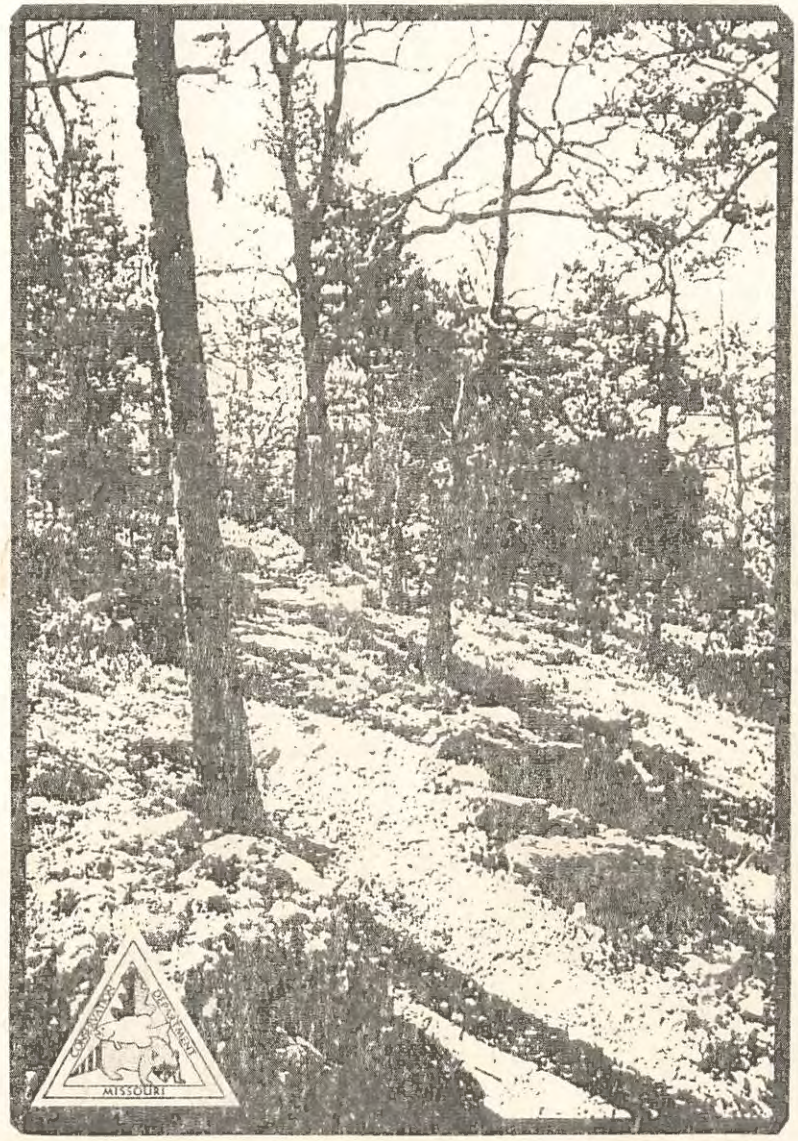
Serving nature and you

Produced by the
Missouri Department of Conservation
P.O. Box 180
Jefferson City, MO 65102-0180

Osage Bluff Scenic Trail



PAINTED ROCK CONSERVATION AREA

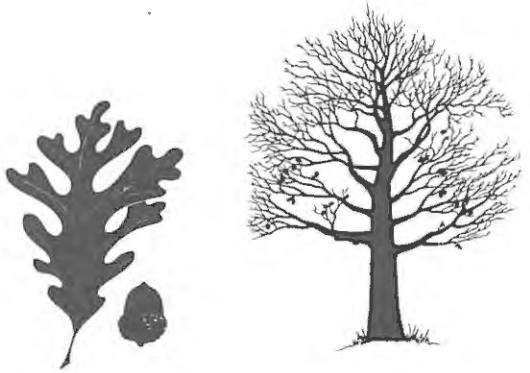
About The Trail

The trail is approximately 1.6 miles long and will require around 1½ hours to hike at a leisurely pace. The surface of the trail is about 3 feet wide but parts are abandoned logging roads from years past. There are a few steep grades on some segments, but overall the trail is only moderately difficult. **The trail approaches steep cliffs and bluffs, so please use caution and stay on the trail at all times. Parents should keep children under control.**

Most of the features are labeled with wood signs. A map of the trail is located on the center portion of this guide.

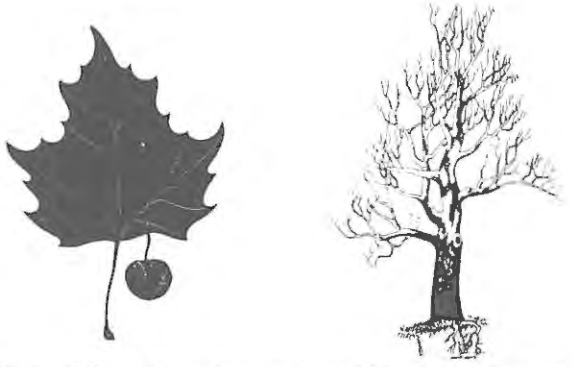
Please help us keep your state lands beautiful; pick up after thoughtless people. Your pride in the area will help keep it enjoyable for all. Enjoy your hike through Painted Rock State Forest. **But please respect the area and leave it as you found it (or better) for others to enjoy.**

THIS CONSERVATION AREA WAS ACQUIRED IN PART THROUGH THE PITTMAN-ROBERTSON WILDLIFE RESTORATION ACT ADMINISTERED BY THE U.S. FISH AND WILDLIFE SERVICE.



WHITE OAK: Our most abundant and commercially important tree is found in almost every county. Acorns are wildlife food. Wood has many uses from barrels to flooring. Six other oaks are members of the White Oak tribe.

SHAGBARK HICKORY: There are 7 hickories but this is the most common. The nuts are sought by man and squirrels. Tool handles and skis are made from this wood.



SYCAMORE: White branches and golf-ball sized seed heads make this beautiful tree easy to know. It grows near streams, and can be very large.

Painted Rock Conservation Area
Osage Bluff Scenic Trail

Painted Rock State Forest is a place full of history, ancient and modern. The river-bluff paintings were old already when Zebulon Pike saw them in 1806. They were pictographs, one a buffalo, placed high on a bluff above the Osage River by Indians ages ago. For years, traders and rivermen used the painted rock as a landmark.

The rock paintings (not accessible by the trail) probably were done between 1200 and 1300 A.D., but people lived along the Osage long before that. From 9,000 to 2,500 years ago, small bands of Indians, perhaps 12 to 15 in a group, made temporary campsites on the high ground near the river. Evidence of their activity exists on a ridge top where there are ruins of an Indian burial cairn.

In more recent times, Painted Rock was a country club. About 1877, an informal group of Jefferson City sportsmen leased or had permission to use much of what is now Painted Rock State Forest. In 1907, when the land was about to be sold, divided and cleared, the group officially incorporated as the Painted Rock Country Club. The 20 shareholders of the club included many prominent Jefferson City businessmen and politicians, including the governor of the state, Herbert Hadley. For years the members of the club enjoyed hunting fall and winter, and their enthusiasm for the sport assuredly played a very early role in the formation of the Department of Conservation.

Today the painted rock and 1,490 acres around it comprise Painted Rock State Forest. Since its aquisition in 1981, there have been many improvements made on the forest. As you walk the Scenic trail you will see the modern forestry techniques that improve the forest's timber quality and ability to support wildlife. Structures such as bridges and observation decks have been built to allow you to safely experience those parts of the land that ancient Indians and early American sportsmen enjoyed years ago.

South Overlook

You are standing on top of a 140-foot cliff that was cut by the Osage River. This erosion has occurred over several hundred thousand years and is still going on today. Looking upstream or to the left you can see how the river is cutting into the hill and eroding away the massive bedrock to form a cliff.

Now, look across the valley and notice the more gentle, sloping hills. If the river had chosen to flow west, it probably would have carved a cliff in those hills much the same as it did the hills of Painted Rock State Forest.

The tree at the edge of the deck is an Eastern red cedar. Notice the sprawling, twisted shape of the limbs and trunk shaped over time by wind, snow and ice. At the base of the cedar, roots cling to the thin soil and wedge in between cracks in the rocks to secure a foothold. This tree is very short for its age—over 600 years old. Its growth has been extremely slow because of the harsh conditions.

Although the cliff is mostly composed of bare rock, plants are able to grow where the soil has accumulated in small weathered depressions and cracks on the surface. Look for small plants such as ferns, goldenrods and grasses growing in the cracks. The cliff holds little soil and water for survival, but some plants have become adapted to these harsh conditions.

STATION #1

Timber Stand Improvement

Timber Stand Improvement (TSI) has been conducted at various locations along the trail. TSI is a management practice used in the forest to improve the vigor, productivity, and quality of stands of trees while at the same time enhancing certain wildlife species.

TSI is very similar to weeding your garden. During the TSI process certain trees have been removed or killed. This benefits the remaining trees by making more sunlight, water and nutrients available. Those types of trees removed include:

1. Cull trees and wide spreading "wolf" trees.
2. Trees inferior because of their species.
3. Trees interfering with the growth and development of selected desirable trees.
4. Damaged trees (broken off, bent over, fire scarred, etc.)
5. Seriously diseased trees or trees serving as a breeding ground for undesirable insects.

TSI increases wildlife benefits in the forest by creating more food and cover. In a very shaded mature forest little sunlight reaches the forest floor. Without sunlight, many beneficial plants and trees fail to grow. Once TSI has been performed, sufficient sunlight reaches the forest floor to allow a much greater variety of plants to prosper. This influx of growth provides added food and cover to many species of wildlife. Standing dead trees provide cavities for many birds and live den trees are purposely left for animals such as squirrels, raccoons, opossums, etc. Trees which have been felled also provide additional ground cover for several wildlife species.

As you walk through the TSI areas along the Osage Bluff Scenic Trail, remember that many wildlife species have benefited from this effort and also remember that the forest itself is in excellent condition for many years to come.

STATION #2

Indian Burial Cairn

As you walk along the ridge you may begin to sense your approach to the dramatic Osage River valley. Before you reach the river bluffs, there lies remnants of an Indian burial cairn. According to Switzler's *History of Missouri*, these stone mounds were very numerous in the counties where the Osage and Gasconade Rivers flow. They were simple heaps of stones of such size that could be conveniently carried from the ravines where they were found to the highest elevations—the preferred spots that commanded an extended and lovely view of the surrounding landscape.

Local legend has it that this cairn was a great chief's burial mound, built 500-1500 years ago. The cairn was vandalized years ago, so there is no way to know for certain. Most probably, it and the bluff paintings were there when the Osage Indians moved into the area around 1400 A.D. and when they left, by 1825.

Sugar Maple Encroachment

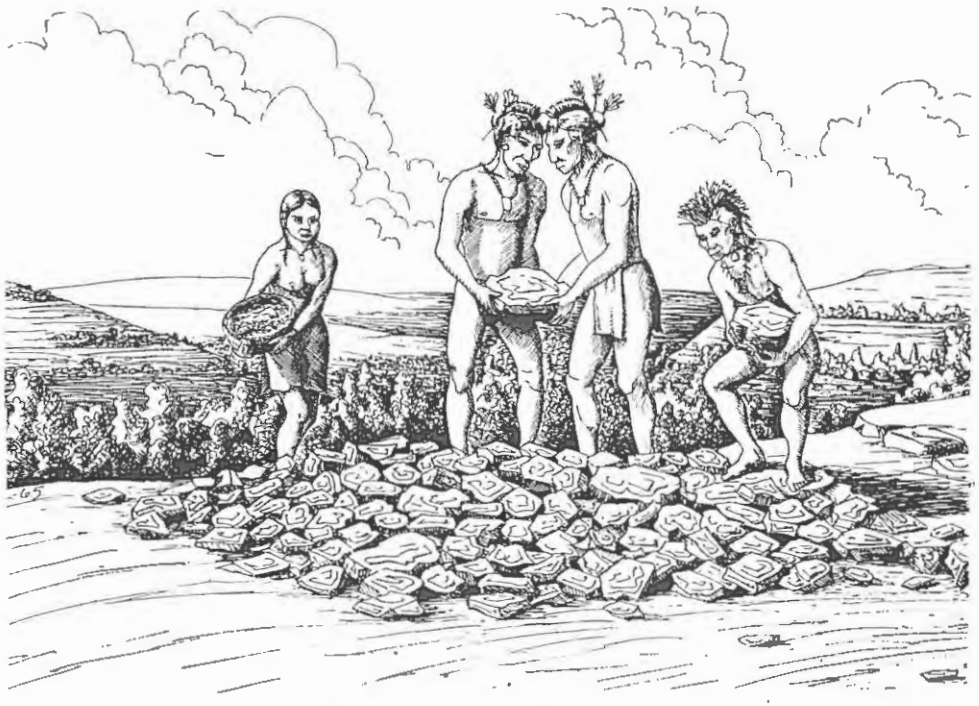
Each fall, Painted Rock State Forest is a living post card as several varieties of deciduous trees turn into a rainbow of colors. Many of the reds and oranges that you see in this rainbow are those of the sugar maple tree. Painted Rock State Forest has an overabundant supply of sugar maple. This can be a mixed blessing. There is no denying that the sugar maple is one of the most beautiful trees as the leaves change colors in the fall, and the wood from this tree can also be used for many wood products including firewood, pallets, and even furniture. There is however a darker side to the sugar maple that often goes unnoticed in the forest.

Throughout much of Missouri's traditional oak forests a transition is taking place. This transition is so gradual that often times it goes completely unnoticed. This transition involves the encroachment of sugar maple into our dominant oak forests.

Missouri's oak forests are bountiful resources that supply the state and the rest of the nation with enormous amounts of timber products and wildlife amenities. Missouri's oak trees provide the crux of the state's wood industry and the staple diet for many wildlife species. Without its oaks to supply Missouri's timber industry, and without acorns as food for its wildlife, where would Missouri's natural resources be? This question needs addressing as the gradual replacement of our oak forests with maple is slowly but surely underway in certain areas.

The problem of maple encroachment can be explained as we learn about the basic difference between the oak and the sugar maple as trees. Very simply, sugar maple seedlings can develop and even prosper in shaded conditions with very little sunlight. Oak seedlings on the other hand need much more sunlight to develop and respond very slowly if at all in very shaded conditons. As the oak forest matures it becomes more shaded. If no timber cutting or natural occurrence happens to allow sunlight to reach the forest floor, then conditions become favorable for maple encroachment. This was the situation for much of Painted Rock Forest.

To control the maple encroachment problem at Painted Rock State Forest many sugar maple trees have been cut. This will allow young oak seedlings to develop into a healthy and prosperous oak forest. Missouri's timber industry and Missouri's wildlife population will also continue to prosper.

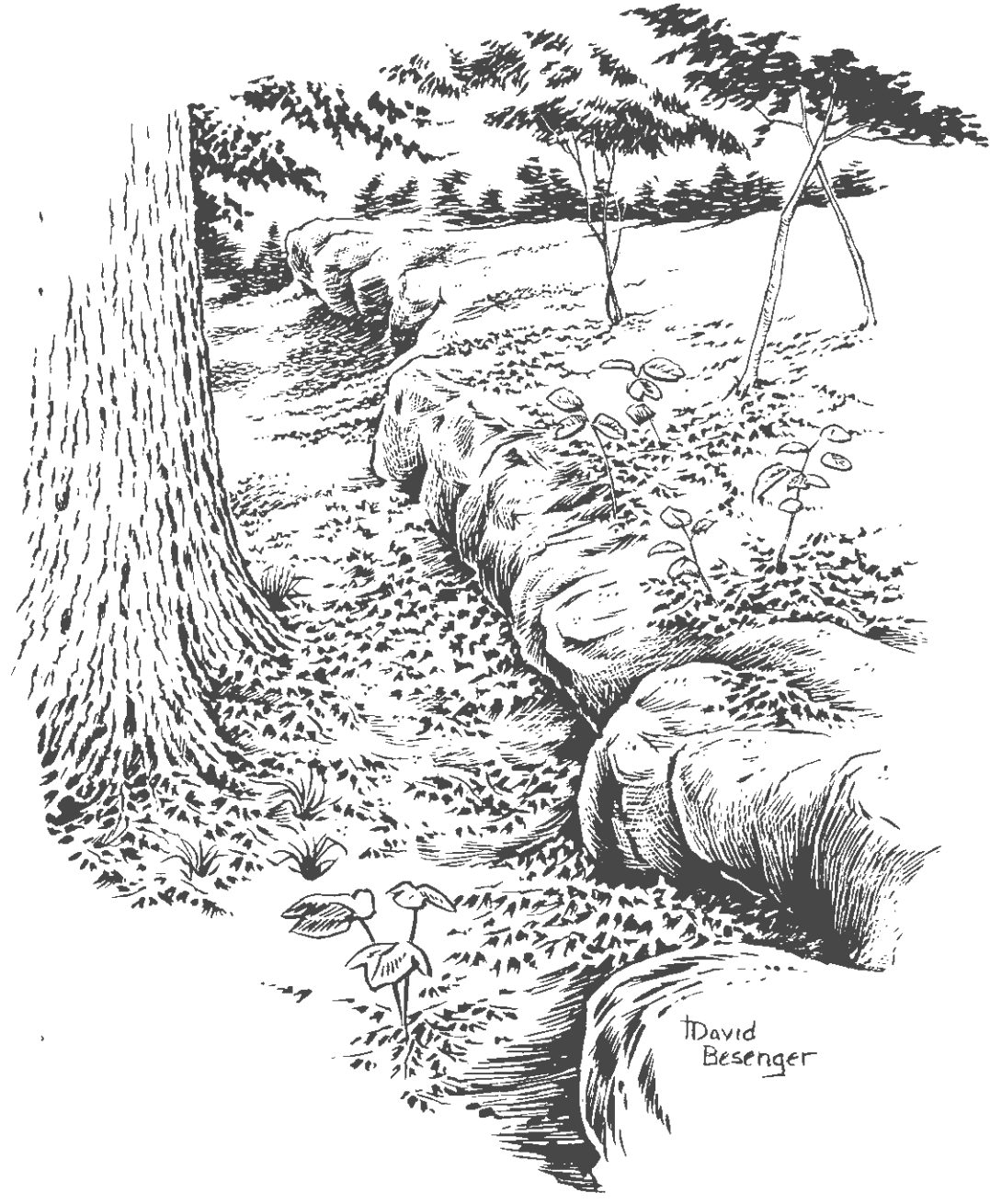


From Marshall 1966, Fig. 10, p. 31. Reproduced with permission of the Missouri Archaeological Society.

STATION #3

Bloody Island Overlook

From the overlook, looking north—to your right, you can see Bloody Island. Many stories and legends describe the area. In some cases, it's hard to tell the difference between fact and fiction. The most repeated story is about buried treasure on or near the area, but the story has several versions. One is that an army payroll was buried on the Island during the Civil War. Another story from the book, *Stories from Painted Rock Bluff*, describes the adventures of a young Spaniard who, in order to marry his sweetheart in St. Louis, went west to make his fortune and did. His party was returning, loaded with gold, when they encountered Indian trouble while camped at the junction of the Osage and Maries rivers. They fled up the Osage by canoe. Shortly after passing a bluff with many paintings on it, the party pulled into the river bank and hid the gold and themselves. Later, leaving the gold, they made a dash down the Osage to the Missouri River. However, all were killed or fatally injured. One Indian guide lived long enough to pass on the directions to the treasure. Using these directions, many have searched unsuccessfully over the years, apparently even before the story was published.



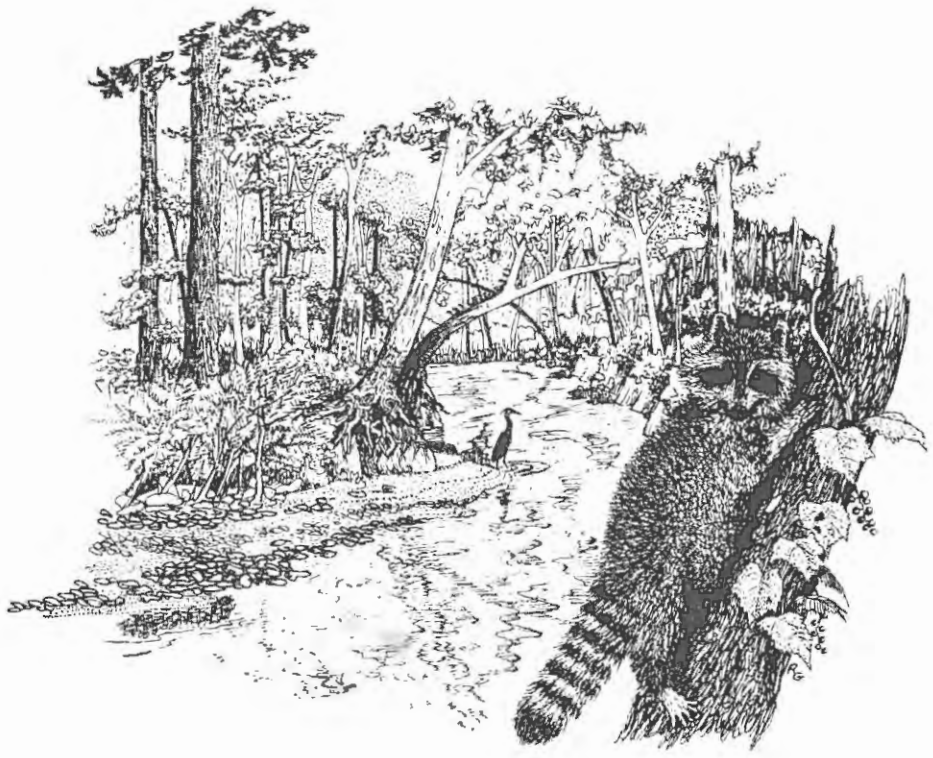
STATION #4

Rock Outcrop

This seven-foot rock outcrop is part of the Gasconade Formation which is named for the Gasconade River to the east. This rock was deposited over 400 million years ago as a fine ocean sediment. With the enormous weight of overlying material, it was compressed to form rock.

You are actually looking at three different rock types. At the base of the outcrop is a 1- to 2-foot layer of tan colored dolomite, a type of limestone. The next layer is about 3 feet thick and is composed of dolomite and a purplish chert. The chert fragments are less than an inch across and form a rough, bumpy surface. Larger pieces of chert or flint were used by American Indians to form arrowheads. The last layer is sandstone which forms a cap or shelf rock. Sandstone is formed by grains of sand compressed over time and cemented together by mineral deposits. Here, the outcrop varies from 1 to 2 feet thick with 4- to 8-inch slabs of sandstone rock. The sandstone slabs are shaped by vertical and horizontal fractures. These fractures or cracks are caused by the rock settling over time. The cracks are widened by enlarging tree roots and by the freezing and thawing of water. As the slabs loosen, gravity causes them to slide downhill.

Notice how the three types of rocks are eroding. The base rock, composed of soft dolomite that crumbles faster, leaves the next more resistant layer of chert and dolomite without much support. Eventually, the second layer collapses, falling downslope and carrying the sandstone slabs with it. So the loose rocks piled around you come from two processes, the undercutting of the soft dolomite, causing the above two layers to collapse; and the freezing and thawing of the sandstone which causes its cracks to widen and form slabs that eventually slide off the rock outcrop.

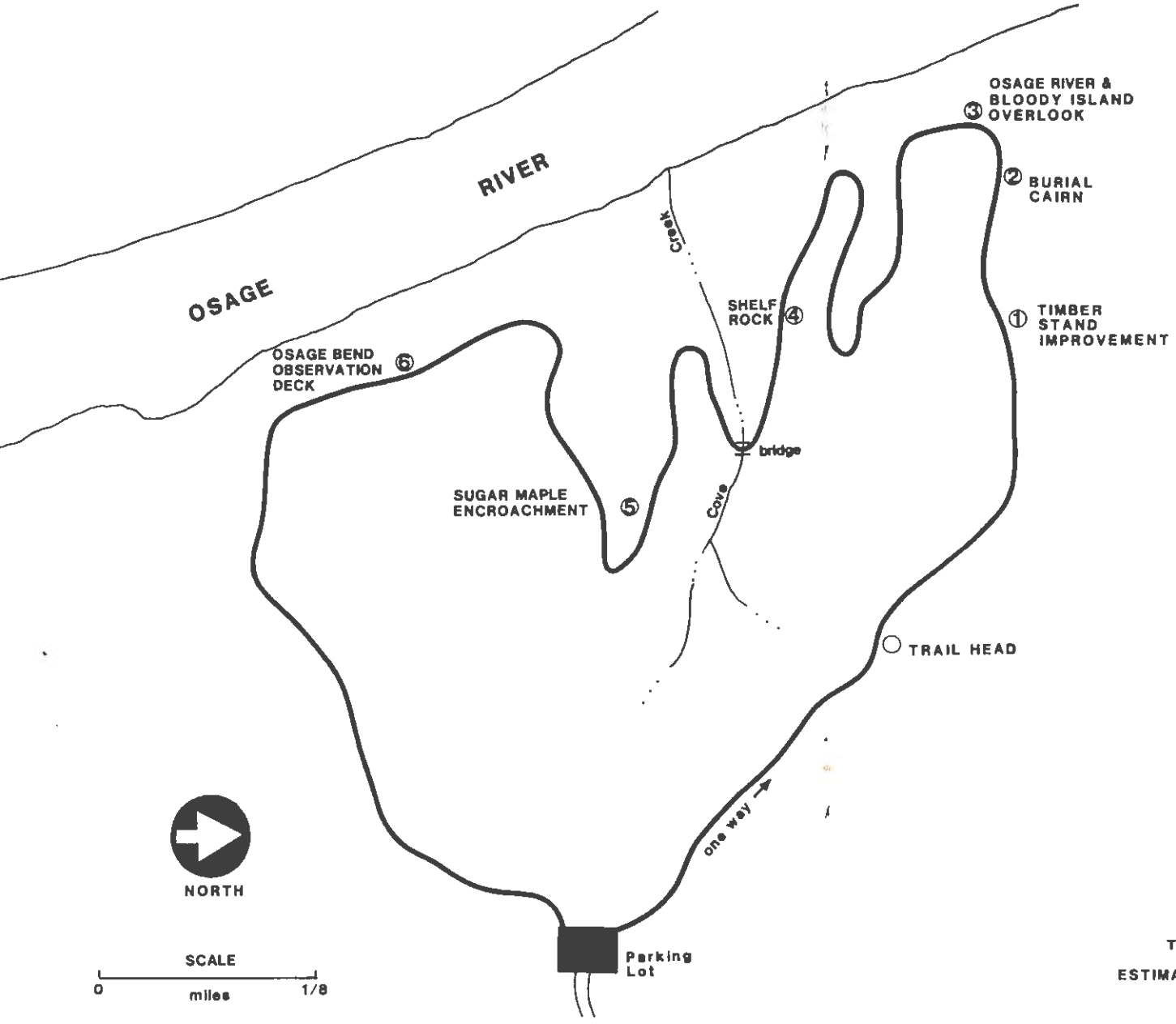


Trees along streams provide important wildlife habitat. Strips of trees that grow on moist bottomland soils along streams are called riparian woodlands. Many wildlife species use riparian woodlands for all or part of their habitat needs. Some wildlife species spend their entire life in this zone.

In the farming regions of Missouri a strip of riparian woodland may be the only woody cover to be found on landscapes dominated by fields and pastures. More heavily forested portions of Missouri often have solid forest cover down the hillsides and into the stream bottom. However, the kinds of trees that grow in the stream bottom are different from those on the adjoining slopes, making the riparian woodland unique from other woodlands. For wildlife management purposes the important part of the riparian woodland is a strip, generally 100–200 feet wide, on each side of the stream.

OSAGE BLUFF SCENIC TRAIL

Painted Rock Conservation Area



1. Painted Rock Conservation Area contains 1,490 acres and is primarily managed for timber, wildlife and outdoor recreation.

2. CAUTION: This area has poison ivy and dangerous cliffs. For you and your child's safety, please keep on the trail and scenic overlook decks.

3. Rock climbing, motorized vehicles, horses and littering are prohibited.

4. Pets must be kept on leash.

TRAIL DISTANCE: 1.6 MILES

ESTIMATED WALKING TIME: 1 1/2 HOURS