

**TRAIL LENGTH, 3/4 MILE**

☺ Please return this guide to the distribution box at the completion of the trail if you have no further need of it. You can help save trees by re-using.

## **Guide To The**

# ***Mariposa Habitats Nature Trail***



## **Jasper County Conservation Board**



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**The Habitat Guide To Birding**

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Mariposa Habitats Nature Trail is located at Mariposa Recreation Area, seven miles northeast of Newton, Iowa. The park and Habitats Nature Trail are administered by the Jasper County Conservation Board.

The Jasper County Conservation Board welcomes any recommendations or comments you might have. Please address them to:

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## Marsh Habitats

Many habitats have been formed by the creation of Wolfe Lake. In this shallow portion of the lake, vegetation emerges from the water and grows on and in the water creating a marsh. This marsh provides habitat for numerous kinds of frogs, muskrat, and many birds such as red-winged blackbirds and ducks. The marsh is the nursery of the pond where many animals reproduce and grow.

The mud flats and shorelines of the lake provide habitat for other animals. Crayfish holes with their conical mounds around them are found here. Shorebirds search for insects in the mud and mammals like raccoon and mink forage for fish, frogs, and other foods along the shoreline.



mink

## Buck Rub

On many of the trees behind this post, the bark has been worn off. This has been done by the buck or male deer polishing his antlers. A deer's antlers are used to attract a mate and to keep other bucks out of its territory. After the antlers grow during the spring and summer, the deer rubs off the outer protective skin known as velvet.



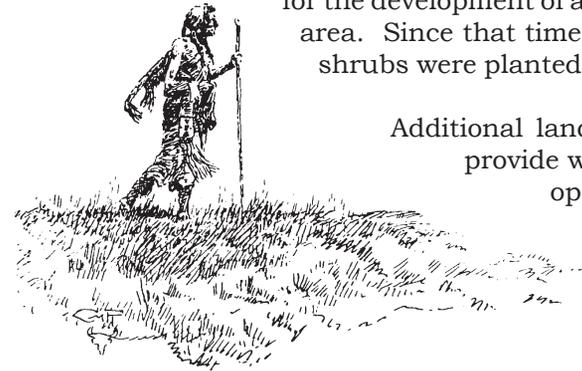
**As you have seen on your hike, people working with nature can create diverse wildlife habitats. It is within our technology to preserve our natural resources and still live with abundance. A commitment to conservation will assure a quality life for people in the future. We hope you have enjoyed your hike, and hope you will visit again.**

## MARIPOSA HABITATS NATURE TRAIL

### Human History

For centuries, the area which is now the Mariposa Recreation Area was composed of tall prairies teeming with wildlife. Indian artifacts found in the park reveal that game was hunted here. In the mid-1830's the Native Americans relinquished all rights to the territory and in 1856 Mariposa was homesteaded and plowed. For almost 100 years the land served agricultural purposes until 1952 when a dam was constructed across the stream valley to form the lake. A few plantings such as the weeping willows on the shoreline were made at that time. In 1970, the

Jasper County Conservation Board purchased the property for the development of a public outdoor recreation area. Since that time many of the conifers and shrubs were planted.



Additional land has been purchased to provide wildlife habitat. People cooperating with nature have provided a wide diversity of habitat for plants, animals and humans.

### Multiflora Rose

In this clump of bushes you can find berry producing plants. These are raspberry, elderberry, grape, and multiflora rose. All are edible by humans and relished by wildlife. Hedgerows such as this provide nesting cover and food for a wide variety of animals including birds such as the cardinal, brown thrasher, catbird, and yellowthroat, and mammals such as rabbits, mice, and shrews.

Multiflora rose, however, is an ecologically invasive plant that was brought over from Japan in 1886. These plants damage, degrade and destroy various types of natural habitats in Iowa. Multiflora rose was extensively promoted by various government agencies during the 1930s and as late as the 1960s as a means to control soil erosion, to create a living fence to control livestock and for wildlife habitat.



### 3 Conifer Habitat

Five species of pines were planted in the park to provide beauty, erosion control and wildlife habitat. These are Austrian, Jack, Red, White, and Scotch Pines. A sixth evergreen the Red Cedar has been introduced naturally, since birds spread the blue berries. Conifers provide nesting habitat for such species as the blackbird and mourning dove, and provide ideal roosts for pheasants and owls. Notice how many of the conifers are now being replaced by native bottomland trees such as the silver maple. Over the years, unless humans intervene, this area will gradually change to a native bottomland forest. The various changes of plant life bring different species of animals as well. This change process is called succession.

Refer to the following illustrations and descriptions to identify the various conifers you encounter on the trail.

- |            |  |   |
|------------|--|---|
| White Pine |  | Needles 5 in a cluster, 3" to 5" long, blue-green, soft, cones 4" to 6" long, with flexible scales; bark on young trunks smooth, greenish-gray, on old trunks gray and deeply furrowed; branches whorled.   |
| Red Pine   |  | Needles in pairs, 4" to 6" long, straight flexible; cones egg-shaped, 2" long; bark reddish gray to red, flaky; branches whorled (AUSTRIAN PINE - <i>P. nigra</i> needles same length as red pine, stiff, sharp, twisted; bark gray-black; not native.) |
| Jack Pine  |  | Needles In pairs, 1" to 2" long, often twisted; cones 1" to 2" long, lopsided, remaining for many years; bark brown to black scaly or furrowed (SCOTCH - <i>P. sylvestris</i> : needles slightly longer than Jack Pine; bark orange-red; not native.)   |
| Red Cedar  |  | Leaves small, overlapping, tight or sharp-tipped scales; fruit a pea-sized blue berry; bark reddish brown, shreddy. Also called juniper.  |

### 22

### Habitat You Can Create

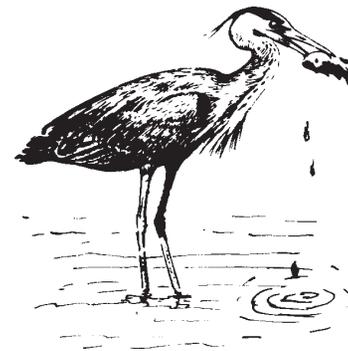
Landowners and homeowners in towns and country can greatly increase wildlife populations by providing habitat, just like what has been done at Mariposa. Clumps of wild plum are good for birds, deer, and many other animals. Other good wildlife plants are honeysuckle, lilacs, dogwood, apple, and many other shrubs. The wildlife so attracted is beneficial and enriches our lives. Cardinals, catbirds, indigo buntings, brown thrashers, and many other beautiful song birds may be attracted. Listen and watch for these birds as you walk along this hedgerow.



### 23

### Open Water Habitat

In the open water, many large flocks of migratory waterfowl can be seen in spring and fall resting from their long journey. Mallards and other ducks and geese forage in this open water for plant and animal foods. Diving birds such as the tern and kingfisher are frequently seen plummeting into the water for fish. Swifts and swallows can be seen skimming the open water for insects.



Great Blue Heron

Many kinds of wading birds have been seen in these shallow water openings. Their long legs hold their bodies above the water as they stalk small fish and frogs. Large wading birds seen here include the Great Blue Heron and American Egret.

## 19 Animal Sounds

Rest on the bench for a moment and listen to the sounds of the park. In the spring, the distinctive call of the meadowlark is sure to delight the ear. Even into midsummer, you will be able to hear the soft call of field sparrows and gold finches, the “dick dick cissel” of the dickcissel, and the “witchety witchety” of the yellowthroat. Perhaps you will even hear the unmistakable call of the bobwhite or cock pheasant. On a spring evening listen to the chorus of the frogs as they search for a mate. Many insects add their note to the scene. All of these sounds are possible because these animals are provided with undisturbed nesting and feeding habitats in the park.



Meadowlark

## 20 Ant Mounds

Around this area, you can see large mounds formed by colonies of ants. In Iowa’s prairies, these large ant mounds were common, but when the ground is disturbed by farming, grazing, or mowing the colonies cannot become large. Some of these colonies are many years old with tunnels reaching all the way down to the groundwater level. One queen ant produces all of the worker and soldier ants in the colony.

## 21 Habitat Created By Birds

Old fence rows such as this one quickly become densely grown over with berry producing trees and shrubs. As the birds rest on the fence, they spread the seed of these plants producing more food for future generations of their kinds. Raspberry, mulberry, wild cherry, multiflora rose, autumn olive, and other bird-spread plants can be found in this fence row, providing both food and cover.



Brown Thrasher

## 4 Bloodroot

Surrounding post number 4 can be found a large patch of bloodroot wildflowers. Look for leaves that coil around the flower stalk in early spring and later open up to sometimes as much as a foot across. The single white flower blooms in April. The root of bloodroot is poisonous to eat. Indians used the red juice as a dye for fabrics, tools and warpaint. Please do not pick the wildflowers at Mariposa Park. Save their beauty for others to enjoy!



## 5 Den Tree and Wood Duck Box

Old dead trees such as the ones near this footbridge provide habitat for many animals. Soon after the tree dies, insects begin feeding on the wood. Woodpeckers make small holes in search for the insects. These holes are enlarged for nesting by woodpeckers and flickers. In later years these dens are used by bluebirds, wrens, and as the cavity enlarges, owls, wood ducks, squirrels and raccoons.

Can you find the wood duck box located along the footbridge? If there are not den trees around with holes large enough for wood ducks, we can help improve their habitat by building a nest box. When the baby wood ducks are only a day old, they will jump out of the box and follow their mother out to the lake to find food.

Remember that it is a park rule **not** to use wood you find at Mariposa for your campfire. You must bring in your own firewood to use. In this way, you will do the least harm to the animals' habitat.



## 6 Death of a Lake

A healthy lake provides many habitats for a complex community of plants and animals. Poor conservation practices lead to an early death for this community. Much of this lake has already been lost to siltation. You can see this by looking at the original shoreline of the lake, where the edge of the large trees are in front of you. Chemical and feedlot runoff cause algae to choke the lake and kill many important animals at the beginning of the food chain.

Efforts are being made by the Jasper County Conservation Board to ensure that no further deterioration of the lake occurs.

## 7 Bottomland Trees

The trees found here are common to all river and stream bottoms in the midwest. They are well adapted to moist soil conditions and can withstand periodic flooding. Trees to be seen here are the silver maple (*Acer saccharinum*), black willow (*Salix nigra*), boxelder (*Acer negundo*) and cottonwood (*Populus deltoides*). The black willow is a native tree not to be confused with the weeping willows found on the lake shore. The weeping willow is a native of China. All wetland trees are characterized by being fast growing, brittle and short lived. Because of this fast growth, their wood is soft and of little value as lumber. Cottonwood is commonly used for matches, pallets, and wooden crates.

**COTTONWOOD**  
*Populus deltoides*



**SILVER MAPLE**  
*Acer saccharinum*



**WILLOW**  
*Salix species*



**BOX ELDER**  
*Acer negundo*

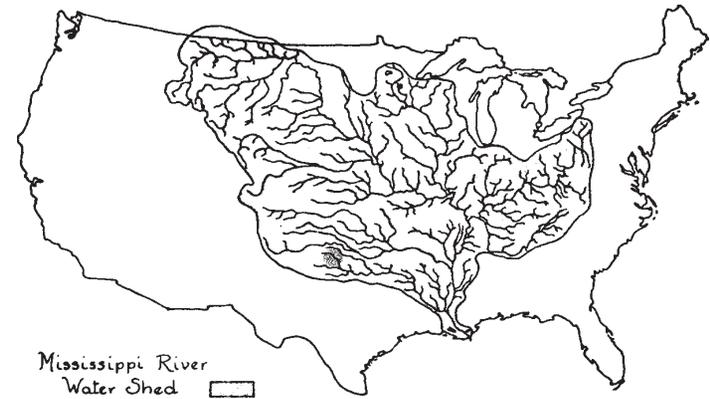


## 8 Intermittent Stream

This stream bed is normally dry during most of the year, and as a rule, a flow of water is maintained only after hard rains during spring and fall. The low area over which the bridge spans retains its moisture so that native Iowa sedge or “slough grass” can thrive. Feel the rough, triangular leaves of these sedges. Notice the ball-shaped seed pods borne at the top in early summer. Until the hay baler came into use, farmers frequently harvested slough grass to cover hay stacks as it sheds rain very well.

## 9 Poison Ivy

Growing on this tree and throughout Mariposa Park is poison ivy. Poison ivy is the only plant in Jasper County that is poisonous to the touch. You can recognize poison ivy by its three dark green leaflets that have uneven saw teeth on the leaf edges.



## 17 Human Habitat

As you leave the prairie, let your imagination flow. Go back through the years to the time of the Native Americans. Try to visualize the surrounding land as a sea of waving grass filled with wildflowers. Herds of bison can be seen scattered as far as the horizon. Villages of Indian bark and reed lodges can be seen along the river to the south. Other wildlife is abundant in the sloughs, potholes, and uplands.

As we reflect on this great resource of a by-gone past, let us commit ourselves to the preservation of that which remains.

## 18 Changing Farm Trends

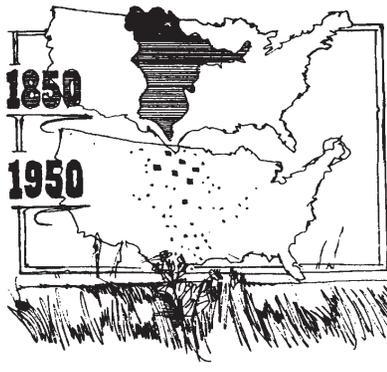
When you stop to look at the old plow at post number 18, consider the more recent history of Iowa. You just left the prairie restoration, and imagined Iowa as a vast sea of grasses. Now think about what Iowa looks like today. Much of our state is farm ground. Mariposa was once a farm, and this area you are looking at was the last area to be developed into wildlife habitat. In fact, nothing was done to this area when Mariposa became a park! The plow was left sitting at the edge of the field. Over time, many grasses and flowers have come up, and birds have helped to spread berry bushes and trees. These various stages of plant and animal life bring many changes, called succession. Someday, this old farm field will look more like a forest!



## 15 Prairie Overlook

As you look over this small restoration, reflect on the fact that prairies were once the largest natural environment in North America -- a storehouse of diverse natural resources. It took 25 million years to create our prairies, and 100 years to nearly eliminate them.

From grasses have come wheat, oats, barley, and corn. In a hungry world the greatest good may come from preserving our small prairie fragments instead of plowing them under. Some species of prairie plants are so rare, a single housing development could wipe them out. Plants are the source of many of our medicines. Preserving prairies provides living laboratories for ongoing experimentation.



Most importantly, the prairie is an old source of pride, beauty, and freedom. We can only preserve these values if enough people are interested in preserving our natural areas.

## 16 Mariposa Watershed

The land from which Wolfe Lake gets its water is called a watershed. Although only about one square mile in size, what the farmers in the watershed are doing to their land is of great importance to the quality of the lake. Chemical, feedlot, and fertilizer run-off pollute the lake. Soil run-off fills the lake. Only a cooperative effort between the landowners and public agencies will save the lake. The terraces that you can see through the tube mounted on the post prevent soil erosion and chemical run-off. Many other practices are being used to protect the land, practices made possible with federal and state aid.

The lessons of this small watershed must be applied to all of the land in the prairie states. Cities along the Mississippi River are experiencing higher cancer rates due to farm chemical run-off in the Mississippi River watershed, and many people in Jasper County have had to hook up to rural water since their wells had become contaminated by agricultural run-off. Soil is accumulating in huge amounts in the Mississippi Delta. We must commit ourselves to a vast cooperative effort to preserve the prairie soils and protect our water resources from agricultural, city, and industrial pollution.

## 10 Prairie Restoration

When this property was homesteaded in the 1850's, native prairie covered the hills. This prairie was a complex community composed of more than 16 grass species, more than 150 flowering species and numerous animals dependent on these plants for existence. People quickly converted this community into agricultural land consisting of only a few species of plants and animals. Today only a few remnant prairies remain of what was a vast ecosystem covering 85 percent of Iowa.

You are about to enter a five acre prairie restoration plot. Both sides of the trail have been planted with a variety of prairie grasses and flowering plants, many of which were collected from Jasper County prairie remnants along old railroad beds.

If you wish to visit an actual native prairie remnant, the twenty acre A.C. and Lela Morris Prairie Preserve is located 1/2 mile south of the entrance to Mariposa Recreation Area, on the gravel road.

## 11 Prairie Grasses

The type of prairie to be found in an area is determined by rainfall and moisture. In western states where rain is sparse, short-grass plains occur. In the tier of states bordering Iowa to the west, moderate rainfall gives rise to mid-grass prairies. In Iowa, and its neighbors to the north and east, heavier rainfall produces the tall-grass prairie. Pioneers reported that these grasses were "tall enough to hide a man on horseback."

The principle tall grasses are Big Bluestem, Indian Grass, and Switchgrass. About a dozen other short and mid-grass species also occur in Iowa. These grasses reach their full height in late summer.



## 12 Prairie Flowers

Of the more than 150 species of native prairie flowers, many have been established in this five acre plot. In May and June look for the prairie rose, our state flower. Late June and July bring cone flowers and prairie clover. In late summer, you will see asters, goldenrods and sunflowers. Many of these plants take years of growth before they bloom. **DON'T PICK THEM, AS THIS PARK IS ALSO A PRESERVE!**



BLACK EYED SUSAN



PRAIRIE SUNFLOWER



WILD ROSE



PRAIRIE CLOVER



ROUGH BLAZING-STAR



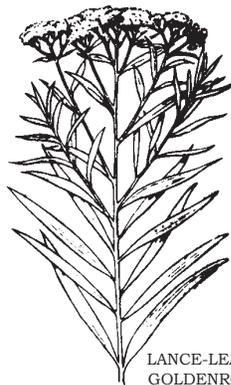
GRAY-HEADED CONEFLOWER



NEW ENGLAND ASTER



PURPLE CONEFLOWER



LANCE-LEAVED GOLDENROD

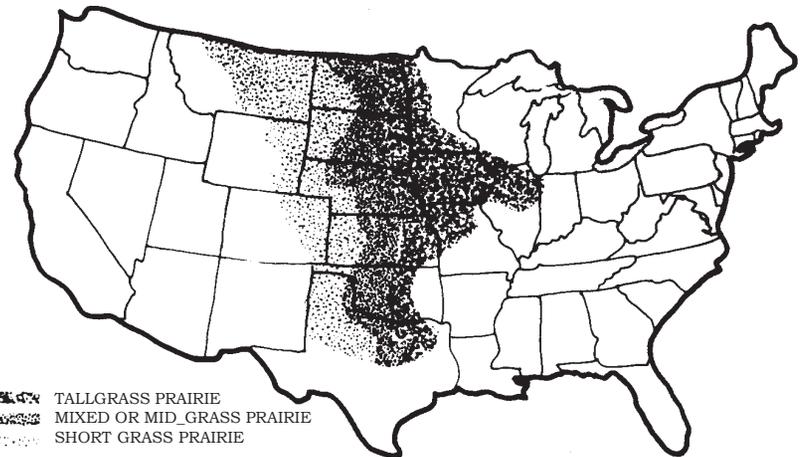
## 13 Prairie Animals

Although the large game animals such as bison, elk, wolf, and bear were eliminated from Iowa shortly after settlement, many smaller animals survive in spite of human activity. Don't be surprised if a snake slithers off the trail in front of you. Bull snakes are very common due to the abundance of gophers and field mice. The beautiful green snake can be seen hunting for insects. On the trail look for the droppings of fox and coyote. In the grasslands look for mounds created by pocket gophers and those that have been dug out by badgers. Many birds require the habitat provided by the prairie. These include the meadow lark, dickcissel, bobolink and certain field sparrows. Along the trail you may encounter the cigar shaped hair and bone pellets regurgitated by the great horned owl resulting from its feeding on mice and rabbits.

## 14 Fire and the Prairie

Fire is a very important natural force in the prairie. During the late fall and through early spring, large amounts of tinder dry grass lie exposed to any spark. Once ignited, the fire sweeps quickly over the ground charring the earth. Wildfires covering hundreds of square miles were common in pioneer days, and the homesteader had to be ready with oxen and plow to plow a barrier around his log buildings. Stories abound of people perishing in the flames. Often, fires were ignited by Indians to drive game.

Fire is very important to the prairie community. It returns the nutrients tied up in the dead grass, back to the soil. Many species of plants respond vigorously after a fire. Woody plants are burned off. Prairie vegetation has adapted to early spring fire by waiting until late May to begin growth. This restoration requires periodic fire to maintain the prairie ecosystem.



 TALLGRASS PRAIRIE  
 MIXED OR MID-GRASS PRAIRIE  
 SHORT GRASS PRAIRIE