cherries. Next to this tree, to the right, is a small musclewood (or blue beech) and a 6" basswood. To the left, right next to the trail is another red elm. See if you can spot several more cherry trees growing in the moist, fertile level ground nearby.

8 - Twin Trees - An American beech and a black maple have grown so closely together that they appear as a single 26" diameter tree. Behind them is another 22" diameter black maple with its light colored bark. Beech and maple are often dominant trees on moist but well-drained sites throughout Indiana. Seedlings and young trees of both species can grow in dense shade and will eventually help form the "climax" forest community as they do in this preserve.

9 - Pawpaw - This small native fruit tree seldom exceeds 4" in diameter. Here they are thriving in the open sunlight of the powerline right-of-way. They bear a sweet edible fruit sometimes called the Indiana banana. The large simple leaf often gives this tree a tropical jungle look. Look for this tree elsewhere along the trail; pawpaw patches are found throughout the park.

10 - Sycamore - This 39" diameter tree has yellowish-brown to whitish bark that often peels off like paper. You may notice round button-like seed balls hanging on slender stems. The sycamores originally found in Indiana river bottoms were probably among the largest trees growing east of the Rockies; some exceeded 10 feet in diameter! After you cross the stream, look back at the top of this tree. Like many large sycamores, this tree is hollow, and this one has had its top torn out by a storm. It now serves as a den tree for animals such as raccoons, gray squirrels, flying squirrels, owls, woodpeckers and various other forest birds.

11 - Black Walnut - This is the most valuable hardwood lumber tree in Indiana; this specimen is 19" in diameter. It is characterized by a rough reddish-brown bark and compound leaves. Look for walnuts on the ground that the squirrels may have missed. These trees usually grow in moist fertile ground such as is found in the bottom of this hollow.

12 - Streambed Geology - The exposed shale bank on the opposite side of the stream and the larger slabs of sandstone making up the streambed were formed in shallow seaside swamps during the Mississippian geologic period, approximately 340 million years ago. Together the sandstone, shale and siltstone that form the hills in this part of Indiana are collectively known as "knobstone".

13 - Bitternut Hickory - The bark of this 21" diameter hickory is gray with shallow fissures. It has 7 to 11 leaflets in each compound leaf. The acrid flavor of the nuts makes them unpalatable to most animals, increasing the chances of them sprouting and starting a new tree. Small trees and shrubs in the understory here include musclewood, pawpaw and spicebush.

14 - Yellowwood and Beech - Compare the 17" diameter yellowwood behind the seat, with the large 34" American beech that is to the left of the steps you just climbed. Both trees have smooth gray bark. Yellowwood has a large compound leaf whereas beech has a small simple leaf. Note how the American beech grows tall and relatively straight; the yellowwood typically appears to fork and lean over. Watch for more yellowwoods as you continue; there are a number of them visible from the trail up ahead.

15 - Shagbark Hickory - This 17" diameter shagbark hickory is easily recognized by the gray shaggy rough bark, characteristic of the species. The compound leaf of this hickory has 5 to 7 light green leaflets, and the nuts, which are an important food of squirrels, have thick husks. The wood has about the highest fuel value of any tree, making it a prime firewood. You will pass several more shagbark hickories on your way to the next station. Can you recognize them?

16 - Yellowwood - You should now be able to recognize this tree. Yellowwoods are a member of the legume or bean family, as are the more common redbud and locust trees. Yellowwoods produce clusters of pea-like flowers generally every other year, which give rise to "pea pods" containing seeds. Partly due to the brittle nature of its wood, yellowwoods are easily damaged by high winds, as this tree, missing its top, illustrates. Because of its rarity and current lack of reproduction, yellowwood is designated as a state threatened species in Indiana.

17 - Basswood - Also called linden, this tree of rich moist woods is distinguished by its deeply furrowed light-brown bark and its heart-shaped leaves. Its flowers have a strong penetrating sweet odor in early summer. This large double tree is 25" and 33" in diameter. This tree often sends up prolific sprouts at the base of the trunk; look for where white-tail deer have browsed on these tender shoots.

18 - Sugar Maple - This 29" diameter maple is most easily recognized by its characteristic leaves, which are more deeply lobed than black maple. At the end of winter, from 5 to 40 gallons of sap may be drawn from a single tree; it will take about 32 gallons of sap to yield one gallon of maple syrup or 4 pounds of sugar. Did you notice the many pawpaws just before this station?

19 - Pignut Hickory - This 20" diameter tree has tight, hard, light gray bark and small nuts containing bitter-tasting kernels. Its leaves are compound with 5 leaflets. As you walk to the next station, watch for the dead black gum trunk standing next to the trail. Which woodpecker do you suppose has made the large rectangular holes?

20 - White Ash - This 27" diameter ash has gray bark with deeply cut fissures forming long narrow plates. Its compound leaves are comprised of 7 to 9 leaflets. The wood of this tree is strong, lightweight and pliant, and thus gives it numerous uses, especially as the preferred wood for baseball bats.

21 - Red Oak - This 30" diameter oak has dark gray bark with shiny light ridges that become more pronounced in the upper trunk. Look on the ground for leaves having 5 to 9 opposite sharp pointed lobes, as well as acorns whose caps cover only the top ¼ of the nut. Here on the upper slopes where it is drier and sunnier, the forest community is dominated more by oaks and hickories.

22 - Chestnut Oak - This 40" diameter tree has hard bark with thick, heavy vertical ridges. The leaves have wavy margins and resemble those of the American chestnut, hence this oak's name. This hardy tree thrives under harsh conditions and often dominates or forms nearly pure stands on the tops of dry rocky knobs and steep ridges in southern Indiana.

Wildflowers of Ogle Hollow

baneberry
bergamot
bloodroot
blue phlox
blue-eyed grass
celandine poppy
dutchman's breeches
jack-in-the-pulpit
jewelweed
mayapple
prairie trillium
sharp-lobed hepatica
solomon's seal
spiderwort
spring beauty
squawroot
tall blue bellflower
waterleaf
wild geranium
wild ginger

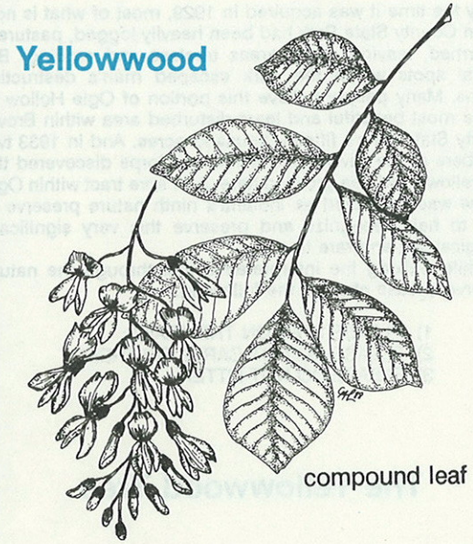
Ferns

broad beech fern
christmas fern
ebony spleenwort
fragile fern
maidenhair fern
narrowleaf spleenwort
rattlesnake fern
silvery spleenwort

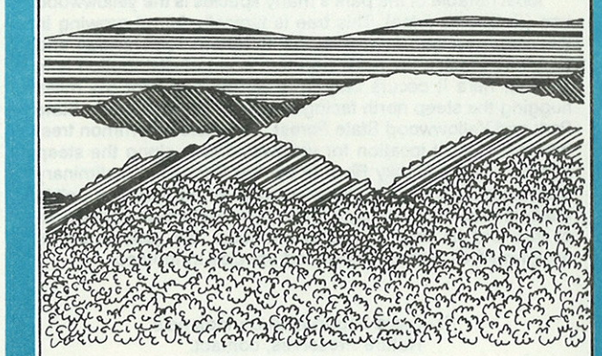
Common Animal Residents

white-tailed deer
raccoon
gray squirrel
chipmunk
opossum
pileated woodpecker
yellow-billed cuckoo
wood thrush
white-breasted nuthatch
Acadian flycatcher
eastern wood peewee
eastern box turtle
fence lizard
American toad
spotted salamander
red-backed salamander

Yellowwood



Ogle Hollow Nature Preserve



Brown County State Park

Ogle Hollow Nature Preserve

By the time it was acquired in 1929, most of what is now Brown County State Park had been heavily logged, pastured, or farmed, leaving many areas treeless and eroding. But several spots within the park escaped man's destructive actions. Many people believe this portion of Ogle Hollow to be the most beautiful and least disturbed area within Brown County State Park's fifteen thousand acres. And in 1933 two members of the Civilian Conservation Corps discovered the rare yellowwood tree growing here. A 41 acre tract within Ogle Hollow was dedicated as Indiana's ninth nature preserve in 1970 to help recognize and preserve this very significant biological site and rare tree.

While walking the interpretative trail through the nature preserve, please observe the following:

1) PLEASE STAY ON THE TRAILS;
2) PLEASE DO NOT CARVE ON TREES;
3) PLEASE DO NOT LITTER.

The Yellowwood Tree

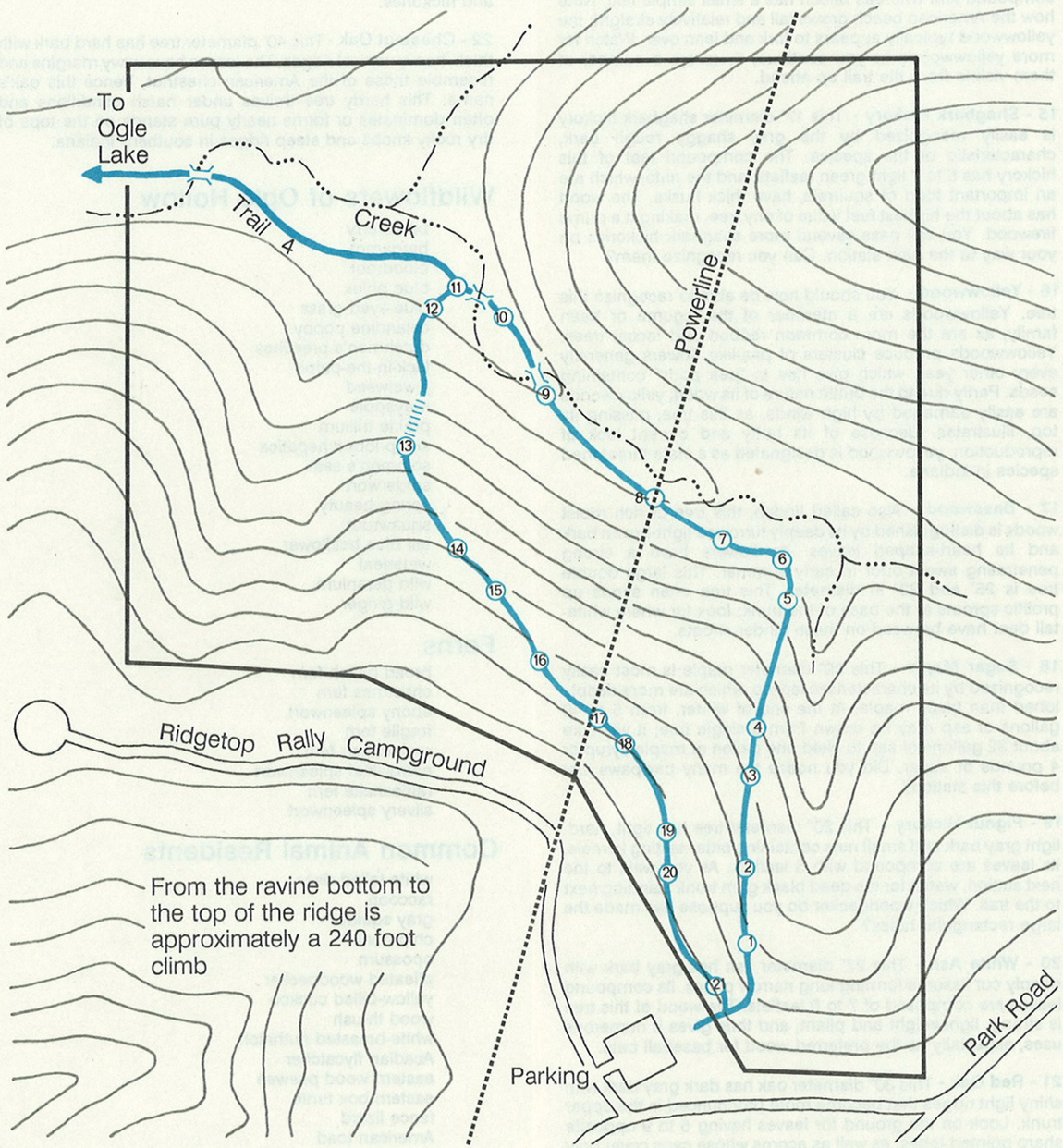
The bedrock of shale and siltstone (or knobstone) that is underfoot was formed along the edge of a vast shallow sea some 340 million years ago. Uplifted through time and escaping the great glacial bulldozer of the ice ages, the famed hills of Brown County were slowly formed as rainfall gradually eroded and carved the steep and rugged hollows and ravines.

The forest community found in these hollows is called a Mesic Upland Forest. The steep and shaded hillsides provide a moist and sheltered environment that supports a very diverse assemblage of plants and animals - a wide and rich variety of hardwood trees, shrubs, flowering plants, fungi, insects and invertebrates, birds, reptiles and mammals are found here.

Most notable of the park's many species is the yellowwood tree (*Cladrastis lutea*). This tree is typically found growing in the cool mountain forests of the Southern Appalachian and Ozark Mountains. Its most northern point of distribution is in Indiana; here it occurs only in a narrow band for 5½ miles hugging the steep north facing slopes of Brown County State Park and Yellowwood State Forest. No where a common tree, the next closest location for yellowwoods is along the steep banks of the Kentucky River in central Kentucky. Preliminary studies indicate that the yellowwood is not reproducing well in Indiana; very few seedlings or saplings can be found. Because of this and its very limited distribution, the yellowwood is designated as a state threatened species in Indiana.

For more information on Indiana's Nature Preserves, contact:

Department of Natural Resources
Division of Nature Preserves
402 W. Washington St., Rm. 267
Indianapolis, IN 46204
(317) 232-4052



Trail Stations

Station 1 - Black Oak - This 25" diameter tree has dark gray furrowed bark. The leaves usually have 7 deeply cut and sharply pointed lobes; the cups of its acorns cover ½ of the nut. Just downhill, leaning over the ravine is a 27" yellowwood, with several small sugar maples in between. Notice the smooth gray bark of the yellowwood. Watch for more yellowwoods as you walk this trail.

2 - Black Gum - This 29" diameter tree has prominent gray square plated bark. Its rather simple leaves often turn bright orange and red by late summer and are among the first to fall. The forest community continues to grow more sheltered and moist as you continue down this trail to the bottom of the hollow. Take note of the many different kinds of plants you see; especially note the variety of ferns along the steep sides of the ravine to the right of the trail.

3 - American Beech - Almost everyone knows the beech tree by its smooth gray bark. Note how similar it is to that of the yellowwood. This tree is 24" in diameter. Its three-sided nut is a favorite food of squirrels. *Let this tree serve as a reminder - don't carve on the trees as other thoughtless people have.* Just ahead and to the right of the trail, between this station and the old, very large sugar maple stump, stand a 29" red oak and a 22" beech.

4 - Sassafras - This is often found as a small pioneer tree in old abandoned fields. This 15" individual is competing with other trees, but will eventually be crowded and shaded out by other more shade-tolerant species. Sassafras tea is made from the roots of this tree, not from the bark, as many people mistakingly believe. Notice the somewhat rectangular holes high up on the trunk - these were made by pileated woodpeckers. Pileated woodpeckers are rather common in the park, and are Indiana's largest woodpecker. Other woodpeckers found here include the red-bellied, hairy, downy, and flicker.

5 - Storm Damage - Many large trees in the preserve, such as these, were blown over or badly damaged by a severe windstorm in 1988. As the years pass, these trees will decompose and recycle nutrients back into the soil. The openings left in the forest canopy provide more sunlight for young trees that will now grow quickly to fill these gaps. Occasional small disturbances, such as from this storm, are quite natural and help maintain a healthy and dynamic forest community.

6 - Red Elm - This 23" diameter tree, also known as slippery elm, has finely toothed leaves that are rough on both sides and grayish bark tinged with brown inner streaks. Both the American and red elm were formerly more common forest trees, but Dutch elm disease, introduced into this country in 1930, has killed most of the American elm and many red elm.

7 - Wild Black Cherry - The dark thin flaked bark (burned cornflakes!) of this 30" diameter tree is quite distinct from other trees. This tree is especially valuable for fine lumber and large forest-grown specimens are now hard to find. Birds, squirrels and other small animals relish the small bitter