Research

The Preserve hosts diverse research and is open to all researchers whose interests are consistent with its mission.

Researchers investigate ecological and environmental questions within the management framework.

Researchers use enclosures of various size to experimentally manipulate factors and test hypotheses.

Education & Outreach

The Preserve functions as an outdoor classroom, providing opportunities to learn about the native prairie ecosystem.

Botanical studies

Collared Lizards

Conservation Targets

The Preserve is managed for native biodiversity, although certain rare plants, animals, and natural communities are of particular interest.

Mead's Milkweed in flower

Haying a native meadow

Mead's Milkweed

Mead's Milkweed (*Asclepias meadii*) is a globally rare plant that is abundant on the Preserve. The world's largest known populations of this plant occur in Anderson County (KS). It is often found in meadows that have a history of mowing for hay. Mixed management – mowing, resting, and fire – is used to promote this species.

Grassland birds

Grassland nesting birds – Greater Prairie-chicken, Dickcissel, Henslow's Sparrow – require open expanses of prairie.

Male Greater Prairie-chicken displaying at a lek (breeding site).

Native pollinators

Pollinators such as butterflies and bees depend on native plants and habitats. Some are generalists but many have specific requirements for survival.

Larvae of the Regal Fritillary butterfly feed solely on violets found in native prairie.

Management

Fire and Grazing

Within the limitations imposed by climate, the tallgrass prairie ecosystem evolved with the principal disturbance factors of fire and grazing. These two historic forces are used to maintain the prairie landscape and enhance native biodiversity at the Preserve.

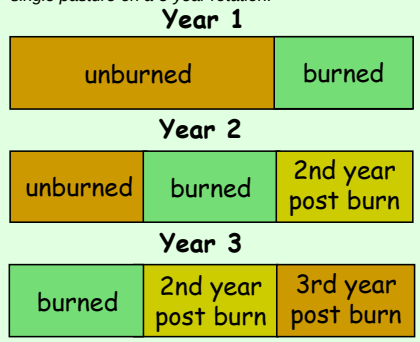
Prescribed burning, fires set at a selected time and location, is an effective tool in management. Fire invigorates the native prairie vegetation and reduces invading trees and shrubs.

Historically, bison had a controlling influence on prairie plant communities. Today, cattle are used to simulate the grazing impacts of the bison.

Patch-Burn Grazing

PBG is a "new" method of coupling fire and grazing in working landscapes. The aim of PBG is to create habitat heterogeneity and thereby increase biodiversity of native grasslands. It is well-known that both bison (a native grazer) and cattle (introduced by ranchers) are attracted to recently-burned areas. By using this preference, burns can be used within a single grazing unit to dictate where cattle will concentrate. By rotating the burning across a single pasture over years, differences in habitat structure and grazing pressure are created within a single unit; this promotes overall biological diversity. PBG management is being introduced at the Preserve.

Simplified diagram of how PBG is implemented in a single pasture on a 3-year rotation.



Invasive Species

Invasive species pose a threat to biodiversity by out-competing native plants and animals, and disrupting ecosystem function. Invasives may include native species, such as trees and shrubs, or exotic species that did not historically occur in the region such as fescue, a cool-season grass. Active monitoring and control of invasive species is required at the Preserve.

Sericea lespedeza, an exotic plant native to Asia, has become a major problem in prairie ecosystems, particularly rangelands.

Join Us

The Preserve is open to all researchers whose interests are consistent with its mission. Likewise, teachers and resource professionals are welcome to use the Preserve for classes, workshops, demonstrations, or informal visits. Please note, however, that use must be approved in advance through the Kansas Biological Survey.

For more information on the Preserve, or to learn more about how you can become involved in supporting ecological research, environmental education, and ecosystem conservation efforts, please contact:

The Kansas Biological Survey
2101 Constant Avenue
Lawrence, KS 66047
785-864-1500
www.kbs.ku.edu

Location

The Preserve is located in southern Anderson County (KS) about 5 miles south of Garnett or about 1 mile north of Welda. The larger part of the Preserve is bisected by US Highway 169, with US Highway 59 bordering it on the east. General coordinates for the Preserve, where US Highway 169 intersects its north boundary, are approximately 38°11'00"N, 95°15'39"W.

Cover photographs: Greater Prairie-chickens, dotted gayfeather (purple), and butterfly milkweed (orange).

KANSAS BIOLOGICAL SURVEY

The Nature Conservancy
Protecting nature. Preserving life.
nature.org

The Preserve is owned by The Nature Conservancy and managed by the Kansas Biological Survey as part of the University of Kansas Field Station.

1/25/2010

Anderson County Prairie Preserve

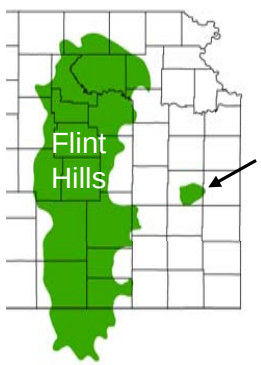
Conservation, Research, Education

University of Kansas Field Station
Kansas Biological Survey

An imperiled ecosystem with high biodiversity.

The goal for the Anderson County Prairie Preserve is to maintain and enhance native biodiversity within an imperiled tallgrass prairie ecosystem, protect rare plants and animals, and accommodate research, education, and outreach.

A critical conservation site. Less than 4% of the original 140 million acres of North American tallgrass prairie remains. Two-thirds of the extant prairie is in Kansas, mostly in the Flint Hills where the soil is generally too rocky to plow. However, the Preserve is situated east of the Flint Hills with deeper soils, greater rainfall, and higher plant diversity. Native prairies in eastern Kansas, and throughout the American Midwest, were decimated as land was converted to agricultural uses.



The Preserve lies within a large functional landscape of 125,000 acres in the Unglaciated Tallgrass Prairie. It is of critical importance as the easternmost protected, large block of unbroken prairie east of the Flint Hills in Kansas.

The landscape surrounding the 1370-acre Preserve contains native rangeland as well as mixed agricultural uses. High-quality prairie sites that remain are the result of conservation-minded owners, ranchers, and farmers. However, threats to the biodiversity in the vicinity result from changes in land use, conversion of native rangeland and meadows, habitat fragmentation, invasive species, and management that degrades native systems. The long-term viability of the Preserve is tied to the health of the surrounding landscape.