WIND

NATIONAL PARK
South Dakota



The state of the s

N THE SOUTHEASTERN FLANK of South Dakota's Black Hills, Wind Cave National Park preserves, in relatively unspoiled condition, part of the original prairie grassland. Preserved here also is a distinctly different type of limestone cavern—a series of subterranean passages and rooms, some lined with colorful calcite crystal formations. Bison roam over the park's 44 square miles of rolling wooded and plains country. American elk, pronghorn,

wooded and plains country. American elk, pronghorn, and many other animals also live in this part of the Black Hills.

The strong currents of air that blow alternately in and out of the cave suggested the park's name. This strange phenomenon is believed to be caused by changes in atmospheric pressure. When outside pressure

in atmospheric pressure. When outside pressure drops below that of the cave's interior, the wind blows outward; when it rises, the wind blows into the cave.

Stop at the cave entrance to read nature's barometer.

Biologically speaking, east meets west in Wind Cave National Park, where ponderosa pines, typical of the western mountains, grow on the same slopes with eastern bur oaks.

The park includes a prime example of mixed-grass prairie—a rich natural blending of medium-tall and short grasses—with a sprinkling of wildflowers, which lend color to the scene in spring and summer. Here you may behold the beauty of a sea of wild grass rippling in the prairie wind.



Wind Cave National Park is a wildlife sanctuary where many species of animals that were characteristic of the Great Plains and the Rocky Mountains before white men came are protected.

One of the park's main attractions is its bison herd. It is a rare day that you can't see from the road at least a few of these huge, shaggy animals.

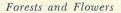
As you drive through the park, you will notice several towns of black-tailed prairie dogs. Such towns once covered many square miles of the Great Plains.

You will want to stop and watch the antics of these quick-moving little rodents. A roadside exhibit near one of the towns helps you understand their habits.

Here, too, is the graceful pronghorn ("antelope"). Swiftest of North American mammals, it is also the only species on the continent that sheds its horn sheath annually. True antelopes never shed horns or sheaths. Its tan-and-white coat and conspicuous white rump patch help you identify the pronghorn.

Among the other mammals of the park are American elk, deer, coyotes, badgers, raccoons, and several small rodents.

The long list of park birds includes meadowlarks, woodpeckers, warblers, chickadees, sharp-tailed grouse, kingbirds, bluebirds, and magpies.

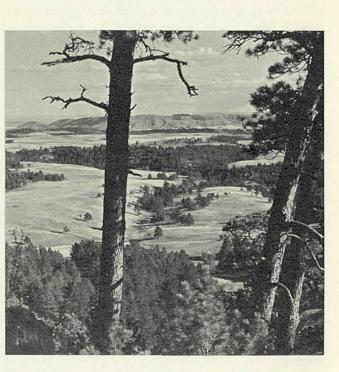


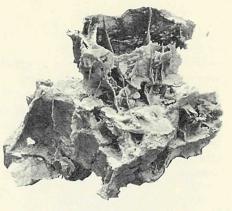
Great expanses of grassy plain separate this part of
South Dakota from the eastern deciduous and
Rocky Mountain forests, and from the desert vegetation of
the Southwest. Nevertheless, the flora in Wind Cave
and the rest of the Black Hills evidently has
received immigrants from all these sources.
Here you can see bur oak and American elm from
the east; yucca, cactus, and cottonwood from the arid
southwestern plateaus; and two species of
conifers—ponderosa pine and Rocky Mountain juniper—
from the Rocky Mountains.
Dominant grasses in the park include representatives of

Dominant grasses in the park include representatives of both true prairie and short-grass plains. Among the former are prairie junegrass, needlegrasses, and wheatgrasses; the latter are represented by

buffalograss and gramas.

Here, too, in spring and summer, is a large assortment of wildflowers. Look for pasqueflower (South Dakota's State flower), ground phlox, darkthroat shooting star, mariposa, and wallflower. Some, such as verbena, parade their colors until the crisp frosts of autumn.





The Naturalist Program

Be sure to make the visitor center one of your early stops in the park—preferably the first. Museum exhibits tell the geological story of the cave and describe the wildlife, plantlife, and early history of the park. Specimens of formations from the cave are displayed for your close examination. Free evening campfire talks are presented in the campground nightly from late June through Labor Day. If you have questions about the park, ask the uniformed ranger-naturalist on duty in the center.

Rankin Ridge Nature Trail

To help you enjoy the surface features of the park, a self-guiding nature trail leads to the summit of Rankin Ridge (elevation 5,016 feet, highest point in the park). To double your enjoyment of this walk, be sure to get a leaflet from the box at the beginning of the trail. It points out the most important features along the way.

Round trip, the trail is 1½ miles long and takes about 1 hour. Take your camera and binoculars. From the observation post on the lookout tower you can obtain a fine panoramic view of the southern Black Hills.

VI AN AT WIND CAVE It is generally believed that the cave was discovered by Tom Bingham, a Black Hills pioneer, while hunting deer in 1881. He was attracted by a strange whistling and, after searching about in the undergrowth, he discovered that it was caused by wind escaping through a small hole in some rocks. For several years after discovery, the area around the cave entrance lay open to claims. In 1890, the South Dakota Mining Company filed location certificates on the cave. That same year, Jesse D. McDonald, accompanied by his sons, Elmer and Alvin, came to manage the property for the company. With the arrival of the McDonalds, the first serious exploration of the cave began. For the first time, guided tours were conducted. Alvin McDonald discovered many of the passageways and rooms, and kept an extensive diary in which he named the rooms, interesting formations, and chief routes, estimated distances, and kept a record of explorations. A plaque now marks his grave near the cave entrance. In 1892, the elder McDonald, along with several others, including John and Charles Stabler, formed the "Wonderful Wind Cave Improvement Company" and took over the property. This company opened passages and built stairways. These were years of controversy, much of it in the courts, between the Stabler and McDonald families over ELP US PROTECT THIS PARK Park regulations were established

to protect you as well as the park. Please obey them.

injure, or destroy vegetation, rocks and minerals, and

prohibited. Umbrellas and tripods may not be taken into

is granted by the superintendent or one of his representa-

Fires. Fire is an enemy of the park forests and grass-

and keep it clean and sanitary. Place empty cans and

cave unless conducted by a uniformed National Park

 BISON Do not feed, tease, frighten, or molest this animal in any way;

such foolhardy acts are violations of park regulations.

Stay on the road in your car to observe the bison.

Hunting is not allowed in this wildlife sanctuary.

Pets must be physically restrained at all times. They are

Traffic. Drive carefully at all times to protect yourself,

off established roads; doing so damages the grasslands.

other visitors, and wildlife. Please obey the speed

YOU and

TO HOT SPRINGS

the

Build fires only in designated places. Make sure your

the cave. Permission to carry a cane or walking stick

Preserving natural features. Please do not disturb,

animal life of the park. Do not touch or deface

walls and formations within the cave. Tossing

tives only to those persons who cannot make the

lands and of all the creatures that live in them.

fire is out, even if you plan only a temporary

Camping. Please use the designated campground

garbage in containers provided for that purpose.

Cave trips. You are not permitted to enter the

absence. Do not throw cigarette, cigars, or

matches from your automobile.

It is reckless and dangerous

and inflict serious injury.

on foot; it may turn impulsively

Firearms are permitted within the park

only if they are packed to prevent their use.

not allowed in the cave or public buildings

limits posted along park roads. Do not drive

Service representative.

to approach a bison

within the park.

rocks or other material inside the cave is

trip without one.

OW THE CAVE WAS FORMED

The limestone bed in which Wind Cave was formed

sea in the Mississippian period some 300 million years ago.

Black Hills region. It is known as the Pahasapa lime-

elevation and subsidence have occurred. During periods

stone, a local formation deposited in a great inland

Since deposition of this limestone, several periods of

of the land here from beneath the sea began at the

of submergence, the Pahasapa limestone was

several hundred feet thick. The final uplift

end of the Cretaceous period, some 60 million

The limestone layer, subjected to uplift or warping,

dioxide, which made the water acid and capable of

as calcite (the crystal form of calcium carbonate).

call boxwork. Besides the predominant boxwork

some 326 feet to the lowest point. But most of

primitive condition and much is unexplored.

Later the more soluble limestone, between the calcite

plates, dissolved, leaving the formation of calcite "fins" we

formation, displays of unusual "frostwork" and "popcorn"

are found. About 11/4 miles of the 41/2 miles of explored passages are electrically lighted along trails that descend

this honeycomb of underground chambers remains in

became fractured. Cracks close together served as the

pattern for the characteristic "boxwork." The boxwork

dissolving limestone (calcium carbonate). This carbondioxide-bearing water took some of the limestone into solution; then, evaporation of the water caused the calcium carbonate to be deposited in the cracks and crevices below

the surface through decaying vegetation, absorbing carbon

years ago. During this time, geologists believe,

was formed when rainwater seeped down from

the formation of Wind Cave began.

covered by other sediments,

varies from 300 to 630 feet in thickness in the

ownership of the land. However, both families continued to operate the cave and guide visitors until administration of the area was assumed by the U.S. Department of the Interior. On January 9, 1903, President Theodore Roosevelt signed a bill establishing Wind Cave National Park.



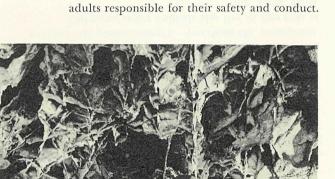
LOUR VISIT TO THE CAVE Cave trips are conducted daily at scheduled intervals from April 1 through October 31, depending on the availability of park-ranger guides. Ask for a schedule at the visitor center. Organized groups may make advance arrangements with the superintendent for special service. The cave is closed in winter. Conducted 1- to 11/2-hour tours enter the cave by either walk-in entrance or elevator. Cave trails are hard-surfaced, and a modern electrical system provides indirect lighting. You will enjoy your cave trip more if you take some of

the same precautions you would on a hike over a mountain trail. Wear low-heeled walking shoes, preferably with rubber soles. The cave is a chilly 47°, so wear a light sweater or jacket; slacks are more comfortable than shorts. Your uniformed National Park Service tour leader,

trained in cave guiding, will explain the origin of Wind

Cave and compare it with other caverns. He will

explain its wind, or "breathing," the properties and origin of limestone and calcite, and the crystal formations, chert layers, and fossils. The fee for each trip does not apply to adult-escorted children under 12 years of age, or to groups of elementary and high school students and accompanying





UNDERGROUND CAVERNS • WIND PEARLY GATES Surface Features Upper level. Approximate limits FAIRGROUNDS of elevation, 4080 to 3930 feet. Intermediate level. Approximate limits of elevation, 3930 to 3880 feet. Lower level. Approximate limits lev. 3870 BLUE GROTTO of elevation, 3880 to 3840 THREE-WAY STAIR lev. 3870 Stairway. MONTE CRISTO PALACE 200 100 SCALE IN FEET ELKS ROOM Elev. 3911 ROOM POST OFFICE ROOM TO CUSTER STATE PARK MODEL ROOM CROSSROADS GARDEN CAVE ENTRANCE VISITOR CENTER ELEVATOR BUILDING LUNCHES CURIOS CURIOS **OFFICE** Frostwork Ledge PARKING

ADMINISTRATION

National Park Service, U.S. Department of the Interior. 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. A superintendent, whose address is Hot Springs, S. Dak.,

is in immediate charge of the park.

Wind Cave National Park is administered by the

AMERICA'S NATURAL RESOURCES

Created in 1849, the Department of the Interior-America's Department of Natural Resources-is concerned with the management, conservation, and development of the Nation's water, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and territorial affairs. As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States-now and in the future.

VISITOR-USE FEES

Fees for guide service in the cave, which includes use of the elevator, are deposited as revenue in the U.S. Treasury. They offset, in part, the cost of operating and maintaining the National Parks.

UNITED STATES DEPARTMENT OF THE INTERIOR

National Park Service



PARK SEASONS

The popular seasons at the park are summer, spring, and autumn. Wintry weather often discourages travel in the Black Hills from November through March. The climate is relatively dry. There are frequent windy days in winter and spring, but extreme winds do not occur. Thunderstorms and hailstorms in summer and snow and icy roads in winter may temporarily disconcert the traveler, but such delays can be pleasantly and profitably spent in the visitor center looking at the exhibits.

ACCOMMODATIONS Within the Park

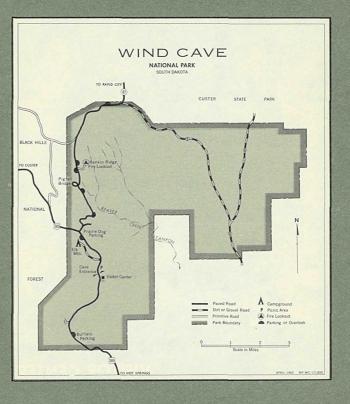
The campground, at Elk Mountain, is operated on a first-come, first-served basis. There are no utility connections for trailers, but comfort stations, water, and free wood are available. Building of campfires is limited to designated fireplaces; gas stoves and other self-contained fires, however, are permitted. Lunchroom facilities and soda-fountain service are provided by a concessioner in the visitor center during the summer.

Outside the Park

There are modern motels, hotels, trailer courts, and garages in Hot Springs, Custer, and other nearby towns along approach highways to the park.

HOW TO REACH THE PARK

Wind Cave National Park is in southwestern entrance routes are from the south via Hot Springs. and from the north via Custer. connects Hot Springs and Custer. You may also



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