

Niobrara

National Scenic River
Nebraska

National Park Service
U.S. Department of the Interior





Called *Ni obhatha ke* (spreading water river) by the Ponca and Omaha Indians, the Niobrara River is known for its beauty, biological significance, and paleontological resources, and enjoyed as a superb canoeing river of the Great Plains. In 1991 Congress designated 76 miles of the Niobrara east of Valentine, Nebraska, as part of the National Scenic River System—a river that merits special protection and recognition.

The fertile Nebraska Sandhills are ranch country. Since the 1870s families have raised cattle and crops in this vast, rolling land of grass-covered hills. Using sound land management practices, ranchers have preserved the natural and scenic qualities of the Niobrara River valley.

The National Park Service oversees management of the Niobrara in cooperation with the U.S. Fish and Wildlife Service, Nebraska Game and Parks Commission, Niobrara Council, local governments, private organizations, and citizens. All are committed to preserving this valuable resource.

Visitors are asked to join in the mission of preservation by minimizing impact to the river and its banks, and by respecting the property rights of adjacent private landowners. Through continued good stewardship by both landowners and visitors the Niobrara will remain a treasure, cherished by future generations.

Valley Geology

The Niobrara River begins in the high plains of eastern Wyoming and flows 535 miles to its confluence with the Missouri River in northeastern Nebraska. Springs feed the Niobrara as it flows through a section of the Great Plains once referred to as “The Great American Desert.”

The Great Plains are a remnant of a large alluvial plain that extended eastward from the Rocky Mountains. Several cycles of erosion and deposition occurred, including both marine and stream transport and deposition of sediments. Volcanic activity to the west also deposited layers of ash over much of the area. These layers were overlaid by eolian (wind blown) sand. The Sandhills of Nebraska are the most extensive of these dune areas covering 19,000 square miles. The Niobrara River drains 12,600 square miles in Nebraska and cuts through four rock formations.

Atop is the Ash Hollow formation, a grayish cap-rock best seen on hills north of the river. Next is the Valentine formation. This deposit forms steep cliffs along both sides of the river. It's composed of light-colored sandstone. In nearby areas this formation has an abundance of fossils, including the ancient mammalian

species of beaver, horse, rhinoceros, and mastodons. Next lies the Rosebud formation. This harder siltstone forms the bedrock for waterfalls and rapids between Valentine and Meadville. Below Meadville the Niobrara also cuts through shale of the Pierre formation.

A large deposit of groundwater, the Ogallala Aquifer, was formed over time by precipitation that saturated the sand and rock layers below. In the Sandhills water at or near the surface creates lakes, wetlands, or lush meadows. In the Niobrara Valley the river has sliced into the plains over 300 feet, allowing water from the aquifer to seep out of valley walls into the river.

Waterfalls occur where streams flowing into the Niobrara run over the erosion resistant Rosebud formation. More than 90 waterfalls occur along the westernmost part of the river. Some drop directly into the Niobrara—others are found on streams that flow into the river and are hidden within side canyons. Smith Falls is the highest—it plunges more than 70 feet from a cliff, then flows and cascades several hundred yards into the Niobrara River.



River Biology



Channel catfish

In north central Nebraska, the 100th Meridian splits the middle of the Niobrara River Valley. This geographic boundary is commonly used to differentiate the eastern United States from the west. Here humid eastern and dry western air masses collide, leading to increasing precipitation along the Niobrara eastward from Wyoming to the Missouri River.

This unique blend of climate, geology, and topography provide the right factors for an incredible diversity of plant and animal life. Varying exposure to sun, wind, and moisture determine vegetation communities, as well as the dependent wildlife. Traveling downstream, diversity increases as predominately western species mingle with other life and are gradually replaced by eastern plants and animals.



At least 83 eastern species reach their western range limits and 47 western species approach their eastern limits in the Niobrara River Valley.

Trees of the eastern deciduous forest grow on the moist bottomlands and islands. They include bur oak, American elm, black walnuts, green ash, hackberry, and cottonwood.

Boreal forest species are found growing on north-facing slopes where shade and abundant groundwater in the forms of seeps and streams create cooler microclimates. Species such as paper birch, basswood, a hybrid between quaking and big-tooth aspen, ferns, and club mosses grow here.

Rocky Mountain plants include ponderosa pine, serviceberry, and horizontal juniper. Most of these plants grow on the drier hillsides and canyon slopes on both sides of the river.

Three types of prairie are found in the river valley, displaying a botanical transition between the eastern tallgrass prairie, the mixed grass prairie of the Sandhills, and the shortgrass prairie to the west.

In the river, minnows like the sand shiner, flat-head chub, and red shiner search for aquatic insects near streambank margins. Larger fish such as rainbow trout and brown trout prefer cooler, clear water where springbranch tributaries enter the river. Channel catfish, a popular game fish of the Niobrara, prefer deeper water or cover during the day and come out at night to feed in riffles. They can reach weights of more than 30 pounds.

Soft-shelled, snapping, and painted turtles are commonly seen sunning themselves on logs in the summer. It is not unusual to see a bull snake swimming across the river, or spy a garter snake hunting in thick vegetation along the riverbanks.

White-tailed deer are found in bottomlands and mule deer on higher terrain. In summer beaver, mink, great-blue herons, sandpipers, vultures, and kingfishers are frequently seen. Sometimes bison and elk are observed grazing on prairie grasses interspersed among ponderosa stands. Where range overlap occurs, some bird species hybridize causing interesting variations. Hawks are seen year round. Bald eagles, mergansers, and goldeneyes frequent the river in winter.

On The River

The 22-mile river segment from Fort Niobrara National Wildlife Refuge, near Valentine, downstream to Rocky Ford is the most frequently traveled by boaters. Trips ranging from one-hour floats to multiple days can be arranged with local outfitters. The section of the scenic river from just below Borman Bridge to Cornell Dam is closed to boaters. The U.S. Fish and Wildlife Service maintains this closure to ensure visitor safety and protect wildlife habitat. Most visitors float the river from mid-June through Labor Day.

Summer weekends can be very busy. April through mid-June provides better water levels, but unsettled weather and cooler temperatures are factors to consider. September and October can showcase spectacular autumn colors as deciduous trees and shrubs change to fall foliage. Winter floats are possible along certain sections, although the river can ice-up and become impassable. Only experienced and properly-equipped boaters should attempt floating the Niobrara in winter.

The river below Cornell Dam to above Berry Bridge flows through federally designated wilderness. The riverbanks are undeveloped

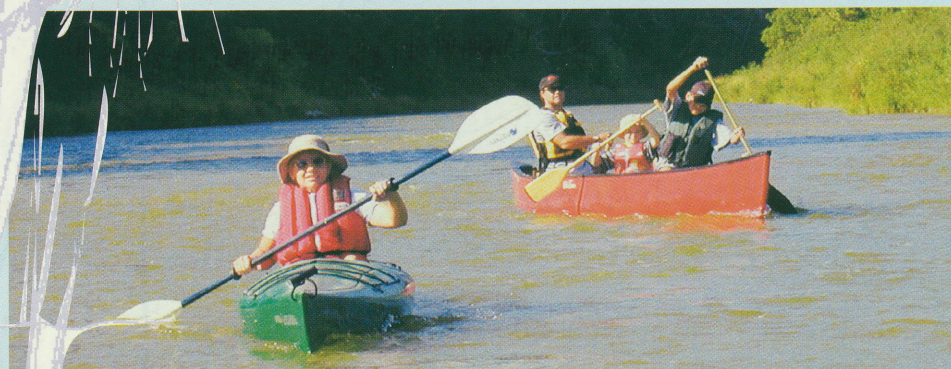
and pine-covered hills, prairie, and steep cliffs provide a scenic backdrop. There are two segments of Class I rapids along this section.

From Berry Bridge to Brewer Bridge the river continues through forested hills of pine and deciduous trees with a number of easy riffles.

From Brewer Bridge to Rocky Ford there are several more rapids (Class I or II) that can be easily negotiated by most novices. These rapids, like all water features, can change in character with differing water levels. At Rocky Ford floaters should portage the falls (Rocky Ford is a Class III rapid).

Below Rocky Ford the river sees little use. Several sets of rapids (Class II to IV) run from Rocky Ford to Meadville. Norden Chute, a dangerous obstacle that *must be portaged*, is located just before the Norden Bridge. During the summer months signs are posted at major rapids to warn boaters and tubers of the need to portage. Although the lower portion of the scenic river can be floated to Highway 137, lack of public boat launches, seasonally shallow water, and sandbars make the trip difficult during much of the year. Contact the Valentine Ranger Station for current river conditions and detailed information: 402-376-1901.

Great Blue Heron



Planning Your Visit

Safety First

- A public phone is available at Smith Falls State Park. In case of an emergency dial 911 for the Cherry County Sheriff.
- Ask outfitters for paddling tips if unfamiliar with boating techniques.
- Always wear a personal flotation device (PFD) while on the river. If you tip over, it will often be in shallow water. If capsized in rapids, point your feet downstream and ahead of you—let your PFD keep you afloat. Swim to shore after reaching calmer water.
- Avoid overhanging limbs and submerged logs that can easily overturn a boat and cause injury.
- If capsized, stay upstream from your boat. The river current pushing against a canoe can trap and hold you underwater.
- Wear sturdy shoes that can get wet. Sharp objects hidden in the river can cut bare feet.
- Be aware of land hazards such as poison ivy, ticks, slippery banks, crumbling cliffs, and rattlesnakes.
- If thunderstorms and/or windstorms occur, get off the water *immediately*. Bring appropriate clothing.
- Do not dive or jump into the river. The Niobrara is shallow with many rocks.
- If tubing, navigate rapids feet first. Connecting more than 5 tubes is hazardous—people may get caught beneath the tubes. It also obstructs passage for others on the river.
- Rapids and unmarked hazards may occur at any time. Scout ahead. Major rapids and falls are signed during the summer between Valentine and Norden Bridge. Boaters are strongly cautioned to portage around these dangerous obstacles.
- Protect your skin and eyes by wearing sunscreen, sunglasses, and a hat.

Rentals, Services, Camping, & Fees

Canoe, kayak, and tube outfitters are available locally. Check local telephone listings or call the Valentine Chamber of Commerce at 1-800-658-4024, or access their web page: www.heartcity-ne.com.

Motels, cabins, restaurants, stores, and other services are located in nearby towns. Private campgrounds and launch sites are found along the first 30 miles of the scenic river between the Fort Niobrara Refuge and Norden Bridge. Please make prior arrangements for camping and river access at these areas. Camping is also available at Smith Falls State Park and Meadville.

There is a launching fee at the Fort Niobrara launch site within the refuge. Entrance and campground fees are charged at Smith Falls State Park.

Guidelines and Regulations

- Private lands border the river in most areas. Recognize private property rights—do not trespass. Do not climb on crumbling cliffs and delicate waterfalls.
- Secure and waterproof your belongings and garbage in your craft to keep litter from falling into the river. Avoid bringing glass or styrofoam containers.
- Each person must have readily available a U.S. Coast Guard approved personal flotation device (PFD). Children under 12 must wear a PFD while floating the river.
- Signed public restrooms are available seasonally at several landings, spaced along the river. Please use these facilities.
- Many visitors come to relax and enjoy a peaceful river experience. Please respect other visitors by refraining from inappropriate behavior.
- Don't impair your judgement by using alcohol or drugs on the water. Alcohol is prohibited within Fort Niobrara National Wildlife Refuge and on land at Smith Falls State Park.
- Fishing and hunting licenses are required, as is landowner permission to hunt on private land. State fishing and hunting regulations apply within the scenic river boundary. Hunting is prohibited at Fort Niobrara National Wildlife Refuge.
- Employ *Leave No Trace* practices—pack it in—pack it out.

International Scale of River Difficulty

- Class I** Fast moving water with riffles and small waves. Few obstructions, easily negotiated with little training.
- Class II** Basic rapids and wide, clear channels, obvious without scouting. Some maneuvering is required.
- Class III** Rapids with moderate, irregular waves often capable of swamping open bow canoes. Fast currents and narrow passages that require complex maneuvering. May require scouting from shore.
- Class IV** Difficult rapids, irregular waves or dangerous obstacles, rocks, falls, etc. Powerful and precise maneuvering required in very turbulent water. Scouting required; rescue may be difficult. Generally unsuitable for an open canoe.

Be Aware of Rapids Classification

Rapids are indicated on the map as follows:

- Class I = (C-I)
- Class II = (C-II)
- Class III = (C-III)
- Class IV = (C-IV)



The National Park Service Welcomes Questions and Comments

Niobrara National Scenic River
Superintendent
P. O. Box 591
O'Neill, NE 68763-0591
telephone: 402-336-3970

Niobrara River Ranger Station
P. O. Box 319
Valentine, NE 69201-0319
telephone: 402-376-1901

