

BLACK CANYON

of the
GUNNISON

NATIONAL
MONUMENT

Colorado



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Spectacular gorge of Gunnison River, notable for its narrowness, depth, ruggedness, and great expanses of sheer walls carved in dark-colored platy rocks, called schists, with extensive intrusions of coarse-textured granites varying in color from black to pink

Black Canyon of the Gunnison National Monument, comprising an area of 13,176.02 acres of federally owned land, was established by Presidential proclamation of March 2, 1933. Within its boundaries lies the deepest and most spectacular 10-mile section of the dark, formidable gorge of the Gunnison River. Ute Indians aptly describe this gorge, cut through the heart of a great plateau, as the "place of high rocks and much water." Geologists and others consider the Black Canyon of the Gunnison River to be one of the most remarkable bits of scenery in the entire San Juan Mountains region of Colorado. Scenic drives within the monument closely parallel the north and south rims of the gorge, with canyon overlooks provided at advantageous locations.

GEOLOGY

An observer standing on the rim can easily see that sheer-walled Black Canyon is cut into the

floor of a broader outer valley with gentle slopes of stratified sandstone and shale formations. Rocks forming this floor are ancient "base rocks," millions of years old. They consist of a dark, platy rock called schist, a coarsely banded rock called gneiss (pronounced "nice"), and a crystalline-textured rock known as granite. The granite, composed of crystals of feldspar, quartz, and mica, forms a tracery of dark bands in the canyon walls and light to pinkish-hued exposures along the rim. The weathered surfaces of schist, gneiss, and granite, streaked and stained by organic acids, add to the awe and somberness of the chasm. Except at midday, the bottom of this incredible gorge is shrouded in gloomy twilight, making the name "Black Canyon" particularly appropriate.

Black Canyon is notable for its narrowness, depth, ruggedness, great expanses of sheer walls, and interesting gorge formation. The rims of the gorge are only 1,300 feet apart at their nearest approach, yet the gorge ranges from

1,730 to 2,425 feet in depth within the monument. At one location the channel of the Gunnison River narrows to only 40 feet in width.

For a period of time measured in hundreds of thousands, or perhaps even a few millions, of years, the river has been carving its channel deeper and deeper into this schist and granite base rock at a greater speed than all combined natural processes can widen it. Tools which the river uses are the sand and gravel that it carries, mainly during times of flood. The hardness of the rock formation, the joint or fracture system, and the comparatively rapid rate of down-cutting account for the sharp, ragged sheerness of the canyon walls. The rolling hills, which rise above the canyon rims and which formerly entrenched the flow of the Gunnison River, are carved from the stratified formations known as sedimentary rocks. These sedimentary rocks are so much younger than the underlying schist and granite of the gorge itself that during this

gap of time life developed from the single-celled type to the monstrous dinosaur. This tremendous break in the record of geological time is as significant to the imagination as the chasm of Black Canyon is to the sight!

HISTORY

The monument and vicinity are rich in historic lore. Evidence shows that prehistoric Indians camped and hunted in the area, long known to historic Ute Indians as a fine hunting ground.

Don Juan Maria de Rivera, a Spanish prospector, traversed the region in 1761, camping overnight near the mouth of the gorge. Then, in 1776, came the indomitable Franciscan friars, Silvestre Velez de Escalante and Francisco Atanasio Dominguez, who camped in the same vicinity during their search for a "northern" route from Santa Fe to Monterey in California. Next in the locality were the colorful "Moun-

North rim view of the canyon.



tain Men" searching for beaver, followed in 1837 by Joseph Roubidoux, a French Canadian explorer.

Several military expeditions passed through this region during the period of expansion of frontiers and exploration of the West. The most notable of these was the expedition led by Capt. John W. Gunnison, for whom the river was named. He was searching for a feasible coast-to-coast route for a railroad. Captain Gunnison determined that barriers on the proposed Black Canyon route were insurmountable.

A United States Geological and Geographical Survey party, headed by Henry Gannett and A. C. Peale, visited the region in 1874, recording the character, length, and surface geology of the Black Canyon and vicinity. Many persons have attempted to traverse the bottom of the canyon itself along the 50-mile course of the Gunnison River. The first known white men to accomplish this feat were A. L. Fellows, of the United States Bureau of Reclamation (then the Reclamation Service), and W. W. Torrence, of Montrose, Colo., who made the trip in 1901.

WILDLIFE, TREES, AND FLOWERS

Black Canyon is one of the few remaining strongholds of the Rocky Mountain bighorn. These wary, surefooted animals are occasionally seen on ledges along the canyon walls. Black bears and mule deer are also present, and elk winter in the area.

Trees of the monument are of unusual interest. On the highest point on the south rim of the monument (elevation 8,300 feet) the familiar pinyon-juniper forest gives way to a remarkable stand of rugged, overage pinyon patriarchs. These are distinguished from other pinyons by their comparatively smooth, flaky bark of silvered, light-brown hue. In 1940, borings were taken from five living pinyons of this group by the University of Arizona Laboratory of Tree-Ring Research, and the sawn stumps and ends of others, felled in 1934 by the United States Geological Survey in establishing their triangulation station atop this highest point, were examined. Annual ring counts ranging from 467 to 742 years were disclosed, with inside ring dates vary-

Excellent examples of isolated rock masses standing within the canyon, apart from the walls.



ing from A. D. 1220 to 1470. Estimated ages in years were placed at 750 years for one specimen down to 550 years for the "babies" of the group examined.

A veritable parade of wild flowers of wide variety is to be seen during the early summer months.

ACCESSIBILITY

Both rims of the canyon within the monument are accessible by automobile from early spring to late fall. From Montrose, Colo., the distance to the south rim is 17 miles—8 miles east via United States Highway No. 50, and 9 miles northward over a graded road. The north rim is reached from State Highway No. 92, just east of Crawford, Colo., by a 14-mile road that is usually graded during the summer months.

ACCOMMODATIONS

Hotel and motorcourt accommodations are available in nearby towns. Campgrounds and picnic spots are maintained on both the north and south rims within the monument. Camping supplies and equipment are not available at the monument and should be procured at the approach towns. Drinking water is obtainable on both the north and south rims.

ADMINISTRATION

Black Canyon of the Gunnison National Monument is administered by the National Park Service of the Department of the Interior.

The representative of the National Park Service, who resides at Colorado National Monument and whose address is Box 157, Fruita, Colo., is superintendent of both Black Canyon of the Gunnison and Colorado National Monuments. During the summer, rangers are stationed on both the north and south rims of the canyon.

The following observations are made for the protection of the natural beauties of the monument, as well as for the comfort and convenience of visitors:

The monument is a sanctuary for wildlife, and hunting and the use of firearms are not permitted.

Flowers, shrubs, and trees should not be disturbed or wild animals or birds harmed or frightened. Initials must not be carved on signs, or structures and natural feature marred or defaced.

*Be careful with fires, building them only in designated camping and picnic spots. Extinguish fires completely before leaving. **Know your fire is out.** Use only firewood provided for picnic and camping purposes.*

Rocks or other objects must not be thrown or rolled into the canyon. Hikers and fishermen in the canyon may be fatally injured by this practice.

In no circumstances should visitors attempt the canyon descent without first consulting the ranger. It is an arduous and hazardous ordeal.

Dogs and cats must be kept on leash or otherwise under physical restrictive control at all times.

Please cooperate fully in keeping monument premises clean by depositing all refuse in the receptacles provided.

The National Park System, of which Black Canyon of the Gunnison is a unit, is dedicated to the conservation of America's scenic, scientific, and historic heritage for the benefit and enjoyment of the people.

