

Trempealeau National Wildlife Refuge
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Relay System at 1 800/877 8339

U.S. Fish and Wildlife Service
1 800/344 WILD



U.S. Fish & Wildlife Service

Trempealeau

National Wildlife Refuge Prairie's Edge Tour Loop

PLEASE RECYCLE!

A recycling box can be found at the end of the tour. Please help to reduce printing costs and conserve the environment by leaving this brochure for future guests to use.

*Gray-headed
Coneflowers,
Tom O'Brien*



Raccoon, USFWS

Welcome to Trempealeau National Wildlife Refuge and the Prairie's Edge self-guided tour loop. This four-mile drive will acquaint you with three major plant communities on the refuge: sand prairie, backwater marsh, and hardwood forest.

Use this booklet as your personal guide. The numbered sign posts along the way correspond to those in this book.

You will increase your chances of sighting wildlife by taking your time, driving slowly and keeping your eyes open. Watch for movement and look for signs indicating the presence of wildlife, such as tracks, nests, dens, or deer rubs. Stop and listen for bird calls and other natural sounds.

Remember, all forms of plants and wildlife within the refuge are protected. Please be considerate and do not litter or drive off the road.

To orient yourself, turn to the center of this brochure to find a tour loop map.

Prairie Landscape, USFWS



1

Ancient Sand Dunes

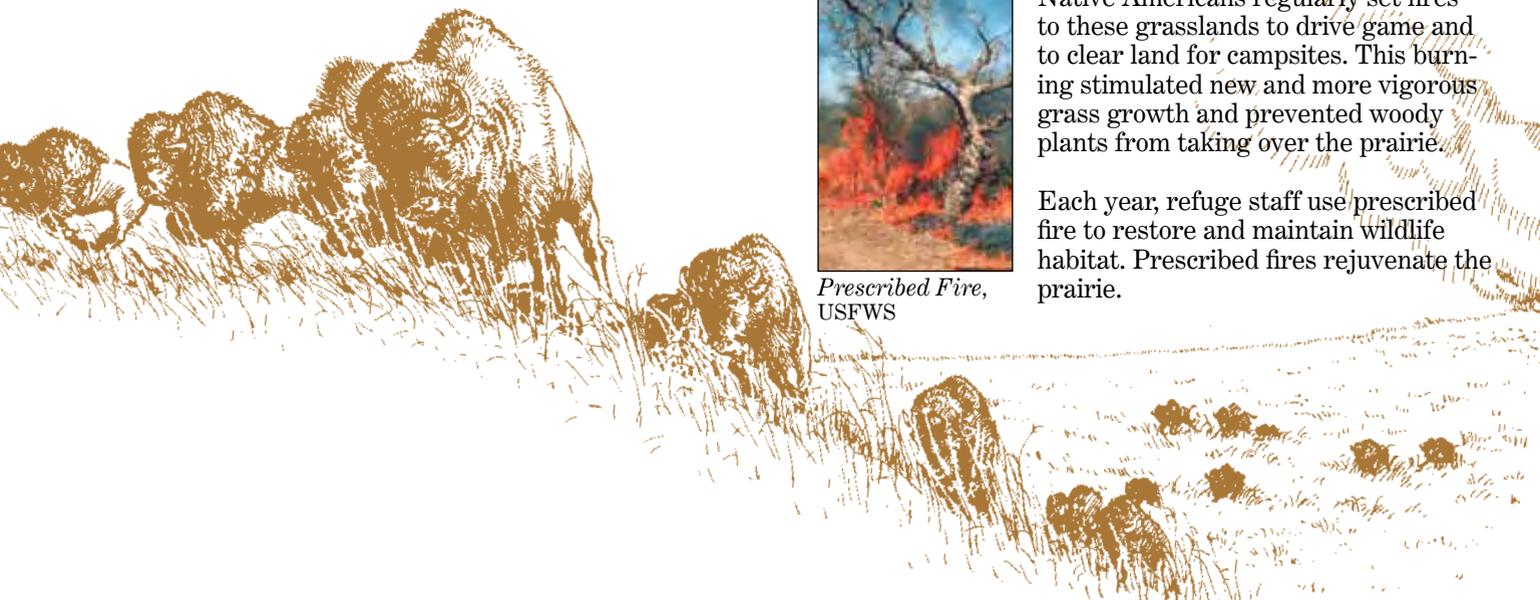
This rolling sand prairie was formed when an old route of the Trempealeau River deposited sand and silt along the floodplain of the Mississippi River. Blowing winds piled sand and sediment into large dunes which formed the present rolling terrain. Grasses became established and stabilized the moving sand, creating a vast sea of waving grass.



Prescribed Fire, USFWS

Native Americans regularly set fires to these grasslands to drive game and to clear land for campsites. This burning stimulated new and more vigorous grass growth and prevented woody plants from taking over the prairie.

Each year, refuge staff use prescribed fire to restore and maintain wildlife habitat. Prescribed fires rejuvenate the prairie.





Big Bluestem,
USFWS



2

Prairie Restored

When Trempealeau National Wildlife Refuge was established in 1936, much of this area was forested. Efforts to re-establish a prairie community on the refuge began over twenty years ago when oak-wilt disease began killing many oaks. Removing the infected trees by cutting and burning was the only known method of controlling the virus (notice the charred oak stumps throughout the grasslands). The land was then seeded with native grasses to regain a part of our past.

During the spring and summer, you will see the eastern bluebird in these prairie communities. Over twenty bluebird nest boxes (on your left) are located and maintained by refuge volunteers along the drive. Eastern bluebirds perch erect on wires, posts, and low branches in open country, scanning the ground for prey. They feed by dropping to the ground onto insects or, in fall and winter, by perching on fruiting trees to gulp down berries. Bluebirds commonly use nest boxes as well as old woodpecker holes.

Peer through the trees on your right and catch a glimpse of one of four active bald eagle nests on the refuge. The bald eagle was recently taken off the endangered species list and is now thriving.



Bald Eagle,
Alan Stankevitz

3

A Diversity of Grasses

Few examples remain for us to experience a native prairie. Most lands that were once prairie are now being cultivated, grazed, or have evolved into forests.

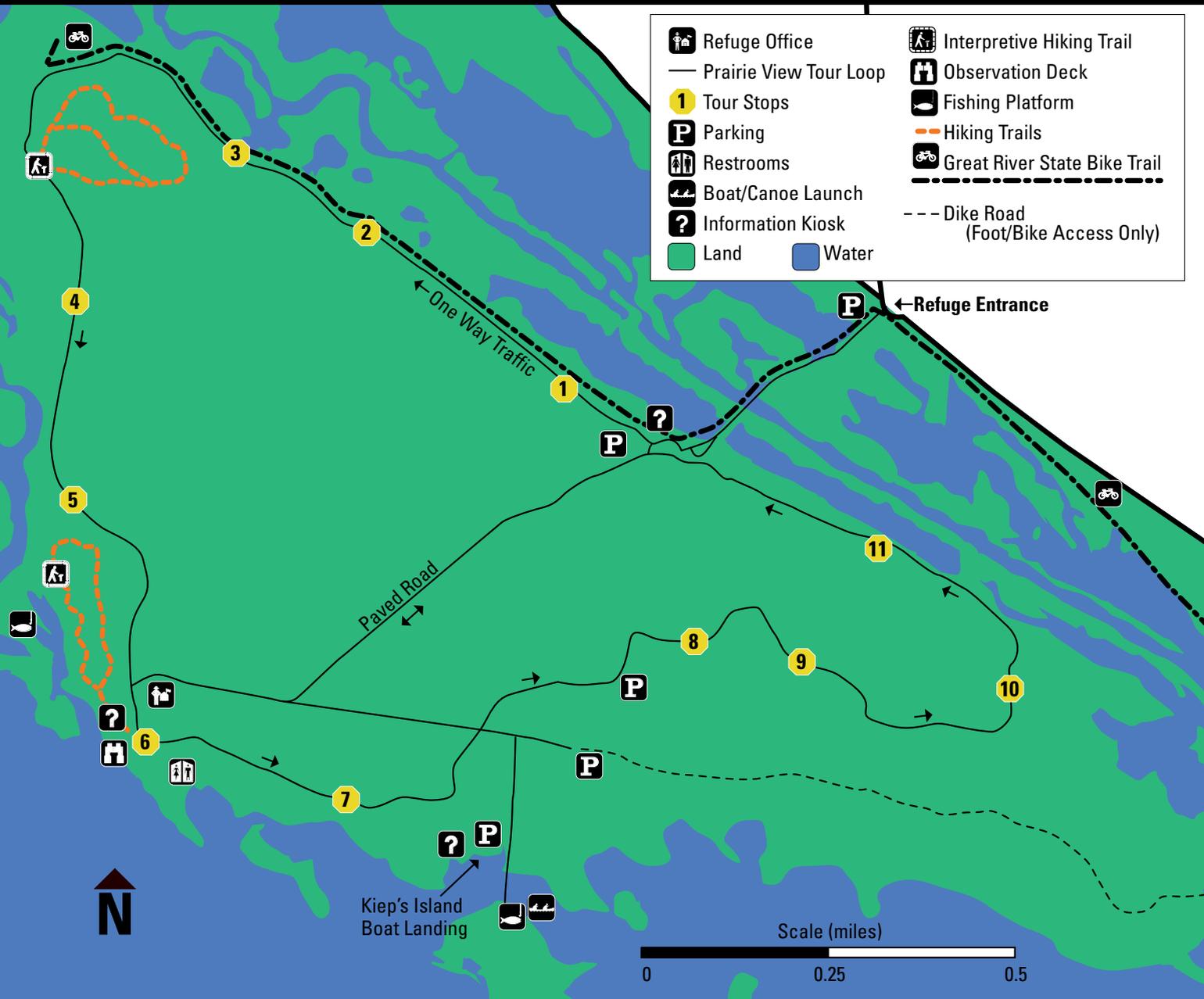
Many prairie grasses, such as big bluestem, Indian grass and switch grass can grow to heights of six feet. Other grasses, which tend to grow shorter and in drier soils, include side-oats gramma, little bluestem and porcupine grass. We invite you to become familiar with some of the native grasses located here by the parking area. Prairie plants have special ways of coping with dry and windy conditions. Take a walk along the Prairie View Trail located along the drive to learn more about the beauty of this diverse habitat.



Porcupine Grass,
Tom O'Brien

On the hill to your left are remnants of an old CCC (Civilian Conservation Corps) camp. During the Great Depression from 1933 to 1942, a public work relief program for unemployed men focused on natural resource conservation. Much of the work these young men carried out included; building roads and trails, planting trees and improving facilities for natural resource agencies throughout the country.

Prairie's Edge Self-Guided Tour



Remember: all forms of plants, animals and cultural artifacts you discover are protected. Please be considerate and do not litter or drive off-road.



European Buckthorn, USFWS

4

Tree Immigrants

Once part of the original Wisconsin prairies, this area is now a mixed upland forest. A variety of non-native trees and shrubs were planted here to provide food and cover for wildlife. A look at the plants at this stop represents a cross-section of many invasive species not welcome on the refuge!

Today, refuge management goals target this area to be restored to prairie and to reduce the spread of invasive species. Much of the forest community you see here includes Red Pine, European buckthorn, Siberian pea, and Tartarian honeysuckle. By the looks of the encroaching vegetation, it is obvious these species can aggressively dominate and compete with native plants that wildlife need.

5

Prairie Invaders

Look closely at this thick grove which is largely composed of one tree species. Introduced to this area in the 1930s to reduce erosion during spring flooding, the black locust is a serious threat to the prairies since it grows rapidly on poor soil and sends shoots up from the roots.

Careful management, including controlled burning, mechanical removal and chemical application is used to prevent black locust from encroaching on the prairie.

Another prairie invader is an exotic plant called leafy spurge. During spring and summer you can recognize it by its greenish-yellow flower clusters. A flea beetle is currently being used as a biological control for this pest plant. The beetle's larvae eat the roots of the leafy spurge plant and destroy it.

Leafy Spurge,
Tom O'Brien





6

Rest Stop

Proceed to the observation deck parking lot to revel in a breathtaking view of one of the refuge wetlands. Trempealeau National Wildlife Refuge was established in 1936 primarily to provide food and habitat for waterfowl. The majority of the refuge lands are backwater wetland areas isolated from the Mississippi River by a large railroad dike. This dike protects these wetlands from the river's tremendous sediment load and extends their life by hundreds of years.

Each spring and fall, thousands of ducks, geese, swans and other migratory birds stop here to rest and feed. The marsh provides a plentiful supply of roots, leaves, and seeds from aquatic plants to help fuel the birds' long journey between nesting and wintering grounds. Many ducks, as well as bitterns, black terns, and sora rails, nest here and remain through the summer. Spend time on the observation deck or walk the trail to the right of the parking area to spot a beaver or one of the



Lesser scaup,
Alan Stankevitz

7

many waterbirds who spend the summer feeding in the shallow waters. Be sure to stop at the refuge office to visit our Friends bookstore – perhaps you'll find just the book you were looking for!

Living on the Edge

This shrub edge between prairie and forest is particularly attractive to songbirds, small mammals and white-tailed deer.



Yellow-rumped Warbler, USGS

Of the 266 recorded bird species, 143 are passerines or songbirds. This great diversity of species is due to the variety of habitats on and near the refuge. Wetlands with a mix of emergent marshes, shrub swamps and bottomland forest, combined with upland forest and “goat prairies” along the river bluffs attract many species during spring and fall migration. Late April to mid-May is often the highlight for visitors seeking the spring warbler migration.

Look closely along habitat edges for wildlife!

8



USGS Photo

Here Today, Gone Tomorrow?
At Trempealeau National Wildlife Refuge, researchers from the United States Geological Survey, along with many other partners across North America, are eavesdropping on frogs and birds with remote recording devices like the one shown at left. The story they are telling us about climate change is one everyone should listen to.



Trempealeau Marsh,
Sue Fletcher

The data is helping scientists understand how climate change across the continent may be affecting the abundance and variety of species relying on sensitive wetland sites.

What species are most vulnerable to rapid changes in climate?

- Endangered and threatened species now living at the limits of survival;
- Plants and animals living within confined geographic ranges with limited abilities to move rapidly; and
- Species migrating to new areas where they meet increased competition for habitat or food.

The Service's Role

As the nation's principle federal conservation agency, the U.S. Fish and Wildlife Service is dedicated to helping reduce the impacts of climate change on fish, wildlife, plants and their habitats. Our 8,000 employees specialize in wildlife management and ecosystem dynamics, and have an extensive network of partners who work with us to protect our nation's fish and wildlife resources.



Prairie Wildflowers,
Craig Blacklock

9

Prairie Past

The earliest people of this prairie were known as paleo-Indians. They wore skins, hunted mastodons, mammoths, elk, and caribou and lived in sheltered caves.



Elk, USFWS

Imagine how you might have experienced life on the prairie long ago, living among the Native Americans, or early explorers. On vast prairies of native grasses, at times growing taller than your head, you might have seen large herds of elk and buffalo followed by wolves in search of food.

After the extinction of some of the large mammals came a new era of people of the prairie. These early dwellers were often called "Hopewells" and "Moundbuilders" for their construction of burial mounds and effigy, or animal-shaped mounds.

Once the first Europeans arrived, tribes such as the Winnebagos and Dakota Sioux shared the river hunting grounds and began trading furs, rice and other goods with the white man. Turn off your car, close your eyes, and listen carefully to the voice of prairies past.

Muskrat,
Alan Stankevitz



10

Green Muck!

In order to sustain life, all organisms must have it - water. Water is our most important resource, and wetlands play an important role in the web of life. A wetland is simply any area where water covers the soil or keeps it saturated for at least two or three weeks during the growing season. You find them anywhere water accumulates at a rate faster than it drains away. Some are inundated year-round while others only hold water for brief periods in the spring. Some wetlands occur in low-lying areas of the landscape where water may drain and collect while others may border large bodies of water. They are a transitional zone between upland and aquatic systems and support a diversity of plant and animals species.

The wetland along this stop may appear to be pool of yucky green muck when in fact, the green algae provides many ecological benefits. For one, it is a major source of oxygen on the planet. These microscopic organisms are also the main food source for aquatic animals, such as small fishes and shrimps. Not only are they a food source to some underwater animals, they also serve as a shelter to invertebrates, and small fishes.

11

A River Runs Through It

The river floodplain forest you see to the right was formed by an oxbow of the Trempealeau River. Over time, as the Trempealeau River flooded, it naturally sought a straighter route of least resistance. Eventually, a meander formed from dammed up sediment and created this rich, woodland pothole.



Wood Duck,
B. Angus, USFWS

Now a secluded oasis, one can often see painted turtles loafing on a log, while brilliant, great white egrets poke around for tasty nibbles of small fish and other aquatic morsels. Nearby tree cavities provide nesting sites for colorful wood ducks. Raptors which frequent this floodplain forest include the red-shouldered hawk and great-horned owl.

Did you notice how the three communities you have seen today interact with each other to create a whole system?

Trempealeau National Wildlife Refuge plays an important piece of the puzzle of life for all plants and animals. National wildlife refuges are safe havens – *places where wildlife comes first!*

Thank you for being our guests today. If you have questions or comments, please feel to stop in at the refuge office located adjacent to the observation deck.