## Fox Creek

Fox Creek is a typical Flint Hills perennial stream comprised of rocky pools, riffles, and runs, high water quality, and a great variety of aquatic life. It is home to over 35 species of fish and numerous aquatic invertebrates, including freshwater mussels. Fox Creek is sampled annually to monitor fish populations and the populations of other aquatic life.

## Fox Creek Fishing

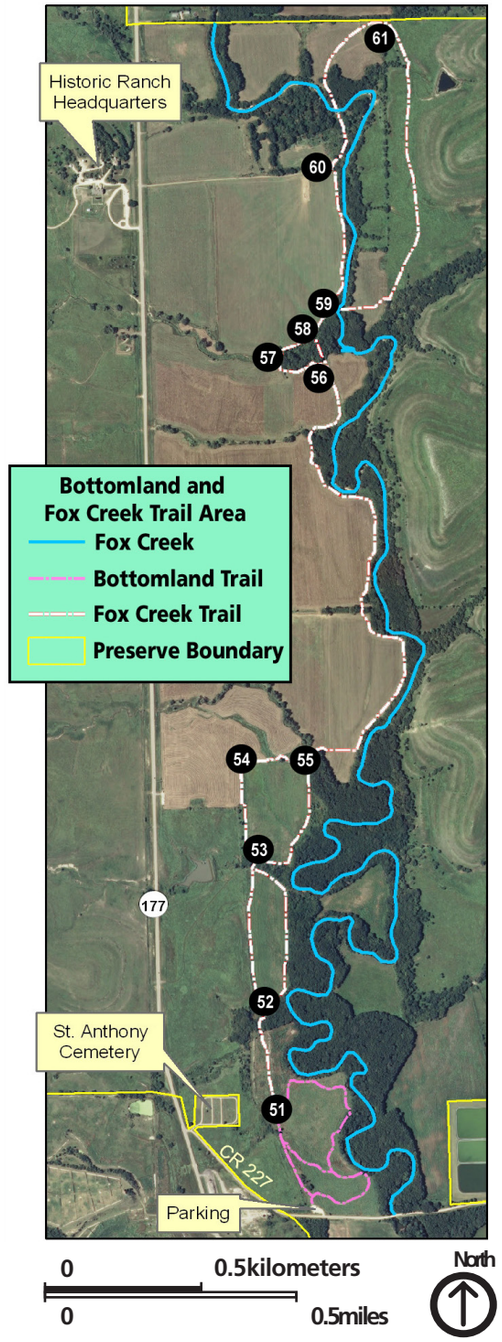
A portion of Fox Creek between CR 227 and the preserve's north boundary, where Fox Creek leaves the preserve, is open to catch and release fishing 24 hours a day. Use conventional tackle only, no lead weights, and no live bait. A valid state fishing licence is required. See other posted rules and regulations regarding recreational use of hiking trails and Fox Creek or call 620-273-8494 for assistance.

## Directions to Fox Creek Trail

Starting at the Bottomland and Fox Creek Trail Parking Area (see map at right), hike approximately 1/4 mile north along west side of Bottomland Trail to find the Fox Creek Trail. The Fox Creek Trail begins as a mowed path, branching northward from the graveled surface of the Bottomland Trail.

**For your safety and for the protection of the area, please no smoking, stay on designated trails when hiking, and respect the preserve boundary.**

## Bottomland and Fox Creek Trail Map

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## Cultural landscape

Many features can be seen in the Fox Creek area representing previous land uses, such as a railroad spur, corrals, fencing (stone and wire), and roads. The area has been used extensively for over 120 years for various agricultural activities, including cattle grazing, crop production, and haycutting.

## For More Information

Tallgrass Prairie National Preserve is a public/private partnership between the National Park Service (the primary land manager) and The Nature Conservancy (the primary land owner).

To learn more, please contact the preserve at:


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National Park Service
U.S. Department of the Interior

Tallgrass Prairie National Preserve
Strong City, Kansas


# Fox Creek Trail - Hiking Guide and Map

The Nature Conservancy
Protecting nature. Preserving life.™

## Welcome to the Fox Creek Trail

This 6.1 mile trail (round trip) extends along the Fox Creek riparian corridor. As the trail weaves in and out of the trees through lush areas of tallgrass prairie vegetation, you will experience firsthand the ongoing rebirth of the bottomland prairie ecosystem and gain a greater appreciation for the unique challenges of its restoration. The Fox Creek Trail will soon link with other sections of the nearly 41 miles of hiking trails within the preserve.

## Bottomland Prairie Restoration (Reconstruction)

Bottomland areas are floodplains that provide deep soil environments, supporting the tall prairie grasses that characterize the tallgrass prairie ecosystem. These bottomland prairie communities are very rare because, like many other areas of tallgrass prairie, most have been plowed into farm ground.

The bottomland along Fox Creek has a long history of agricultural use. In the early 1990's, most of this area was planted with smooth brome (a non-native species) and cut annually for hay. While smooth brome is a valued crop, its value for wildlife is limited.

In the fall of 2004, natural resource managment staff at Tallgrass Prairie National Preserve began a long-term project to restore bottomland tallgrass prairie on approximately 500 acres adjacent to Fox Creek.

Reconstruction is perhaps a more accurate term for the work going on in the bottomland area, because little remains of the original plant and animal community that once existed here, except along the boundaries. Evidence of the former bottomland community is gathered from historical reports and observations from small, remnant bottomland fields.

To add diversity to a purchased seed mix, seed is gathered from the preserve by employees and volunteers by harvester and by hand. Sixty to ninety species of wildflowers are collected from May through October to increase the number of plant species (richness) in the reconstructed areas. Tallgrass prairie plantings with a high diversity of plant species support many species of wildlife and make the restored planting more stable and able to withstand extreme weather conditions, such as drought.

## Bottomland Prairie Restoration (Reconstruction) from year to year

These projects can take many years, dramatically transforming the look of the restored areas over time.

### First year

The field is usually dominated by annual weeds the first year. These weeds can be mowed, but this is usually more for aesthetic reasons. While the fields look unsightly to many people, these annual weeds provide food and habitat for native animals.

### Second year

The fields are still heavily dominated by annual weeds, however native perennial wildflowers and the warm season grasses are becoming more obvious in the plantings.

### Third year

The planted native perennial wildflowers and warm season grasses are becoming more dominant and are the most obvious species in the plantings. The grasses may be dense enough to burn by the third year.

### And beyond

The reconstructed bottomland prairies continue to change for years to come. Many of the more desirable perennial wildflower species begin to emerge. For instance, compass plant did not bloom until four years after planting. The preserve will continue to manage invasive weeds and add additional seed or plants to increase plant species richness.

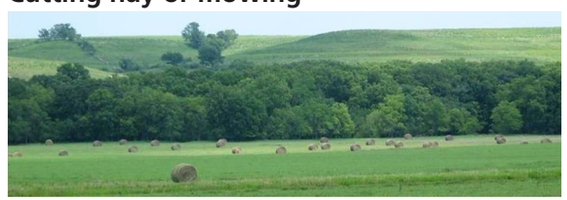
## Vegetation Management

The vegetation management techniques illustrated below take advantage of natural ecological processes to assist in the tallgrass prairie restoration process. Each method may favor certain species, such as grasses over wildflowers. A variety of methods are used to avoid significant shifts in vegetative communities. Any one of these methods may be used alone or in combination at different times of the year or over different years.

### Fire

Fire is a natural component of the tallgrass prairie ecosystem. It is a relatively fast and efficient way to manage woody plant species such as honey locust and remove the previous year's vegetation. Most of the native herbaceous plants are adapted to fire.

### Cutting hay or mowing



Similar to fire, cutting hay or mowing is another fast, efficient way to manage vegetation.

### Grazing

While grazing requires infrastructure such as fences and water and mineral sources, it is also a natural and efficient way to manage vegetation. Once restored, the bottomland fields may become great places to showcase the historic breeds of cattle, such as Galloway, Durham, Polled Angus, and Hereford, kept by the builder of the Spring Hill Farm and Stock Ranch, Stephen F. Jones.

## Vegetation Management, continued

Along the way, vegetation inventories are conducted annually to list species in each field, density of the planting, and presence of non-native species. This information is helpful to gauge the future management and success of the bottomland restoration.

## The Future

Along the Fox Creek riparian corridor, the preserve is working to restore plant and animal communities more typical of the rich diversity found within the tallgrass prairie ecosystem. Plant and animal richness (number of species) remains very low in unrestored areas along Fox Creek. For comparison, the surrounding native tallgrass prairie is home to nearly 400 more plant species than in the smooth brome hay fields growing along Fox Creek. Ongoing tallgrass prairie restoration efforts will continue this process of rebirth in the bottomland area, bringing back to life an ecosystem once considered virtually extinct.