Honeycomb Rock

At this point, Clifty and Indian Creeks join together and eventually flow into Sugar Creek. The sheer wall before you is composed of sandstone of Upper Mississippian Age (about 300 million years old). Pockets of algae are thought to have been included with the sand and these were fossilized. Later, since these fossilized balls were of different hardness from the surrounding sandstone, the sandstone cliffs that were formed weathered into the fantastic shapes you see here. The "honeycomb" is composed of sandstone that is more resistant to weathering.

The trail leaves Honeycomb Rock, crosses an area of hemlocks and hardwoods, then Clifty Creek, and rejoins the trail to the entrance. At this point, you are retracing your steps. As you ascend Turkey Backbone, you are leaving the northern forest behind and once again entering a typical Indiana hardwood forest. This takes only a few minutes; it would normally require an automobile drive of well over a day to find a similar forest diversity.

We hope that you enjoyed your walk through Pine Hills Nature Preserve and will visit again. If you do not wish to keep this pamphlet, please place it back in the registration box, and be sure to register before you leave.

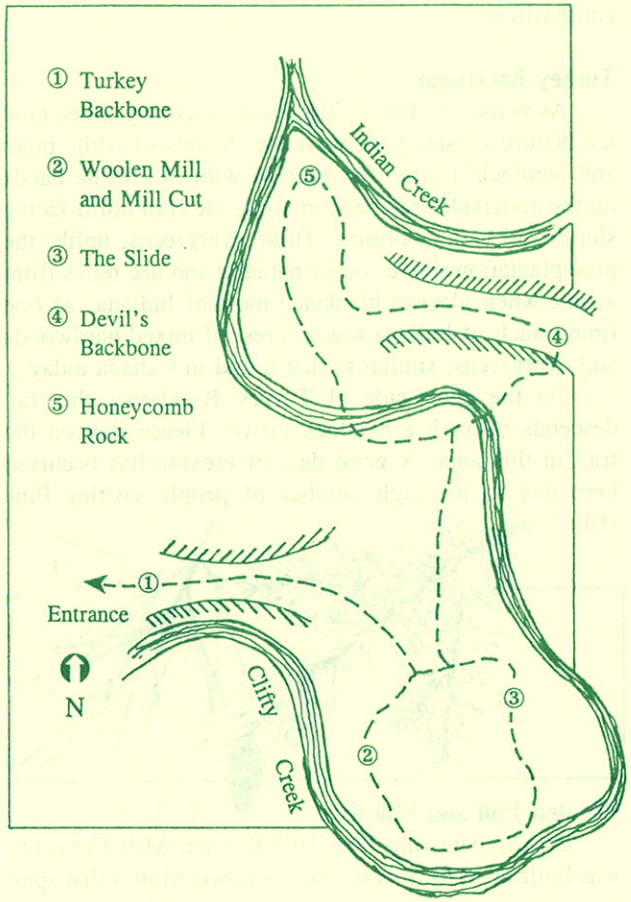
Indiana Department of Natural Resources
Division of Nature Preserves
402 West Washington St., Rm. W267
Indianapolis, IN 46204
(317) 232-4052

Indiana Department of Natural Resources
Division of State Parks
402 W. Washington St., Rm. W298
Indianapolis, IN 46204
(317) 232-4124

12.95.10000

Directions

Pine Hills Nature Preserve is in Shades State Park, near Crawfordsvile. Proceed east on Co. Rd. 800S from the entrance of Shades State Park and turn north onto S.R. 234. go north to a marked lot on the west side of the road. This hiking trail leads across the road and through the preserve. A naturalist works in the park during the summer.



Pine Hills Nature Preserve

Welcome

This 470-acre tract is the first dedicated nature preserve in Indiana. It was given to the State of Indiana by The Nature Conservancy in 1961 and dedicated in 1969.

Nature Preserves are established for the purpose of protecting and preserving the areas in their natural state.

Please protect yourself and the natural value of this area by:

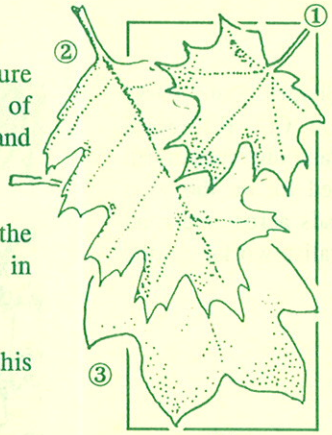
1. Remaining on the trail;
2. Protecting all plants and animals;
3. Taking all litter out with you;
4. Keeping pets on a leash;
5. Observing the bans on rock climbing, hunting, fire building, picnicking, camping, and vehicular use.

Portions of this trail are steep and cross hazardous areas. These areas are marked and caution should be used, especially if children are with you.

Entrance Trail

Much of this area contains an old pine plantation and was planted with white pine (3-5 inch needles in bundles of 5), scotch pine (2-3 inch needles in bundles of 2), Jack pine (look for branches covered with cones) and Norway spruce (short needles not in bundles). Note that the scotch pine often appears to be forked near the base. This occurred when poachers sawed off the tops for Christmas trees. Side branches then grew upward and gave the trees their present appearance.

Pines are vigorous, hardy trees, but they need a great deal of light to germinate and grow. Notice that deciduous hardwood trees can be seen here and there among the evergreens. These trees can germinate and develop at lower light intensities and tend to grow straight up before spreading a crown of leaves. The shade that results will discourage the reproduction of pine trees and encourage the more shade-tolerant hardwoods. Eventually, all or most



of the pine trees in this area will be replaced by beech, maple, tulip poplar, ash, and dogwood trees. This process is known as succession.

Further along the trail, the pine plantation gives way to an old-growth stand of deciduous trees. Common trees in this stand include sugar maple[1], red oak[2] (look for smooth flat ridges along bark) and tulip poplar[3]. As the trail continues, the dominant trees in the stand begin to shift toward an oak-hickory composition.

Turkey Backbone

As you cross Turkey Backbone, it is easy to see how the Nature Preserve got its name. Stands of white pine[1] and hemlock[2] (short, flat needles with two white bands on the underside) can be seen along the cool north-facing slopes and valley bottoms. These evergreens, unlike the pine plantation above, occur natually and are relics from a time when glaciers blanketed most of Indiana. At one time, much of Indiana was a forest of mixed hardwoods and evergreens, similar to that found in Canada today.

On the other side of Turkey Backbone, the trail descends through a hemlock grove. Please stay on the trail in this area. A great deal of erosion has occurred here due to the high number of people visiting Pine Hills.

Woolen Mill and Mill Cut

On this site, the Pine Hill Woolen Mill Company was built in 1870. It was a water-powered mill that spun thread from raw wool. A dam across Clifty Creek just above the notch cut in the backbone allowed dammed water to flow down a flume and power the mill. The operation was not successful and the mill was moved in 1873. Today, virtually nothing remains of the Woolen Mill except for the u-shaped notch in Mill Cut Backbone.

The Slide

After leaving the Mill Cut area, the trail winds along Clifty Creek through a forest of maple, sycamore[1], American elm[2], walnut[3], tulip poplar, and blue beech[4] (look for smooth gray bark and a sinewy appearance). The opposite bank shows evidence of frequent rock slides, probably caused by repeated freezing and thawing of the rock. The smooth surface left after each slide offers few footholds for plants. Only a few shrubs and grasses have been able to establish themselves in this area.

Devil's Backbone

Follow the trail signs and cross Clifty Creek. The steep-sided wall you see before you is another back bone. This is Devil's Backbone. At one point, it is

6 feet wide and 100 feet high. **Groups with small children would be advised not to attempt to cross it.** This trail rejoins itself at the Clifty Creek crossing and people may wish to return to this junction to take the trail out.

Besides its narrowness and height, Devil's Backbone is noteworthy for the stone carvings along its top. A life-sized bas-relief of the Devil was done in 1910 and there are several carvings of birds thought to be passenger pigeons (now extinct). Dates from the mid 1800's can be found here, attesting to the attractiveness of the area even in pioneer times.

The trail down the front of Devil's Backbone is steep and descends through a beautiful hemlock grove. Once again, stay on the marked trail since erosion is a problem in this area.