

## HAYS PRESERVE LOOP TRAIL

1. **Education Center:** This site is located on the edge of Bar Lake near the entrance to the Preserve. The building, a teaching tool itself, has many features visible on the outside as well as inside.
2. **Native Plant Pollinator Garden**
3. **Animal Track ID Trail:** This trail was a project researched and completed by Girl Scout Troop 455. The troop researched animals living at the Preserve and their footprints to make this learning trail fun for all ages. See how many tracks you can correctly identify.
4. **Beaver Dam:** Beavers are among the most industrious of mammals. They don't walk well on land so they dam up small streams to make pools. From the pools they crawl out on land to find small trees to cut down and eat. They eat the inner bark (cambium) of trees, tubers and roots of aquatic plants. Beavers in this area make homes in the creek banks and adults may weigh more than 40 pounds. They mate for life during their third year and both parents care for the "kits" (usually 1-4) born in the spring. The young normally stay with their parents for two years and yearlings act as babysitters for new litters. While some behavior is instinctive, they also learn by imitation and from experience. By damming streams beavers often raise the water level to surround their lodges with a protective moat and create the deep water needed for winter food storage.
5. **State Champion Shellbark Hickory (left):** This tree is the largest known tree of its species in Alabama. Notice the leaves are compound meaning more than one leaflet is attached to the leaf. The leaves of shellbarks are the largest of all the hickory leaves and it has the largest hickory nut. This tree is 179 inches around (4.75 feet in diameter), 96 feet tall and has an average crown spread of 74 feet.
6. **Snag for Wildlife (right):** Even in death trees can be of benefit as evidenced by this tree. It provides animal homes and food (bugs and fungi) as the tree decays.
7. **American Elm (left):** Once a stately urban tree until the non-native Dutch Elm Disease wiped out many of these trees, American Elm is one of several species of elms here in the south.
8. **Cave in Limestone:** Tusculumbia Limestone forms the largest water-bearing layer in Madison County. The tupelo ponds and sloughs are groundwater driven. The hill and cave were once part of a much bigger plateau (10,000' higher) of sedimentary rocks, but have been weathered away primarily by water. This hill is the only part of the property that is out of the floodplain of the Flint and Big Cove Creeks. Note the change in tree species. We now have shagbark hickory, hophornbeam, white ash and Chinkapin Oak. These trees are adapted to more upland sites.
9. **State Champion Water Tupelo Trees:** Tupelos go back to the age of dinosaurs—90 million years and are a part of the ancient coal swamps of that time. They are the most water tolerant tree other than the coastal plain's cypress tree and, like cypress can form spreading buttresses. The sweet flowers high up in the trees are a source of tupelo honey, and the trunks are home to many creatures (wood ducks, screech owls, fox squirrels) after pileated woodpeckers make cavities in them.
10. **Willow Oak (right):** This is a large bottomland oak - notice the hollow area in the trunk. Trees have a remarkable ability to isolate wounds and continue living. Many hollow-trunked trees provide refuge for mammals, birds and reptiles.
11. **Water Oak (left):** Also called Duck Oak, the water oak is a characteristic oak of bottomland fringes. The leaves on water oak are very variable, especially on the bottom branches of the tree. The wood is not used much commercially. The acorns are very prolific and small and eaten by ducks and other wildlife.
12. **Shumard Oak:** One of the largest southern red oaks, Shumards prefer wooded bottomlands and stream borders. It is a commercially valuable hardwood in Alabama's forest industry.
13. **Meander scar of Big Cove Creek:** Big Cove Creek was channelized in the 1960s to prevent the adjacent farm lands from getting flooded. This left many of the old meanders totally cut off from Big Cove so they now have stagnant water in them—a perfect home for breeding mosquitoes. Sometimes mosquitofish wash in here with the floodwaters and they are voracious predators of mosquito eggs and larvae. Few game fish can tolerate the low oxygen content of these swamp waters.
14. **Black Walnut Grove:** Black Walnuts are distinctive by their compound leaves with 12-18 leaflets. Walnuts are among the most valuable of our hardwoods. They are highly prized for gunstocks, furniture, cabinetwork and caskets. The fruit is a large nut that is oily and edible. The black husk of the nut was once used as a brown dye.
15. **River Cane (right):** Vegetative reproduction is rapid and extensive by large, fast-growing rhizomes and the species formerly occupied large areas (canebrakes) in the floodplains of southeastern rivers. Indians used the river cane for stockades, housing, blowguns, and many construction items.
16. **Succession to Young Forest:** After coming out of the woods notice the bush-hogged field with hundreds of young hardwood tree regeneration (mostly green ash). If any piece of ground is left alone in this part of the country, it will revert to forest.
17. **Invasive Exotics:** (no sign here currently) This pear tree is a throwback of the Bradford pear and is taking over many natural areas where there is enough sun. The worst invasive in these bottomlands is the Chinese privet
18. **Old River Bank Place (across water):** When this old river levee was formed (at the end of the last Ice Age—about 15,000 years ago) the climate was very different. This area had much more precipitation and the river was a far wider system than it is now. The Flint spread through this entire valley from Keel Mountain near Gurley to Drake Mountain. Remnants of American Indian villages have been found on this riverbank.
19. **Old Cattle Pond (left):** When this area was still in Dr. Burritt's estate it was farmed and this small pond was dug for the cattle to have water. Note that the water is very dark and murky. This is due to the humic and tannic acids in the leaves and other carbon debris that is steeping in this stagnant water.