

Badlands

Official Map and Guide

Badlands National Park
South Dakota
National Park Service
U.S. Department of the Interior



Stan Osolinski



The meadowlark nests on the ground in the dense grasses but often flies to a perch to sing its melodious song.

Jon Farrar



Pronghorns, often called antelope, are the fastest animals in North America. In short bursts of speed they can reach 60 miles per hour.

Ron Spomer



Prairie dogs thrive in the grasslands feeding on grasses and forbs. They are social animals, too, living in distinct family groups in their "towns."



Once vanished from the badlands, the bighorn sheep have been restored to their rightful place among the cliffs and grassy tables.

Ron Spomer



In the Badlands where east meets west, two species of cottontails live, the eastern and, above, the desert.



Mule deer favor the wooded draws and are easily recognizable by their large ears.

Of Time and the Badlands

Out of the rolling Dakota prairie, rain and wind and frost have carved steep canyons, sharp ridges, gullies, spires, and knobs, providing a glimpse into the relentless pace of geologic change. For not only has erosion created a new landscape, it has also bared rocks laid down as sediments during the Oligocene Epoch between 37 and 23 million years ago revealing a record of the past to us.

At the start of the Oligocene, this land was a broad marshy plain crossed by sluggish streams flowing from highlands to the west. The animals that lived in this setting had adapted to a warm, moist climate and thrived on the jungle and marsh plants that grew here. Toward the end of the Epoch, volcanoes to the west or southwest ejected huge volumes of ash into the atmosphere. Borne eastward by the winds, the ash fell and became the whitish layer near the top of the Badlands formations. Slowly the climate began to change and increasingly dry winds blew from the north. Rainfall diminished. Grass, able to grow with less water, invaded and occupied the drying realms of forest and swamps. The animals changed, too, with grasseaters and those able to withstand a more vigorous climate coming to the fore while other species disappeared.

The water that today eats into the soft Badlands formations falls mostly as rain during torrential spring and summer storms. Present annual precipitation, including the storms, is only 16 inches, just enough to sustain the grass.

Despite summer temperatures that may top 100°F, and frigid winter winds, many animals and plants still find the Badlands a good place to live. White-throated swifts and cliff swallows nest on the faces of cliffs, and rock wrens build in the crevices. An occasional pair of golden eagles may rear their young on a high, inaccessible butte. Along the drainages and passes junipers patch the landscape with green. Yucca dots the broken slopes and valleys. Islands of life collect where water is found. There cottonwoods, wild roses, skunkbush sumac, and other trees and shrubs shelter birds. Wherever trees and shrubs grow, porcupines, chipmunks, mice, and even bats are sure to live.

Here and there hundreds of prairie dogs busily attend to the affairs of their towns. Badgers and coyotes lurk nearby, ready to make a meal of one of them. Jackrabbits and cottontails bound through the swaying grass. And prairie rattlesnakes, yellow-bellied racers, and bullsnakes ripple along in search of prey.

The great 19th-century migration of people from the Atlantic states doomed some of the large mammals of the plains—the gray wolf, the elk, the grizzly bear. Others, the mule deer and the pronghorn, decreased in number and then bounced back. Bison and bighorns were exterminated from the Badlands. But the National Park Service, seeking to restore the vanished prairie scene, reintroduced them, and they are doing well.

French-Canadian trappers were among early European visitors to the Badlands. They called the region *les mauvaises terres à traverser* (bad lands to travel across). Although relics thousands of years old have been found in the region, the Arikara are the earliest Indian tribe known to have resided on these plains. By the mid-18th century, however, the Sioux dominated. During the next hundred years their culture, based on bison hunting, flourished. Then the U.S. Army, miners, and homesteaders moved in, and the face of the prairie, and the life of the native people, changed. Forty years of struggle ended Sioux rule and brought the reservation. Cattle replaced bison; wheat replaced prairie.

In a few more decades, the Badlands came to be regarded less as worthless wasteland than as a scenic and geologic wonder

worthy of preservation. Authorized by Congress in 1929, Badlands National Monument was established by Presidential proclamation in 1939 to preserve the scenery, to protect the fossils and wildlife, and to conserve the mixed-grass prairie. The size of the monument more than doubled in 1976 by an addition of 133,300 acres of the Pine Ridge Reservation, to be administered by the National Park Service in agreement with the Oglala Sioux Tribe. Called the South Unit, this stunning landscape of high grassy tableland and spectacular buttes is the scene of much Sioux history. The Ghost Dances at Stronghold Table in 1890 were a prelude to the bloodshed at Wounded Knee, 25 miles south of here. Congress elevated the status of Badlands National Monument to Badlands National Park in 1978, underscoring the value of the Badlands to present and future generations.

A Record in Rock

A 65-million-year-old layer of black shale that formed on the bottom of an ancient sea is the oldest formation in the Badlands. Next come the layers of the Oligocene Epoch, beginning about 37 million years ago. These hold fossil bones of land mammals. Countless animals lived and died on these plains, their flesh and bones consumed by predators and scavengers. The few remains left intact were buried by periodic floods and converted into fossils. But these relative few constitute one of the richest fossil beds known. Because of the Badlands fossils, the Oligocene is called the "Golden Age of Mammals."



An Oligocene landscape.
Peabody Museum of Natural History, Yale University

Grasslands

Badlands National Park is a remnant of one of the world's great grasslands. From southern Alberta and Saskatchewan almost to Mexico, and from the Rockies to Indiana, prairie grasses covered almost a quarter of the United States. In the moist Mississippi Valley tallgrass prairie predominated. Westward, as precipitation decreased, the tallgrass gave way to the short-grass of the High Plains.

Flat as a tabletop in some places, the prairie stretched unbroken to the horizon. Elsewhere it rolled, with long sinuous lines of green marking watercourses between gentle hills. Before



Bison
Ron Spomer

much of the grassland vanished, replaced by farms, towns, and roads, grass billowed in the timeless wind, and wildflowers unfolded from frost to frost.

Among the Badlands wildflowers, two—Barr's milkvetch and Visser's buckwheat—show contrasting adaptations to the dry climate. The milkvetch is a perennial with a long root that both anchors the plant and reaches deep for water. Thus situated, the milkvetch may reach an age of 40 or 50 years. Visser's buckwheat has adapted in another way. Each spring the rains of April and May bring to life the seeds

that were buried through the long winter in the crumbly soil.

The productive prairie sustained herds of bison so vast that they darkened the landscape. By 1890 millions had decreased to not many more than a thousand. Now, in the Sage Creek Basin of the Badlands, bison and the native grasses they browse are carefully protected as surviving elements of a once vast natural system. These bison are as vigorous and cantankerous as any bison of the past. Do not approach them closely, no matter how good the opportunity for a picture appears.

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Visitor Information

The park is open all year. Popular seasons are summer, spring, and fall, but picturesque Badlands formations brushed with January snow make a winter trek well worth the effort. Most winter days are sunny and bright—if cold. Snow is usually light, though some snowstorms may block roads temporarily. Visitor centers at Cedar Pass and White River, in the South Unit, will help you become acquainted with the area. White River Visitor Center, open only in the summer, features Indian cultural exhibits and a videotape program on Oglala Sioux history. Before visiting the South Unit inquire about road conditions.

Wayside exhibits along park roads and self-guiding trails will contribute to your visit. In summer, park naturalists give guided nature walks and nightly programs at the Cedar Pass campground. Activity schedules are posted in the visitor center and at the campground.

Caution
Climbing Badlands formations can be dangerous. Slopes are steep and give way under your feet. Weather changes suddenly. Lightning, hail, and high wind require caution by campers and hikers in summer. Take water along, even on short hikes.

Enjoy the wildlife, yes. But observe and take pictures from a safe distance. Bison are particularly dangerous. A large bull can weigh as much as a small car and can run faster than a horse. Watch for prairie rattlesnakes; they are fairly common in the park.

Help Protect the Park.
Do not drive off the road. The fragile prairie may take decades to cover your tracks. Leave rocks, animals, and plants as you find them. Removal of fossils or any other natural or cultural object is not permitted. Dogs must be kept on a leash. No fires are permitted—prairie grass

is like tinder. Firearms must be out of sight, unloaded, and cased. Accidents and hazards should be reported to park rangers.

Wilderness Area
In 1976, Congress set aside 64,250 acres of the park as the Sage Creek Wilderness Area. This roadless area is protected from development, while leaving it for hiking, backpacking, and other activities. There are no trails within the wilderness area except those created by the tread of bison. Use a topographic map, available for purchase, to find your way around. Before camping in the backcountry check with a ranger.

Cedar Pass Lodge
Cabins, meals, soft drinks and other beverages, and souvenirs are sold at the lodge from the beginning of May until mid-October. Accommodations are also available in nearby towns.

Further Information
Badlands National Park in southwestern South Dakota is administered by the National Park Service, U.S. Department of the Interior. For more information, write: Superintendent, Badlands National Park, Interior, SD 57750, or call 605-433-5361.

Badlands Weather Averages

Month	Temperature (F°)		Precipitation (inches)
	High	Low	
January	32	10	0.30
February	39	16	0.25
March	50	26	1.03
April	63	38	1.95
May	72	46	2.98
June	83	55	2.19
July	92	62	2.28
August	89	60	1.86
September	82	51	0.78
October	66	38	1.49
November	49	25	0.48
December	39	17	0.26

