

Wind Cave



rump patch help you identify the pronghorn.

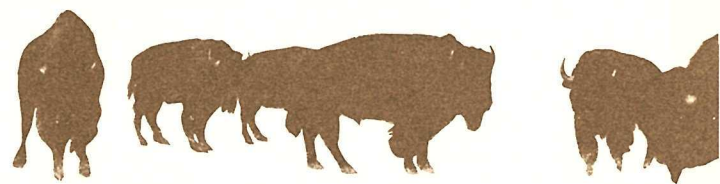
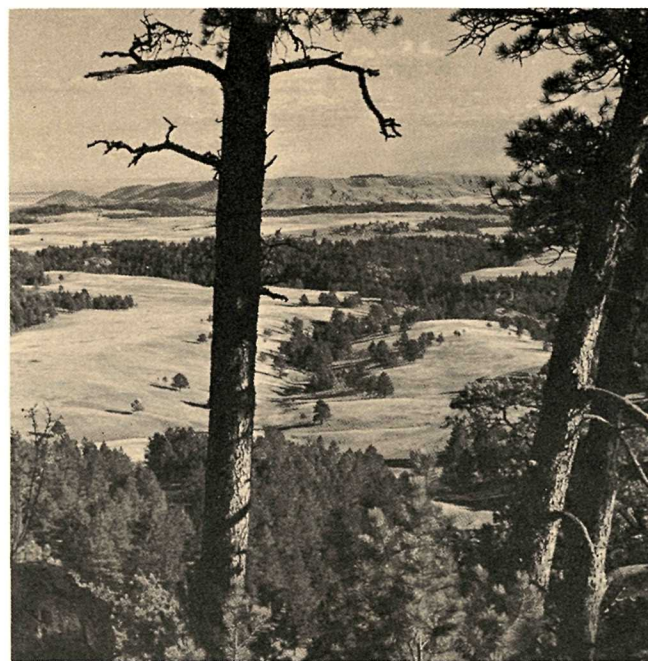
Among the other mammals of the park are American elk, deer, coyotes, badgers, raccoons, and several small rodents.

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

Forests and Flowers

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 both true prairie and short-grass plains. Among the former are prairie junegrass, needlegrasses, and wheatgrasses; the latter are represented by buffalograss and grammas.

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 park ranger 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 1¼ 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.

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

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 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.

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

ADMINISTRATION

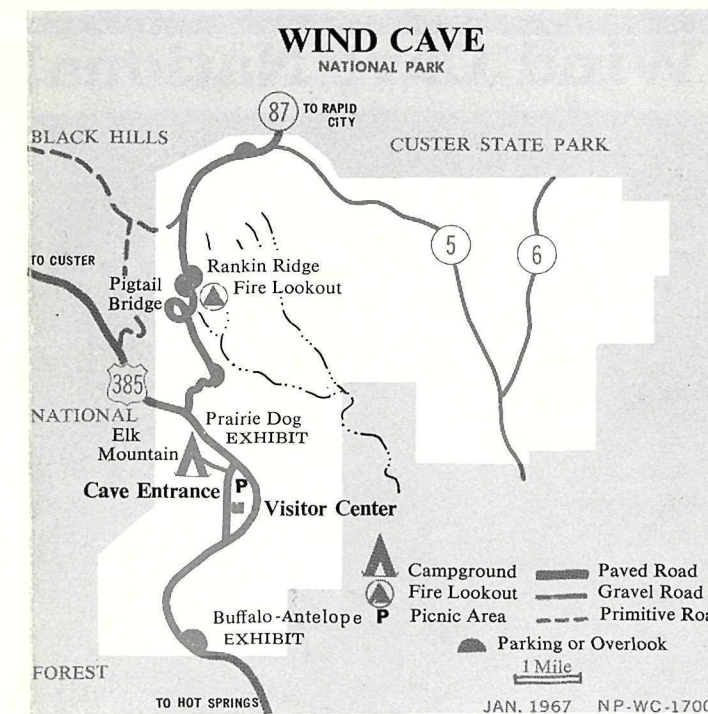
Wind Cave National Park is administered by the National Park Service, U.S. Department of the Interior.

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., 57747, is in immediate charge of the park.

THE DEPARTMENT OF THE INTERIOR—

the Nation's principal natural resource agency—bears a special obligation to assure that our expendable resources are conserved, that our renewable resources are managed to produce optimum benefits, and that all resources contribute to the progress and prosperity of the United States, now and in the future.



HOW TO REACH THE PARK

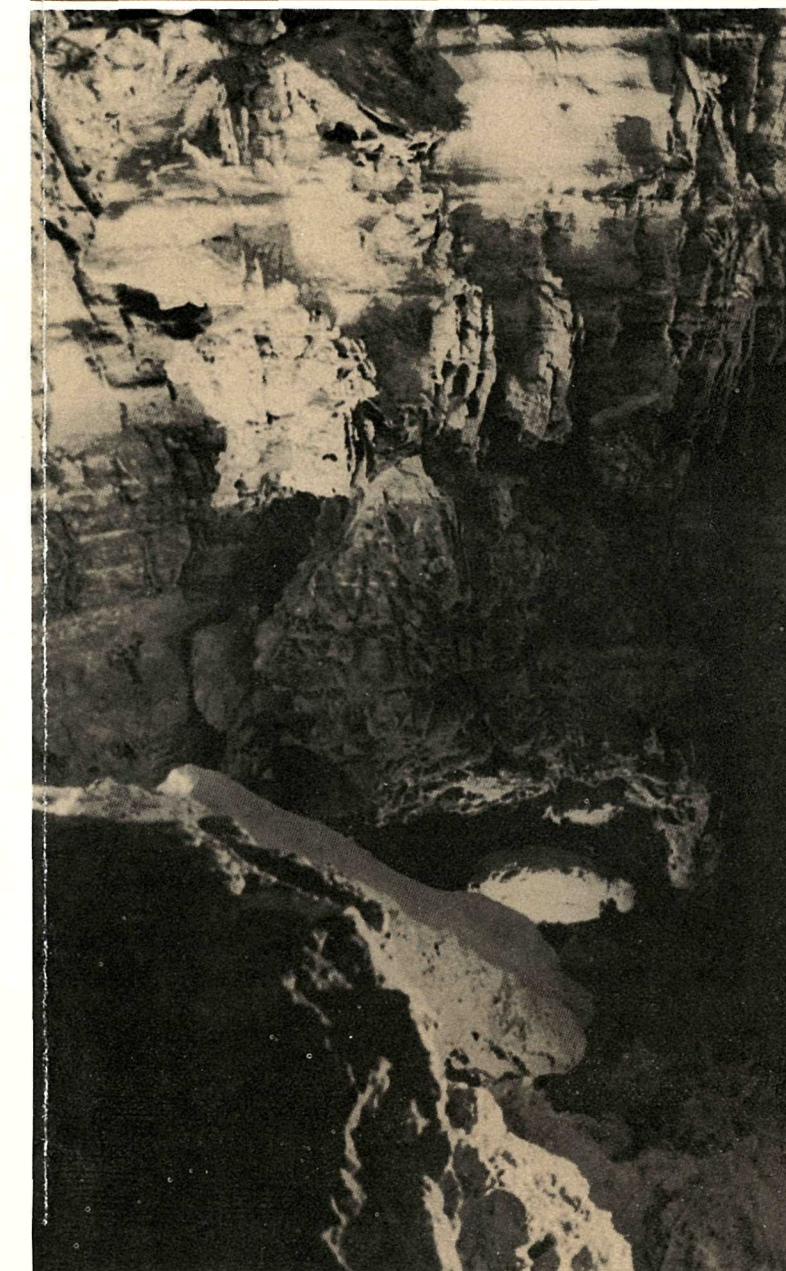
Wind Cave National Park is in southwestern South Dakota in the heart of the Black Hills. Main entrance routes are from the south via Hot Springs and from the north via Custer. U.S. 385 runs through the western part of the park and connects Hot Springs and Custer. You may also approach the park by S. Dak. 87 through Custer State Park, one of the largest State parks in the Nation. Transcontinental buses serve Hot Springs, Custer, Rapid City, and Edgemont. A daily train of the Chicago, Burlington & Quincy Railroad stops at Edgemont. Frontier, North Central, and Western Airlines serve Rapid City.

U.S. DEPARTMENT of the INTERIOR
NATIONAL PARK SERVICE



FOR YOUR SAFETY WEAR
LOW-HEELED, RUBBER-SOLED,
WALKING SHOES IN THE CAVE

Wind Cave



CAVE TRIPS are conducted daily 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 1½-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 children under 16 years of age, or to groups from educational institutions and those responsible for their safety and conduct.

THE LIMESTONE BED in which Wind Cave was formed varies from 300 to 630 feet in thickness in the Black Hills region. It is known as the Pahasapa limestone, a local formation deposited in a great inland sea in the Mississippian period some 300 million years ago.

Since deposition of this limestone, several periods of elevation and subsidence have occurred. During periods of submergence, the Pahasapa limestone was covered by other sediments

several hundred feet thick. The final uplift of the land here from beneath the sea began at the end of the Cretaceous period, some 60 million years ago.

During this time, geologists believe, the formation of Wind Cave began.

The limestone layer, subjected to uplift or warping, became fractured. Cracks close together served as the pattern for the characteristic "boxwork." The boxwork was formed when rainwater seeped down from

the surface through decaying vegetation, absorbing carbon dioxide, which made the water acid and capable of dissolving limestone (calcium carbonate). This carbon-dioxide-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 as calcite (the crystal form of calcium carbonate).

Later the more soluble limestone, between the calcite

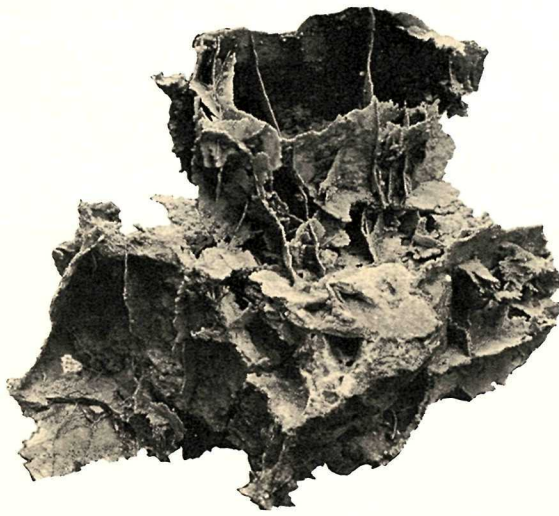
You and the Bison

It is reckless and dangerous to approach a bison on foot; it may turn impulsively and inflict serious injury.

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.

boxwork



plates, dissolved, leaving the formation of calcite "fins" we call boxwork. Besides the predominant boxwork formation, displays of unusual "frostwork" and "popcorn" are found. About 1¼ miles of the 10½ miles of explored passages are electrically lighted along trails that descend some 326 feet to the lowest point. But most of this honeycomb of underground chambers remains in primitive condition and much is unexplored.

It is 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, after opening passages and building stairways, operated the cave and guided visitors.

On January 9, 1903, President Theodore Roosevelt signed a bill establishing Wind Cave National Park.

PARK REGULATIONS were established to protect you as well as the park. Please obey them. *Preserving natural features.* Please do not disturb, injure, or destroy vegetation, rocks and minerals, and animal life of the park. Do not touch or deface cave walls and formations. Tossing rocks or other material inside the cave is prohibited. Umbrellas and tripods may not be taken into the cave. Permission to carry a cane or walking stick is granted by the superintendent or one of his representatives only to those persons who cannot make the trip without one.

Hunting is not allowed in this wildlife sanctuary.

Firearms are permitted within the park only if they are packed to prevent their use.

Pets must be physically restrained at all times. They are not allowed in the cave or public buildings.

Traffic. Drive carefully at all times to protect yourself, other visitors, and wildlife. Do not drive off established roads; doing so damages the grasslands.

Fires. Build fires only in designated places. Make sure your fire is out, even if you plan only a temporary absence. Do not throw cigarette, cigars, or matches from your automobile.

Camping. Please use the designated campground and keep it clean and sanitary. Place empty cans and garbage in containers provided for that purpose.

Cave trips. You are not permitted to enter the cave unless conducted by a uniformed National Park Service representative.

Underground Caverns, Wind Cave National Park, South Dakota

