

Jewel Cave

National Monument

SOUTH DAKOTA

Jewel Cave is a small, beautiful, and interesting cavern. The walls of many of its underground chambers are lined with a solid coating of dogtooth calcite crystals which sparkle like jewels in the light; hence, the name Jewel Cave. Because of this unique formation and an attractive range of color, the cave and a small protective surface area were set aside as a national monument by Presidential proclamation on February 7, 1908. The National Park Service is responsible for its administration and protection. The cave is available for the visitor to see and enjoy and at the same time it is preserved in as nearly a natural state as possible.

HISTORY

The area was originally recorded as a mining claim, known as Jewel Lode, after its discovery by two prospectors, Albert and F. W. Michaud, on August 18, 1900.

While out prospecting, the Michaud brothers were attracted by the noise of wind coming from a small hole in the limestone cliffs

on the east side of Hell Canyon. In the hope of discovering valuable minerals and locating the source of the wind, these men, in company with Charles Bush, enlarged the opening.

The Michaud brothers believed they had discovered a cave which would be of great interest to tourists in the Black Hills. They built a log house nearby for the accommodation of visitors. However, they were unable to attract enough people to make this venture a financial success.

When the area was established as a national monument, the land was a part of the Black Hills National Forest. The area remained under the administration of the United States Forest Service until April 1, 1934, when, by Executive order, the President transferred the area to the National Park Service.

GENERAL DESCRIPTION

Jewel Cave National Monument is located on a high, rolling plateau ranging from 5,200



UNITED STATES DEPARTMENT OF THE INTERIOR

J. A. Krug, *Secretary*

NATIONAL PARK SERVICE, Newton B. Drury, *Director*

to 5,800 feet above sea level. The plateau is broken by many gulches and ravines. The entrance to the cave is situated on the side of one of these ravines known as Hell Canyon.

The main passages of Jewel Cave are supplemented by side galleries and chambers of various sizes. The first chamber is of dense, fine-grained limestone, and somewhat resembles the Gothic style of architecture. About 500 feet from the entrance the walls and roofs of a number of galleries are lined with a thick crystalline calcite. The rooms and chambers have different colors, ranging from a peculiar light green tint to darker greens and bronze.

Boxlike cavities along the walls and ceiling of the cave are covered with minute crystals which stand in bold relief from the ground mass. These attractive crystals have a color range from a light brown to a deep chocolate shade. Clumps of crystals of various sizes and shapes are found in the walls and passageways.

GEOLOGY

Jewel Cave is found in a formation known as the Pahasapa limestone of Mississippian age. This formation is exposed in many places about the Black Hills, and most caves in the area are found in it. Earth forces which formed the Black Hills cracked and fractured the limestone and thereby provided channels for the movement of percolating waters. This water, aided by gases from the air, dissolved the limestone from the walls of the fissures through which it flowed, thus forming the passages, galleries, and chambers of the cave. This process continued until the source of water became depleted or was diverted to other channels.

The formation of the jewel-like crystals was the last step in the development of the cave features. After the galleries had been formed, seeping water, saturated with calcium carbonate appeared on the cave walls. Tiny projections of calcite, or a similar mineral, acted as nuclei about which deposition took place. As the crystals grew, they took on the shape of a tall, slender pyramid resem-

bling a dog's tooth; hence, the name dog-tooth calcite or dogtooth spar.

WILDLIFE

Wildlife found within the monument area includes common rodents, such as ground squirrels, marmots, and chipmunks. Porcupines, coyotes, and rabbits are frequently seen. Occasionally deer and elk are seen from the highway. Mammals found in the cave consist of cave bat, Say's bat, pallid lump-nosed bat, Osgood white-footed mouse, and fuscous bushy-tailed wood rat.

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

PLANT LIFE

The rough terrain is covered by an excellent forest of ponderosa pine with some trees more than 40 inches in diameter—well above the average in size for western pines of the Black Hills region.

Many herbaceous plants and grass species may be found. Scattered clumps of boxelder and snowberry grow in several of the ravines. Mountain mahogany and other brush types thrive along the dry hillsides.

Wild flowers bloom profusely during the spring and early summer. The first to appear are crocus, shootingstar, and ground phlox, then the evening-primrose, horsemint, larkspur, monkshood, yellow sweet pea, lupine, wallflower, bluebells-of-Scotland, Canadian anemone, early goldenrod, and fireweed.

In early June the roadsides and grassy meadows are filled with Mariposa lilies, and scarlet mallow covers the road shoulders. Later in the summer the spreading dogbane, blue vervain, wild sunflower, New England aster, black-eyed-susan, yucca, ladies-tresses, green-headed coneflower, purple coneflower, and wild geranium may be seen.

ADMINISTRATION

Jewel Cave National Monument is administered by the National Park Service of the

United States Department of the Interior, and the representative in charge of the monument is the Superintendent, Wind Cave National Park. His address is Hot Springs, S. Dak.

CAVE TRIPS

All trips through the cave are under the guidance of park rangers. The entrance fee, including Federal tax, is 60 cents. When accompanied by adults assuming responsibility for their safety and orderly conduct, children under 12 years of age are admitted free and groups of school children between the ages of 12 and 18 are charged Federal tax only.

The cave is open to visitors every day during the months of May, June, July, August, and September, and trips through the cave are made every hour from 8 a. m. to 4 p. m.

A trip through Jewel Cave will appeal to those who wish to experience primitive cave exploration. Although ladders and steps are installed for safety and convenience, development has been kept to a minimum. There are no electric lights, but the ranger will provide gasoline lanterns. The trip is not recommended for those in poor physical condition. Old clothes and stout walking shoes should be worn.

ACCOMMODATIONS

No hotels or tourist cabins are located in the monument, but those facilities, as well as garages, may be found in towns nearby. Ask the ranger for highway information to those towns. Near monument headquarters is a good public camp ground with free wood and spring water.

HOW TO REACH THE MONUMENT

The cave is located in the Black Hills, near the southwestern boundary of South Dakota, adjacent to U. S. No. 16.

It is accessible from the following railroad stations: Custer, S. Dak., and Newcastle, S. Dak., both on the Chicago, Burlington & Quincy Railroad.

NEARBY POINTS OF INTEREST

There are many historical, scientific, and scenic attractions in and near the Black Hills. Among the more widely known are Badlands National Monument, Devils Tower National Monument, Mount Rushmore National Memorial, and Wind Cave National Park—all included in the National Park System. There are also national forests, mines, a State park, and historical shrines. The ranger will be glad to assist you in planning your trip to include these features in your itinerary.

Regulations are designed for the protection of the natural phenomena and scenery as well as the comfort and convenience of visitors. The following synopsis is for the general guidance of visitors, who are requested to assist the administration by observing them. Complete regulations may be seen at the superintendent's office and the ranger station.

Specimens.—The removal of rocks, minerals, or cave formations, or the picking of flowers, shrubs or other vegetation without written permission from the superintendent is contrary to regulations. Remember, if you leave the area as you found it, those who come after you will receive the enjoyment to which they are entitled.

Fires.—Light carefully and in designated places. Extinguish completely before leaving camp, even for temporary absence. **Be sure your fire is out.**

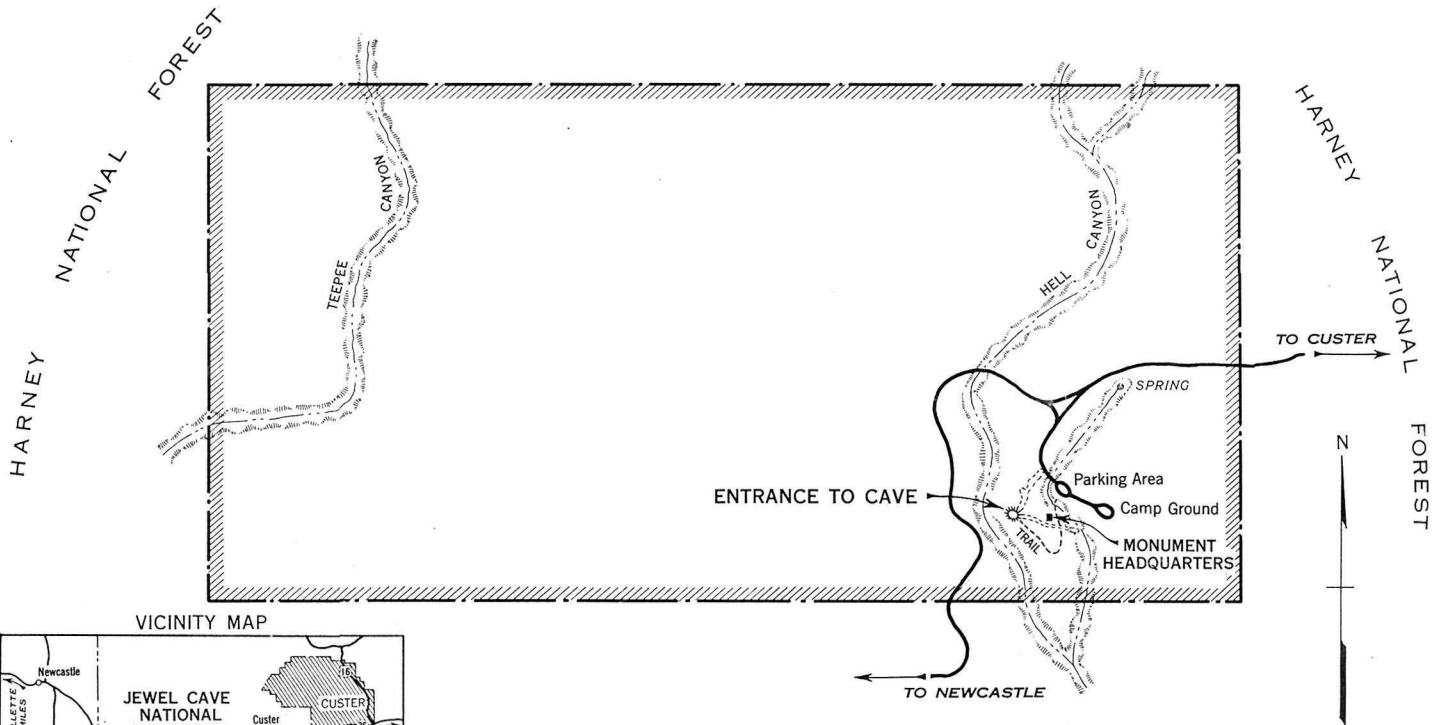
Camps.—Camp only in designated camp grounds. Keep camp grounds clean. Combustible rubbish shall be burned on campfires, and all other garbage and refuse shall be placed in cans provided for that purpose.

Trash.—Please help keep the area neat and attractive. Do not litter the area with paper, lunch refuse, kodak cartons, candy wrappers, etc. Carry until you can burn in camp or place in receptacle. Be a good sportsman; leave a clean camp.

Wildlife.—The monument is a wildlife sanctuary. Visitors are requested to refrain from molesting wildlife in any manner.

Firearms.—The use of firearms on monument lands is not allowed.

JEWEL CAVE NATIONAL MONUMENT



VICINITY MAP

