

# Discover Nebraska's Pine Ridge and Grassland



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**Y**ou are invited to the 1999 Society for Range Management Fifty Second Annual Meeting. This special meeting will be held jointly with the American Forage and Grassland Council (AFGC) in Omaha, Nebraska.

In your travel to Omaha, you can discover the many hidden treasures in the northwest corner of Nebraska. This diverse area located near the towns of Crawford and Chadron includes ponderosa pine forests, mixed-grass prairie, and badlands. The Nebraska National Forest, Pine Ridge Ranger District manages 146,000 acres of public land including both National Forest and National Grassland.

### Ponderosa Pine Forest

The Pine Ridge Ranger District manages 52,000 acres of National Forest that extends from Crawford to

Chadron along the Pine Ridge Escarpment. This escarpment covers approximately 1,800 square miles within the Nebraska panhandle. The ponderosa pine covered ridge has scenic sandstone buttes and productive hardwood drainages along perennial streams. Tree species include green ash, hackberry, cottonwood, and boxelder. Understory shrubs include chokecherry, wild plum, and buffalo berry. The 600 acre Pine Ridge National Recreation Area provides hiking and horseback riding. Many trailheads provide access to the 33 mile Pine Ridge Trail.

Also included within the National Forest is the Soldier Creek Wilderness just west of Crawford, designated as wilderness in 1986. This 7,794 acre area was once part of the Fort Robinson Military Reservation. It was used as a horse and mule pasture, a supply area for wood, and a recreation

area for military personnel who were stationed at nearby Fort Robinson from the Indian Wars of the 1870's through World War II, until 1949.

### Mixed Grass Prairie

The 94,000 acre Oglala National Grassland boundary extends from the Nebraska-South Dakota and Wyoming state lines east to near Crawford. Named after the Oglala Lakota Tribe this area contains a diverse mixed-grass prairie ecosystem that supports antelope, mule deer, Merriman's turkey, prairie dog colonies, and the occasional swift fox. Over 164 different bird species have been recorded including red tailed hawk, Swainson's hawk, and sharp tailed grouse. The dominate grass species are western wheatgrass, buffalo grass, blue gramma, prairie sandreed, little bluestem, and green needlegrass.

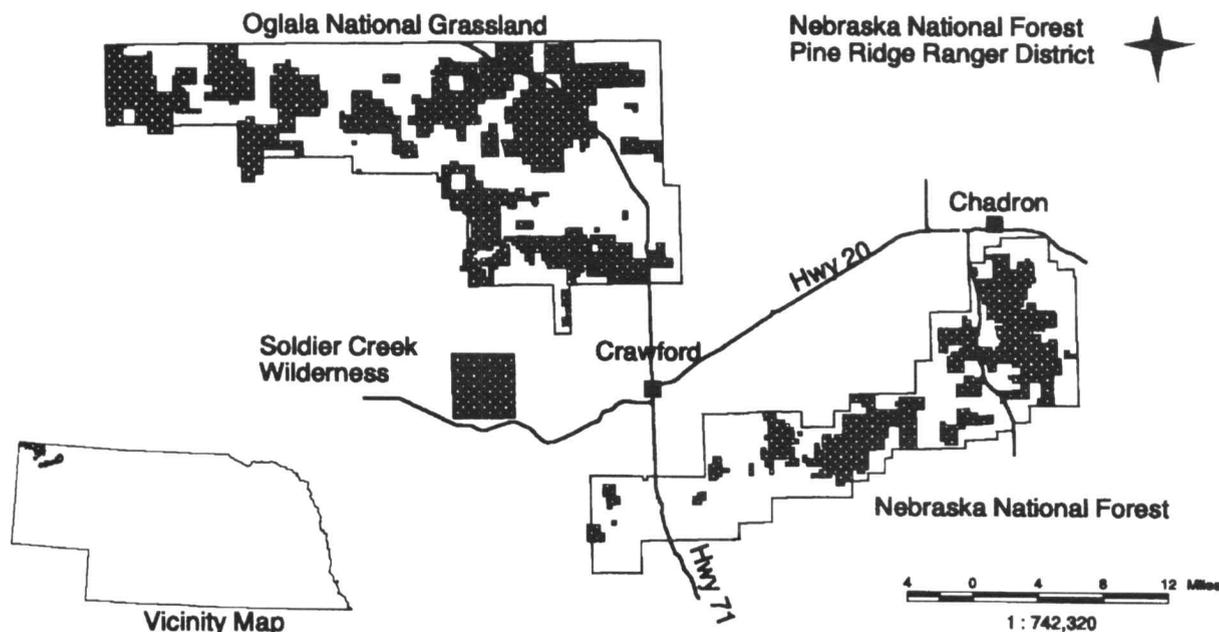


Fig. 1. The Nebraska National Forest, Pine Ridge Ranger District manages public lands of the Oglala National Grassland and National Forest within the Pine Ridge escarpment of northwest Nebraska.



*There are 52,000 acres of Nebraska National Forest within the Pine Ridge area of northwest Nebraska. This ponderosa pine forest is dissected by hardwood drainages and rough sandstone buttes.*

Grassland units of the United States make up 2% of the National Forest System acres and provide 20% of the total permitted livestock grazing. They are also significant for oil, gas, and mineral production.

The National Grasslands' history is a fascinating story. From prehistoric Indian use, through westward expansion, homesteading, and an agricultural revolution, grasslands have evolved with a colorful history.

Eastward from the Rocky Mountains sweeps a sea of grass, the Great Plains. To the west are broad intermountain rangelands, the Great Basin. Within these regions are the 20 National Grasslands—nearly 4 million acres of publicly owned lands.

The National Grasslands' story includes some dramatic chapters in our history. These windswept plains have seen the pageant of the frontier, the tragedy of the Dust Bowl, and the wonders of agricultural technology.

These lands were once home to many Indian tribes, including Kiowa, Comanche, Pawnee, Cheyenne, Arapahoe, Crow, and Lakota. To the Indians, grass was eternal. Bison, which thrived in this country, were the lifeblood for a number of Indian tribes. The abundant bison herds were testimony to the power of grass.

By the end of the 1870s, Indians had lost their historic use of the lands as cattle replaced the bison. Prospectors, trappers, soldiers, railroad builders, and a host of others seeking their fortunes in the west helped push back the last frontier as they crossed and claimed these lands.

Late in the 19th century, another group of people came to the Great Plains. Under the Homestead Act of 1862, land was provided to individuals who would live on it and make certain improvements. Most first homesteads were located along rivers where there was water, shelter, and wood. After these prime areas were filled up, the later homesteads were filed on land that has since become known as "sub-marginal" for farming.

The Dust Bowl, with its black blizzards, plagued the Great Plains for nearly a decade. The financial crisis created by the Great Depression coupled with nature's intense drought, made the situation on the Great Plains even worse. By the early 1930s, as many as 70 percent of the homesteaders were delinquent in their taxes. Hundreds of thousands of them were forced to leave.

The first sources of relief came from the National Industrial Recovery Act of 1933 and the Emergency Relief Appropriations Act of 1935. These Acts allowed the federal government to purchase damaged or abandoned land for an average of \$4.40/acre. Destitute families were relocated and the damaged land restored.



*This replica of a homestead sod house is located at Toadstool Geologic Park. It allows visitors to ponder about the living conditions of the early pioneers.*



*The 94,000 acre Oglala National Grassland occurs in the northwest corner of Nebraska and is administered under the Nebraska National Forest. It is one of 20 National Grassland units in the United States.*

These government-purchased lands were called Land Utilization Projects. The Land Utilization program was designed to bring about sound land use by making adjustments that would achieve a balance between rural economic needs and the natural resources. First administered by the Resettlement Administration, the Bankhead-Jones Farm Tenant Act (1937) gave the Secretary of Agriculture custody of these lands and authorized more extensive conservation efforts. The Land Utilization Projects were transferred to the Soil Conservation Service (SCS) the following year.

From 1933 to 1943, nearly 10 million acres of drought-stricken and wind-eroded lands were purchased by the federal government under the Bankhead-Jones Farm Tenant Act. Hundreds of thousands of acres were reclaimed, shelterbelts were planted and erosion control devices were installed. Homesteaders who survived the difficult times helped the recovery by forming grazing associations to administer grazing and develop conservation practices that endure today. By 1945, these lands once again supported soil-stabilizing grasses.

In 1954, Land Utilization Projects

with specialized uses were transferred to the National Park Service and the U.S. Fish and Wildlife Service. Other lands in the western states were transferred to the Bureau of Land Management. The remaining Projects were transferred to the Forest Service.

On June 23, 1960, nearly 4 million acres, primarily located in the Great Plains region, became "National

Grasslands" under Forest Service management. The National Grasslands demonstrate how lands unsuitable for cultivation can provide forage, wildlife habitat, prairie woodlands, energy and minerals, water and outdoor recreation to the benefit of both the land and people.

The National Grasslands are the sequel to the hard experience of the "Dust Bowl Era," and exemplify new thinking about natural resource management in grass country. They consist of 24 former Land Utilization Projects, where the federal government, the states, and local people have worked to reclaim and conserve these drought-stricken and wind-eroded lands.

### **Badlands**

Toadstool Geologic Park noted for unusual geologic formations and scientifically valuable fossil deposits, is located within the badlands of the Oglala National Grassland. These formations provide a rich record of mammal fossils from the Late Eocene and Oligocene Epochs, dating back about 35 million years.

About 75 million years ago, the Central Plains were covered by a large shallow inland sea. Animal remains that are found as fossils in the cretaceous Pierre formation include mosasaurs and pleisosaurs (marine



*Toadstool Geologic Park is located within the Oglala National Grassland and is noted for its unusual formations and scientifically valuable fossil deposits.*

**Table 1. National Grasslands at a Glance**

If you cannot visit the Oglala National Grassland or Nebraska National Forest keep in mind that 20 National Grassland units exist and may be near you. The National Grasslands are located in 12 states with 17 occurring in the Great Plains. These National Grasslands are currently associated with 10 National Forests.

Name	NFS Acres	State
Butte Valley NG	18,425	California
Comanche NG	435,319	Colorado
Pawnee NG	193,060	Colorado
Curlew NG	47,756	Idaho
Cimarron NG	108,175	Kansas
Oglala NG	94,480	Nebraska
Kiowa NG	136,417	New Mexico
Cedar River NG	6,717	North Dakota
Little Missouri NG	1,028,051	North Dakota
Sheyenne NG	70,268	North Dakota
Black Kettle NG	30,710	Oklahoma
	576	Texas
Rita Blanca NG	15,576	Oklahoma
	77,413	Texas
Crooked River NG	111,352	Oregon
Buffalo Gap NG	595,538	South Dakota
Fort Pierre NG	115,997	South Dakota
Grand River NG	155,075	South Dakota
Caddo NG	17,784	Texas
Lyndon B. Johnson NG	20,309	Texas
McClelland Creek NG	1,449	Texas
Thunder Basin NG	571,971	Wyoming
<b>Total</b>	<b>3,852,418</b>	

reptiles), flying fish, saber-toothed fish, some fish that grew to 15 feet in length, sharks, toothed loon-like birds, marine turtles that grew to 17 feet in diameter, and pteranodons.

After the Cretaceous Period ended, the large inland sea retreated as the uplift of the Rocky Mountains began. Resulting from the uplift, volcanic ash from eruptions in present-day Washington, Oregon, and Nevada, was carried eastward by winds. This volcanic ash intermittently blanketed the landscape between 35–23 million years ago, eventually forming the White River Group rocks.

Unlike the marine deposits of the Pierre, the White River deposits are terrestrial, therefore many environmental changes took place within 36 million years. Fossilized remains of ancestors of many modern mammal families are represented. Including rhinos, camels, horses, rabbits, beavers, terrestrial birds, saber-toothed cats,

deer-like animals with fangs, and many varieties of canids. The White River Group records the changes in flora and fauna over a 10 million year period. Many of the ancient species were very similar to modern species that live in Africa today.

Next door to Toadstool Park, is the Hudson-Meng Bison Bonebed site. This 10,000 year old site contains the remains of over 600 bison (*Bison antiquus*). It has been determined through research that the bison all died in a single catastrophic event and the remains buried within a short time frame (several years) of the death event. In excavations conducted since the 70's, human made tools were discovered but, the cause of death is still a mystery. Perhaps heavy, early snow fall and deep drifts in late summer trapped the animals, or they may have been suffocated by a range fire. Construction of a research and learning facility over the bonebed will be

completed in 1998 and will allow ongoing excavation and interpretation of the site.

The Oglala National Grassland has a rich history. An encounter between the 5th U.S. Calvary and the Cheyenne Indians took place near Warbonnet Creek on July 17, 1876. The Cheyenne were attempting to join the victors of the Battle of the Little Bighorn three years earlier. The result of the battle was the loss of a great Cheyenne warrior, Yellow Hair, who was killed by Buffalo Bill Cody. A stone monument marks the confrontation between Yellow Hair and Cody.

We hope you can take the time to visit your National Grassland and National Forest in northwest Nebraska on your way to the 1999 SRM Meeting in Omaha to be held jointly with the American Forage and Grassland Council.

#### Literature Cited

- USDA, FS 1997.** Land Areas of the National Forest System as of September 1996. FS-383.

**Editor's Note:** This paper is a lead for the 1999 SRM Annual Meeting in Omaha, Nebr.

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