

DINOSAUR

NATIONAL MONUMENT

COLORADO ... UTAH

DINOSAUR *National Monument*



UNITED STATES DEPARTMENT OF THE INTERIOR

J. A. Krug, *Secretary*

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A semiarid wilderness plateau, cut by deep canyons and containing rich deposits of skeletal remains of prehistoric reptiles

DINOSAUR NATIONAL MONUMENT, located in a great canyon-plateau wilderness in north-eastern Utah and northwestern Colorado, is one of the areas of the National Park System owned by the people of the United States and administered for them by the National Park Service. In these areas the scenery and the objects of historic, prehistoric, and scientific interest are carefully preserved and displayed for public enjoyment.

Dinosaur National Monument was established in 1915 by Presidential proclamation to preserve and protect 80 acres containing one of the Nation's richest fossil deposits from which skeletal remains of dinosaurs, or giant reptiles, had been removed for exhibit in museums throughout the world. In 1938, the monument was enlarged to include the Canyon of the Lodore on the Green River and the Yampa River Canyon, and now embraces 209,744 acres, including 18,945.51 acres of non-Federal land. Thus is preserved for posterity this vast area of unspoiled scenic beauty and outstanding geological significance.

The Dinosaurs

The original monument area in Utah includes deposits of ancient lagoons, lakes, and stream beds in which are imbedded the fossilized remains of dinosaurs and other creatures of the remote geologic past. The evidence of ancient life is preserved in rock. On a visit to the quarry one may view specimens of prehistoric life where nature left them millions of years ago. Although hundreds of bones and skeletons

have been removed, many more specimens await excavation and study in years to come. Geologists say that the rock beds of the quarry were deposited about 140 million years ago on a broad, marshy, luxuriantly vegetated tropical lowland, which later was submerged by seas during the geologic period known as Cretaceous.

Dinosaurs and kindred forms of life appeared on earth as early as 200 million years ago and dominated the world for some 140 million years through the Mesozoic or "Middle Life" geologic era. With the end of this era, about 60 million years ago, the dinosaurs became extinct. The gradual uplift of the Rocky Mountain region had begun, and the first mammals

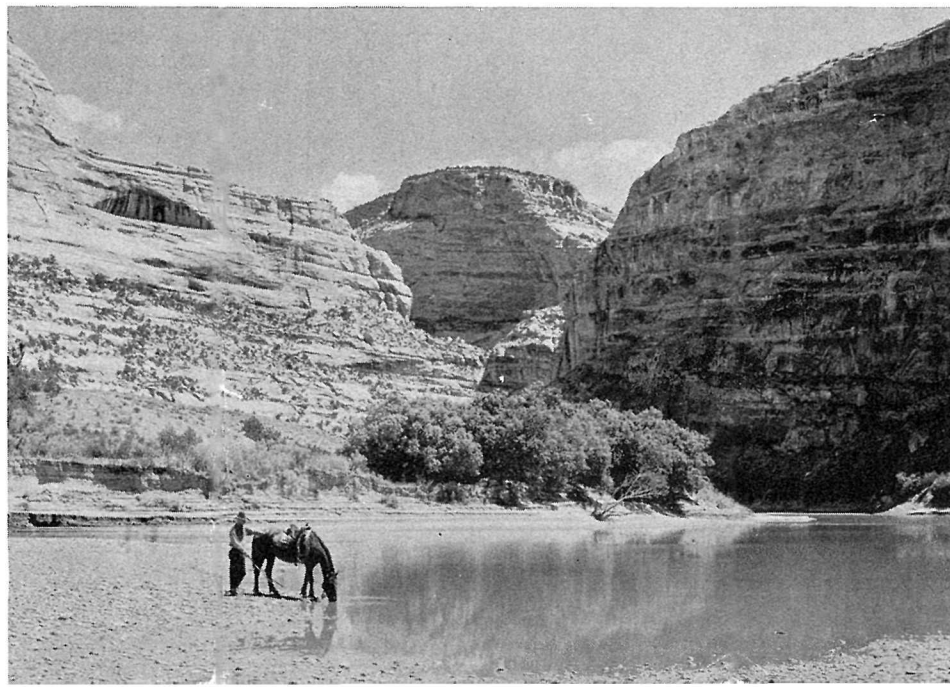
Head of Lodore Canyon



had made their appearance.

During their long reign dinosaurs varied greatly in appearance and size. Fossils recovered are from animals which were from a few inches to about 80 feet in length. The largest specimens may have weighed as much as 30 tons. These prodigious creatures of necessity consumed huge quantities of food and thrived in moist tropical climates where vegetation and food were luxuriant and plentiful. Some reached such size that their movements became slow and unwieldy, making them easy prey for their enemies. For the same reason they were trapped easily in quicksand and often were drowned by sudden floods, after which their carcasses were washed into shallow waters, or deposited upon sand bars, where in time their bones accumulated in great numbers. Gradually the remains were blanketed with layers of silt and sand. Pressure and cementation transformed the sediments into the rock beds now exposed in the fossil quarry. The material of the dinosaur bones was replaced or impregnated with silica, producing the fossils as they are found today. So complete was this process that bone structure may be studied microscopically and compared with

Yampa Canyon at First Crossing



bone structures of modern animals.

During the period when the Uinta Mountains to the north were uplifted, the fossil-bearing area also was tilted and folded. Throughout the ages during and since the uplift, erosion cut through these folds, exposing the ancient bone-bearing stratum.

The occurrence of fossil bones in this region was first discovered about 1882, but it was not until 1909 that the deposit of fossils within the present monument became known. Between that time and the date of establishment of the national monument, nearly one million pounds of fossilized bones were removed by various museums, universities, and scientific groups.

The Yampa Canyon

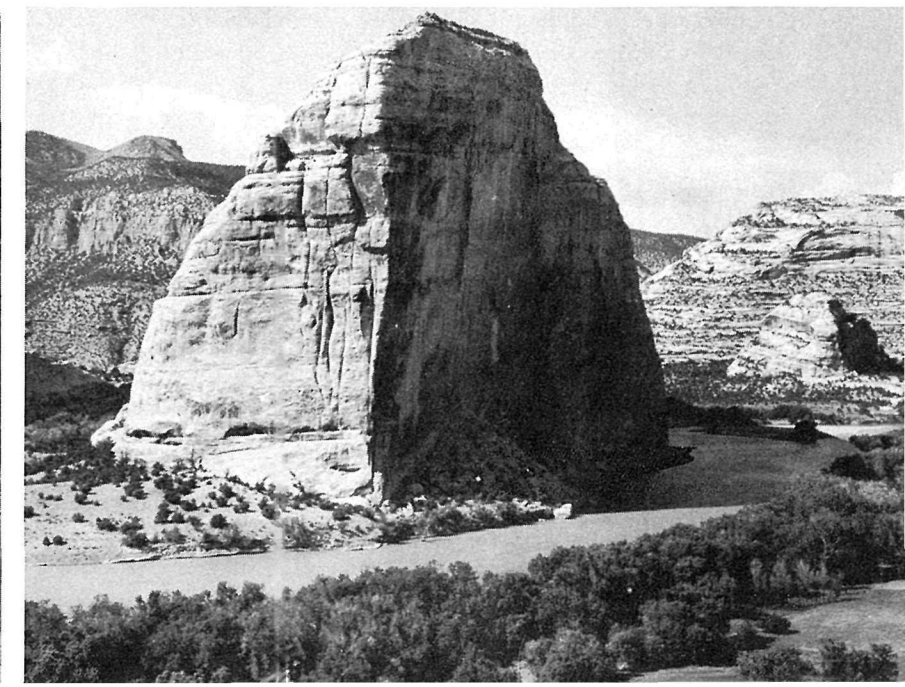
The Yampa River, rising in the Rabbit Ears country of northwestern Colorado, has cut a great gorge, in places over 1,600 feet in depth, through a high plateau which lies southeast of the Uinta range. The stream has formed numerous bends, loops, and ox-bow curves, making navigation difficult and hazardous. During the summer season, parts of this awe-inspiring canyon may be reached by means of unim-

proved roads and trails leading from Elk Springs, Colo., on United States Highway No. 40.

Canyon of the Lodore

This magnificent and colorful canyon, more than 2,000 feet deep in places, has been formed through countless centuries by the erosive action of the Green River, the largest tributary of the Colorado River. Between high vertical walls of tilted strata that represent millions of years of geologic time, over falls and rapids, and around tortuous curves, the Green River flows on its turbulent way toward its junction with the Colorado. In 1869, Maj. J. W. Powell, famous pioneer explorer, made the first boat trip between the towering canyon walls. Major Powell named numerous geographic points, including the treacherous Disaster Falls in the heart of the canyon where he lost one of his boats. For several miles the Green River tumbles through the confining walls of the Lodore Canyon before it is joined by the Yampa River at Steamboat Rock, which nature has carved to resemble the prow of a ship. The Green, below the confluence with the Yampa,

Steamboat Rock at Junction of Green and Yampa Rivers



flows through Pats Hole, a lonely valley where a hermit, Pat Lynch, lived for nearly half a century. It swirls and plunges past Harpers Corner, through Whirlpool Canyon and Island Park, then slows to a more leisurely pace after emerging from Split Mountain Gorge. This spectacular gorge may be reached by an unimproved road from the monument headquarters at the fossil quarry. During good weather access may be gained to Harpers Corner and Pats Hole by roads and trails over Blue Mountain from a point on United States Highway No. 40 about 12 miles east of Jensen, Utah.

Early Indians

The area was the home of prehistoric Indians. Evidence of these ancient inhabitants may be seen in various caves which served as shelters and storage places for food. Petroglyphs and pictographs may be observed on a number of sandstone cliffs throughout the monument area.

Cliff Cave has been excavated by a group of scientists, and metal signs and markers have been placed in it so that the visitor may better understand the use of this cave by Indians. This cave is in Castle Park and may be reached with

some difficulty from Elk Springs, Colo., on United States Highway No. 40. The roads are rough and unimproved and at times it is necessary to resort to horse or foot travel.

Excavation of relics, or "pot hunting" activity, is not permitted, and is subject to penalty.

Fauna and Flora

The monument is a refuge for wildlife and all animals and birds are protected from hunting throughout the year. Deer are common throughout the monument, particularly in the Blue Mountain, Douglas Mountain, and Island Park regions, and the magnificent big-horn, or mountain sheep, are observed occasionally. Coyotes and bobcats are common, but the wary mountain lion is rare. Beavers, while not numerous, are increasing gradually. The plateaus adjacent to the canyons are typical examples of semidesert country with greasewood, piñon, junipers, and sagebrush growing in profusion. Stands of colorful aspen, Douglas fir, ponderosa pine, and mountain mahogany grow on protected slopes of the higher and more rugged mountainsides. Among the more common varieties of wild flowers which may be observed in this vast wilderness area are the sunflower, goldenrod, sego-lily, evening-primrose, and bee flower. The semiarid climate, along with highly inflammable vegetative types,

creates a high fire hazard, and great caution should be exercised to prevent brush and forest fires.

Picking of flowers and cutting, injury, or destruction of trees or plants are prohibited.

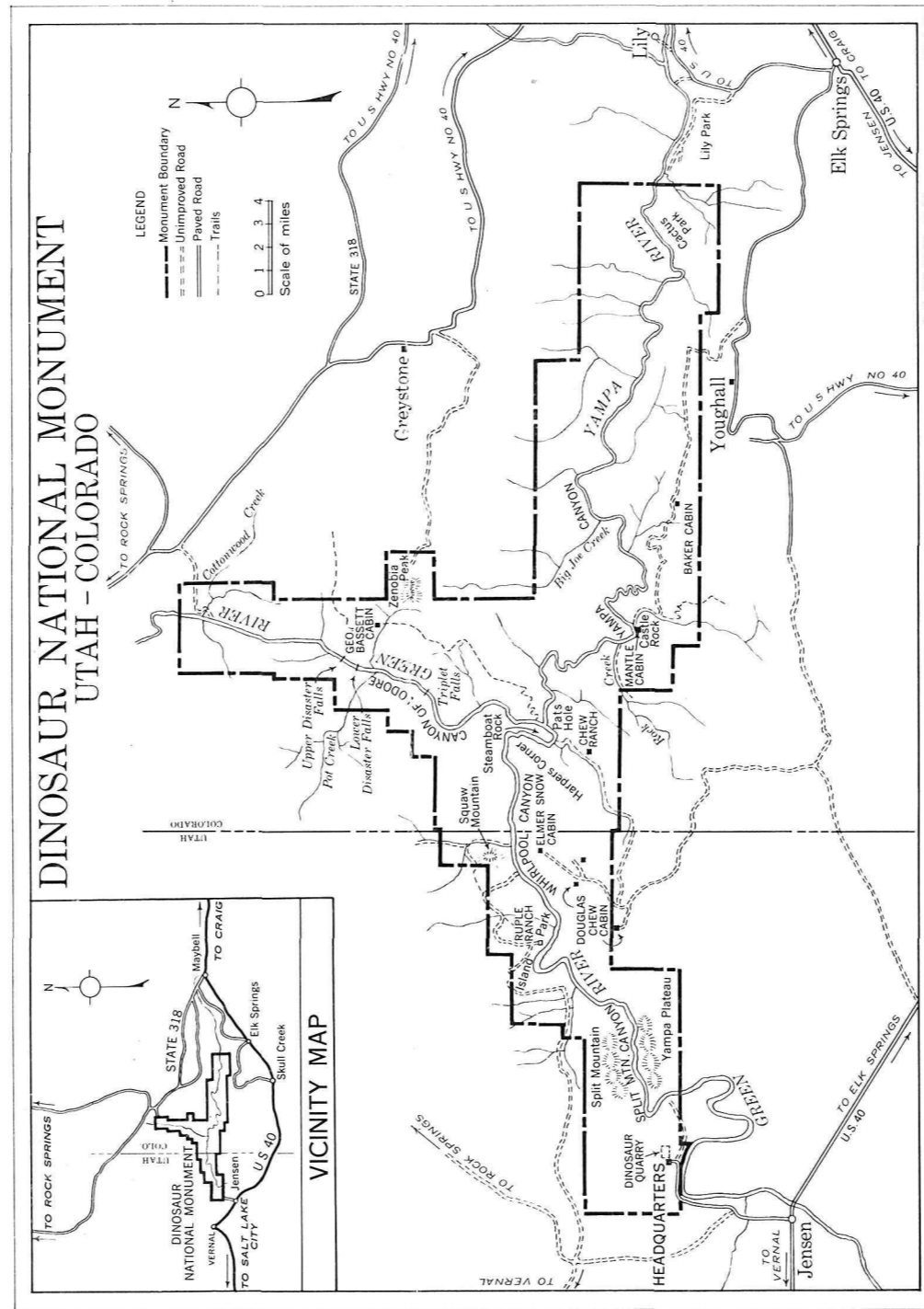
Location and Administration

Dinosaur National Monument is located in Moffat County, Colo., and in Uintah County, Utah, with administrative headquarters near the quarry, 7 miles north of Jensen, Utah, which is on United States Highway No. 40. The monument headquarters may be reached within a day from Denver, Colo., or Rocky Mountain National Park, Colo., via United States Highway No. 40. Salt Lake City, Utah, is only 200 miles distant. Accommodations for monument visitors are available at Vernal, Utah, 21 miles distant.

A small temporary museum exhibiting a number of fossilized bones of dinosaurs and other prehistoric animals as well as numerous maps, paintings, and photographs is open to the public without charge. The dinosaur quarry is a short distance by foot trail from the headquarters.

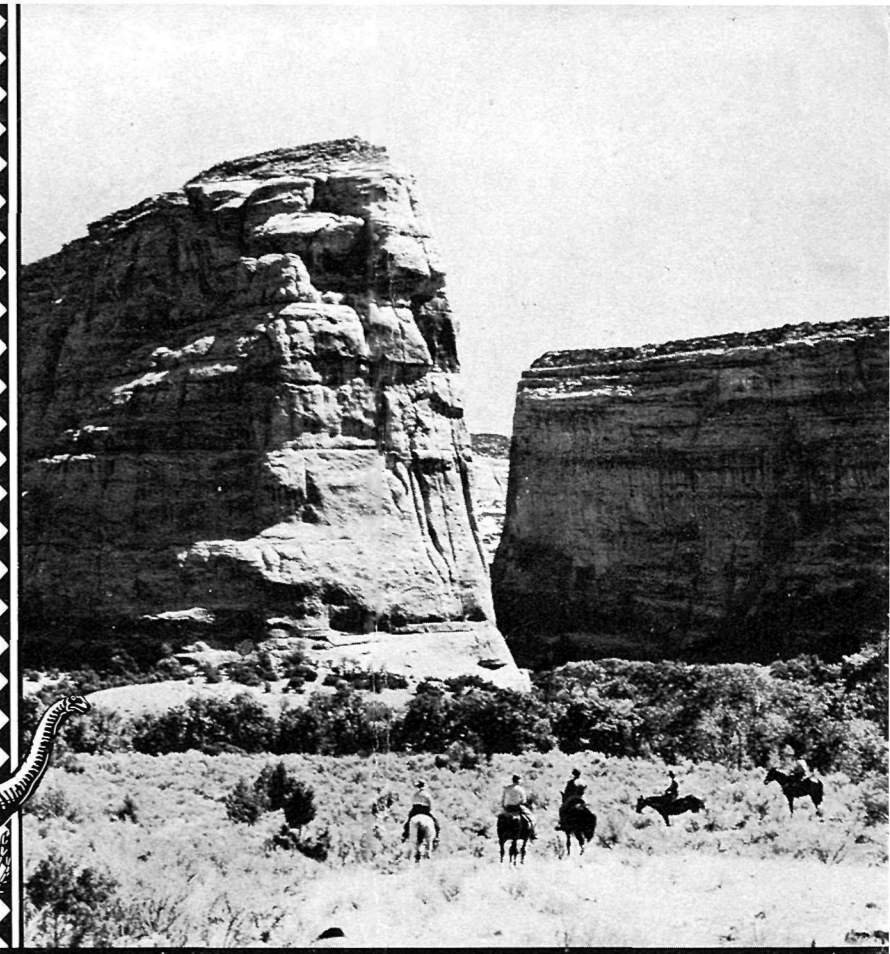
Communications and requests for additional information should be addressed to the Custodian, Dinosaur National Monument, Jensen, Utah.

Fossil Quarry



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