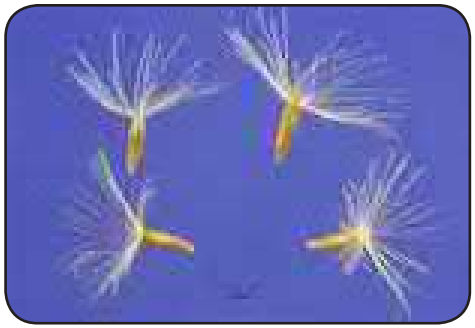
Chinese Tallow is found throughout the southern United States and has become naturalized from South Carolina southward along the Atlantic and the entire Gulf coast, where it grows profusely along ditch banks and especially well in open fields.



Seaside Goldenrod:
Solidago sempervirens

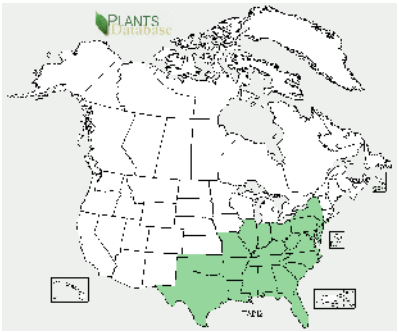
Seaside Goldenrod is native to eastern North America and parts of the Caribbean. It is an herbaceous perennial that reaches heights of 4–6 ft. This plant is found along the coast from Mexico north to Newfoundland. Highly tolerant of both saline soils and salt spray, it is usually found growing on coastal dunes and in salt marshes, but also in fresh to brackish marshes. This maritime plant has a high salinity tolerance, is a poor competitor and is very shade intolerant.

This species blooms in late summer and well into the fall. Its fruits are wind-dispersed seed like structures called “achenes.”



Achenes

Baldcypress: *Taxodium distichum*



Baldcypress is a large tree reaching over 100 ft. in height with a diameter of 10 ft. Relatives of the Giant Sequoia, some Baldcypress are as old as 1,500 years. It is deciduous, losing the leaves in the winter months, hence the name “bald.” Most Baldcypress grow on flat ground, in alluvial soils and mainly along riparian (riverside) wetlands normally subject to periodic flooding by silt-rich “brownwater” rivers. Mature Baldcypress tolerate minor salinity, but do not reproduce in saline coastal waters.

Baldcypress growing in swamps have a peculiarity of growth called cypress knees. These woody projections above the ground or water are part of the root system. Their function is that of structural support and stabilization. Baldcypress growing on flood-prone sites tend to form buttressed bases, and together with a strong, intertwined root system, the trees are often able to resist very strong winds; even hurricanes rarely overturn them.

Baldcypress was designated the official state tree of Louisiana 1963, and is considered by some to be a symbol of the southern swamps. Baldcypress are valued for their water-resistant and beautiful, easily workable wood. The Manchac area was logged of most of its abundant cypress trees by the 1950s, turning the area from swamp (a wetland dominated by trees) to marsh (a wetland dominated by grass).

Eastern Lubber Grasshopper: *Romalea guttata* (or *Romalea microptera*)

There is only one species of Lubber Grasshopper in the eastern United States and only a few species occur in North America. Lubber grasshoppers are large, colorful and usually bear short wings that are too small to use for flight or even for long jumping.
The Lubber Grasshopper has many defensive warnings. The first is its brightly colored warning pattern known as aposematism. When disturbed, they may hiss and spread their wings and even emit a foul-smelling and foul-tasting foamy secretion from the thorax.

Like all insects, the Lubber Grasshopper goes through several stages of development. Initially, while in the small nymph stage, it is wingless and completely black with one or more yellow, orange or red stripes. In the adult stage, they reach 2.5–3 in. in length with wings half as long. Their appearance can range from a dull yellow often characterized by black spots and markings, a bright orange with black markings, or entirely black with yellow or red striping. In the black adult color phase, this grasshopper is widely known throughout Louisiana, Mississippi and Alabama as the “Devil’s Horse.” All are opportunistic eaters, meaning this species will eat anything they come across.

Roseaucane or Common Reed:
Phragmites australis

Common reed is a large perennial grass found in wetlands throughout temperate and tropical regions of the world. In several states it is considered an invasive weed, displacing other plants. Its height ranges from 6-12 ft., making it the tallest grass in southern marshes and swamps.

The stems were used for arrows, weaving mats and for carrying nets by some of the first peoples of North America. This species is often used in marsh restoration activities in the Lake Pontchartrain Basin.

Dwarf Palmetto: *Sabal minor*

Dwarf Palmetto is one of about 14 species of palmetto palms. It is native to the southeastern United States. Although it is mainly found in the southern states, it is one of the only palms that can stand somewhat cooler temperatures, and can be found as far north as southcentral Pennsylvania.

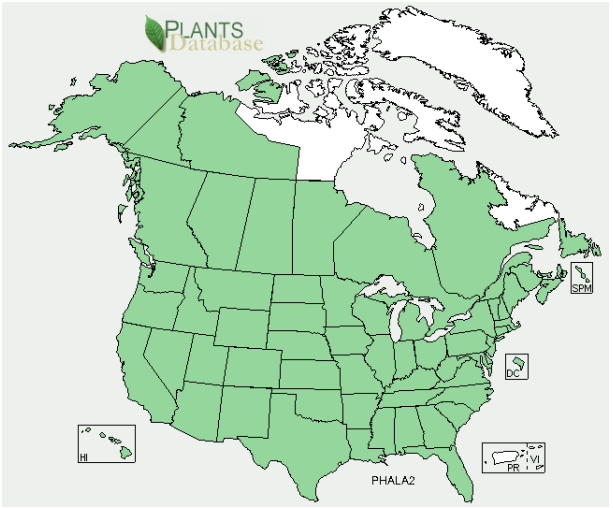
The Dwarf Palmetto grows up to 3 ft. in height, with a trunk up to 1 ft. in diameter. It is a fan palm with a bare petiole (leaf stalk) terminating in a rounded fan of numerous leaflets.

Canary grass: *Phalaris* spp.

Non-native

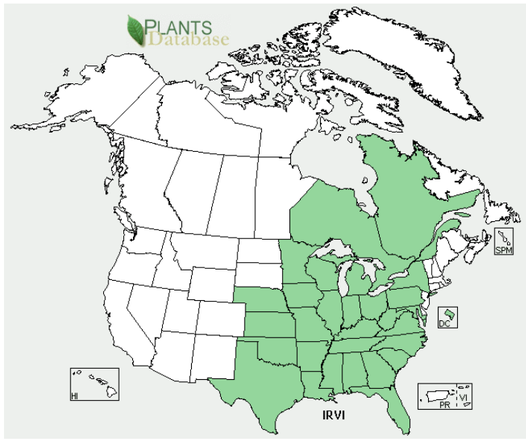
Canary grass is a tall, perennial grass that commonly forms extensive stands along lakes and streams, as well as in wet open areas. It is widely distributed throughout North America as well as Europe, Asia and northern Africa. Reed canary grass is sometimes planted as a hay or as a forage crop for grazing animals, but it can also be an invasive species, suppressing native vegetation and plant diversity in wetlands. The grass propagates by seed and rhizome so it is difficult to control or eradicate.

Research has suggested that because Reed canary grass grows well on poor soils and in contaminated sites it can be planted to improve soil quality. This grass can also be turned into bricks or pellets for burning in biomass power stations and its fibers can be used in the pulp and papermaking processes.



Blue Flag Iris: *Iris Virginica*

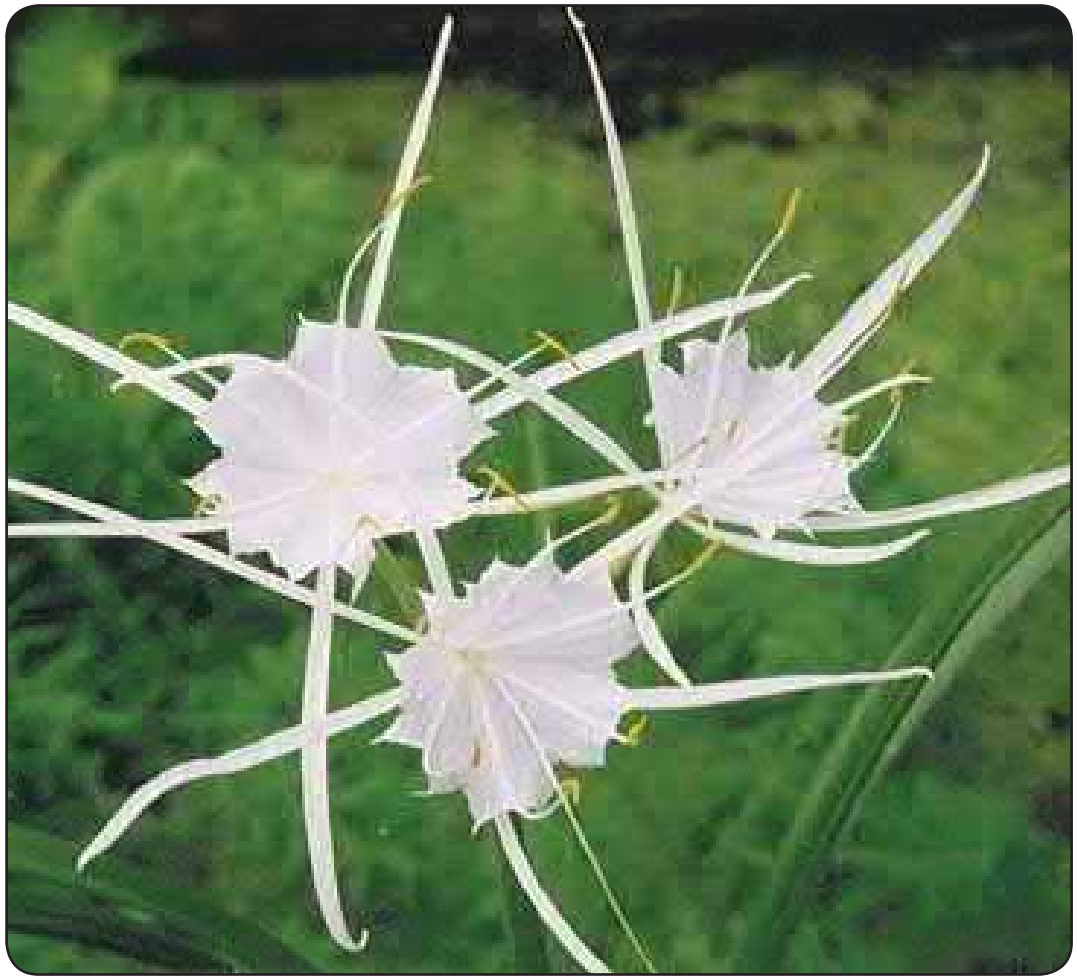
Blue Flag Iris grows in wet areas, in both fresh and brackish tidal marshes. It can be found in low savannas, thin woods and open meadows as well as along the edges of swamps, rivers and ditches.



Louisiana Iris: *Iris giganticaerulea*

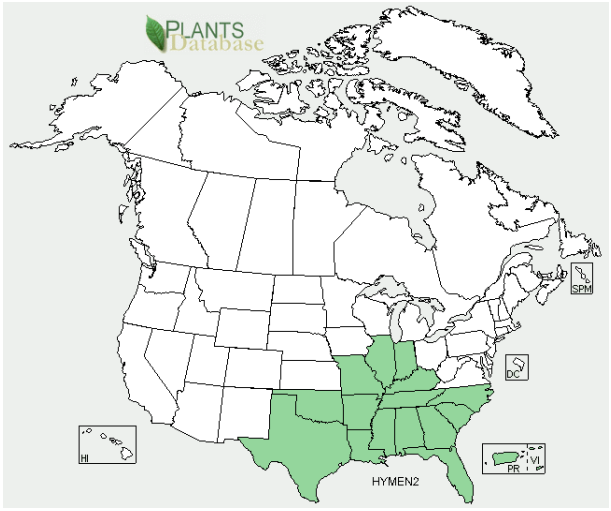
Louisiana Iris, the largest of the Louisiana irises is the Louisiana State Wildflower. It is light blue to lavender to purple in color, sometimes white to yellowish-white.

Spider Lily: *Hymenocallis* Spp.



Hymenocallis means “beautiful membrane” which refers to the corona that connects the stalks of the stamens for a portion of their length. This has a large spectacular flower and several species can be found in our area which may be distinguished by minor details.

The Spider Lily is a good indicator of a healthy swamp or, a high area in marshes that were once swamp.



Deer Pea: *Vigna luteola*

Deer Pea is a native, perennial, herbaceous vine that has trailing or twining branches which can grow up to 3 ft. in length or longer.

It flowers from April to November and produces several fairly large seeds in pods 1-2 ½ in. long. Its vines often form dense mats over other vegetation. Deer pea grows in wet pastures, along levees, elevated ridges and on well-drained sites along the edge of freshwater to brackish swamps.

Deer Pea, like all legumes, is a soil builder, fixing nitrogen in the soil. It provides food for deer and the seeds are eaten by many small birds. It is recommended for natural landscapes, habitat restorations, and butterfly gardens as it is a larval host plant for many butterflies.

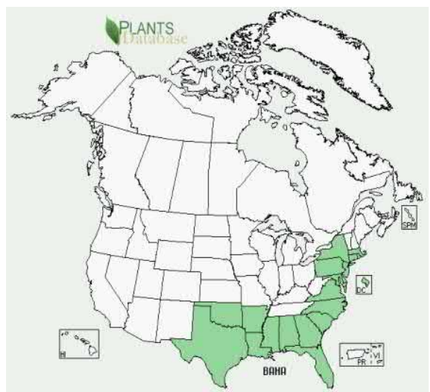
Bulltongue: *Sagittaria lancifolia*

Bulltongue is native to the Southeastern United States and westward through Texas. The plant is known for its large, lance-shaped leaves which grow up from underground rhizomes and the showy, white three-petaled flowers forming at the end of long, thick stalks. Bulltongue likes to grow in fresh or brackish water and is commonly found in ditches, marshes, swamps and along the shores of lakes and streams.

Bulltongue reproduces both asexually by spreading rhizomes and sexually through reproduction of copious achenes: a dry fruit, each of which carries a single seed. This plant is generally avoided by Nutria as a food source.

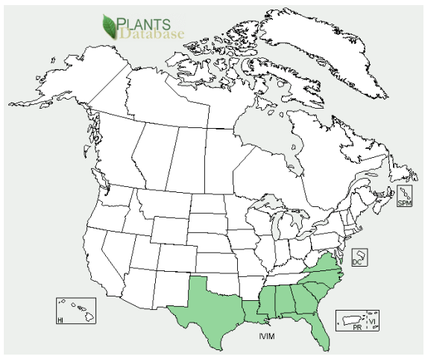
Eastern Baccharis: *Baccharis halimifolia*

Baccharis is the only native eastern species of the aster family reaching tree size. Tolerant of saltwater spray, it is one of the few eastern shrubs suitable for planting near the coast where it is useful for erosion control. Its leaves are alternating (as opposed to marsh elder), evergreen and toothed near the apex of older leaves. Marsh wrens and other small birds frequently nest in these shrubs and it provides food and cover for white tailed deer.



Marsh elder: *Iva frutesens*

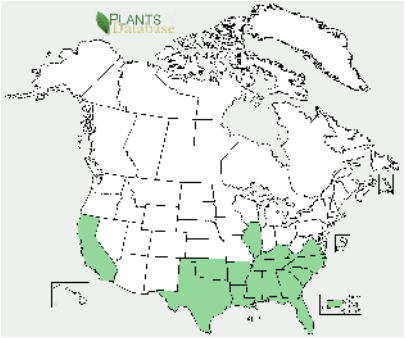
Marsh elder is a deciduous maritime shrub that is native to coastal saline wetlands. The leaves of this shrub are dull green, have serrate margins, are roughly pubescent (hairy) and are opposite each other (as opposed to Baccharis). This 4-6 ft. tall shrub has abundant greenish flower heads that appear from July to September. The Marsh elder is normally associated with the mid to high marsh ecosystem, forming the last line of defense for shoreline erosion control. The shrub provides breeding and resting cover for birds.



Alligator weed:
Alternanthera philoxeroides
(Non-native)

Alligator weed is a floating aquatic plant. It originated in South America, but has spread to many parts of the world and is considered an invasive species. Alligator weed can grow in a variety of habitats but is usually found in water. It may form large interwoven mats over the water or along shorelines. Alligator weed flowers during the warm months of the year and has whitish, ball-shaped flowers that grow on stalks.

When alligator weed invades waterways it can reduce water flow and quality by preventing light penetration and oxygenation of the water. It can also reduce water, bird and fish activity, even causing fish and native plants to die. Alligator weed mats are difficult to control and create a favorable habitat for breeding mosquitoes.



Southern Watersnake: *Nerodia fasciata*

Also called Broad-Banded Watersnake or Banded Watersnake, this species of non-venomous snake is found in the central and southeastern United States. The Southern Watersnake grows up to 4 ft. and is typically gray, green-gray or brown in color with dark cross-banding. Many specimens are so dark in color their patterning is barely discernible. They have a flat head and are fairly heavy bodied. Their appearance leads them to be frequently mistaken for other snakes with which they share a habitat, including the less common Cottonmouth. The Southern Watersnake feeds primarily on fish and amphibians.

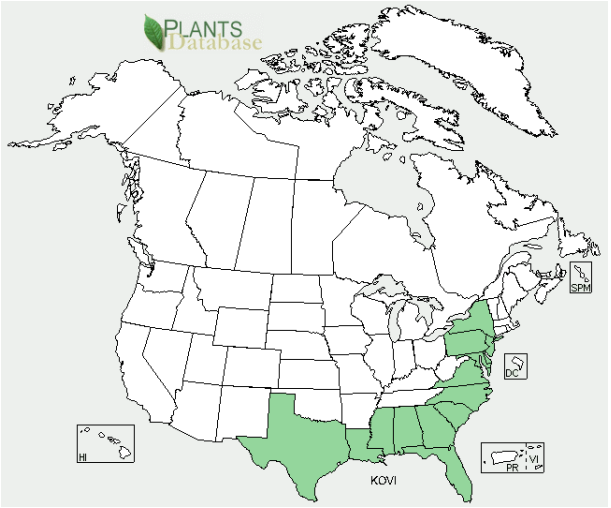
Diamond-backed Watersnake: *Nerodia rhombifer*

Diamond-backed Watersnake is a species of non-venomous watersnake found throughout much of the central United States and northern Mexico. They can grow to a length of 4.9 ft. and in southern states have reached 8.2 ft. or more in length. They are frequently found basking on branches over water, and when approached, they will quickly drop into the water and swim away. If cornered, they will often hiss and flatten their head or body to appear larger. They can be mistaken for the venomous Cottonmouth (*Agkistrodon piscivorus*) and their diamond-shaped pattern also causes these snakes to be mistaken for rattlesnakes.

Virginia saltmarsh mallow: *Kosteletzkya virginica*

Virginia saltmarsh mallow is a branched herb, growing 2-3 ft. tall, with pink flowers and coarsely toothed leaves. This breed of hibiscus is found growing in sparse stands in fresh to brackish marshes along bayous and lake banks on slightly elevated areas.

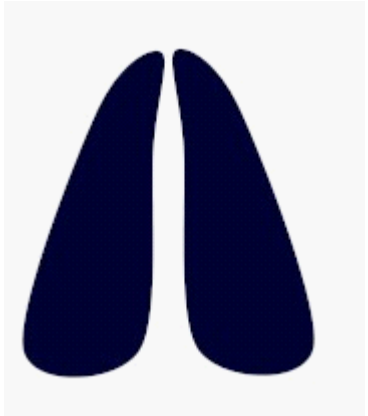
The seeds are eaten by small birds. The plant tissue and flowers are important to the diet and reproduction of insects.



White-tailed Deer:
Odocoileus virginianus

Male deer, called bucks, are easily recognizable in the summer and fall due to their prominent set of antlers, which grow annually and fall off each winter.

Female deer, called does, give birth to 1-3 young at a time, usually in May or June and after a gestation period of seven months. Young deer, called fawns, are equipped with a reddish-brown coat with white spots that helps them blend in with the forest.



Deer Track Pattern

Deer habitat in yellow

Great Blue Heron: *Ardea herodias*

The Great Blue Heron is a large wading bird in the heron family Ardeidae, and is commonly found near the shores of open water and in wetlands over most of North and Central America, as well as the Caribbean and the Galapagos Islands. It is the largest North American heron, with a head-to-tail length of 36–55 in., a wingspan of 66–79 in. and weighing 4.4-8 lbs.

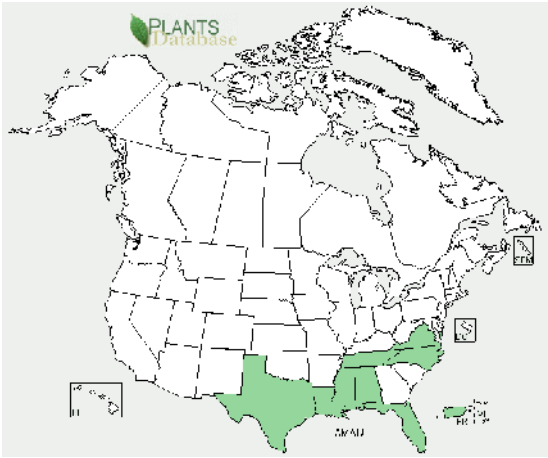
These birds can be found in a range of habitats: fresh and saltwater marshes, mangrove swamps, flooded meadows, lake edges or shorelines, but always close to bodies of water.

The Great Blue Heron nests in large colonies of many sets of mated pairs. Built in trees or bushes, these nests are around three ft. in diameter and nearly as tall.

The primary diet for a Great Blue Heron consists of small fish, though it is also known to opportunistically feed on a wide range of shrimp, crabs, aquatic insects, rodents, other small mammals, amphibians, reptiles and small birds.

Pigweed: *Amaranthus australis*

Pigweed is also known as Southern Amaranth or Southern Water-hemp. The plant usually grows from 3-9 ft. in height, though some have been known to grow up to 27 ft. tall with stems reaching up to 12 inches in diameter. Pigweed is an herbaceous annual, meaning the plant completes an entire life-cycle in under a year. It is found in many southern states of the USA, in Mexico, the West Indies, and South America, most frequently in wetland areas. Pigweed occurs in a variety of salinities all across the Louisiana coast, mostly as scattered individual plants. It produces an abundance of very small seeds that are feed for many different types of ducks, particularly the Common Teal. Pig weed is suitable for human consumption and also quite nutritious.



Red-winged Blackbird:
Agelaius phoeniceus

Male

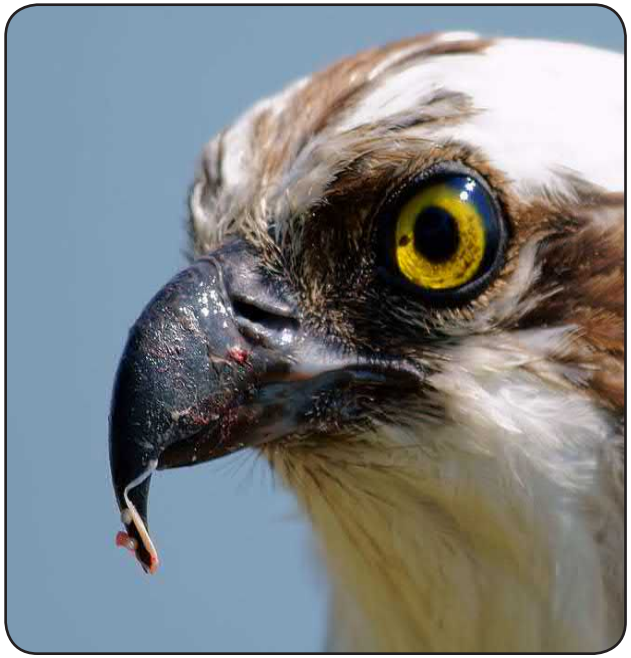
The Red-winged Blackbird generally prefers wetlands of both freshwater and saltwater marshes, particularly if cattail is present. It is also found in dry upland areas of meadows and prairies. The Red-winged Blackbird's range is from southern Alaska to the Yucatan peninsula and from the west coast to the east coast of North America. These birds migrate in winter from the northern reaches of their range to the southern United States and Central America.

Female

The Red-winged Blackbird will attack much larger birds and even humans while defending its nesting territory during breeding season. This omnivorous blackbird feeds primarily on plant materials, but a smaller portion of its diet includes insects and other small animals. Constructed entirely by the female, the Red-winged Blackbird builds its nest in cattails, rushes, grasses and the like. They are polygamous and males will defend up to ten different females. Females will mate with males other than their social mate and often lay clutches (a hatch of eggs) of mixed paternity, with two or three clutches per season. Their rich, musical voices are readily identifiable and sound like, "O-ka-LEEEE."

Flock of Red-winged Blackbirds

Osprey: *Pandion haliaetus*



Osprey, also called Seahawk or Fish Eagle, is a large raptor, reaching 2 ft. in length with a 6.5 ft. wing-span. This species is found on all continents except for Antarctica, nesting in any location near a body of water that provides an adequate supply of fish, the almost exclusive component of its diet. Ospreys spend winters in the south from the Gulf Coast of the United States through to Argentina. Branches, sticks and long grasses are used to build large nests in tall trees or other high places, including man-made structures. Ospreys mate for life.

This hawk has evolved specialized physical characteristics: rounded talons and spiny projections on its feet used for catching and holding slippery prey. As a result of these unique characteristics, it has been given its own taxonomic genus.

Southern Cattail: *Typha domingensis*

Southern Cattail is found in shallow, fresh to slightly brackish waters of ponds, streams, marshes and ditches throughout most of the Northern Hemisphere. Various birds such as rails, bitterns, ducks and red-winged blackbirds nest in these plants. Cattail was often utilized for food by many first peoples of North America.

American White Ibis: *Eudocimus albus*

The American White Ibis is a species of wading bird that ranges from the mid-Atlantic and Gulf coast of the United States and south into the tropics. A medium-sized bird (23-27 in. in length), the American White Ibis has a bright red-orange down-curved bill, long legs, and an overall white plumage with black wing tips usually only visible in flight, making them easily recognizable in their loose lines or “V” formation flight patterns. The males are larger than the females.

Outside the breeding season, this species is found in a variety of wetland habitats, nesting in huge colonies near water and feeding on crawfish. Since crawfish devour fish eggs, these birds help increase fish populations. The American White Ibis’ droppings help to fertilize the water, increasing the growth of plankton: the basic food of all marsh life.

Great Egret: *Ardea alba*

The Great Egret, also known as the Great White Egret or Common Egret is a large egret found across most of the tropical and warmer temperate regions of the world. In North America it is more widely spread, especially across the Sun Belt of the United States and in the rainforests of South America.

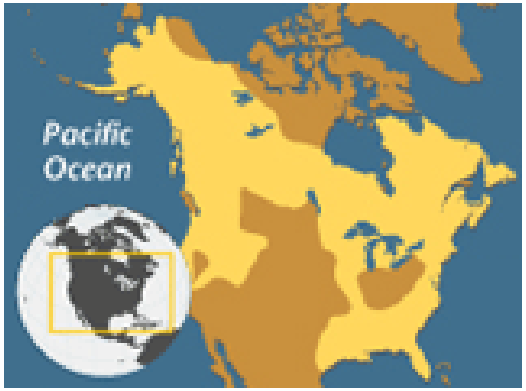
The Great Egret is sometimes confused with the Great White Heron in Florida, which is a white morph of the closely related Great Blue Heron.

The Great Egret has all-white plumage, black legs and feet, a yellow bill, and can reach over 3 ft. long, with a wingspan of 5-7 ft., making this species only slightly smaller than the Great Blue Heron. Traditionally classified with the storks, the herons and egrets are actually more closely related to pelicans. The Great Egret is partially migratory, with birds moving south from cold winter areas in the Northern Hemisphere. This species nests in colonies in trees close to a water source. Like the Great Blue Heron, it feeds alone on a diet of fish, crayfish, amphibians and small reptiles.

River Otter: *Lontra canadensis*

The playful North American River Otter is equally at home in the water and on land, but is more aquatic than terrestrial. It makes its home in a burrow near the water's edge, and thrives in river, lake, swamp or estuary ecosystems.

River otters also have webbed feet, water-repellent fur to keep them dry and warm, and nostrils and ears that close in the water. Fish are a favorite food for river otters, but they also eat amphibians, turtles and crawfish. North American River Otters seem to be sensitive to pollution and disappear from areas with polluted waters.



Otter habitat in yellow

Snowy Egret: *Egretta thula*

Snowy Egrets feed on small fish, other small vertebrates and invertebrates. This species either stalks or uses its feet to stir up the mud to flush its prey out. The Snowy Egret, as with all egrets and herons, do not show sexual dimorphism (difference in form between the sexes).

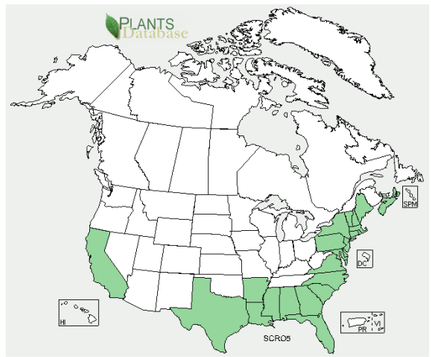
This species is found around both freshwater and saltmarsh habitats, roosting or building nests in colonies in trees near water. The Snowy Egret is small, standing 20-27 in. high with a 38 in. wingspan. It has all-white plumage, a dark bill with yellow around the eyes and dark legs with yellow feet, setting it apart from the larger Great Egret.

Breeding plumage

The Snowy Egret was brought to the brink of extinction in the 19th century because of its fine plumage that was used to decorate hats. They are now protected in the United States, under the U.S. Migratory Bird Treaty Act and are no longer threatened.

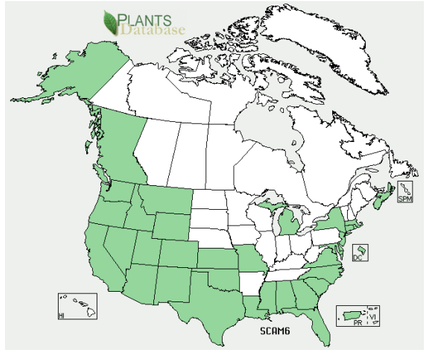
Leafy Three-Square: *Schoenoplectus robustus*

Leafy three-square is a native perennial wetland sedge, heavily rhizomatous, and grows up to 3 ft. tall, forming dense stands. Ducks and other waterfowl utilize the seeds as a food source and use the stems for nesting cover. The stems are upright and angular with several leaves, up to 1 cm. wide. Leafy three-square can survive periods of total inundation of water up to 3 ft. deep. The plant grows in intermediate to saline mashes and can occur in freshwater sites, but is usually a pioneering species that will be replaced over time by more permanent species.

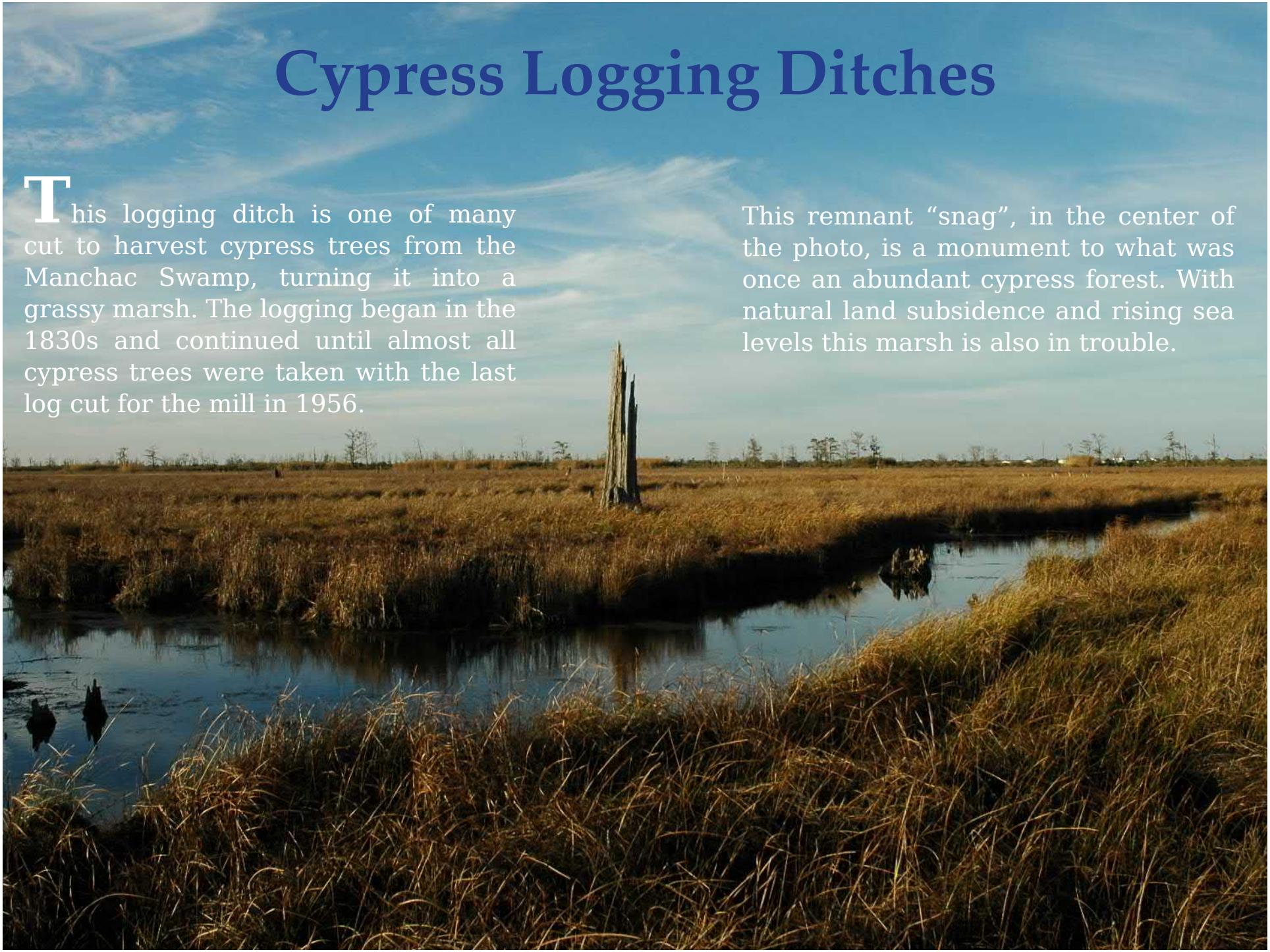


Three-cornered grass: *Schoenoplectus americanus*

Three-cornered grass is another sedge known by additional common names, including: Chairmaker's bulrush and Olney's three-square bulrush. It is native to the Americas, from Alaska to Nova Scotia and into southern South America, but is found most commonly along the East and Gulf Coasts of the United States and in parts of the western states. It grows in many types of coastal and inland wetland habitats and easily exceeds 6 ft. in height. The stems are sharply three-angled and were used by primitive people for many purposes, including food, basketry and hatmaking. Currently, it is used for revegetation projects in salt marshes in its native range.



Cypress Logging Ditches



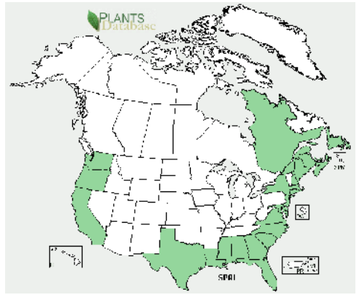
This logging ditch is one of many cut to harvest cypress trees from the Manchac Swamp, turning it into a grassy marsh. The logging began in the 1830s and continued until almost all cypress trees were taken with the last log cut for the mill in 1956.

This remnant “snag”, in the center of the photo, is a monument to what was once an abundant cypress forest. With natural land subsidence and rising sea levels this marsh is also in trouble.

Marshhay cordgrass: *Spartina patens*

Marshhay cordgrass, also known as Wiregrass and Salt marsh hay, among other common names, is a species of cordgrass native to the Atlantic Coast of the Americas. It is found in marshlands in other areas of the world as an introduced species and often as a harmful invading weed. In Louisiana, it is the dominant species of the coastal marshes. Marshhay grows in many types of marshes, but best in intermediate and brackish ones. It is important to the aquatic food chain, as a shoreline stabilizer and as a pollution filter.

Smooth cordgrass: *Spartina alterniflora*



Smooth cordgrass is more salt-tolerant and flood tolerant than *Spartina patens*. As the dominant emergent grass species found growing along tidal salt marshes of the Atlantic and Gulf coasts, it is utilized extensively for erosion control along shorelines, canal banks, levees and other areas of soil water interface. It will also tolerate petroleum contaminated soils.

Cypress Logging Ditches in Manchac

As seen from this aerial photo of the marsh, from each canal, small feeder ditches radiate off in every direction like spokes in a wagon wheel.

To satisfy not only south Louisiana's, but also the nation's insatiable appetite for cypress, logging companies almost leveled the Manchac area between the late 1830s and 1956 when the last log was cut for the mills. Loggers criss-crossed the swamp, digging canals to move their steam-powered pullboats deeper and deeper into the swamp.

Scientists generally agree that natural and man-made forces are slowly killing the swamp and marsh. Clear-cut logging is not the only culprit. Other factors include natural land subsidence and rising global sea levels caused by long-term earth warming, the digging of logging and highway canals, the Mississippi River levee system that prevents natural sediment deposits in the swamp, and the introduction of nutria in the 1930s.

Mosquito Fish: *Gambusia affinis*

Female

Male

Mosquito Fish are native to the Mississippi River and Gulf of Mexico basins where they feed readily on the aquatic larval and pupal stages of mosquitoes.

They are remarkably hardy, surviving in waters of very low oxygen saturations, high salinities (including twice that of seawater), and high temperatures; they can even survive in waters up to 108°F for short periods. For these reasons, this species may now be the most widespread freshwater fish in the world, having been introduced for biological control in tropical and temperate countries in both hemispheres.

The Mosquito Fish is small and stout, dull grey and quite robust, with a rounded tail and a terminal and upward-pointing mouth adapted for feeding at the water's surface. It is also a live-bearing species.

Gulf Killifish: *Fundulus grandis*

Gulf Killifish are found in very shallow, inshore estuarine waters. Locally, they are known by a variety of names including Cocahoe, Bull Minnow and Mud Minnow. They are common across a range of salinities except for permanently fresh water. It is the largest of the eight species of killifish in the Gulf states. An extremely tough fish, it is able to survive low oxygen, drought, high temperatures and winter freezes. Gulf Killifish are extremely popular as bait and are heavily trapped in some areas.

Least Killifish: *Heterandria formosa*

The Least Killifish can be found along the coastal areas of the southeastern United States, from Louisiana to South Carolina. They are small in size, reaching a maximum length of nearly 1 in. Least Killifish are members of the family Poecilidae and give live birth. They make for easy aquarium keeping.

Sheepshead Minnow: *Cyprinodon variegatus*

The Sheepshead Minnow is neither a Sheepshead (Family *Sciaenidae*) or a Minnow (Family *Cyprinidae*), but is a member of the Pupfish family (*Cyprinodontidae*). This species is abundant in shallow, nearshore estuarine areas throughout the southeastern United States and is incredibly tolerant of a wide range of salinities and temperatures. Maximum size is typically less than 3 in.

Sailfin Molly: *Poecilia latipinna*

The Sailfin Molly inhabits freshwater and brackish regions of the Southeastern United States. Their common name comes from the fact that males develop an enlarged dorsal fin which they use to attract females. They can often be seen in shallow water habitats of the Lake Pontchartrain Basin.

Salt Marsh Aster: *Aster subulatus*

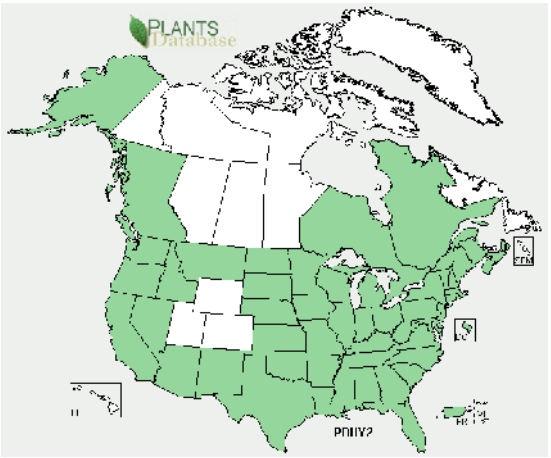
Salt Marsh Aster is an annual plant with many branches and tiny white flowers. It quickly invades marshes where there is little competition from other plants. This species occurs as scattered individual plants in marshes ranging from fresh to brackish and is valued as a soil stabilizer.

The star-like flowerheads account for the scientific and common name “aster” which is Greek for “star.” Annual Salt Marsh Aster is found on low, wet ground of the salt marsh borders and edges of estuaries and swamps.

Swamp smartweed:
Polygonum punctatum

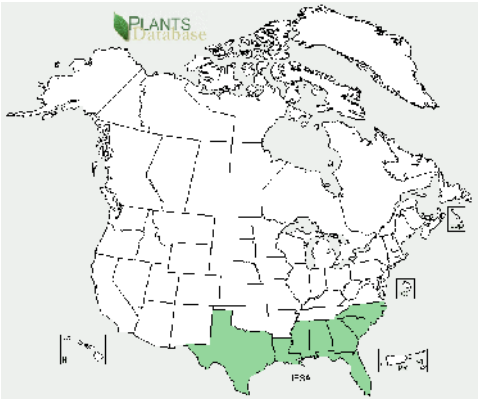
Swamp smartweed is a species of flowering plant in the knotweed family, native to the Americas. It can be found in moist and wet habitats of fresh and intermediate marshes usually on slightly elevated sites. It grows from a rhizome and produces erect stems which may just exceed 3 ft. in length.

Swamp smartweed produces seeds that are a favorite food for ducks and other birds, yet it contains a chemical that is offensive to grazing animals, producing a burning sensation on the tongue, hence its common name, “smartweed.”



Marsh morning glory:
Ipomoea sagittata

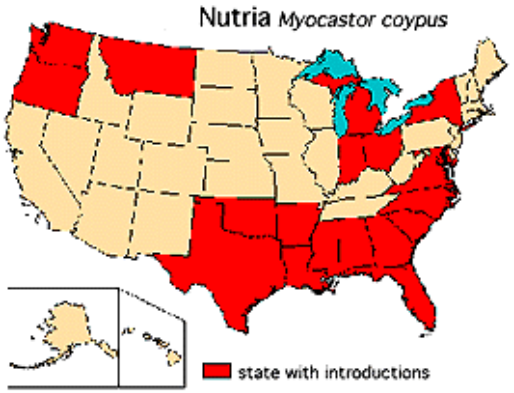
Marsh morning glory is a perennial climbing vine found in fresh to brackish marshes. A common plant, it forms dense mats over other vegetation. Marsh morning glory gets its species name from the arrow-shaped leaves that distinguish it from the other Morning glories. Its flowers are large, lavender and funnel-shaped. Ducks and other birds eat the seeds of this colorful, highly noticeable vine.



Coypu or Nutria: *Myocastor coypus*
(Non-Native)

The genus ***Myocastor***, is derived from the Greek ***mys*** and ***kastor*** or "mouse-beaver." The Coypu somewhat resembles a very large rat, or a beaver with a small tail. They can be identified by their bright orange-yellow incisor teeth.

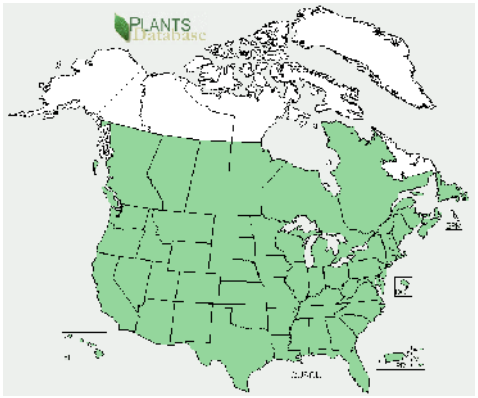
Coypu were introduced into Louisiana wildlife in the 1930s after escaping from the fur farms, which had originally imported the species from South America. Coypu are pests that destroy wetland vegetation and cypress trees, causing the erosion of wetlands and displacement of native animals, like the muskrat.



Dodder: *Cuscuta* spp.

Dodder is a genus of over 100 species of yellow, orange or red (rarely green) parasitic plants. The genus is found throughout the temperate to tropical regions of the world. Dodder attaches itself to a plant by wrapping around the plant. If the host is beneficial to the Dodder, it produces an appendage, called "haustoria," that is inserted into the vascular system of the host plant. The original root of the dodder is no longer needed and dies off.

The Dodder can grow and attach itself to multiple plants and in tropical areas it can grow more or less continuously, and may reach high into the canopy of shrubs and trees.

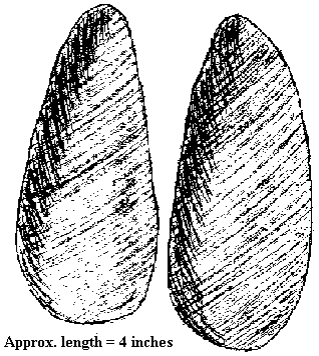


Wild Boar or Wild Pig: *Sus scrofa*
(Non-Native)

This species includes many subspecies and is the wild ancestor of the domestic pig. The Wild Boar has been artificially introduced in some parts of the world, most notably the Americas. Wild Boar are native across much of northern and central Europe, the Mediterranean Region (including North Africa's Atlas Mountains), and much of Asia, as far south as Indonesia.

Adult males are usually solitary, but females and their offspring live in groups called "sounders," which can reach numbers of around twenty animals or more, and will consist of two to three sows (females), one of which will be dominant.

Wild Boar are very destructive to land. They cause extensive damage to wildlife habitat, compete with native species, destroy crops and carry diseases. They may also contribute E. coli to water systems. Because of this, hunting regulations have been changed so that feral hogs may be taken more often, usually with no bag limit.



Hog Tracks

Rattlebox: *Sesbania drummondii*

Also called Poisonbean, Rattlebush

Rattlebox has many branches in the upper part of the plant that are well-separated and with few leaves, giving it a rather spare appearance. When the seeds mature they are loose in the pod and rattle when shaken, suggesting the name rattlebush.

This shrub can form dense stands in a fresh marsh that is subjected to occasional dry periods. The seeds are poisonous and rarely used by wildlife; the foliage is not eaten due to its offensive odor.

Rattlebox competes for space with other more desirable plants but does provide cover for wildlife in areas that would otherwise be unavailable.

Largemouth Bass: *Micropterus salmoides*

The Largemouth Bass is a species of Black bass in the sunfish family native to North America. Adults consume smaller fish, snails, crayfish, frogs, snakes, salamanders, small water birds and even small mammals. Prey items can be as large as 25-35% of the bass's body length. Adult Largemouth are generally apex predators within their habitat, but are preyed upon by many animals while they are young.

Bluegill: *Lepomis macrochirus*

The Bluegill is a species of freshwater fish sometimes referred to as Bream, Brim or Coppernose. It is a member of the sunfish family native to a wide area of North America. These fish spawn in the summer months and build nests in the shallows. During this period, males assume a very bold coloration as they are guarding their nests.

Western Cottonmouth:
Agkistrodon piscivorus leucostoma

The Cottonmouth, or water mocassin, is a venomous species of pit viper, found in the southeastern United States. Adults are large and capable of delivering a painful and potentially fatal bite. When antagonized they will stand their ground by coiling their bodies and displaying their fangs and white mouth. Their diet consists of small fish, amphibians and other reptiles. The distribution map below separates the species into the different subspecies groups determined by their geographic range.

The *leucostoma* subspecies is found in the area indicated on the map by the color green.

Juveniles are commonly called “lemontails.”

American Alligator:
Alligator mississippiensis

Saved from the brink of extinction, the American Alligator now thrives in its native habitat, the swamps and wetlands of the southeastern United States. These top predators feed mainly on fish, turtles, snakes and small mammals. However, as utmost opportunists, a hungry alligator will eat just about anything, including carrion, pets and, in rare instances, humans. Alligators in the wild are believed to live 35-50 years and may reach a length of 13 ft. and weigh 600 lbs. or more.

Female alligators exhibit parental care which is rare among reptiles, especially after the babies are hatched. The female gator will defend her nest of eggs from predators with great aggression. She is responsible for uncovering the nest of vegetation when the babies are ready to hatch. When the young are hatched, she will carry her babies in her mouth to move them until they are about one year old and big enough to fend for themselves. The American Alligator is the Louisiana State reptile.

Alligator habitat in yellow

Other Common Reptiles and Amphibians of the Wetlands

Cricket Frog:
Acris gryllus

American Green Tree Frog:
Hyla cinerea

American Bullfrog:
Lithobates catesbeianus

Green Anole (common lizard):
Anolis carolinensis

Common Garter Snake:
Thamnophis sirtalis

Western Ratsnake:
Pantherophis obsoletus

Turtles Commonly Found in the Estuary

Red-eared Slider:
Trachemys scripta elegans

Alligator Snapping Turtle:
Macrochelys temminckii

Largest freshwater turtle in North America

Snapping Turtle:
Chelydra serpentina

Smooth Softshell Turtle:
Apalone mutica

Swamp Red Maple:
Acer rubrum var. drummondii

Seeds are consumed by a variety of birds and squirrels and the leaves are eaten by deer. A number of moths and other insects rely upon the entire plant for nutrition.

Swamp Red Maple is a tree of wet habitats and is common in the coastal plain. It differs from other varieties of maples in having leaves that are densely felty-pubescent (hairy) underneath.

Swamp Red Maple tends to prefer moist, swampy sites and is not as cold-hardy as the other ***A.rubrum*** varieties. Swamp Red Maple makes an attractive shade tree with conspicuous fall color and decorative, red male flowers and female samaras (fruit and seed) in spring.

Female Samaras

Boardwalk Stations and Sign Sponsorship Information

1. **Double-crested Cormorant** – United Country Real Estate/Sharp Outdoors – Judy C. and Michael R. Sharp, Springfield, LA (Wetland Patron Level from 2014 Fundraiser)
2. **Gulf Menhaden & Bay Anchovy** – Dr. John & Mrs. Georgianne Poteet (Wetland Patron Level from 2014 Fundraiser)
3. **Blue Crab** – Kenneth and Brenda Digby – (Swamp Supporter Level from 2014 Fundraiser)
4. **Blue & Channel Catfish** – Middendorf's (Wetland Patron Level from 2014 Fundraiser)
5. **Red-shouldered Hawk** – Manchac Hunting Club – Rick Durham and Gary Gamble (Wetland Patron Level from 2014 Fundraiser)
6. **Bald Eagle** – ENTERGY ("Tidal" Sponsor Level from 2014 Fundraiser)
7. **Brown Pelican** – ENTERGY ("Tidal" Sponsor Level from 2014 Fundraiser)
8. **Rangia Clam** – Lake Pontchartrain Basin Foundation (Golden Gator Level from 2014 Fundraiser)
9. **Laughing Gull** – All Coast, LLC (Wetland Patron Level from 2014 Fundraiser)
10. **Brown & White Shrimp** – Dr. Claude and Mrs. Judy Nesser (Wetland Patron Level from 2014 Fundraiser)
11. **Chinese Tallow** – Judge Donald Fendlason (Swamp Supporter Level from 2014 Fundraiser)
12. **Seaside Goldenrod** – Paris Parker/Aveda Salons and Spas (Swamp Supporter Level from 2014 Fundraiser)
13. **Baldcypress –** ATS – American Truck Showrooms (Wetland Patron Level from 2014 Fundraiser)
14. **Lubber Grasshopper** – Dean and Sharon Ribando (Swamp Supporter from 2014 Fundraiser)
15. **Common Reed (Roseaucane)** – ELOS Environmental – a wetland services company (Swamp Supporter Level from 2014 Fundraiser)
16. **Dwarf Palmetto**
17. **Canary grass**
18. **Blue Flag & Louisiana Iris** – Jim and Beth Wee (Swamp Supporter from 2014 Fundraiser)
19. **Spider Lily** – Sign DeSigns & More (Golden Gator Supporter from 2014 Fundraiser)
20. **Deer Pea**
21. **Bulltongue**
22. **Eastern Baccharis & Marsh elder**
23. **Alligator weed**
24. **Southern & Diamond-backed Watersnake** – ATS – American Truck Showrooms (Wetland Patron Level from 2014 Fundraiser)
25. **Virginia saltmarsh mallow**
26. **White-tailed Deer** – Manchac Hunting Club – Wayne Hagan and Chris Wall (Wetland Patron Level from 2014 Fundraiser)
27. **Great Blue Heron** – Robert Moreau and Family (Swamp Supporter from 2014 Fundraiser)
28. **Pigweed**
29. **Red-winged Blackbird**

30. **Osprey** – ENTERGY ("Tidal" Sponsor Level from 2014 Fundraiser)
31. **Southern Cattail**
32. **American White Ibis** – Nick and Betty Norton (2015-2016)
33. **Great Egret** – Saving Wild Places…Mary Ann Sternberg and Family (2015-2016)
34. **River Otter**
35. **Snowy Egret** – In Honor of Caroline Dorman (Mark Davis and Family, 2014-2020)
36. **Leafy 3-square & 3-cornered grass**
37. **Cypress Logging Ditches in Manchac** – Cameron and Marcia Barr (Wetland Patron Level from 2014 Fundraiser)
38. **Marshhay & Smooth cordgrass** – Mike Materne and Bea Baldwin (Swamp Supporter Level from 2014 Fundraiser)
39. **Cypress Logging Ditches**
40. **Mosquito Fish**
41. **Gulf & Least Killifish**
42. **Sheepshead Minnow & Sailfin Molly**
43. **Salt Marsh Aster** – Hammond Greater Chamber of Commerce (2015-2016)
44. **Swamp smartweed**
45. **Marsh morning glory** – Kiwanis Club Hammond (Swamp Supporter Level from 2014 Fundraiser)
46. **Nutria –** Kiwanis Club Northshore Mandeville (2015-2016)
47. **Dodder**
48. **Wild Boar** – Crawfishguy.com – Alvin and Jean Moreau and Family (Swamp Supporter Level from 2014 Fundraiser)
49. **Rattlebox**
50. **Largemouth Bass & Bluegill**
51. **Cottonmouth snake**
52. **American Alligator** – Hayden Reno, Turtle Cove Caretaker, 1989 – present (Swamp Supporter Level from 2014 Fundraiser)
53. **Common Reptiles & Amphibians** – Gerard Dupuy and the Moncla Cajun Band (Swamp Supporter Level from 2014 Fundraiser)
54. **Common Turtles**
55. **Swamp Red Maple** – Tangipahoa Parish Forestry Association (Swamp Supporter Level from 2014 Fundraiser)