

# Big Branch Marsh

*National Wildlife Refuge*

*Boy Scout Road, Boardwalk and Nature Trail*



*Big Branch Marsh National Wildlife Refuge was established in 1994 and comprises over 18,000 acres on the north shore of Lake Pontchartrain. Habitats at the Refuge include pine flatwoods, cypress brakes, hardwood ridges and fresh and intermediate marsh.*

## **Welcome to Big Branch Marsh National Wildlife Refuge!**

Big Branch Marsh Refuge is managed by the Southeast Louisiana Refuges Complex in Lacombe, Louisiana. It is part of the National Wildlife Refuge System, which includes at least one National Wildlife Refuge in every state. The Refuge is comprised of pine flatwoods, oak ridges and fresh, brackish and saltwater marshes. This diverse habitat is a wonderful example of the natural coastline of Lake Pontchartrain.

Many species of birds, mammals, reptiles and amphibians call the Refuge home. You can enjoy the sights and sounds of this wildlife as you walk along the Boy Scout Road boardwalk and nature trail. Follow along in this brochure to learn more of what makes Big Branch Marsh Refuge so unique.

The Boy Scout Road trail starts with a ½ mile, self guided boardwalk. At the end of the boardwalk, you can choose to turn left toward the parking area or take the adventurous two-mile (one-way) gravel road to Bayou Lacombe. Along the way you'll find numbered posts which correspond to information in the brochure about the animals, habitats and management practices of the Refuge.

### **1. Boardwalk Tour (1/2 mile-long, round trip)**

You are entering the pine flatwoods, a habitat that was historically burned by naturally occurring fires. Frequent fires tend to inhibit the growth of shrubs and woody plants, while promoting the growth of grasses. The forest here is dominated by pine trees with a grassy understory, due in part to an active burning program.

Even though the ground may not appear to be wet today, this forest is a wetland. Many of the plants and animals in the forest are unique to southeast Louisiana.

**2.** Big Branch Marsh National Wildlife Refuge is a part of the National Wildlife Refuge System. The Refuge system encompasses over 93 million acres and includes more than 545 national wildlife refuges, ranging from north of the Arctic Circle in Alaska, to the subtropical waters of the Florida Keys and beyond to the Caribbean and South Pacific. Most refuges were set aside as resting areas for migratory waterfowl. Today, nature-based recreation is another top priority.

**3.** The live oak tree you see here is an oddity in the pine forest. A natural rise in the undulating topography allowed this non-wetland plant to grow in a wetland ecosystem. The tree may be several hundred years old. One way to find out the age would be to core the tree, taking a small cross section of its trunk and counting the growth rings. A skilled forester is able to do this without killing the tree.

**4.** The large wooden boxes are artificial nesting sites for wood ducks. Wood ducks would typically use natural cavities in tupelo or baldcypress trees as nesting locations, but a lack of old growth trees has limited the number of natural cavities. Refuge staff installed these boxes in an effort to maintain a healthy wood duck population. The metal cone at the bottom of the box is called a predator shield which keeps raccoons and snakes from harming the nest.

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December 2012



**5.** The dead pine trees on the edge of this fresh marsh are an indicator of subsidence. Subsidence is caused when the ground sinks. The former slash pine forest is now occupied with saw grass and open water.

This concludes the Boardwalk Tour. You may continue to the end of the boardwalk and turn left and walk down the limestone trail to your vehicle, or turn right to travel the Boy Scout Road Tour beginning with Station #6.

**6. Boy Scout Road Tour (2.0 miles-long, one-way)**

The road in front of you is called "Boy Scout Road" because it was historically used as a popular spot for Boy Scout troops to camp. As you walk down the road, at certain times of the year, you will notice the variety of blooming wildflowers. Be on the lookout for turtles, snakes and birds, such as red-cockaded woodpeckers and bald eagles. Try listening for the rising, whistled call of the northern bobwhite quail. *bob-white!*

**7.** The ditches along either side of the roadway were dug to create the road. The ditches are usually filled with rainwater. At dry times of the year, this may be some of the only water in the forest. Small fish, tadpoles, frogs and snakes reside in the ditches. Carefully look into the ditches; do you see any signs of life?

**8.** The plant that covers most of this area is called bulltongue. It is in the arrowhead family and is closely related to a plant known as "duck potato." Ducks and geese commonly feed on the tubers (roots) of these plants. Bulltongue and other marsh grasses provide cover and nesting areas for many animals including Virginia rails, mottled ducks, muskrat and red-eared slider turtles.

**9.** While walking through the forest of Big Branch Marsh Refuge note that in some areas the pine trees are small (3-4 inch diameter) and grow densely, while in other areas the trees are larger and further apart. Red-cockaded woodpeckers prefer the sites that have fewer, larger trees. Refuge foresters "thin" or cut the smaller trees to create preferred habitat for these endangered woodpeckers and other wildlife. Thinning allows the remaining trees to grow bigger due to less competition.

**10.** As you travel through the pine forest, look for scorch marks on the trees. This forest is burned by the Refuge fire crew every three years to mimic low intensity, natural fires. Such fires were historically started by lightning strikes. They are now called prescribed or controlled burns because they are purposely set. Before and during the prescribed fires, firefighters monitor wind direction, humidity and temperature to make sure the fire is contained. Low intensity fires reduce mid-story vegetation to benefit wildlife and remove the buildup of fuel, decreasing the chance of intense, catastrophic wildfires.

**11.** The grassy understory vegetation in this portion of forest is called salt-meadow cordgrass (*Spartina patens*). This grass usually grows in salt marshes, but here it grows under pine trees, which are not salt-tolerant. This unique association arose due to high tides and storm events from Lake Pontchartrain that temporarily flood brackish (or slightly salty) water into this area.

**12.** Hurricane Katrina had a major impact on this area. The combination of high winds, storm surge and salt spray killed 90% of the trees. The dead trees, or snags, provide ideal habitat for nesting red-headed woodpeckers and foraging areas for all types of birds and mammals. Over time, the pine trees should return.

**13.** The endangered red-cockaded woodpecker is the only woodpecker species in North America to build its nest in live rather than dead trees. It builds its cavity in mature trees (usually over 75 years old). A common disease of mature trees, called "red heart rot," weakens the core of the tree and makes it easier for the birds to excavate their cavities.

Notice the waxy appearance of the white-banded cavity trees in front of you. This is sticky tree sap, or resin, that oozes out of holes drilled by woodpeckers. The sap may serve to deter predators such as snakes, raccoons and ants from climbing into the cavity. These trees would normally be too small for the woodpeckers to utilize as nest and roost sites, but have been modified by refuge biologists who inserted wooden boxes with a round entrance hole into the trees. These artificial cavities allow woodpeckers to nest without having to drill a cavity, which can take from six months to six years.

**14.** Here at the observation platform, notice the sharp transition between the piney woods behind you and the marsh to the south. The piney woods habitat is possible on the higher elevations, where ancient sediments were deposited during the Ice Ages, but not in the lower elevations found in the marsh.

**15.** The slight rise in elevation with many oak trees on it is known as an oak ridge. It is formed when the bayou overtops its banks and leaves behind deposits of sediments. Oak ridges provide food and habitat for deer, squirrels and many other animals. The extreme high tides and storm events that bring salt water over this ridge limit the species living here to only the most salt tolerant.

**16.** The curly, gray plant hanging from the limbs of the oak trees is called Spanish moss. Oddly enough this plant is related to the pineapple. Spanish moss is an "epiphyte," meaning it is a plant that derives all of its nutrients from the air. It is such a good indicator of air quality that it is hung outside of some factories to determine if dangerous pollutants are escaping. Historically, Spanish moss was used to stuff pillows, mattresses and the seats of Model T's. It is commonly used by songbirds to line their nests.

**17.** The water body in front of you is called Bayou Lacombe. The area where you are standing was once a loading dock for brick schooners. Bricks were made from local clay, then fired and shipped into New Orleans. Much of the French Quarter is made from these bricks. Many years later this area was a popular camping spot for Boy Scout Troops.

This concludes the Boy Scout Road Self Guided Tour.

**Signs Protect Visitors and Resources**

Millions of people visit National Wildlife Refuges each year. The impact of human activity, if not regulated, can degrade these wildlands. Signs designate recreational activities while protecting natural resources on the Refuge. Please respect the following signs:



- Pets must be on a leash and under control of the owner at all times.
- Littering is prohibited. Take your litter with you.
- The use of motor vehicles is permitted only on designated roads. ATV's are prohibited.
- Weapons are prohibited except as authorized during scheduled hunts.
- Camping and open fires are prohibited on the Refuge. Camping facilities are located nearby. Consult the manager for details.

