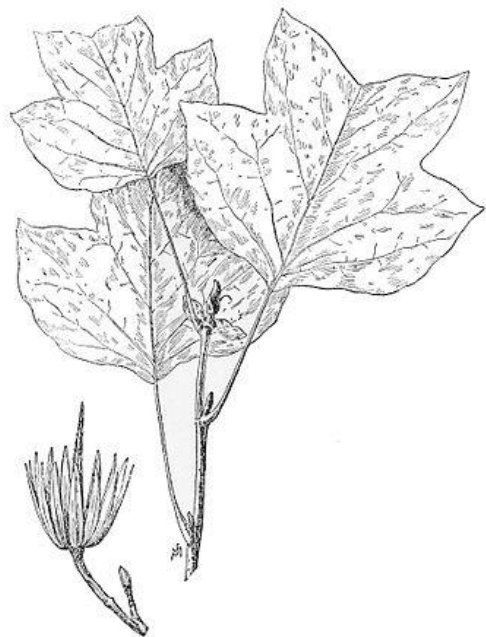


Beech Hill Nature Trail



Plant Identification & Interpretive Guide



Beech Hill Nature Trail

This nature trail offers visitors the opportunity to observe a variety of habitats and the interesting species of plants and animals that live here. In walking this short but dynamic trail, you will visit a stand of mature hardwood trees and skirt the edge of a swamp forest. The changing seasons and swamp water levels offer new experiences with each visit.

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American Beech

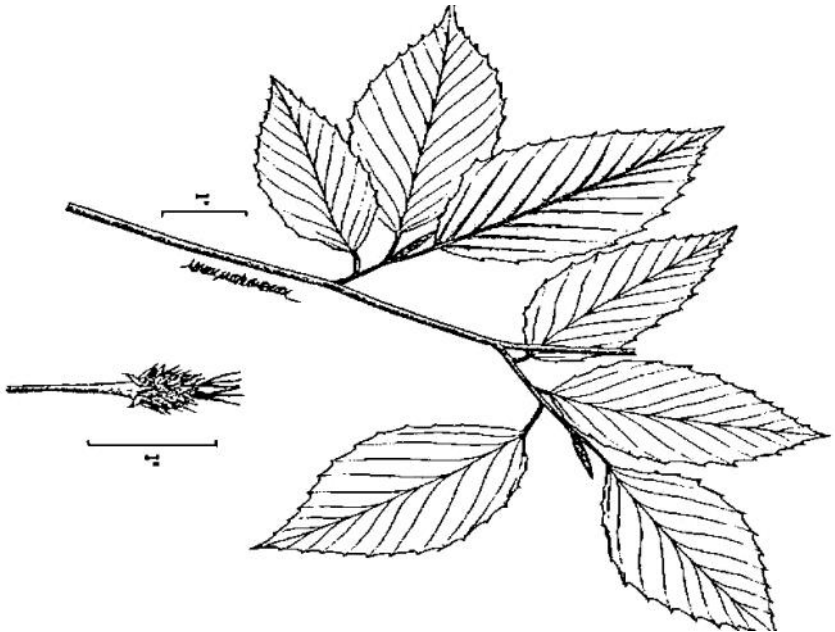
Fagus grandifolia

Tree: Deciduous; ranging in height from 60 - 120 feet

Leaves: Alternate branching pattern; a simple, oval shaped leaf that is 2.5 - 5.5 inches long. It is sparsely toothed with small teeth

Nut: A small, sharply-angled nut housed in pairs in a soft spined husk

Bark: Smooth, gray



FUN FACT: The tree's nuts were historically roasted to be eaten or used as a coffee substitute.

American Holly

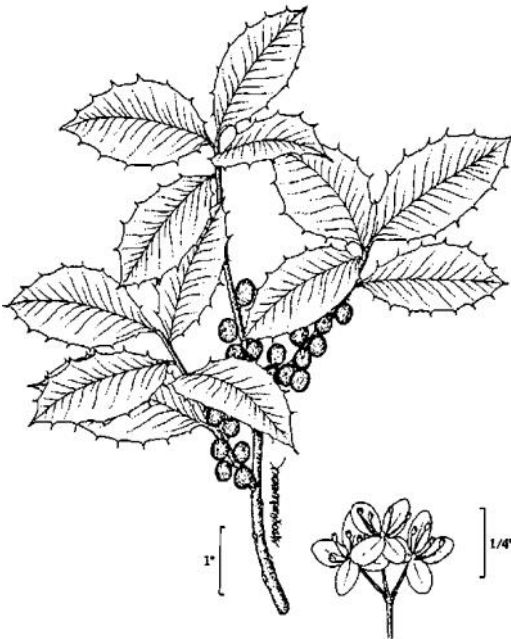
Ilex opaca

Tree: Evergreen; a smaller tree ranging in height from 15 - 50 feet

Leaves: Alternate branching pattern; a simple, elliptical shaped leaf that is 2 - 4 inches long, with sharp points

Fruit: A 1/4 inch diameter, red berry that matures in the fall and winter

Bark: Smooth, light gray



FUN FACT: Native Americans used to preserve the berries and use them for buttons.

American Hornbeam

Carpinus caroliniana

Tree: Deciduous, a smaller shrub-like tree that ranges from 25 - 35 feet in height

Leaves: Alternate branching pattern; a simple, oval shaped leaf that is 3 - 5 inches long

Nut: Small nutlets that are housed in 3-winged clusters that hang from a shared 4 - 6 inch stalk

Bark: Smooth, bluish-gray



FUN FACT: Both its actual common name and its nickname are derived from its wood which is hard and tough. The nickname it sometimes receives is “musclewood”.

Black Cherry

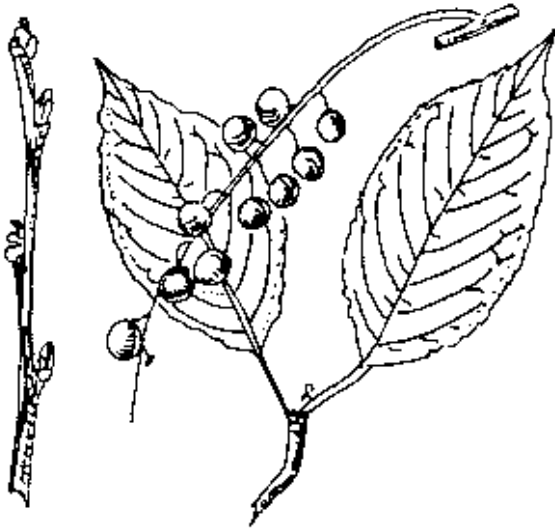
Prunus serotina

Tree: Deciduous; ranges in height from 50 - 100 feet

Leaves: Alternate branching pattern; a simple, lanceolate shaped leaf that is 2 - 5 inches long that is finely serrated

Fruit: A 1/3 inch diameter black berry that while edible, is known for its bitter taste

Bark: Young tree: smooth, darker gray; easily mistaken for a birch tree. Mature tree: broken, dark gray to black



FUN FACT: The leaves of the black cherry are poisonous, but the bark is used to create cough medicine. Early settlers used to flavor their rum with the black cherry, earning itself the nickname “Rum Cherry”.

Cabbage Palm

Sabal palmetto

Tree: Capable of reaching 80 feet in height

Leaves: Alternate branching pattern; a compound leaf that is known for its fan shape

Fruit: A 1/2 inch diameter, dark shiny blue berry

Bark: Gray-brown with vertically running splits



FUN FACT: Early settlers made swamp cabbage stew out of the core of the cabbage palm. They also used the leaves to create scrubbing brushes. The trunk was used in the construction of coastal fortifications, including Charleston's famous Fort Moultrie. It is the state tree of South Carolina.

Cherrybark Oak

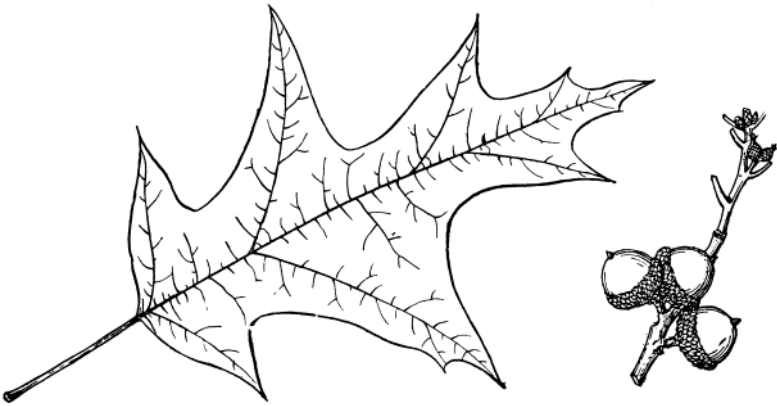
Quercus pagoda

Tree: Deciduous; a larger tree ranging in height from 60 - 120 feet

Leaves: Alternate branching pattern; a simple leaf which is 5 - 8 inches long with 5 to 9 bristle tipped lobes

Nut: A 1/2 inch long acorn with a cap that covers about 1/3 of the nut

Bark: Young tree: smooth, gray; mature tree: dark scaly ridges; sometimes mistaken for black cherry



FUN FACT: The scientific species name is derived from how the leaves look like pagodas when viewed with the tip down.

Dwarf Palmetto

Sabal minor

Tree: Evergreen; a short bush ranging in height from 1.5 - 6.5 feet

Leaves: Alternate branching pattern; a compound leaf that is made up of segments, 2 - 4 feet in a lance shape, that grow in a fan pattern

Fruit: A dark blue berry, only 1/3 inches wide, which is seen during the colder seasons

Bark: Rough, gray-brown



FUN FACT: A tea made from the dried roots was taken for kidney ailments and as a stimulant for “swimming in the head”. The fresh roots were baked and served as “palmetto bread”.

Eastern Hophornbeam

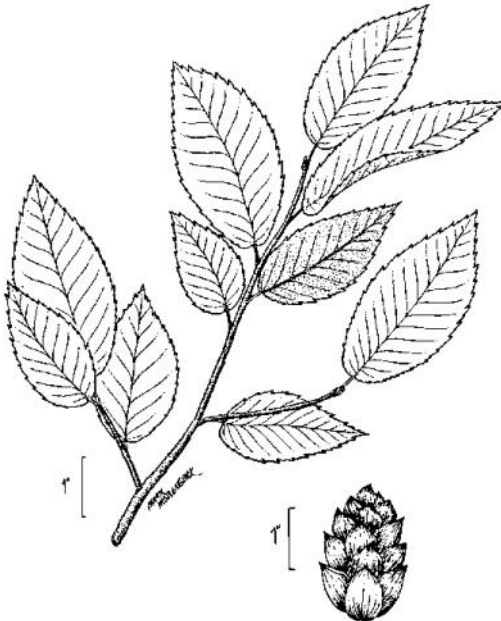
Ostrya virginiana

Tree: Deciduous; a small tree that ranges in height from 25 - 35 feet

Leaves: Alternate branching pattern; a simple, oval shaped leaf that is 3 - 5 inches long and 1.5 - 2.3 inches wide

Nut: A small nut that is housed inside the flower called a “catkin”

Bark: Brown to gray-brown with shaggy flakes



FUN FACT: A very hard wood, which earned its nickname “Ironwood”. It excels in the construction of wooden longbows.

Loblolly Pine

Pinus taeda

Tree: Evergreen; a large tree that ranges in height from 90 - 110 feet

Leaves: Needles that are 6 - 9 inches long and grow in groups of three

Cone: A reddish-brown, egg-like cone that is 3 - 6 inches long

Bark: A variation of red to brown that is scaly and ridged, but eventually flattens out with time



FUN FACT: This pine's name can mean "mud puddle", which is appropriate because they are often found in wet areas.

Needle Palm

Rhapidophyllum hystrix

Tree: A short tree that ranges in height and width of 5 - 10 feet

Leaves: Alternate branching pattern; a compound leaf, with 8 to 16 leaflets each 15 - 20 inches long and 1 - 2 inches wide

Fruit: A fuzzy, reddish-brown berry that is oblong-shaped and about 1 inch long

Bark: Dark reddish brown, made up of brown-black needles and fibers



FUN FACT: While native to the southeastern United States, it is one of the most cold-hardy palms and now also grows in the northeast.

Pignut Hickory

Carya glabra

Tree: Deciduous; ranging in height from 65 - 100 feet

Leaves: Alternate branching pattern; a compound leaf made up of 5 - 7 leaflets that are lanceolate shaped and 8 - 12 inches long

Nut: A 1 - 2 inch long nut, with a husk that splits upon maturation in the early fall

Bark: Young tree: smooth, light gray; mature tree: scaly, ridged, light gray



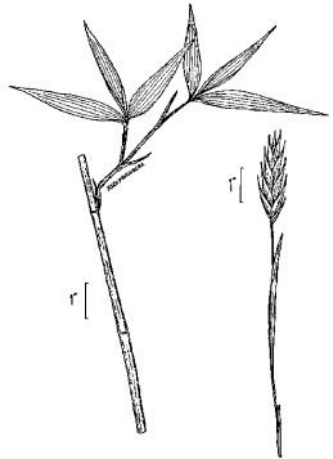
FUN FACT: For many years the pignut hickory was used in the making of wooden wheels, due to its dense structure and bending qualities. Early colonists used the bark to create a black dye.

River Cane

Arundinaria gigantea

Perennial Grass: Has a rounded hollow stem up to 1 inch in diameter and typically grows from 6 - 8 feet tall but can grow up to 25 feet

Leaves: A large lance shaped leaf that is 4 - 12 inches long and 1 - 1.5 inches wide



FUN FACT: River cane is known to grow in thick colonies that are called “canebrakes”. The Cherokee Indians used river cane in their basketry, blow guns, knives, spears, flutes, candles, and bows and arrows.

Southern Magnolia

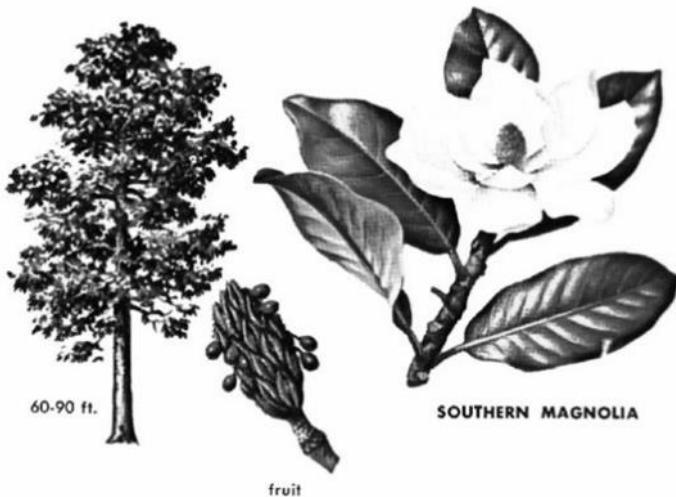
Magnolia grandiflora

Tree: Evergreen; a medium-sized tree ranging in height from 60 - 80 feet

Leaves: Alternate branching pattern; a simple, oval to elliptical shaped leaf that is 5 - 8 inches long, with a waxy sheen on top of the leaf

Fruit: A 3 - 5 inch fleshy cone-like fruit, with a bright red seed inside each opening

Flower: A 6 - 8 inch wide white flower known for its fragrance



FUN FACT: The southern magnolia was named after Pierre Magnol, the director of the Botanical Garden in Montpellier, France and mentor to Carolus Linnaeus, the man who invented the system for naming plants and animals.

Swamp Chestnut Oak

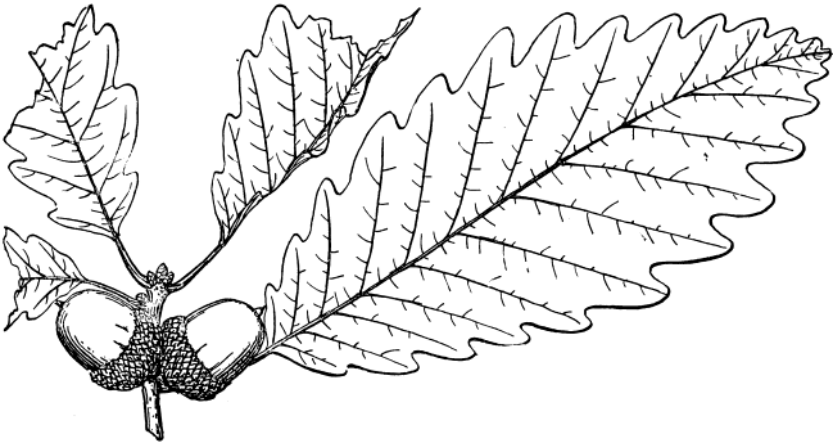
Quercus michauxii

Tree: Deciduous; ranging in height from 60 - 100 feet

Leaves: Alternate branching pattern; a simple, obovate shaped leaf that is 4 - 8 inches long and 3 - 5 inches wide

Nut: A 1 - 1.5 inches long acorn with a bowl shape cap

Bark: Young tree: smooth, ash-like gray bark; mature tree: furrowed, darker gray



FUN FACT: It was called a basket oak because baskets were woven from fibers and splints obtained from splitting the wood. The sweet acorns can be eaten raw, without boiling.

Sweetgum

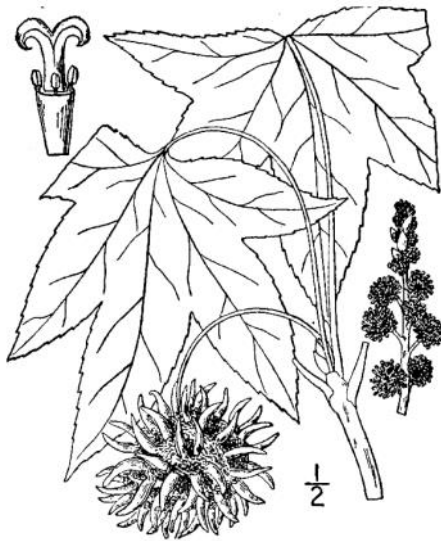
Liquidambar styraciflua

Tree: Deciduous; ranging in height from 90 - 100 feet

Leaves: Alternate branching pattern; a simple, star-shaped leaf that is 4 - 6 inches across with 5 to 7 lobes

Fruit: Brown, spherical cluster, 1 - 1.5 inches in diameter; easily identified by its spiky “gumball” shape

Bark: Gray-brown with irregular ridges and furrows



FUN FACT: The common name is derived from the brown-yellow sap that it produces which has a sweet fragrance used in some perfumes. Colonists used the

Tulip Tree

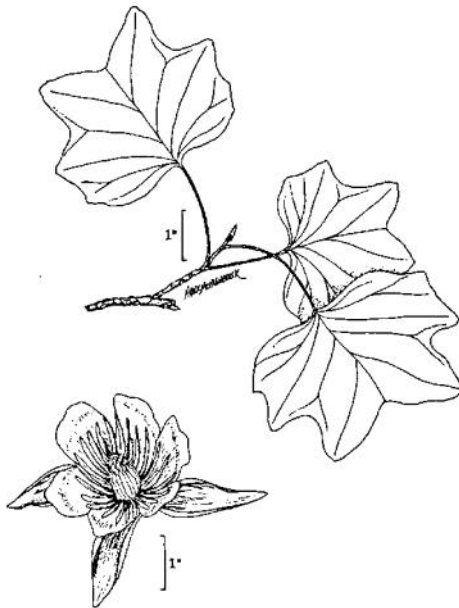
Liriodendron tulipifera

Tree: Deciduous; ranging in height from 80 - 120 feet

Leaves: Alternate branching pattern; a simple leaf with four lobes that is 4 - 8 inches long

Fruit: A 1.5 inch cone-shaped fruit cluster that is green to tan in color

Bark: Gray with fine vertical stripes of lighter grey



FUN FACT: The heartwood has light green coloration, which makes it undesirable for furniture manufacturing, although it is one of the most desired woods in the construction of organs. It is also known as the poplar tree, yellow poplar, or tulip poplar.

Water Oak

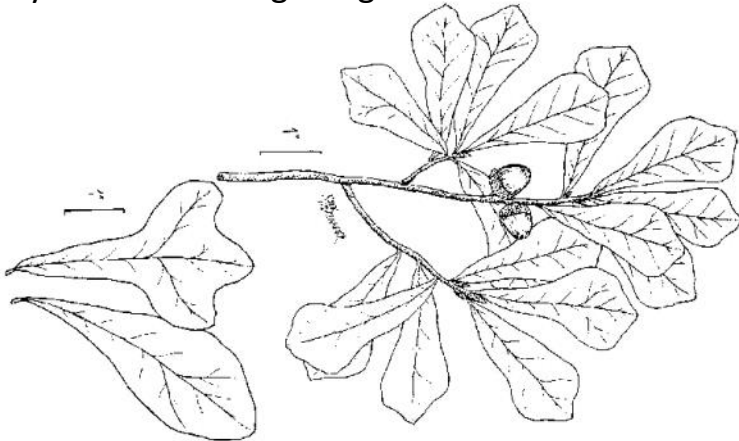
Quercus nigra

Tree: Deciduous; ranging in height from 60 - 120 feet

Leaves: Alternate branching pattern; a simple leaf that is 2 - 4 inches long and 1 - 1.5 inches wide. It can be found in a variety of shapes and can have 0 - 5 lobes

Nuts: Acorns that are 1/2 inch long and can form either singularly or in pairs

Bark: Young tree: smooth and brown; mature tree: gray-black with rough ridges



FUN FACT: While the water oak is called a deciduous tree; it is sometimes referred to as “tardily” deciduous. This is due to the fact that young water oaks can keep portions of their leaves year-round.

Forest Edge

The transition between habitat types is always a good place to view wildlife. The greater amount of sunlight reaching the ground at the forest edge increases the density and diversity of the plant species found there. This provides additional food and cover for an increased diversity of animals. Our trail begins where the open grass lawn intersects with the forest. This is a good area to observe birds at eye level as they feed.

To the left of the trailhead behind the visitor center is a large American Beech, *Fagus grandifolia*. This majestic tree is a member of the *Fagaceae* family which also includes oak trees. If you look closely at the trunk you will notice that this specimen is hollow. Many species of animals take advantage of the protected habitat inside of hollow trees, including several species of rare bats.

Shade

The dense leafy canopy of this mature hardwood forest provides, for much of the year, a shady barrier to the bright sunlight and a cooler and moister habitat along much of the trail. The open aspect of the forest floor is a result of this shading and is home to a variety of more delicate, shade-tolerant plants such as ferns, wildflowers and several species of palms.

Swamp Edge

A dramatic change in forest types is evident here at the water's edge. This is where a swamp forest habitat takes over from the mixed hardwood forest on the high ground. Cypress (*Taxodium sp.*), black gum (*Nyssa sylvatica*), red maple (*Acer rubrum*), and other water tolerant species of trees dominate this wetland habitat. Blue flag iris and other herbaceous flowering plants grow in this habitat. Beyond this swamp forest, open fresh water marshes and old rice fields provide habitat for many wading birds, ducks, fish, and alligators. This protected marsh habitat extends to the Savannah River.

Fallen Trees

Dead and dying trees provide food and habitat for numerous animals, and are an important component of a healthy forest. Woodpeckers feed on insects and their larvae that live under the bark. Beetle grubs burrow through and feed on the decaying wood. After a tree falls to the ground, a greater number of organisms call it home. Salamanders hide and feed in the moist habitat beneath these logs. Fungi and bacteria are the main decomposers. The rotting wood is eventually returned to the soil and provides nutrients to the forest ecosystem; the cycle completed.

Glossary

Catkin: A thick, cylinder-shaped cluster of flowers on a tree. Catkins often droop.

Deciduous: Describes a tree or plant that periodically loses its leaves usually in the autumn. Most North American broadleaf trees are deciduous. A few conifers, such as the cypress, are also deciduous.

Evergreen: Describes a tree or plant that retains its leaves year-round, generally a conifer.

Hardwood: A deciduous or broadleaf tree; also applies to the wood from such trees.

Heartwood: The older, harder, nonliving central portion of wood of some trees that is usually darker, denser, less permeable, and more durable than the surrounding sapwood.

Herbaceous: Any flowering plant or fern that has a soft, rather than woody, stem.

Perennial: A plant that lives for several years and when mature usually produces seeds each

Leaf Arrangements



alternate



opposite



whorl

Leaf Types



simple

once compound
(abruptly pinnate)once compound
(odd pinnate)bipinnately
compoundpalmately
compound

Leaf Shapes



Lanceolate



Ovate



Obovate



Star-shaped

Linear or
RectangularHeart-Shaped
or Orbicular

Oval



Elliptical



Deltoid

Blade Margins



entire



undulate



finely
serrate



coarsely
serrate



doubly
serrate



crenate



lobed

Leaf Veins



Pinnately Veined



Palmately Veined

Common Seeds



sweetgum



magnolia



yellow-poplar

Field Notes

Kid's FU

A C A B B A G E P A L M A
 G R T R I M I M O T O M A
 N A M I R E C A N B E E I
 H W L E A R Z G C R I O L
 I O A D I I A I I L U G O
 L S P L T C V C L Y G Q N
 E A E O K A A O O R U B G
 Y L L O H N A C I R E M A
 L Z D Q B H T V E E C N M
 L I E E E O E A A H R K N
 L G E B E R A C E C E A R
 O C N S C N E C P K A O E
 H T W A H B R I R C R R H
 U R N F W E T N A A M E T
 L E H E P A G E L L C T U
 Q E C G J M R G O B N A O
 A B N R A M U G T E E W S

Words To Find

- | | | |
|---------------------|------------------|---------------------|
| ⇒ Cabbage Palm | ⇒ American Beech | ⇒ Southern Magnolia |
| ⇒ American Hornbeam | ⇒ River Cane | ⇒ Water Oak |
| ⇒ Needle Palm | ⇒ Black Cherry | ⇒ American Holly |
| | ⇒ Sweetgum | |

JN Page

Leaf Tracing Activity

First, you must find the COOLEST leaf that you can find. Make sure it fits on this page.

Second, find a hard surface, concrete works well.

Third, place your leaf down on the surface and place this page on top of the leaf.

Finally, using a pencil or crayon, lightly shade over the leaf. When you are done, you should have a copy of your leaf!

History of the Area

During the 19th century, the Beech Hill Plantation was a thriving 450-acre rice plantation that had approximately 132 slaves that labored and lived on the land. It was named for the abundance of American Beech (*Fagus grandifolia*) trees in the area. The land was later used as a Loblolly Pine (*Pinus taeda*) timber plantation by Union Camp Corporation before being acquired by the U.S. Fish and Wildlife Service in 1978.

The Blue Goose, the symbol of the
National Wildlife Refuge System



Savannah National Wildlife Refuge

694 Beech Hill Lane
Hardeeville, SC 29927
Phone: (843) 784-2468

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