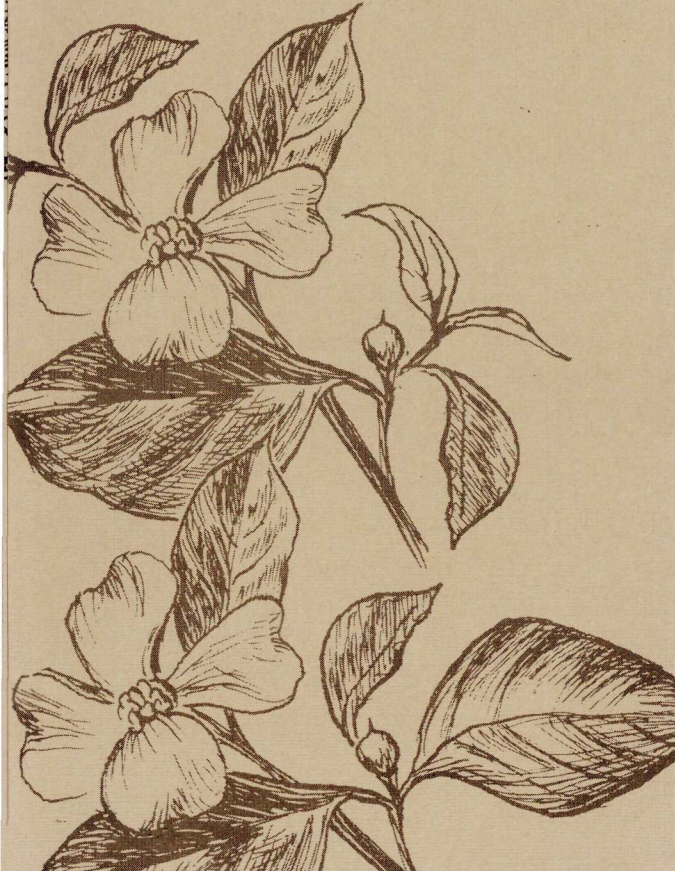


# INDIAN ROCKHOUSE

self-guiding nature trail



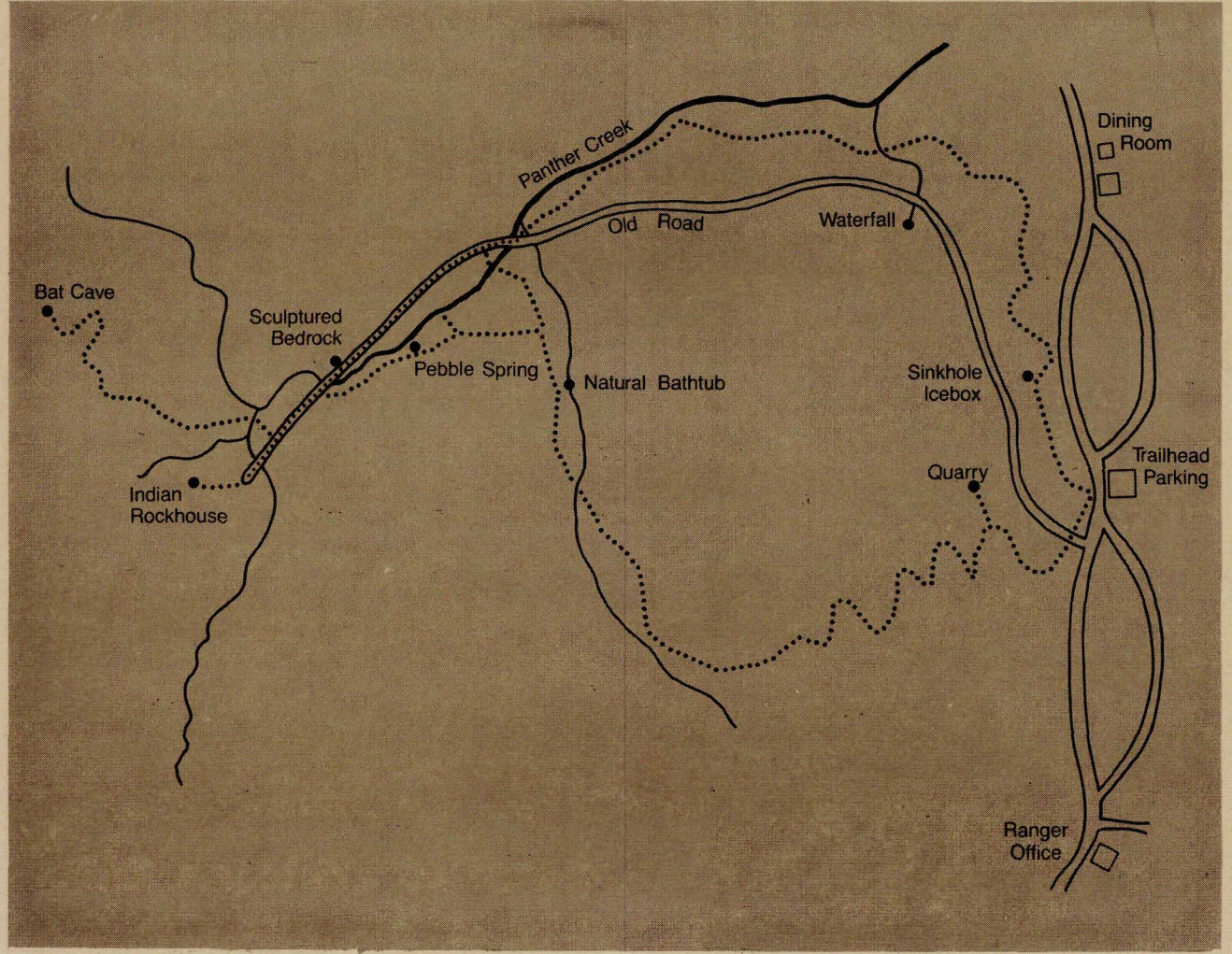
Buffalo National River, Arkansas 50¢

The Indian Rockhouse Trail winds on hillsides and along a stream to Indian Rockhouse Cave, which once sheltered Indians. (There are no "ruins" there, however.) There is a side trip to Bat Cave. The round-trip is 3 miles (5 miles if you are also going to Bat Cave), and coming back is uphill—it can get tiring. Allow 3-4 hours for the trip to the Rockhouse (4-5 hours if you include Bat Cave).

Wear comfortable shoes with non-slip soles. Stay on the trail (it's easier) and watch for loose gravel. Carry drinking water; there is none along the trail. Experience has shown that small children may need to be carried at least part of the way on the return trip.

This is an area of the National Park system, so all of the plants and animals are protected. Leave them as you find them so that others may enjoy them also. Please pack out anything you take in. When you leave, no one should be able to tell that you were ever here. Treat the trail like it belongs to you—it does!

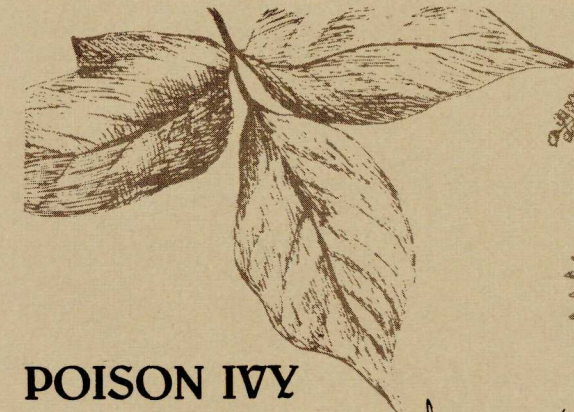
The trail begins across the road from the trailhead parking lot. There are two trails going off at a slight angle; take the right, or lower, trail. (If you have hiked the trail in years past, you will notice that the routing has been reversed, to take better advantage of the slopes and make the return trip easier.) Signs along the trail relate to paragraphs in this folder.



## SMOOTH SUMAC

Smooth sumac shrubs, such as the ones to the right of the trail, were very important to Indians.

A tasty pink tea was prepared from the sour fruits. The liquid from boiled fruits was used to stop bleeding after childbirth, and for the treatment of frostbite. Indians chewed the roots to rid themselves of mouth sores, and used the juice of mashed leaves and fruits for treating poison ivy. Even the brown pith of sumac branches was used by placing the branches inside broiling meats for a spicy flavor.



## POISON IVY

Can you recognize **poison ivy**? Every year many people suffer from touching this plant. Poison ivy may grow in several forms, including woody shrubs as the ones to your right, low herbaceous plants, or climbing vines. No matter how it grows, the alternate compound leaves with three leaflets and the presence of clusters of small, green berry-like fruits identify the plant. A good saying to remember is "leaves of three—let it be."



## FERNS & MAY APPLES

There are many species of ferns along the trail here—

**Christmas, maidenhair, and bracken** are just a few of the more common types. The moist woodland floor is especially rich in the things these delicate plants need. Ferns help hold the soil in place, and are emergency food for deer, rabbits, and turkeys when other food is sparse. Many a gardener has used

### Maidenhair Fern

them as ornamentals—yet here they are free and wild!

Cool, moist places like this are also home to the **may apple** or **umbrella leaf**. These plants have only one or two leaves but

each leaf has four to seven lobes, which gives the impression of many leaves.

The may

apple is one of the earliest herbaceous plants to come up in the spring. The large white flowers are difficult to see because they are hidden beneath the large leaves.

The flowers are fragile and do not last long, and give rise to a lemon-like berry. Sometime during July the apple becomes juicy and rich. Then, even though the leaves and rootstalk are poisonous, the fruit may be eaten raw or made into a delicious preserve.



### Christmas Fern

## SINKHOLE ICEBOX

Use care here! To the left of the trail is a large sinkhole. This is the opening to a very narrow passage into the rock layers below you. At times fog rises from the hole as the cooler air of the cavern (56-57° F.) meets the outside air. Perhaps this is a reason for the enchantment which surrounds such openings into the underground world.

During heavy rain great amounts of water flow down the ravine and pour into the sinkhole, disappearing into the crevice below. Over thousands of years the action of the water has carved the limestone into beautiful pieces of natural art.

Red Oak



White Oak



Hickory



## HARDWOOD FOREST

Take a look at the trees around you. There are **oaks**, **elms**, and **hickories** along with a host of other deciduous (leaf shedding) hardwoods. Only a few softwoods (pines, cedars, etc.) are native to this region.

Hardwood forests once clothed the Ozarks. Before this area became a park, its virgin forests were stripped of commercially valuable timber. It was common practice then to burn over large tracts of woodland each year. Such practices removed trees and leaf litter and reduced the ability of the forest floor to protect hillsides from

erosion. Fire-scarred trees and stumps are still much in evidence along our trail. Given time and protection, nature can rebuild the hardwood forest.

The tree with pale gray bark is **white oak**, one of the most common trees in the region and an important source of food for wildlife. Acorns from this and other species of oak found in the Ozarks are a staff-of-life for many animals including squirrels, turkeys, and deer. Fat, oil-rich white oak acorns were



enjoyed by American Indians. First they boiled them to remove the bitterness, then either parched them or ground them into flour for bread.

It is puzzling to think about the value of trees and other forms of nature. The poet William Blake said: "The tree which moves some to tears of joy is in the eyes of others only a green thing that stands in the way."

Aromatic Sumac



## CEDAR GLADE

We are now in a small opening with scattered cedar trees. Glades like this can be found throughout the Ozarks. Most have very characteristic plant life which is adapted to glade conditions—shallow acid or alkaline soil,



Wild Mint

plentiful sunlight, extreme temperatures, and little moisture. **Aromatic sumac** and **wild mint** are two of the more common plants. Aromatic sumac, a close cousin to the feared poison ivy, is so named because of its very fragrant leaves. Its berries are eaten by many species of birds, and were once used by early settlers to make a pink lemonade. The square-stemmed mint is also commonly found here. A drink was made from its spicy stems and leaves, and when this drink was mixed with sassafras or greenbrier tea—sarsaparilla!

## WATERFALL

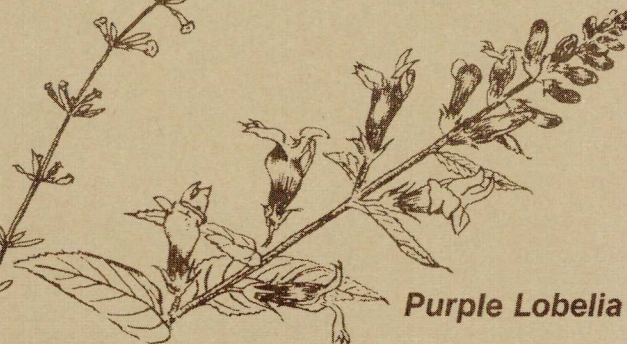
Small waterfalls are common in the Buffalo River Valley. In fact, the highest fall in Arkansas (200 feet) is at Hemmed-in-Hollow in the upper Buffalo River Valley.

In many cases, as with this particular waterfall, water flows from the ground at a spring, travels a few hundred feet and spills over a bluff. Many times below a fall the water flows back into the ground, only to reappear as a spring somewhere else.

Notice the mud below the fall. At one time a well-traveled road passed between the spring and the fall. This caused erosion during hard rains and made the fall muddy. The road has been closed now and Mother Nature is beginning her slow-but-sure work to repair the fall's beauty.

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Purple Lobelia



Wood Rat

## BLUFF MAMMALS

Along this shaded bluff there are many signs of the small mammals that make the crevices their homes. A bed of dry leaves, tiny hairs, and droppings, all indicate the presence of woodrats, deer mice, and white-footed mice. However these creatures are seldom seen because they are active at night.

Many people dislike these small mammals because of their pesty relatives—the house mouse and the house rat. These latter species are imports from the Old World, and have caused serious prejudice against many of the harmless woodland rodents.

## ABANDONED MINE

Around 1880 zinc was found in this area and mining towns began springing up everywhere. The largest mines in this area were located just eight miles down the Buffalo River at the abandoned town of Rush.

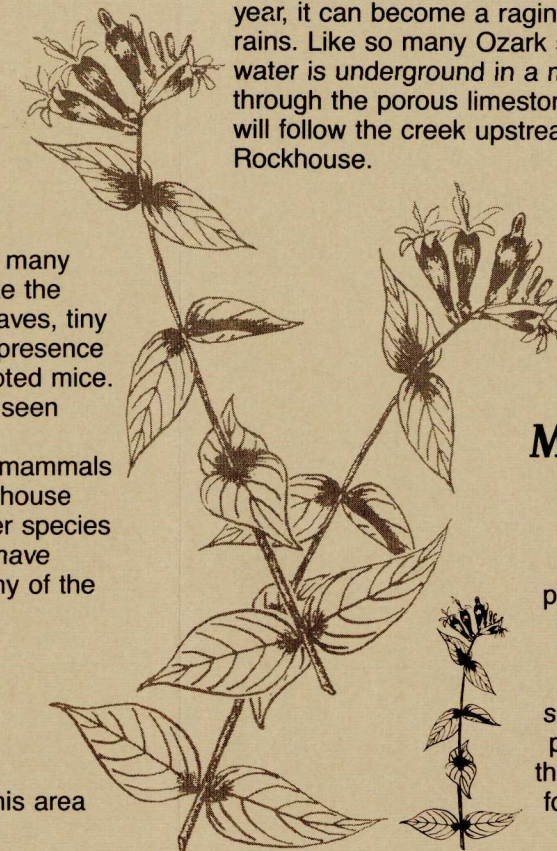
During World War I the value of zinc skyrocketed and local people, thinking of getting rich quick, began prospecting their own lands.

Unfortunately most of the mines such as this small opening proved to be void of any minable zinc and were soon forgotten. This mine is now the home of deer mice, woodrats, and cave salamanders.



## PANTHER CREEK

Here the trail joins Panther Creek, a tributary of the Buffalo River. Dry most of the year, it can become a raging torrent after heavy rains. Like so many Ozark streams, most of the water is underground in a myriad of passages through the porous limestone. From here you will follow the creek upstream toward the Indian Rockhouse.



## MEDICINAL PLANTS

The Ozarks are probably one of the richest parts of the world for medicinal plants. It is not surprising that many people believe that there is a plant remedy for every illness. In this immediate area there are two important medicinal plants.

The red and yellow flowered **pinkroot** was used by early settlers for internal parasites such as tapeworms. However, the potent alkaloid extracted from the roots was sometimes overdosed and occasionally killed the patient.

The **purple lobelia** which is common in the autumn was used to treat laryngitis and asthma. It also has poisonous narcotic qualities especially to animals feeding on the raw plants.



## WITCH HAZEL

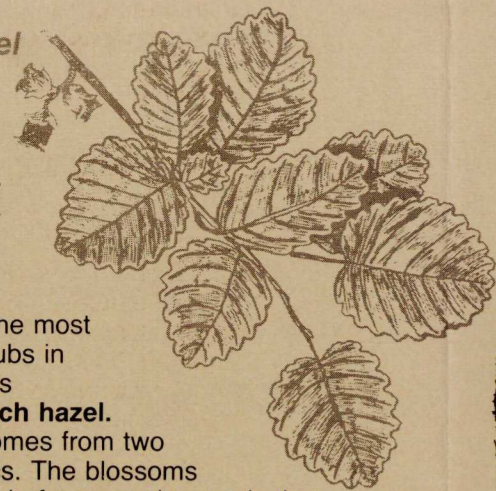
One of the most common shrubs in and along this stream is **witch hazel**. The name comes from two characteristics. The blossoms are composed of rectangular petals that somewhat resemble matted or witches' hair. Also, the fruit pods when ripe burst open as if by magic, shooting the seeds as much as thirty feet away.

An extract from the branches of the witch hazel is used commercially in toilet water, shaving lotion, and cosmetics, and the bark and leaves are used in medicines. The fruit is eaten by grouse and turkey, and the bark by squirrels and rabbits.

In olden times and even today people have used forked witch hazel branches to find underground water in what is called "well witchin'." Before digging a well a person may hire the services of a water-witch, or one believed possessed of the ability

to use the technique, unless he himself possesses the talent. The water-witch cuts a forked stick off a witch hazel, or occasionally a peach tree, holds a prong in each hand with the main limb pointing straight ahead, and walks over the general area where the well is needed. The theory is that the end of the stick will bob violently down

wherever there is water. Experienced witches supposedly can tell even how many feet deep the well should be, and whether or not the water is good for drinking. While many people refuse to believe in the validity of "well witchin'," it remains a fact that many of the good wells in the Ozarks were located by this method.



## SMALL CAVE

Feel the coolness of the cave air. Small caves like this one are home to many kinds of wildlife, which find the cool, dark crevices and moss-covered ceilings to their fancy.



The **phoebe** is a common bird of caves such as this one and can often be heard calling its name, "Phoebe, phoebe." You may see the phoebes' nests here, though it will take a keen eye. They are well camouflaged nests of mud and

mosses which seem to grow from the ceiling or walls. Please do not bother these nests because they may contain eggs or young.

Many rodents, toads, and tree frogs search out caves such as this to make their homes.

When the trail reaches the old roadbed, turn right and follow the road to the Indian Rockhouse. If you don't want to go all the way to the Rockhouse, take the trail to the left just after you cross the creek bed. It will take you to the return trail and then back up the hill to the trailhead.

## CALAMINT

The fragrant grass-like plant growing here in profusion from May to September is **calamint**. A tea can be made from the leaves and stems. Many people make a natural insect repellent by crushing the leaves and rubbing them across their bodies.

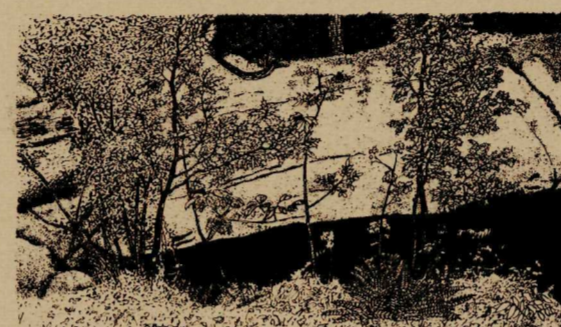
## SCULPTURED BEDROCK

It has been said that the sculpture of man is of little significance when compared to the work of nature, done with her tools of wind, water, and liberal amounts of time. Here one of nature's forces, water, has labored for thousands of years, slowly modeling this bedrock into a variety of curves and drops.

Each pebble and stone within the stream is a tool—rolling and turning, chipping and scraping. However, the real beauty of nature's sculpture is that she never finishes—hardly putting the "final" touch on a work before altering it into a new and more fascinating one. Then, as if by magic, she molds even the smallest pieces into another mass from which she again begins her eternal sculpturing.

## BAT CAVE TRAIL

The trail to the right goes to Bat Cave. It is extremely rough and steep, and is badly eroded. Anyone who has had trouble walking the main trail to this point should not attempt to take the Bat Cave Trail. It crosses Panther Creek a few feet from the road and goes straight up the hill to the top of the ridge, then drops off the ridge to the cave on the far side,



so that a hard climb is necessary both going to and coming back from the cave. However, the trail provides good scenic views in winter and is lined with pink azalea in spring. The cave itself has an impressive entrance and a very large passage for a hundred feet, but the passage ends in a huge rockslide. Any formations which might have been in the cave were destroyed by vandals long ago.

## INDIAN ROCKHOUSE

A fine shelter: a natural skylight, a running stream during most of the year, cool springs in the rear part of the cave, and a fairly constant year-round temperature—it would have made an ideal home. As early as ten thousand years ago, Indians lived in open camps and bluff-shelter caves along the Buffalo. They lived in small family groups, hunting, fishing, and gathering wild plant foods. Finds of a few



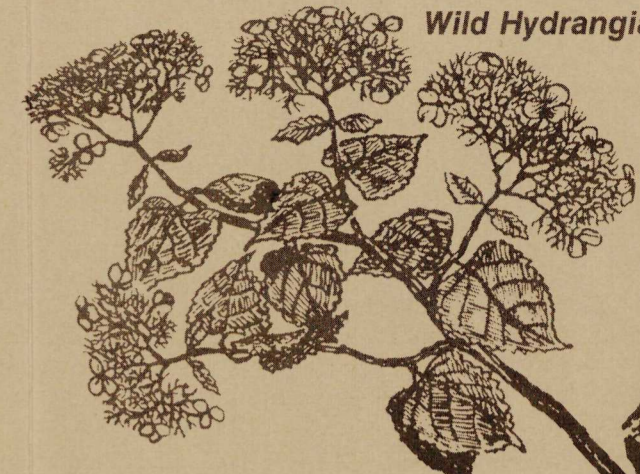
bones, spear points, stone tools and other artifacts supply us with what little information we know about these primitive people. Their exact identity is yet to be determined by archaeologists.

Digging for artifacts is not allowed as it destroys the scientific value of a site. Please help keep the cave in its natural state for others to enjoy.

(NOTE: The return begins here. Follow the old roadbed back over the small hill to the point where the return trail turns off to the right.)

## PEBBLE SPRINGS

This small, gravelly area is a roaring spring during certain times of the winter and early spring. The water flows out of the crevice at the



Wild Hydrangia

base of the bluff. The flow varies with the different levels of the underground river below, but usually it is about six to twelve feet deep at the mouth. Many years of rolling and bouncing in the underground river has given some of the stones a glassy finish, which led to the spring's name.



## NATURAL BATHTUB

Perhaps this "natural bathtub"—the deep bowl-like depression in the bedrock of the stream—was actually used for bathing at one time.

Various old artifacts indicate that this break in the woodland was once a homesite. In the days when there was no indoor plumbing, this small pool could have meant the difference between comfortable and uncomfortable living.

Early settlers of these parts learned to live with nature and took advantage of her every offering. Their lives were somewhat different from ours today. It is interesting to figure out in what ways it was worse, and how it may have been better.

## STREAM LIFE

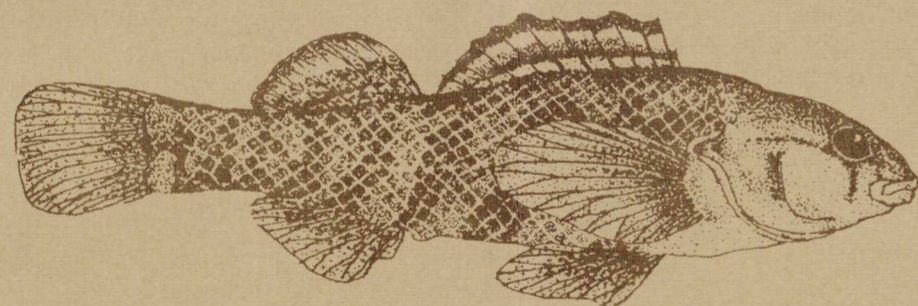
There are many forms of life in a small stream pool such as this one. **Periwinkle snails** cling to rocks or sticks on the bottom of the pool. **Crayfish** (or "crawdads," as they are more commonly called) resemble miniature lobsters; they live in burrows or beneath rocks on the



bottom. **Mayfly** larvae, which crawl along the bottom, and **water striders**, which resemble spiders and scoot around on the water surface

are the most commonly found insects. **Salamanders** and **frogs** are generally easy to

Orange-throat Darter



Salamander

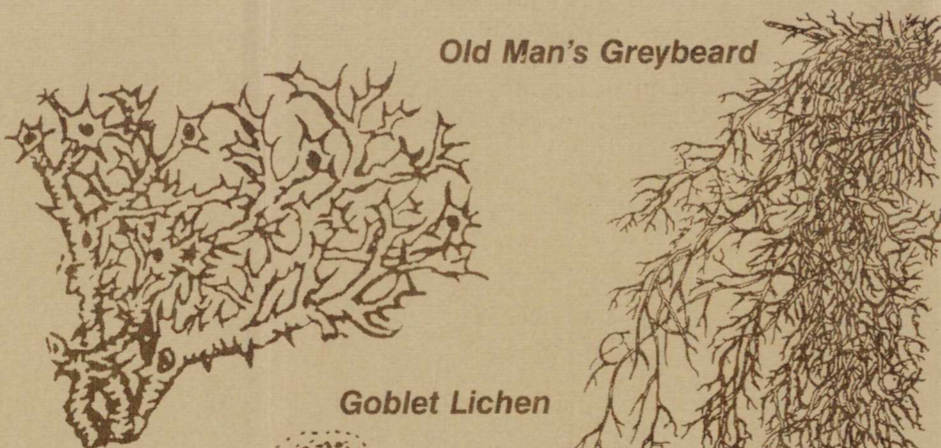


Water snakes of various kinds may be found along the stream. Most are nonpoisonous and harmless if left alone. After all, it is their home; we are guests.

## WATERSHED

Clean water must have care and protection. This care must begin where rainwater first falls to the earth. Soil on steep slopes is easily eroded. Here the hardwood forest is most valuable for its spongy layer of decaying leaves and spreading root systems which help slow runoff and hold the soil. Unnatural pine forests in the Ozarks are poor, compared with hardwoods, in soil holding and flood preventing ability. Clean water, like that found in the Buffalo, can only be maintained by good land use practices and prevention of pollution along the entire length of a river, including all of its tributaries. This means protecting as much land as possible with hardwood forests or other good plant cover.

Thorn Lichen



Goblet Lichen



Cinnabar Lichen



## LICHENS

This large rock is coated with a thin layer of blue-gray plants called **lichens**. Lichens are actually two organisms, a fungus and an alga living together. Lichens play a major role in the production of soil. Over long periods of time even the largest boulder can be broken down by the acid secretions of these plants along with other weathering agents of nature. After a

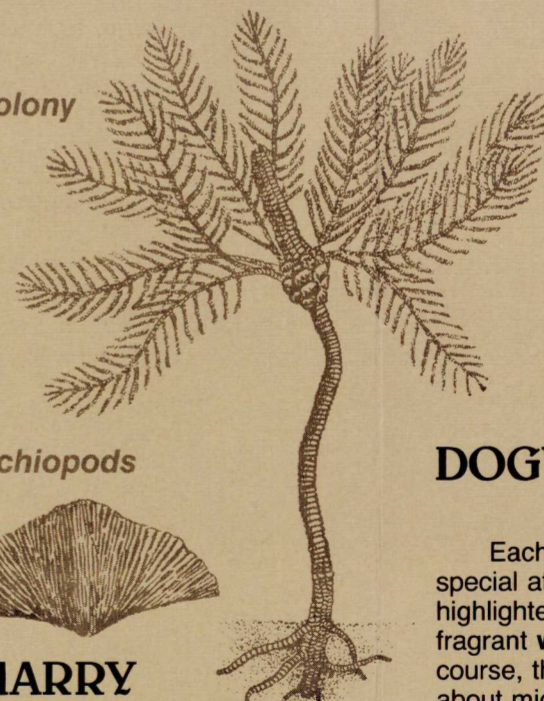


slight amount of soil is produced, larger plants such as mosses and grasses can grow and they continue the soil building process. Later, when a thicker layer of soil has been produced, still larger plants in the form of shrubs and trees can take over the landscape.

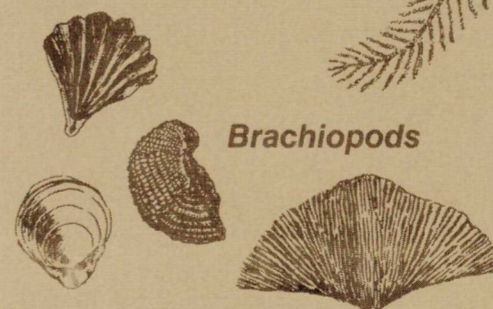
Old Man's Greybeard



Crinoid Colony



Brachiopods



## FOSSIL QUARRY

The spot where you are now standing was once at the bottom of a vast ocean that teemed with primitive life. Corals, armor-covered fish, early shellfish, leathery sharks, and small animals without backbones lived here.

The fossils most common here are **crinoids**. Inspect the loose rock near the bluff for their round disc-like segments. Crinoids were tiny flower-like echinoderms, or spiny-skinned animals, which lived in colonies on the bottom of early seas. Occasionally, you can find the fossil of a crinoid still intact with segmented stem and branching tentacles. **Brachiopods** or clamlike fossils may also be found here. Geologists say that rock layers 450 million years old, some of the continent's oldest, are found near the mouth of the Buffalo only thirty miles downstream.

Those long, tube-like holes on the face of the bluff are modern. Rock for park buildings and walls was quarried here by men of the Civilian Conservation Corps during the 1930s, and the long drill marks are where dynamite charges were set to blast off hunks of the red limestone.



## DOGWOOD

Each season in the Ozarks has its own special attractions. Spring woods are highlighted by blossoming **serviceberry**, fragrant **wild plum**, radiant **redbud** and, of course, the **flowering dogwood** which blooms about mid-April. From spring to fall, the snow-white dogwood blossoms give way to clusters of bright red berries. Never growing large, this shrub or small tree prefers to grow in the shaded understory beneath a canopy of much taller trees. Dogwood is easily recognized by the distinctive pattern and texture of its bark.



We hope you enjoyed your hike. Stop at any park office for information about other hiking areas, and other activities and facilities available at Buffalo National River.