Guadalupe Mountains

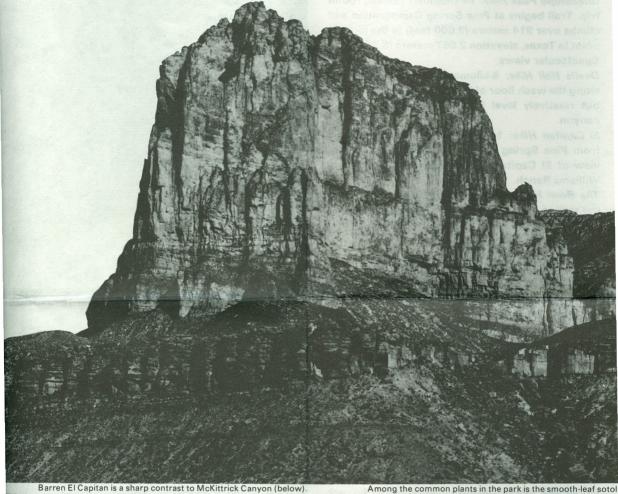
NATIONAL PARK • TEXAS

The Guadalupe Mountains stand like an island in the desert, silent sentinels watching over the most extensive fossil reef complex known to man. Trace the trails of human history here or gaze upon vast dimensions of geologic time in the spectacular exposure of Capitan Reef.

The mountain range resembles a massive wedge—rising in Texas, its arms reach northward into New Mexico. At its "V" stands El Capitan, a 610-meter (2,000-foot) sheer cliff. The mountains and canyons shelter a unique remnant of forest plants and animals which have struggled for survival since the end of the ice ages, about 10,000 years ago. The 30,867-hectare (76,293-acre) park lies astride these

mountains' most scenic, rugged portions. Here, the highest point in Texas, 2,667-meter (8,749-foot) Guadalupe Peak, stands in sharp contrast with the park's lowest elevation, 1,112 meters (3,650 feet) at the base of the western escarpment.

In the park you can explore desert lowlands, superb canyons, and forested mountains. You can study geology, visit historic sites, and see plants and animals uncommon to the surrounding semi-arid lowlands. Those who climb into the high country can enjoy outstanding views across the Salt Basin to the west, the Delaware Basin to the south and east, and into the deeply cut canyons to the north.







COVERED BY A SEA

The rocks which make up the Guadalupe Mountains were formed during the Permian period, 225 to 280 million years ago. An inland sea which covered more than 16,100 square kilometers (10,000 square miles) of Texas and New Mexico controlled their formation. It was in the shallow water near the shore of this sea that the Capitan reef was built by lime-secreting algae and other organisms. As the reef grew upward and seaward upon talus broken loose by storms, sediments also were deposited in a lagoon between reef and land. In time, the arm of the sea filling the Delaware Basin was cut off from the rest of the ocean, and the basin became excessively salty. Deposits of mineral salts gradually filled the basin to the height of the reef and then layered deposits buried the long-dead reef.

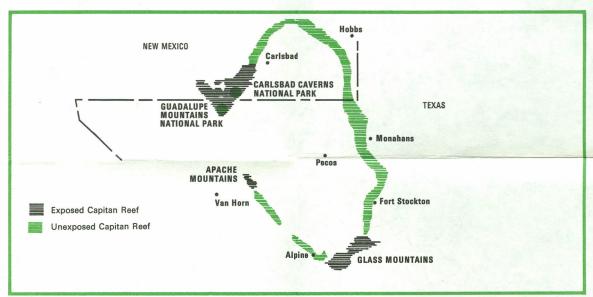
A series of earth movements eventually raised the region dramatically, tilting its southwestern edge upward. Erosion cut away the softer sediments, and additional movements helped shape the mountain range.

eastern and central plains also reach into the Guadalupes.

Vegetation typical of the southwestern deserts, such as creosotebush, lechuguilla, Parry agave, yucca, and sotol, is found at the lower elevations. The high country contains a forest of ponderosa pine, Douglas-fir, limber pine, and a few aspens, a relict of a forest that covered this area thousands of years ago when the climate was cooler and the rainfall was greater than today.

In the sheltered canyons, where moisture is more abundant, ferns, big-tooth maple, chokecherry, walnut, hophornbeam, Texas madrone, and other species occur with vegetation from higher and lower elevations. Protection of these rare associations of plants is of paramount importance.

Animals commonly seen include elk, mule deer, wild turkey, raccoon, porcupine, kit and gray foxes, and coyote. Black bear and cougar pay occasional visits. More than 200 species of birds and 52 species of reptiles and amphibians have been identified.



The south face of the Guadalupes marks the location of the seaward face of Capitan Reef. The portion of the range extending northward from the reef slope is composed of sediments deposited in the lagoon. The reef extends across 563 kilometers (350 miles) of western Texas and southeastern New Mexico, mostly far beneath the arid plain (see diagram). The most extensive exposure is the 64-kilometer-long (40-mile) eastern Guadalupe escarpment, stretching northward through Carlsbad Caverns National Park. It is also exposed in the Glass and Apache Mountains.

A striking cross section of the Capitan Reef complex, which includes the massive reef-core, fore-reef, and back-reef deposits, is in the 579-meter-high (1,900-foot) north wall of McKittrick Canyon.

A MIX OF PLANTS AND ANIMALS

A rare mixture of biotic communities occurs in the Guadalupe Mountains. Here, species from the Rocky Mountains reach their southern and eastern limit and meet species from Mexico at the northern extent of their range. Plants and animals of the

A HOME TO MAN

For the past 12,000 years, the mountain caves, springs, plants, and wildlife provided shelter and sustenance to various groups of people. Spanish conquistadors passed near the Guadalupes on journeys north from Mexico in the late 1500s and found Mescalero Apaches inhabiting this area.

Military surveyors mapping a transcontinental route to the California goldfields in 1849 passed along the base of the Guadalupes just south of El Capitan. A route was opened through Guadalupe Pass in 1858, and it was used for 11 months by the Butterfield Overland Mail Line to carry mail and passengers from St. Louis, Mo., to San Francisco, Calif. The first eastbound and westbound stage-coaches to travel the new route met just west of Guadalupe Pass on September 28, 1858. Pine Springs ("The Pinery") Station was a regular stop for changing teams on the four-horse, Celerity stagecoaches.

Homesteaders moving west reported seeing the Guadalupe Mountains for weeks before they reached them. Shortly after the Civil War, ranching activities began and the area was soon settled. At times the settlers had to contend with outlaws, cattle rustlers, and Apache raiders.

In 1878 and 1879, soldiers from nearby military posts occasionally camped at Pine Springs while trying to subdue the remaining Apaches and move them onto a reservation.

ANTICIPATE STORMS

In this semi-arid climate, the summers are generally warm and the winters mild. But severe and sudden changes in the weather often occur. You can expect strong winds in winter and spring and electrical storms, sometimes accompanied by heavy downpours and flash flooding, in summer. Considerable variation, especially in temperature, between higher and lower elevations and between the eastern and western side of the range is common.

PRECAUTIONS

The following suggestions are offered to help make your visit safe and pleasant:

Check with a park ranger before leaving the main roads. Know where you want to go, how long it will take, and what type of equipment is needed. If an emergency or if an accident occurs, notify a park ranger or the information center.

Do not climb the cliffs. The reef limestone is unstable and considered unsafe even for most "technical" climbers.

Beware of cactus and other desert shrubs. Their spines can inflict painful injury.

Watch for and respect rattlesnakes, especially in brush areas, in rock piles, around cliffs and ledges, in damp places, and during the evening or the morning. If you see one, detour; do not kill it.

Be prepared when you enter the back country. There is no water in the back country. Be sure to carry plenty of water; in warm weather, 4 liters (1 gallon) per person per day is recommended. Wear stout shoes and tough clothing. Gloves, a flashlight, and first-aid supplies are also advisable.

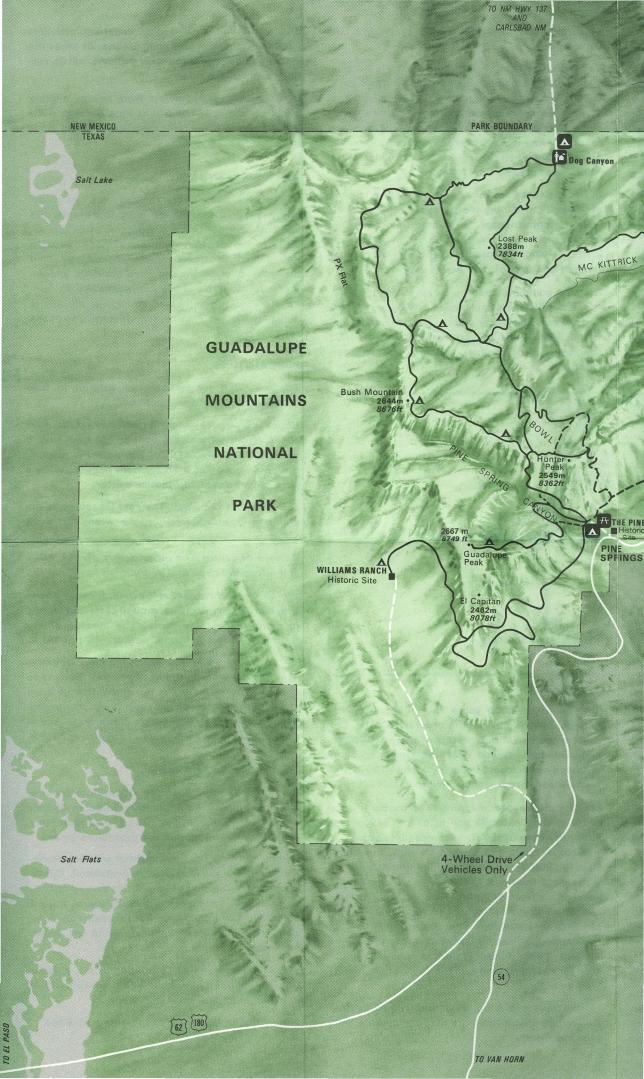
HELP PROTECT THE PARK

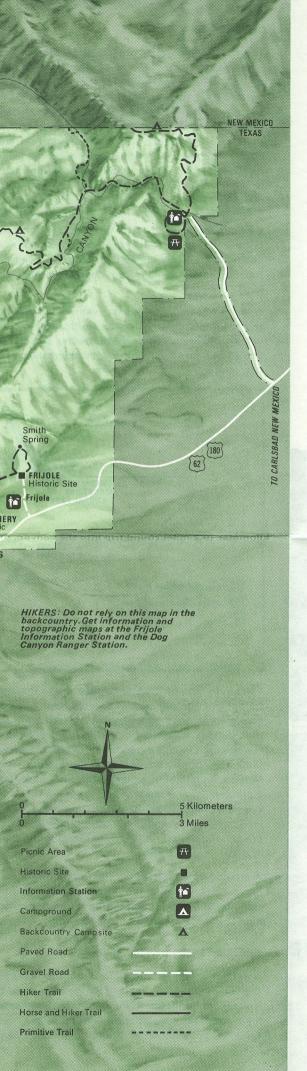
Natural and historic features. Disturbing, harming, or removing any rocks, plants, wildlife, or historic objects is prohibited. The use of metal detectors, prospecting, and mining are prohibited by law.

Caves. Entering any cave without written permission of the superintendent is prohibited. Conditions for issuing cave entry permits vary according to each cave's management, resource, or hazard class. Most are closed except for research. Send questions and permit applications to the superintendent.

Pets. All animals must be leashed or under other physical restraint at all times and are not permitted in public buildings or on park trails.

Firearms. Display or use of firearms prohibited.





WHAT TO SEE AND DO

Frijole Information Station is open daily 8:00 a.m. to 4:30 p.m. mountain time (later in summer). Phone: (915) 828-3385. Located on Highway U.S. 62-180, 89 kilometers (55 miles) southwest of Carlsbad, N.M., and 177 kilometers (110 miles) east of El Paso, Tex. Information, maps, literature, and exhibits available.

Backpacking and Hiking: 129 kilometers (80 miles) of rocky and rugged trails, often steep. Desert, canyons, and high woodlands. Carry all your own water, stay on designated trails, and camp in designated backcountry sites. No fires or pets in backcountry. Obtain overnight permits and information at Frijole Information Station.

Guadalupe Peak Hike: 14-kilometer (9-mile) round trip. Trail begins at Pine Spring Campground and climbs over 914 meters (3,000 feet) to the highest point in Texas, elevation 2,667 meters (8,749 feet). Spectacular views.

Devils Hall Hike: 8-kilometer (5-mile) round trip along the wash floor of Pine Spring Canyon. Rocky but relatively level hike to the narrows of the canyon.

El Capitan Hike: 14-kilometer (9-mile) round trip from Pine Spring Campground to a spectacular view of El Capitan's sheer rock wall, and on to Williams Ranch.

The Bowl Hike: 14-kilometer (9-mile) loop trip up the trail to Pine Top and down Bear Canyon trail. Trail leads to a relict forest of dense pine and Douglas-fir in the high country.

McKittrick Canyon Hiking: Day use. Check at information station for current visiting hours. Drive to the mouth of the canyon and hike the full 14.5-kilometer (9.2-mile) round trip into the canyon, or just go in as far as you want. A stream surfaces and disappears at various places along the canyon bottom. Rare and interesting plant communities are on the floor and lower slopes of the canyon. The canyon walls reveal segments of Capitan Reef and fore-reef and back-reef marine deposits. Striking fall colors. Self-guiding pamphlet available.

Manzanita and Smith Springs Hike: Begin this relatively level 3-kilometer (2-mile) round trip at Frijole Historic Site. Interpretive signs introduce the geology, ecology, and history of the area, including tales of Apache, cavalry, farming, and ranch life. Horseback riding: The low-desert areas of the park lend themselves to horse travel, but the mountain trails are steep and rough. Horses are permitted only on designated horse trails. They are not per-

mitted in McKittrick Canyon.

Sightseeing by car: U.S. 62-180 passes through the park, offering spectacular views of El Capitan, Guadalupe Peak, and the eastern and western escarpment. Scenic, historic Guadalupe Pass has picnic areas provided by the State of Texas. The National Park Service Frijole Information Station 1.6 kilometers (1 mile) east of Pine Spring is open daily.

Frijole Historic Site: Most complete and substantial buildings of early ranching enterprises in the area. Site can be viewed from the outside. It is 0.8 kilometer (0.5 mile) north of Frijole Information Station.

Butterfield Stage Station Historic Site, "The Pinery:" Ruins of a stage coach station built in 1858 located 1.6 kilometers (1 mile) west of Frijole Information Station. Pamphlet available.

Williams Ranch Historic Site: 13-kilometer (8-mile) 4-wheel drive road. Check out gate key and obtain information and directions at Frijole Information Station. Allow 3 hours for round trip. Interpretive sign introduces ranch history.

CAMPING

Pine Spring Campground is located 2 kilometers (1.5 miles) west of Frijole Information Station. Dog Canyon Campground is located in the Dog Canyon area on the north side of the park and is accessible via N.M. Highway 137 north of Carlsbad, N.M. Both campgrounds have drinking water, and restrooms. No hook-ups or dumping stations.

ACCOMMODATIONS

Overnight accommodations and food service facilities are available at cities some distance from the park: Carlsbad, N.M. (89 kilometers/55 miles); El Paso, Tex. (177 kilometers/110 miles); White's City, N.M. (55 kilometers/34 miles); Dell City, Tex. (71 kilometers/44 miles); and Van Horn, Tex. (105 kilometers/65 miles).

ADMINISTRATION

Guadalupe Mountains National Park is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is 3225 National Parks Highway, Carlsbad, NM 88220, is in immediate charge.

National Park Service
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