

# Badlands

NATIONAL MONUMENT

S O U T H D A K O T A



# Badlands



## NATIONAL MONUMENT

UNITED STATES DEPARTMENT OF THE INTERIOR

Douglas McKay, *Secretary* • NATIONAL PARK SERVICE, Conrad L. Wirth, *Director*

*An area of color-banded cliffs and pinnacles, and of prehistoric animal remains*

To preserve outstanding examples of erosion and remains of prehistoric animals, Badlands National Monument, containing 103,547.69 acres of Federal lands, was established in 1939. The spectacular scenery and natural objects of scientific interest preserved in the area make it a mecca for several hundred thousand visitors annually.

Breathtaking views may be experienced at many points along the monument highway between Cedar Pass and Pinnacles. Parking overlooks are available where you may stop your car and look upon buttes and spires with delicately banded colors—ever-changing hues of red and gray that show different aspects every hour of the day.

You will find the most enjoyable times of day in summer are the early morning and evening. Then the sun casts shadows upon the myriads of peaks and valleys that give the scene beauty not evident during midday. Then, too, temperatures during the day are often high, and the reflection from the white soil is almost blinding. The mornings and evenings are cool and comfortable, and the sunlight is softer.

On bright moonlight nights the region takes on a beauty that almost persuades the observer that he has suddenly been transported to another planet. The knife-edged

ridges and castellated spires, lighted by the moon, are set off by jet-black shadows that give a strange, sharp, two-dimensional effect, as if the skyline were cut from cardboard.

As early as 1847, nearly 30 years before the white man came to the Black Hills of South Dakota in search of gold, important scientific discoveries had been made in the Badlands region. Since that time many exploring parties have come to search for fossils in the magnificently eroded layers of Badlands deposits. The scientists learned that to the Dakota Indians and their neighbors this barren labyrinth was "mako sica" (bad land), signifying they considered the area hard to travel through because of its rugged features and lack of water. The French-Canadian trappers, who preceded the scientists, called it "mauvaises terres," and the settlers who came later made it "Badlands."

### *Earth History*

The layers of sediments exposed in the Badlands once extended across southwestern South Dakota. They have been reduced considerably by erosion in the centuries that have passed since the sediments were first laid down, and erosion is continuing with every rainfall. Little by little the Badlands are

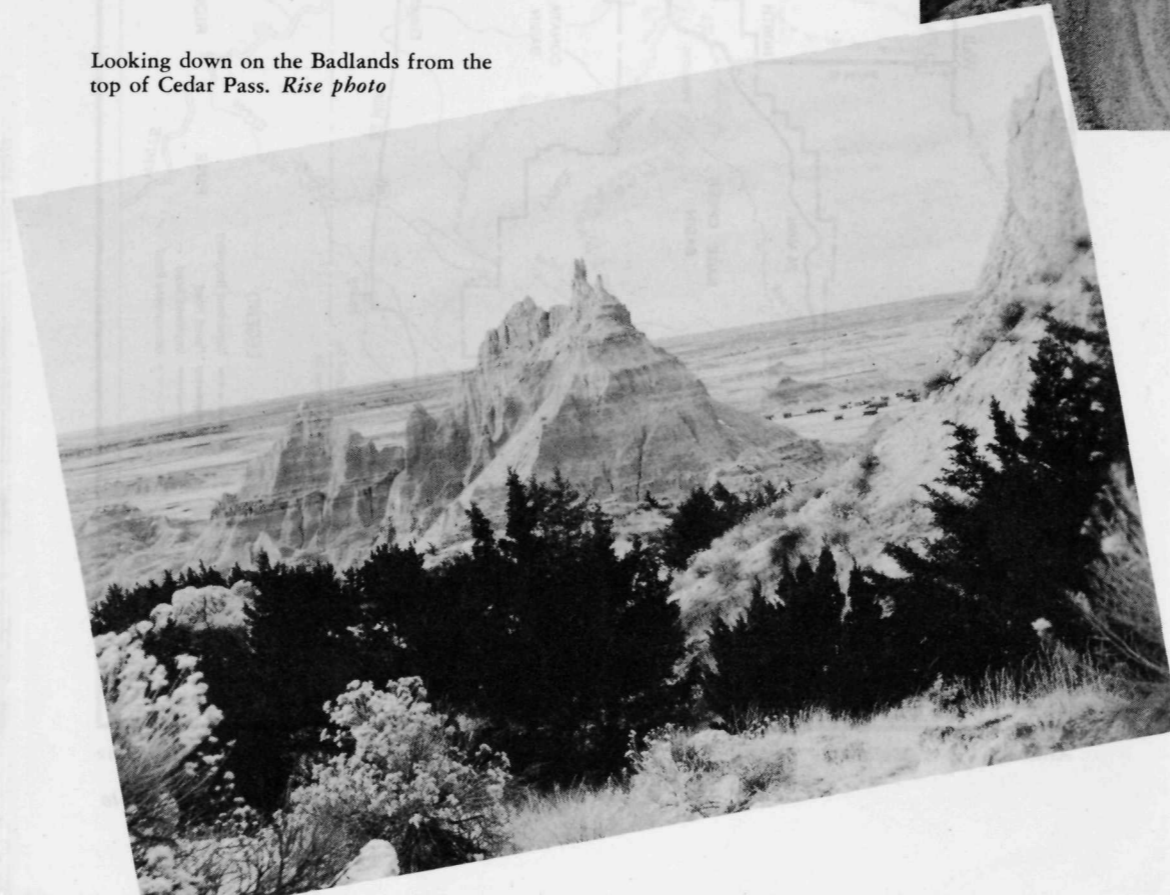
crumbling, their silts carried in the gullies to the White River, from there to the Missouri and Mississippi and, eventually, to the Gulf of Mexico.

It is now a well-established concept that layer upon layer of sediments were washed down from the higher elevations of the Black Hills during the Oligocene epoch of the Tertiary period nearly 40 million years ago. Muddy, flooding streams spread across the marshy plains on all sides of the Black Hills region. They deposited layers of clay and mixed materials which can be seen cross-sectioned by erosion in the Badlands today.

Toward the end of this period of deposition, wind became an important agent in transporting and depositing soil. Volcanic activity, associated with the Black Hills doming and the uplifting of the Rocky Mountain front, ejected and hurled into the air great quantities of finely fragmented material, which the prevailing westerly winds bore eastward and spread as an ashen blanket over what is now the Badlands. The climate slowly changed from moist to semiarid. The silt-loaded streams slowed down and finally stopped flowing, after depositing over 2,000 feet of material over this area.

This transition had a powerful effect on the abundant life of that day. Huge creatures like the Titanotheres, king of the grass eaters, which combined characteristics of the modern elephant and rhinoceros, were robbed by this climatic shift of the great quantities of vegetation needed to feed their enormous bodies. They probably starved to death, and the record of

Looking down on the Badlands from the top of Cedar Pass. *Rise photo*



View from Dillon Pass. *Rise photo*

their existence is preserved in the successive layers of silt and sand. Other less specialized animals were able to survive either by migration or by adapting themselves to changing conditions.

Among the animals that once roamed the flat, swampy grasslands of the region, and now preserved as fossils, were the three-toed horse and the saber-toothed tiger, and the ancestors of the hog, the camel, and the rhinoceros. Bones of thousands of ancient creatures have been found, carefully removed, and prepared for exhibit in museums throughout the world. There is an excellent display at the South Dakota School of Mines at Rapid City.

*Unauthorized removal of fossils and other objects is not permitted.*

### *Animal Life*

A surprising variety of small wildlife exists in the Badlands in spite of distances from a dependable water supply. Chipmunks, similar to those found in the Black Hills, are prevalent, as well as the common prairie rodents such as skunks, prairie dogs, ground squirrels, and mice. Porcupines and badgers are often seen; and raccoons are occasionally found along the White River. The coyote lives on the cottontails, prairie dogs, and jack rabbits, which are abundant; also on mice, carrion, and berries. Rattlesnakes, bullsnakes, and blue racers are common.

Birds are present in fairly large numbers, especially on the grass-covered tablelands. Nearly all of the prairie and mountain birds



are represented. The golden eagle is rather uncommon. It nests and is occasionally seen in the vicinity of Sheep Mountain.

Large animals, such as whitetail deer and elk, are now rarely found in the Badlands, but several types were present before the country was settled. Audubon bighorns, now extinct, were seen near Sheep Mountain less than 40 years ago. Buffalo herds surely grazed on the mesas before 1880, and deer, elk, and antelope occupied the area in certain seasons of the year.

#### Wildflowers

The Badlands are normally bedecked with wildflowers in the spring and early summer. First to appear are the crocuses and phlox, then the evening primrose, the wallflowers, yellow sweetpea, and the loco, followed by the other members of the pea family. In June, the Mariposa-lily appears by the thousands along the roadsides and in grassy meadows. Scarlet globemallow makes patches of color on the road shoulders. White, blue, and purple penstemon are common. One of the most beautiful sights is the pricklypear in full bloom. Fields of it stretch as far as the eye can see, each plant with its clusters of waxy, brilliant, red and yellow blooms. The yucca, or Spanish-dagger, is in bloom in late June and is no less interesting than the others. You are requested not to pick flowers or dig plants in the monument. Picking and digging of these beautiful and distinctive plants would soon produce a barren roadside.

*Since the grasslands are subject to devastating prairie fires, please exercise every precaution in disposing of burning tobacco and extinguishing campfires. Your cooperation is vital to the preservation of this area.*

The National Park System, of which this area is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of its people.

#### How To Reach the Monument

**By Air.** The nearest transcontinental airfield is at Rapid City, S. Dak.

**By Rail.** The Chicago and North Western Railway serves Wall and Rapid City.

**By Bus.** Transcontinental buses discharge passengers at Kadoka, Wall, and Rapid City.

From June through September, there is bus transportation from Rapid City to Cedar Pass Lodge, but no service is available the remainder of the year. Those wishing to reach the monument from Kadoka and Wall must arrange their own transportation.

**By Automobile.** Westbound motorists will find U. S. 14 and 16 provide the nearest approach to the monument. For north-south travelers, U. S. 83 intersects these highways about 90 miles east of the Badlands and U. S. 85A intersects them about 75 miles to the west. Consult roadmaps for other routings.

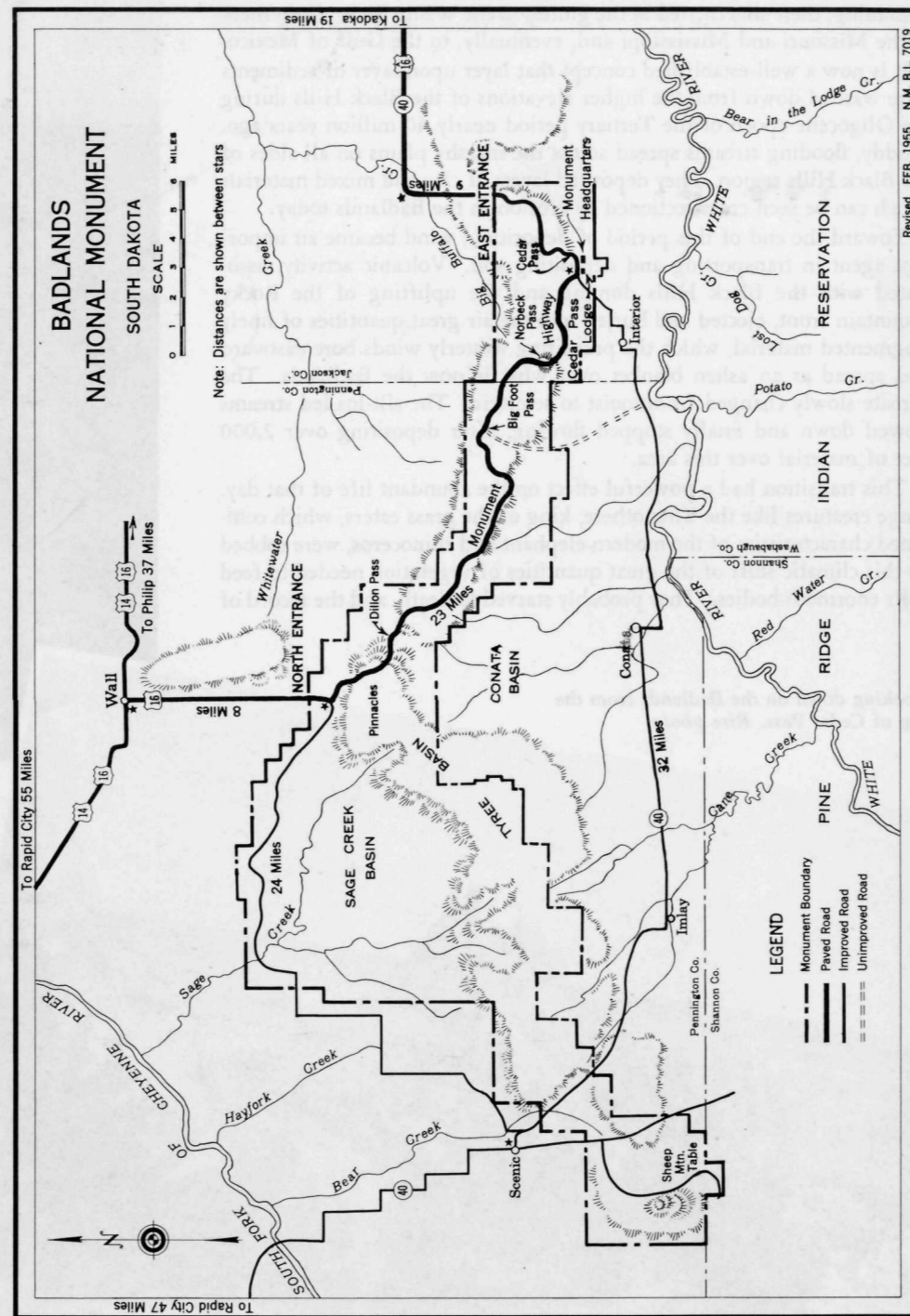
*The monument is open all the year.*

#### Accommodations

Within the monument, at Cedar Pass Lodge, cabins, meal and fountain service, gasoline, oil, souvenirs, and other items are available. This lodge, which is open during the summer travel season, is on private land within the monument and is not subject to Government regulation or supervision. Rapid City, Wall, Kadoka, and other nearby cities and villages have facilities to meet the normal requirements of motorists.

#### Administration

Badlands National Monument is administered by the National Park Service of the United States Department of the Interior. A superintendent, whose address is Interior, S. Dak., is in immediate charge.



REVISED 1955

U. S. GOVERNMENT PRINTING OFFICE: 1955—O—335912

(Cover) Weird erosion patterns. Rise photo

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