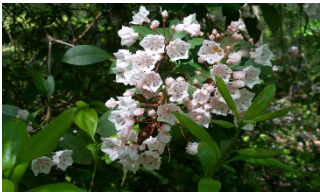


The plants growing in this area are not grasses, but triangular-stemmed water plants called sedge. Sedge like the same growing conditions as sphagnum but will grow along drier edges of marshes called wet meadows. During dry spells, sedges retain moisture in their stems when other marsh plants dry out.

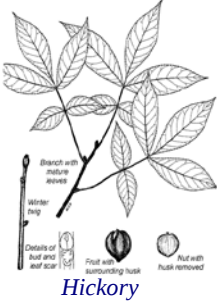
Listen carefully to find out what happens when limestone and water meet. Waterfalls are not common in Florida’s flat landscapes. Limerock in a streambed can be worn away by water creating a “step.” Rainwater is slightly acidic and dissolves holes in soft limestone, resulting in some very unusual landforms. Streams can disappear, flow underground and then reappear several feet away. The wearing of water through limestone creates the Florida landscape of springs, sinkholes and caves.

The area to the right is a Xeric (dry) hammock. Xeric hammocks are communities that will develop when an area has not been burned for a long period of time. Hardwood species such as oaks, sparkleberry and hickory take over a Longleaf pine-wiregrass sandhill community. The trees form a dense canopy that shades out ground cover. These types of forests usually do not burn because the oak leaves on the forest floor will not carry fire.

A former property owner most likely planted these mountain laurel and rhododendron. They can grow naturally in this area, but they are better suited to cooler climates. This part of Gadsden County is the very edge of their range. Enjoy these rare plants and leave them for others to appreciate.



Mountain Laurel



Where is the water coming from? Water from rain and underground streams percolating down through the sandy soil contacts a hard layer it cannot penetrate, usually a sheet of limestone rock capped with clay, like the hard layer supporting much of this area. Steepheads form when water when water, meeting the hard layer is forced sideways to the surface. These bowl-shaped ravines are created by water undercutting the sandy soil.

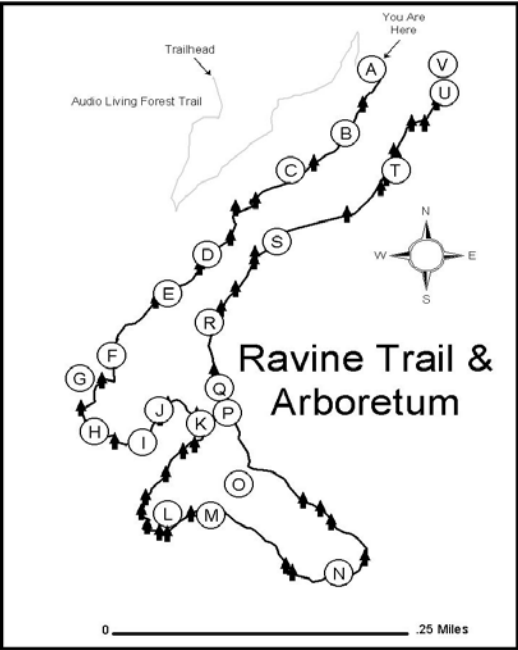
These plants look like a type of palm tree, but are really a type of lily. Bear grass is noted for the strength of its leaves. From pioneer days up until the 1930s, the leaves were used to hang sides of meat in the cooling house. Please do not remove leaves so others may learn about this powerful plant

To your right are the remains of a special kind of crop-tree. The farmer who owned this land planted this slash pine for timber. The Florida Division of Forestry now manages the area upland pine Mechanical thinning of the trees provides the necessary space for the planted pines to flourish. Prescribed burns keep competing hardwoods at bay and release nutrients back into the soil. Before settlers arrived in North Florida, many upland areas were natural communities of Longleaf pine and wiregrass. The Division of Forestry focuses much of its efforts in restoring these historic ecosystems.

The farmer who owned this land improved upon the beaver’s log dam with one made of earth. The pond became a water source to irrigate crops. Over time, tree roots weakened the structure of the original dam. The Division of Forestry restored the pond in 1997 by rebuilding the dam. Many bird species feed and nest around the pond including wood ducks, anhingas, and herons.



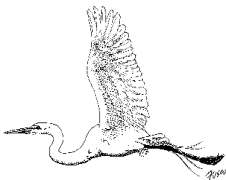
Wood Duck



ecosystems of North Florida provide habitat for many unique species of plants and animals. Several natural communities exist throughout Lake Talquin State Forest with many represented on the Bear Creek Tract.

During your walk along the Ravine Trail and Arboretum, you will begin to develop an understanding of the forest ecosystems here on Bear Creek. The Ravine Trail and Arboretum follow the shore line of Beaver Pond and it is a good possibility that you will catch a glimpse of the wildlife and plants that make Bear Creek their home.

The Ravine Trail is a designated Trailwalker Program trail. The Trailwalker Program offers participants the opportunity to be rewarded for their hiking efforts. For more information see the Trailwalker brochure at the trailhead kiosk, telephone (850) 681-5892 or (850) 681-5950.



Great Egret

Bear Creek Educational Forest's

Ravine Trail
Arboretum



Florida Department of Agriculture
And Consumer Services

James R. Karels, Director
Florida Forest Service

Welcome to the Ravine Trail and Arboretum. The BCEF arboretum boasts over 50 identified tree and shrub species. These trees and shrubs are posted with descriptive signs that will help you to become more familiar with them. The Arboretum at Bear Creek will broaden and increase your identification skills and abilities. The interpretive stations are listed A-V in this brochure, as well as along the trail. We hope you fully enjoy your hike.

Several years ago, this area was a hardwood forest fed by springs that emerged from the base of the steephead ravine. Beavers formed the original pond by stopping the flow of water. These beavers built their lodges from trees along the shoreline, such as this pine. The beavers spared this tree but it still bears a scar from gnawing teeth.



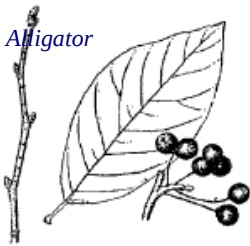
Beaver

Are beavers responsible for killing these trees? No, these trees fell victim to disease and boring insects. Why have these not been removed? Decaying trees provide food and shelter for many organisms. Insects and microscopic creatures break down dead material and release nutrients back into the soil. Dead trees are an important part of the natural cycle in the forest.

Notice the area on the shore where shrubs have not filled in; what animal do you think is responsible? American alligators use these areas called slides as a way to get out of the water and into the sun. Alligators are cold blooded and sun themselves to regulate their body temperature. Alligators are very shy of people so slides provide a quick, slippery escape route. Beware, alligators will harm you, if you tease, feed or try to approach them. Look on the logs out in the water, as you might see a turtle sunning.



Have you ever seen trees that live in water? Florida has many species of plants that have adapted to life with “wet feet.” Red maples, sweetgum, and Black tupelo are trees commonly found near water. These trees are able to find more sunlight and moisture here at the water’s edge than they would under a typical forest canopy. Many water-loving trees have what is called a swelled butt. The swelling at the base of the trunk may give the trees a more stable base in the soft saturated soils.



Alligator

Tupelo

This is a Pyramid Magnolia tree, a deciduous* relative of the Southern Magnolia and a very important indicator for biologists. People who study natural communities identify slope forests, like the area you are in right now, with indicator species like the Pyramid Magnolia. Several threatened plant and animal species depend on the relatively cool, moist climate of slope forests in order to live. There are several Pyramid magnolia trees visible along the Ravine Trail. See if you can find them as you walk along the trail. (*loses its leaves in winter)

The splotches on these trees are Lichens; symbiotic organisms comprised of algae and fungi that co-exist to get water and nutrients from the air (epiphytes). They are not parasites, which harm the host plant. Lichens are a pioneer species, growing on the most inhospitable of surfaces. They produce organic matter that becomes soil where green plants and mosses begin to grow. Another epiphyte is the Resurrection fern. These plants appear dead during dry spells but unfurl their leaves and become green again after a rain.



“Resurrected”

Dry

Resurrection Fern

Why are these trees so tall? Plants and trees get their energy from sunlight. Their leaves capture the rays of the sun and through the chemical process of photosynthesis and turn the solar energy into food. Trees with their leaves higher than the others get more sunlight.

Have you noticed a change in the types of trees at this location? You have walked from a slope forest area into an upland hardwood forest. Do you notice a difference in the temperature? The dense canopy of this type of forest keeps moisture from evaporating therefore keeping the air cooler with more humidity than the other upland areas. Upland forests will not burn easily because of the constant humidity. Upland hardwood areas are often cut over to make agricultural fields. The trees at this spot have grown up over the last 40 – 50 years.

Do you know what kind of an animal made these rows of holes? Yellow-bellied Sapsuckers are small birds that tap into trees like woodpeckers. Sapsuckers make holes in the tree to attract insects to the sap, then feed on those insects. Sapsucker activity will not harm the tree in most cases.



Yellow-bellied Sapsucker

You are looking at one of three small streams that feed into the pond. These streams come out of the ground at steepheads. Because the water table is so high at this location, the water flows continually in the driest of seasons. This cool, moist bog area is the perfect habitat for plants like sphagnum (peat) moss. These plants grow pale green in the shade. Sphagnum produces organic acids that maintain the acidic soils



avored by many bog plants.



Beaver Pond

Look along the shoreline and you will notice large trees growing by the water’s edge. These trees are Loblolly bays and their presence indicates a special zone called a Loblolly Bay baygall forest. Baygall areas rely on acidic soils with a ground layer of sphagnum. Loblolly bays are similar to magnolias with the evergreen leaves and fragrant white blossoms typical of that family.



Loblolly Bay

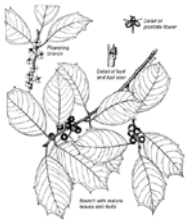
You are at the top of the third steephead and back into a slope forest area. These trees are basswoods and are not commonly found in Florida. Basswoods are adapted to the relatively cool, moist climates like that of North Carolina. They are able to survive in our warmer climate because this slope forest faces the north and receives less sunlight in winter providing a habitat for plants that require a winter chilling.

This area is a bottomland hardwood forest. The plants that grow here have access to moisture but the area rarely floods. Organic matter washes downstream to add nutrients to the soil. The diversity of wildlife in bottomlands is great. If you are quiet, you may see deer coming down to the waters edge for a drink.



White Tailed Deer

These slow growing American holly are very old. A former property owner made the sign reading “100 year old holly” in the 1960’s, so how old is it now? The holly trees beside the trail are even older. Why do you think the trees in the slope forest areas not cleared for fields?



American Holly

were