

Austere Beauty & Solitude

The Salt Basin Dunes

By Emily Cochran

GLISTENING WAVES OF WHITE AMONGST THE backdrop of the Guadalupe Mountains—this is what the Salt Basin dunes offer. Sand dunes are common in desert ecosystems and can be seen in various locations across the Southwest; they are often composed of quartz and feldspar but rarely of the highly water-soluble gypsum. Rainfall causes the gypsum to form a kind of “plaster of Paris”. In fact, the gypsum dunes of Guadalupe Mountains National Park are very compact below the top six inches of sand. The Salt Basin dunes contain the third largest gypsum deposit in the world; the top two, also belonging to the Chihuahuan Desert, are found at White Sands National Monument and at Cuatro Ciengas in Mexico. The Salt Basin dunes are only about three square miles, compared to eight square miles in Cuatro Ciengas and 275 square miles in White Sands!

HOW DID THESE DUNES FORM?

Faulting and uplift began during the Miocene Epoch 20-30 million years ago, and continued to as recently as six million years ago, creating the Guadalupe Mountains. This faulting also created pockets of lower elevation that collected water during the Pleistocene Epoch (1.8 million to 10,000 years ago) when rainfall was much greater. Eventually these lakes in the Salt Basin evaporated, leaving salt, gypsum, and a few other minerals behind.

Thanks to the infamous winds of the Guadalupe Mountains, the gypsum from the salt lakes is carried east towards the mountains. Due of their light weight, the grains

are dropped as wind moves upward along the escarpment, forming an island of white dunes in a sea of green and gold. The distinct ripple patterns are created by a process known as saltation. As the gypsum grains drop, smaller particles fall into place on top of larger particles that creep along the surface of the dunes. This occurrence is also what gives the Salt Basin Dunes their color. The glistening white dunes are actually from what were clear grains. As gypsum is deposited and the grains rub against each other, the particles are scratched, which changes the reflective properties and makes the dunes appear white. The barren dunes range from 60-100 feet and the area is increasing at .008-.35 inches per year.

DON'T BUST THE CRUST!

The dark crust coating many areas is actually a community of living organisms in an obligate mutualistic relationship—one cannot live without the other. This lichen-fungi symbiosis plays a very important role in the gypsum dune habitat and is extremely fragile. The cryptobiotic crust fixes the nitrogen in the atmosphere, retains moisture, and stabilizes the ground which allows vegetation to grow. Be careful not to step on the crust, it can take up to 100 years to recover!

WHAT PLANTS AND ANIMALS LIVE ON THE DUNES?

The amount of flora in the sand dunes varies from the sparsely vegetated, cryptobiotic-covered dunes of about 3 feet to the larger, even more barren dunes. Habitat conditions here are harsh—not only excess amounts of gypsum in the soil, but also exposure to



Soaptree yuccas.



It's Alive!

The unassuming appearance of cryptobiotic soil crusts would never suggest that a key ecological process is occurring. This living community of a lichen-fungal association stabilizes the soil and fixes nitrogen, an element crucial for plant growth. Please walk only on areas of open sand and avoid stepping on the fragile crust.

extreme temperatures, wind, and lack of surface water (except during the summer monsoon season). Standing out amidst the fields of white one may see the dominant gypsum grama (grass) or the tall soaptree yucca, symbolic of the Chihuahuan Desert. The area near the Salt Basin Dunes also hosts an endemic species, gypsum broom-scale. Surrounding the dunes is a desert scrub ecosystem containing saltbush, mesquite, and catclaw acacia.

Fauna here is typical of the Chihuahuan Desert. There are many rodents and reptiles

that inhabit the area, such as the white variant of the lesser earless lizard and the Texas horned lizard. Many of the rodents found in the Salt Basin Dunes are indicator species of desert habitats. The quality of the habitat is evaluated by the presence of Merriam's kangaroo rats, spotted ground squirrels, Mearn's grasshopper mice, and southern plains woodrats. Also found in the dunes are five species of scorpions, numerous snakes, and occasionally small birds. Larger animals cannot find adequate shelter in the dunes, but do visit for dinner; at night, the resident

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NPS Photos/Doug Buehler

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NPS Photo /Nick Hristov

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NPS Photo /Dave Bieri

Telephone and Web Directory



Official National Park Service sites include .gov in their web address.

Carlsbad Caverns National Park

3225 National Parks Highway
Carlsbad, NM 88220
575-785-2232
www.nps.gov/cave

Guadalupe Mountains National Park

400 Pine Canyon Drive
Salt Flat, TX 79847
915-828-3251
www.nps.gov/gumo
www.facebook.com/Guadalupe.Moun-
tains

www.meetup.com/Guadalupe-Moun-
tains-National-Park-Meetup-Group/
Carlsbad Caverns-

Guadalupe Mountains Association

Operates both parks' bookstores. Books may also be purchased by mail or online.
P.O. Box 1417
Carlsbad, NM 88221
575-785-2484
575-785-2318 FAX
www.ccgma.org

Food, Lodging, and Camping

Carlsbad Chamber of Commerce

575-887-6516
www.carlsbadchamber.com

Van Horn Texas Visitors Bureau

432-283-2682
www.vanhornadvocate.com/community-
adl.shtml

Weather Conditions

Carlsbad Weather Watch

575-885-1848
www.weather.gov

Road Conditions

New Mexico: 800-432-4269
Texas: 800-452-9292

Emergency: Call 911

GPS Coordinates

Carlsbad Caverns NP

Visitor Center

Coordinate System: Lat/Long
Datum: WGS 1984
Latitude: 32.174212° N
Longitude: 104.445855° W

Guadalupe Mountains NP

Visitor Center

Coordinate System: Lat/Long
Datum: WGS 1984
Latitude: 31.89370° N
Longitude: 104.82214° W

Greetings

WELCOME TO CARLSBAD CAVERNS AND GUADALUPE MOUNTAINS National Parks. Carlsbad Caverns National Park, a World Heritage Site since 1995, features a spectacular cave system of highly decorated chambers. Guadalupe Mountains National Park protects one of the world's best examples of a fossil reef. Both parks are located within the Chihuahuan Desert, a fascinating place to explore desert life.

Park staff are here to help make your visit a truly memorable event. They will be happy to help you plan your visit and provide information. Guided tours at Carlsbad Caverns can enrich your park experience. These tours offer a variety of caving experiences, from easy lantern tours to challenging trips involving crawling and squeezing through tight passages.

Guadalupe Mountains National Park has over 80 miles of hiking trails to explore, ranging from wheelchair accessible paths to strenuous mountain hikes, including an 8.4 mile roundtrip hike to Texas' highest mountain, Guadalupe Peak (8,751').

As you travel and spend time in the area please remember to keep safety in mind. Deer and other wildlife are plentiful—enjoy watching wildlife, but remember they often move across roads, especially in the evenings; be vigilant while driving during twilight hours. Hikers should be prepared for rapidly changing weather conditions. Hikers can become dehydrated in our dry climate, so carry plenty of water (one gallon per person per day is recommended). Always check with a ranger before venturing into the backcountry.

We are wholeheartedly committed to our mission of preserving and providing for the enjoyment of our nation's most outstanding treasures. We wish you a rewarding experience in every way.

John C. Benjamin
Superintendent
Carlsbad Caverns NP

Dennis A. Vásquez
Superintendent
Guadalupe Mountains NP



Volunteerism Makes a Difference

WE WOULD LIKE TO EXTEND OUR SINCERE GRATITUDE TO the dedicated effort and talent that volunteers have brought to Carlsbad Caverns and Guadalupe Mountains National Parks. Volunteers play a vital role in fulfilling our mission of preserving our natural and cultural heritage and sharing that heritage with the visiting public. Volunteers do everything from staffing the information desk, roving interpretation, patrolling surface and cave trails, to trail maintenance, research, cave restoration, and more.

To become a Volunteer-In-Park (VIP) visit www.volunteer.gov or contact:

Carlsbad Caverns National Park
Volunteer-In-Park Coordinator
575-785-3120
Guadalupe Mountains National Park
Volunteer-In-Park Coordinator
915-828-3251

Junior and Senior Ranger Programs

MANY NATIONAL PARKS ACROSS AMERICA OFFER A JUNIOR Ranger program for children to encourage interest in their national parks and to promote a sense of stewardship and ownership for these special places that they come to visit. This self-paced educational program allows children to earn a patch and/or certificate upon completion of required activities that teach them about park resources. Age appropriate activities are included in the Junior Ranger booklet, typically for pre-kindergarten through upper elementary-aged children.

of the activities can be completed at the Pine Springs Visitor Center. Children who complete three activities earn a badge and certificate, while those who do six earn a patch in addition to the badge and certificate. There is no charge for participation in the program, but donations are always welcome. Junior Paleontologist and Wilderness Explorer Activity Books are also available. Participants will earn a badge (Jr. Paleontologist) or patch (Wilderness Explorer) upon completion.

At Carlsbad Caverns, the Junior Ranger program offers activities that teach children about the resources both above ground and below the surface (including plant and animal life of the desert, cave features, and history of the park). Younger children have opportunities to color and draw, find objects on a visual scavenger hunt, use their senses to experience their surroundings, and complete games. Older children will sequence events, complete word searches, and write stories and poems. Each activity in the booklet is an optional activity depending on interest and age-level.

Senior Ranger programs are a new development, currently available at limited locations, aimed at an audience that enjoys a challenge and wants to use an activity book to learn about the park and help plan their visit. A Senior Ranger program is available at Guadalupe Mountains National Park.

The Junior Ranger booklet is available at the visitor center information desk. Children of all ages may participate and earn a badge or patch—it's their choice. The program is free, but donations are always welcome. At Guadalupe Mountains, children work through a separate activity booklet and visit points of interest within the park. The booklet accommodates families of varying travel plans. Many

Senior Ranger books are available at the Pine Springs Visitor Center for anyone 13 years and older. Activities include visiting sites, learning about the park's history, geology, flora, and fauna. Upon completion, participants earn a patch and certificate.

The National Park Service also offers an online Junior Ranger program for those who are unable to visit a national park, featuring activities about sites found across the nation. The activities illustrate principles in natural science and American history in new ways. To learn more, visit www.nps.gov/webrangers.

Traveling with a Pet?

ON A WARM DAY THE TEMPERATURE INSIDE A CAR CAN KILL a pet. Do not leave your pets unattended.

At Carlsbad Caverns National Park, pets are allowed on all paved roads, pullouts and parking areas, along Walnut Canyon Desert Drive (Loop Road), on the paved Nature trail, and at Rattlesnake Springs picnic area. Pets must be kept on a leash at all times. Pets are not permitted in the cave or at the bat flight programs. During the day, your pet may be cared for at the concessions kennel for a small fee. Call 575-785-2281 for details. A citation will be issued if animals are left in vehicles when ambient air temperatures are 70° Fahrenheit (21° Celcius) or higher.

At Guadalupe Mountains National Park, pets are allowed only on the Pinery trail while on leash, but are not allowed on other trails, in the backcountry, in buildings, or at evening programs; they are

permitted in the Pine Springs and Dog Canyon campgrounds. In any national park, your pet must be physically restrained at all times.



Photo by CorelDraw

A New Deadly Disease Killing Bats

by Dale Pate

BATS ARE IMPORTANT FOR ECOSYSTEMS ACROSS the country and the world. They are excellent pollinators and eat millions of tons of insects nightly. Some of these insects are pests of food crops. A study completed in the 1990's on the Brazilian (Mexican) freetail bats from Carlsbad Cavern shows that 40 percent of the insects devoured by these bats are crop pests taken along the farmlands of the nearby Pecos River. Bats are important.

Unfortunately, beginning in the winter of 2006-2007 in caves near Albany, New York, a new and very deadly disease began to decimate bats that hibernate. Bat deaths were immediately associated with a white fungus growing around noses, ears, and on wing membranes. This condition was later named "White-nose Syndrome (WNS)".

Since 2006, over five million bats have been killed by this disease and as of this summer, WNS has been detected in nine species of bats that hibernate. Death rates of various colonies have been from 90 percent to 100 percent of all bats in that particular colony. An additional concern is that WNS is spreading rapidly. It is now found in caves and mines in 14 states. The most recent occurrence of WNS was found in a cave in western Oklahoma.

There are lots of unknowns concerning WNS. At this time, it does not appear to be affecting summer bat colonies such as Brazilian Freetail bats for which Carlsbad Cavern is famous. We must all be vigilant.

While it is known that transmission of the fungus is mostly from bat-to-bat, it may also

be possible for humans to transport fungus spores on clothing, gear, shoes, or skin.

In an effort to slow down the spread of fungus and give bat scientists more time to look for a solution to this serious problem, Carlsbad Caverns National Park is asking visitors to caves in the park or the area to be aware of this problem and to help minimize the potential spread of this deadly disease.

Everyone can help in the following ways:

If you have been in a cave or mine that is known to harbor WNS, or if you have been in a cave or mine within a state known to have WNS, please do not bring any of the potentially contaminated items (clothing, gear, shoes) used during that visit into Carlsbad Cavern or other caves.

States known to have WNS include: CT, DE, IN, MA, MD, MO, NH, NJ, NY, OK, PA, TN, VA, VT, and WV.

If you are taking one of the ranger-guided off-trail trips offered by Carlsbad Caverns National Park, please use the gear furnished by the park on those tours. Also, clean your shoes and other clothing before entering the cave.

As the weather warms, Carlsbad Caverns National Park will be increasing efforts to inform the public about this devastating disease. Check when arriving at the park for any updates on WNS and what you can do to help prevent its continued spread to other areas and other bat species.

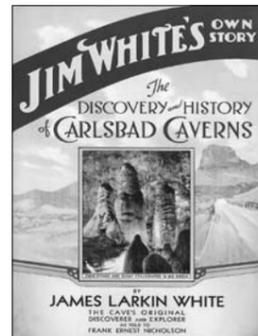
Over \$2.7 Million Donated to Parks by CCGMA

THE CARLSBAD CAVERNS-GUADALUPE Mountains Association (CCGMA) is a private, nonprofit organization whose main objectives are to provide interpretation for the park visitor and to support the purposes and mission of the National Park Service at Carlsbad Caverns National Park, Guadalupe Mountains National Park, and the lands related to them in New Mexico and West Texas since 1957. To date, CCGMA has donated over \$2.7 million to both Carlsbad Caverns and Guadalupe Mountains National Parks. The goals of CCGMA are accomplished through educational programs using a variety of educational media and scientific investigations resulting in a greater appreciation of those resources being conserved for this and future generations. CCGMA has three retail bookstore outlets located at Carlsbad Caverns, the Guadalupe Mountains, and the administration office building in the city of Carlsbad.

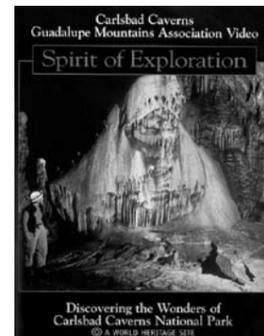
Books may also be purchased by mail or online:
PO Box 1417
Carlsbad, NM 88221
(575) 785-2484
(575) 785-2318 FAX
www.ccgma.org

Consider joining CCGMA. As a member you will receive a 15 percent discount on all purchases. This discount is extended to several cooperating associations of other national parks as well. You will also receive the CCGMA newsletter and the Visitor Guide for Carlsbad Caverns and Guadalupe Mountains National Parks (2 issues a year). In addition to these benefits, you will receive a free dvd on Carlsbad Caverns National Park or Guadalupe Mountains National Park. Most importantly, your contribution helps further our mission of providing aid to these parks.

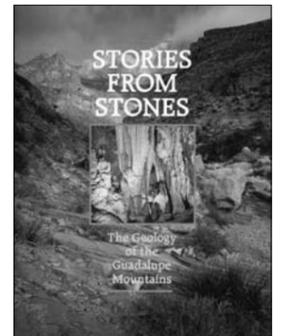
Membership (1 year) \$25.00



B & W photos, 32 p,
6x9.5 inches.
\$6.95



54 minutes.
Color.
\$19.95



Color photos, 40 p,
8.5x11 inches.
\$7.95

Purchases may be made by credit card or check. Include your address and daytime phone number. If ordering by credit card include the card number, the date of expiration, and the signature of the cardholder. The following cards are accepted: American Express, Discover, MasterCard, and Visa. Make checks payable to CCGMA.

Shipping and handling charges for book orders are as follows:
\$4.00 for purchases up to \$15.00
\$5.00 for purchases \$15.01-30.00
\$6.00 for purchases \$30.01-50.00

BOTH GUADALUPE MOUNTAINS AND Carlsbad Caverns National Parks have areas that are designated wilderness. These areas are permanently protected from development and are managed to preserve their wilderness character. A wilderness is an area "...where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain" (Wilderness Act). Ideally, the forces of nature are allowed to operate freely and wildlife roams unhindered. The natural conditions of wilderness serve as a baseline for monitoring environmental change and ensure that the rare and endangered animals that depend on wild places have a better chance of survival.

In wilderness you will find challenge, renewal, and solitude. Here, you will be able to look at a landscape little changed since the time of American Indians, Spanish explorers, and settlers.

As part of the National Wilderness Preservation System, the Guadalupe Mountains Wilderness and the Carlsbad Caverns Wilderness represent a promise to future generations that the opportunities that we have had to find beauty in the natural world and respite from a hectic pace of life will also be theirs.

Ask a ranger how you can prepare for a visit to the wilderness areas of these parks, and enjoy all that the Chihuahuan Desert has to offer.

What Does Wilderness Mean to You?



UNTRAMMELED UNDEVELOPED
Natural
Outstanding Opportunities for Solitude
Or Primitive and Unconfined Recreation

Carlsbad Caverns Cave Tours

Spring, Fall & Winter Hours

Natural Entrance	8:30 - 2:00
Big Room	8:30 - 3:30
Visitor Center	8:00 - 5:00

Summer Hours

May 24 - September 2, 2013

Natural Entrance	8:30 - 3:30
Big Room	8:30 - 5:00
Visitor Center	8:00 - 7:00

Entrance Fees

Adults—age 16 and older.....	\$6.00
Children—15 and younger.....	free
plus Audio Guide.....	\$5.00

There is no entrance fee for those who own any of the following passes (up to three individuals plus the cardholder): The Annual Pass, Senior Pass, Access Pass (all three are part of the America the Beautiful—National Parks & Federal Recreational Lands Pass), Golden Age Passport and Golden Access Passport all cover the basic entrance fee. Pass holders must still obtain entry tickets.

Entrance fee applies to self-guided tours. Guided tours require an additional fee.

All fees and tours are subject to change.

Reservations

We recommend that you make reservations for guided tours at least six weeks in advance. Some tours fill quickly. Reservations are not necessary for self-guided tours. To make reservations call the National Park Reservation System at: 877-444-6777 or visit www.Recreation.gov

Have a Safe Tour

Cave temperature is 56° F (13° C) year-round. A light jacket or sweater and good walking shoes are recommended. Do not wear sandals. For your safety:

- Stay on the paved trail.
- Supervise children closely; children under 16 must remain with an adult at all times.
- Ask park rangers for help.
- Take prescribed medications with you.
- High humidity in the cave can affect respiratory problems; bring your inhaler just in case.
- If you are **diabetic**, be sure you have eaten enough calories.
- If you have an infant with you, child-carrying backpacks are recommended. **Strollers are not allowed.**
- Leave your pet at the kennel, not in your car.

Protect the Cave

- Never touch, tap or handle the cave formations; the oils on your skin damage the formations.
- Never take gum, tobacco, food, or drinks into the cave.
- Never throw coins or other objects into the pools.

Photography

Photography is permitted on most tours; however, please use good etiquette. Warn those around you before you flash, and do not use the rocks as your personal tripod. **For safety reasons, tripods are not allowed on any guided tours.** Tripods are allowed into the Big Room and Main Corridor. Video cameras are permitted on the Big Room, Natural Entrance, and King's Palace tours. Please use caution and do not use the ultra-bright lights available on some cameras. Photography is **not** allowed at the Bat Flight Program offered from mid-May to mid-October.



NPS Photo/Peter Jones

NATURAL ENTRANCE SELF-GUIDED ROUTE

Length: 1.25 miles, 1 hour
Fee: Entrance Fee
This hike is similar to walking into a steep canyon (a descent of about 800 feet in one mile). It is recommended only for those physically fit and healthy; sturdy footwear required. Highlights include the Natural Entrance, Devil's Spring, Whale's Mouth, and Iceberg Rock.



NPS Photo/Peter Jones

BIG ROOM SELF-GUIDED ROUTE

Length: 1.25 miles, 1.5 hours
Fee: Entrance Fee
Descend by elevator to start the tour in the Underground Rest Area. The non-skid trail is paved and mostly level, although there are a couple of short, steep hills. All visitors to Carlsbad Cavern should experience this tour. Highlights include the Lion's Tail, Hall of Giants, Bottomless Pit, and Rock of Ages. Some of this trail can be navigated by wheelchairs, with assistance. The park does not provide wheelchairs. This trail can also be accessed after hiking the 1.25-mile Natural Entrance Self-Guided Route.



NPS Photo/Peter Jones

KING'S PALACE GUIDED TOUR

Length: 1 mile, 1.5 hours
Fee: Entrance Fee and \$8.00 Tour Ticket (Half price for children and Senior Pass cardholders)
Moderately strenuous. There is a steep 80' hill you must go down initially and then back up at the end of the tour. Walk through four naturally-decorated chambers with a variety of cave formations by descending to the deepest portion of the cavern open to the public. Rangers briefly turn off all lights to reveal the natural darkness of the cave. The trail is paved. Sturdy walking shoes required. Light jacket recommended. Tours depart from the Underground Rest Area.



NPS Photo/Peter Jones

LEFT HAND TUNNEL

Fee: Entrance Fee and \$7.00 Tour Ticket (Half price for children and Senior Pass cardholders)
Moderately strenuous. This is a historic lantern-lit tour through an undeveloped section of the cave on unpaved trails. The dirt trail winds over small uneven surfaces and slippery slopes and careful footing is required to navigate around cavern pools and fragile formations. Lanterns are provided. Sturdy walking shoes required. No backpacks. Tour departs from the Underground Rest Area.



NPS Photo/Peter Jones

LOWER CAVE

Fee: Entrance Fee and \$20.00 Tour Ticket (Half price for children and Senior Pass cardholders)
Strenuous. Initial descent is 10' down a flowstone slope by knotted rope, then a 50' descent down three sets of ladders. Bring four new AA alkaline batteries. Sturdy, closed-toed shoes or hiking boots required. Helmets and headlamps provided. Backpacks not allowed. Not recommended for anyone with a fear of enclosed spaces, heights, or darkness. Tour departs from the Underground Rest Area.



NPS Photo/Dale Pate

SLAUGHTER CANYON CAVE

Fee: \$15.00 Tour Ticket (Half price for children and Senior Pass cardholders)
Strenuous. Tour meets at the visitor center. Participants will then caravan to the cave site. **Participants must hike a steep, rocky, and uneven 1/2 mile trail to the cave entrance.** Bring water and sunscreen for the hike. The tour is slippery, muddy, and may require ascent of a 15' slope using a knotted rope. Must wear sturdy, closed-toed hiking boots or shoes.



NPS Photo/David Harris

HALL OF THE WHITE GIANT

Fee: Entrance Fee and \$20.00 Tour Ticket (Half price for children and Senior Pass cardholders)
Extremely strenuous. Participants navigate ladders, ropes, and slippery surfaces, belly-crawl for extended periods of time, and free climb rock chimneys. Not recommended for anyone with a fear of enclosed spaces, heights, or darkness. Bring four new AA alkaline batteries. Sturdy, closed-toed shoes or hiking boots required. Helmets and headlamps provided. Backpacks not allowed. Tours departs from Visitor Center.



NPS Photo/Peter Jones

SPIDER CAVE

Fee: \$20.00 Tour Ticket (Half price for children and Senior Pass cardholders)
Extremely strenuous. Participants navigate slippery surfaces, bellycrawl for extended periods of time, and free climb rock chimneys. Not recommended for anyone with a fear of enclosed spaces, heights, or darkness. Bring four new AA alkaline batteries. Sturdy, closed-toed shoes or hiking boots required. Helmets and headlamps provided. Backpacks not allowed. Tour departs from Visitor Center. Participants drive their vehicles to the trailhead and hike 1/2 mile to the cave entrance.

Participants must bring four AA batteries. Helmets and headlamps are provided.

Carry water—weather may be very hot in summer and very cold in winter. Stay on the trail and wear sturdy hiking shoes.

AUDIO GUIDES

Enhance your visit with an audio guide rental. As you tour the cavern, you will learn about the natural and cultural history of Carlsbad Caverns National Park.

Audio guide rentals are administered by Carlsbad Caverns-Guadalupe Mountains Association (CCGMA), a non-profit organization. The cost is \$5.00 and proceeds are donated to the park.

For Reservations call 877-444-6777

Tour	Trail Surface	Offered	Tour Time	Adult Fee	Age Limit	Tour Length	Group Size
King's Palace	Paved Trail; 80' hill must be climbed on return trip	Daily	Spring, Fall, Winter 10 & 1 Summer 10,11,12,2, & 3 p.m.	Adults \$8 Children (4-15), Senior Pass holders \$4 A General Admission Ticket is also required.	4	1.5 hours	55
Left Hand Tunnel	Uneven dirt trail and slippery slopes	Daily	9:00 a.m.	\$7.00 and General Admission Ticket (\$3.50 ages 6-15, Senior Pass holders)	6	2 hours	15
Lower Cave	Must negotiate fifty feet of ladders, variable dirt trails, might get dirty.	Monday through Friday	1:00 p.m.	\$20.00 and General Admission Ticket (\$10.00 ages 12-15, Senior Pass holders)	12	3 hours	12
Slaughter Canyon Cave	Strenuous climb required to reach cave entrance. Trail in cave is slippery, uneven and rocky.	Fri., Sat., Sun. (5/24/13 to 9/2/13) Saturday and Sunday (Rest of year)	8:30 a.m. Meet at the Visitor Center	\$15.00 (\$7.50 ages 8-15, Senior Pass holders)	8	5.5 hours	20
Wild Caving—caving gear provided							
Hall of the White Giant	Climbing and crawling, tight squeezes, drop-offs, will get dirty	Saturday	1:00 p.m.	\$20.00 and General Admission Ticket (\$10.00 ages 12-15, Senior Pass holders)	12	4 hours	8
Spider Cave	Climbing and crawling, tight squeezes, drop-offs, will get dirty	Sunday	1:00 p.m.	\$20.00 (\$10.00 ages 12-15, Senior Pass holders)	12	4 hours	8

Surface Activities

SERVICES

Facilities include a visitor center, exhibits, bookstore, restaurant, gift shop and kennel service. Ranger programs are offered daily. Other activities include:

NATURE TRAIL

This one-mile paved, partially wheelchair accessible trail begins near the visitor center and highlights desert plants.

SCENIC DRIVE

A one-hour drive through the Chihuahuan Desert, this 9.5-mile gravel road is suitable for high clearance vehicles. Brochures are available for 50 cents. The scenic drive is open 8:00 a.m. to 6:30 p.m. mid-May to mid-October. It is open 8:00 a.m. to 4:30 p.m. mid-October to mid-May. These hours are subject to change.

RATTLESNAKE SPRINGS

This historic oasis includes a picnic area, shade trees, restrooms and excellent bird watching. Located 5.5 miles south of White's City on Highway 62/180, then 2.5 miles west on County Road 418. Day use only.

HIKING & CAMPING

The park's wilderness offers day hikes and backcountry camping (permit required). Rangers at the visitor center can provide free permits, trail and weather information, and backcountry camping tips. The bookstore sells topographic maps, which are considered essential for desert hiking.

BAT FLIGHT PROGRAMS (MAY-OCTOBER)

A few hundred thousand bats fly from Carlsbad Cavern each evening from mid-May until the bats migrate to Mexico sometime in mid-October. The ranger program generally begins each evening 30 to 60 minutes before sunset at the park amphitheater, though weather and lightning can cause cancellation of the program. Check at the visitor center for the exact time the program starts or call 575-785-3012. Cameras are **not allowed**. The lights and high frequency sounds made by the cameras disturb the bats. This rule is strictly enforced.

BATFLIGHT BREAKFAST

Saturday, July 20
5:00 A.M. - 7:00 A.M.
Watch the bats re-enter the cave after a night of feeding. You can then enjoy breakfast at the concession restaurant.

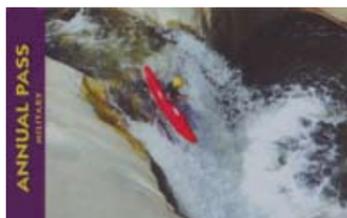


America the Beautiful— The National Parks & Federal Recreational Lands Pass



ANNUAL PASS

The annual pass sells for \$80.00 and is good for one year from date of purchase. The pass covers entrance fees at National Park Service and U.S. Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation and U.S. Forest Service sites. The pass can be purchased at federal recreation sites that charge entrance or standard amenity fees.



ANNUAL PASS—MILITARY

The Military annual pass is free to U.S. Military members with a current CAC card, and their dependents with ID card Form 1173. The card is good for one year from the date it is obtained. The pass covers entrance fees at National Park Service and U.S. Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation and U.S. Forest Service sites. The pass can be obtained at federal recreation sites that charge entrance or standard amenity fees.



SENIOR PASS

The Senior Pass sells for \$10.00 and is good for life. Any U.S. citizen or permanent resident of the United States 62 years or older may purchase the Senior Pass.

It covers the entrance fees to National Park Service and U.S. Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation, and U.S. Forest Service Sites. Some camping and guided tour fees are discounted 50% for cardholders. The pass can be purchased at



ACCESS PASS

The Access Pass is available for free to any U.S. citizen or permanent resident of any age that has been medically determined to have a permanent disability that severely limits one or more major life activities.

The Access Pass covers the entrance fees to National Park Service and U.S. Fish & Wildlife sites and standard amenity fees at Bureau of Land Management, Bureau of Reclamation, and U.S. Forest Service Sites. Some camping and guided tour fees are discounted 50% for cardholders. The free pass can be obtained upon signing a medical affidavit at federal recreation sites that charge entrance or standard amenity fees.

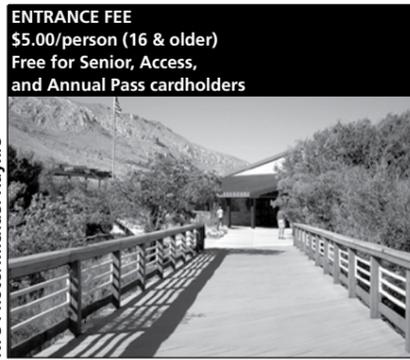


GUADALUPE MOUNTAINS NP ANNUAL PASS

Guadalupe Mountains National Park offers an annual pass for \$20.00 for visitors who plan on visiting the park more than once a year, but may not visit other federal fee areas.

The pass covers entrance fees and is good for 3 individuals plus the cardholder (persons 15 years and younger are free with or without the Guadalupe Mountains NP Annual Pass). The pass is available for purchase at the park at the Pine Springs Visitor Center.

Guadalupe Mountains National Park

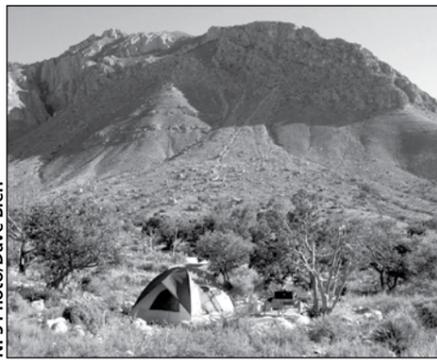


ENTRANCE FEE
\$5.00/person (16 & older)
Free for Senior, Access,
and Annual Pass cardholders

NPS Photo/Michael Haynie



NPS Photo/Dave Bieri



NPS Photo/Dave Bieri



NPS Photo

SERVICES

Facilities and services within and near Guadalupe Mountains National Park are extremely limited. The nearest gas stations are 43 miles west (Dell City, TX), 35 miles east (White's City, NM), or 65 miles south (Van Horn, TX). There is no campstore; bring everything you need with you.

INFORMATION & EXHIBITS

Pine Springs Visitor Center

Elevation 5,730'. On Highway 62/180, 55 miles southwest of Carlsbad, 110 miles east of El Paso, and 65 miles north of Van Horn on Highway 54 and Highway 62/180. Open every day except December 25. Open Memorial Day weekend to Labor Day 8:00 a.m. to 6:00 p.m. (Mountain Time Zone); after Labor Day, 8:00 a.m. to 4:30 p.m. Information, natural history museum, introductory slide program.

Frijole Ranch History Museum

The ranch house features exhibits describing historic and current use of the Guadalupe. Grounds include a picnic area near a spring shaded by large oak trees. Staffed intermittently.

McKittrick Canyon

Highway entrance gate is open 8:00 a.m. to 4:30 p.m. Mountain Standard Time. During daylight savings time, hours are expanded 8:00 a.m. to 6:00 p.m. Restrooms, outdoor exhibits, slide program, picnic tables.

Hike Safely...

- There is no water available along park trails, so be sure to bring plenty with you. One gallon per person per day is recommended.
- Trails are rocky—wear sturdy shoes. Trekking poles are recommended.
- Carry a trail map.
- Pack warm clothing and rain gear; sudden weather changes are common.

Protect the Park...

- Stay on trails; don't cut across switchbacks or create new trails.
- Carry out all trash, including cigarette butts.
- Report any trail hazards to the Pine Springs Visitor Center or any park staff member.
- Collecting of natural, historic or prehistoric objects is prohibited.

Weather

	Average Temperature (° F)		Average Rainfall
	High	Low	Inches
Jan	56	34	0.67
Feb	59	36	0.90
Mar	65	41	0.58
Apr	73	48	0.60
May	82	56	0.91
June	88	62	2.18
July	88	64	2.37
Aug	86	63	3.29
Sep	81	58	2.54
Oct	73	50	1.34
Nov	63	41	0.97
Dec	56	33	1.05
Average annual precipitation for Pine Springs (1980-2003)			17.4

HIKING

Pinery Trail

Distance: .67 mile
Difficulty: Easy, wheelchair accessible, slight incline on return trip.

Discover the desert as you walk to the ruins of the Pinery, a stagecoach station on the Butterfield Overland Mail Route in 1858. Trailside exhibits. Pets on leash are allowed on this trail.

McKittrick Canyon Trail

Distance: to Pratt Cabin 4.8 miles roundtrip, to the Grotto, 6.8 miles roundtrip
Difficulty: Moderate, level but rocky trail, 200' elevation gain to Grotto.

Follow an intermittent stream through the desert and canyon woodlands to the historic Pratt Cabin. A guidebook is available at the trailhead. The Grotto Picnic Area and Hunter Line Cabin are one mile beyond the Pratt Cabin. Please do not drink the water or wade in the creek. To protect this fragile environment, you are required to stay on the trail.

Guadalupe Peak Trail

Distance: 8.4 miles
Difficulty: Strenuous. Approximately 3,000' elevation gain, steep, rocky path.

Hike to the "Top of Texas" at 8,751' for spectacular views. Avoid the peak during high winds and thunderstorms. During warm temperatures, carry a gallon of water per person.

CAMPING

Water and restrooms are available, but there are no showers, RV hookups, or dump stations. The fee is \$8.00 per night, per site, \$4.00 with a Senior Pass (or existing Golden Age Passport) or Access Pass (or existing Golden Access Passport). No wood or charcoal fires are permitted; camp stoves are allowed.

Pine Springs Campground

Located near the Pine Springs Visitor Center, there are twenty tent and nineteen RV campsites (including a wheelchair accessible tent site) available on a first-come, first-served basis. Two group campsites are available for groups of 10-20 people. Reservations (for group sites only) can be made by phoning 915-828-3251 x2124 up to two months in advance. Campers planning on day hiking in McKittrick Canyon, to Guadalupe Peak or the Bowl will want to stay here.

Dog Canyon Campground

Located at the end of New Mexico Highway 137, 70 miles from Carlsbad and 110 miles from Park Headquarters, at an elevation of 6,290' in a secluded, forested canyon on the north side of the park. The campground has nine tent and four RV campsites (including a wheelchair accessible tent site). There is one group site for groups of 10-20 people. Reservations for the group site only can be made up to two months in advance by calling 915-828-3251 x2124.

BACKPACKING

Eighty-five miles of trails lead through forests, canyons, and desert to ten backcountry campgrounds. A free permit is required if you plan to spend a night in the backcountry. Permits are issued at the Pine Springs Visitor Center and the Dog Canyon Ranger Station. For those coming through Carlsbad, Dog Canyon is a great place to begin a backpacking trip because it requires less elevation gain to get into the backcountry.

Wood and charcoal fires are prohibited. Camp stoves are allowed. Pack out all your trash. Pets are not allowed on park trails.

Preparation is the key to an enjoyable backpacking trip. Be prepared for changing weather conditions. Carry plenty of water—there are no water sources in the backcountry. Topographic maps, hikers' guides, and information can be found at the Pine Springs Visitor Center and the Dog Canyon Ranger Station.

HORSEBACK RIDING

Sixty percent of the park's trails are open to stock use. A backcountry permit is required for all stock use. These free permits are issued at the Pine Springs Visitor Center and Dog Canyon Ranger Station. Stock riding is limited to day trips only.

Stock corrals are available at Dog Canyon and near Frijole Ranch. Each has four pens and will accommodate a maximum of 10 animals. Reservations may be made two months in advance by calling 915-828-3251 ext. 2124.

OTHER POPULAR HIKES...

Trailhead	Trail	Distance Roundtrip	Description
Pine Springs	Devil's Hall Trail	4.2 miles	Moderate. Rocky hike in Pine Spring Canyon to the Hikers' Staircase and Devil's Hall. After the first mile, the trail drops into the wash. Turn left and follow the canyon bottom to Devil's Hall, where a sign marks the end of the trail.
	The Bowl	8.5 miles	Strenuous. The Bowl shelters a highcountry conifer forest. Recommended route: Tejas Trail to Pine Top, Bowl Trail to Hunter Peak, Bear Canyon Trail, Frijole Trail back to campground. Trail climbs 2,500'. Bear Canyon Trail is very rocky and extremely steep.
	El Capitan Trail	11.3 miles	Moderate. Desert lovers will appreciate the rocky arroyos and open vistas while skirting along the base of El Capitan. Recommended route: El Capitan Trail, Salt Basin Overlook, and return to Pine Springs on the El Capitan Trail.
Frijole Ranch	Manzanita Spring	.4 miles	Easy. Path is paved and wheelchair accessible. Hike to a small pond that serves as a desert oasis. Dragonflies, butterflies, and birds are active here in the warmer months. During winter, bluebirds frequent the area. Opportunities for chancing upon other wildlife are higher here as well.
	Smith Spring Trail (entire loop)	2.3 miles	Moderate. Look for birds, deer and elk as you pass Manzanita Spring on the way to the shady oasis of Smith Spring. Trees around Smith Spring include madrones, maples, oaks, chokecherry, ponderosa pines and others.
McKittrick Canyon	McKittrick Nature Loop	0.9 miles	Moderate. Climb the foothills and learn about the natural history of the Chihuahuan Desert. Trailside exhibits.
	Permian Reef Trail	8.4 miles	Strenuous. For serious geology buffs, this trail has stop markers that can be used with a geology guidebook sold at the Visitor Center. There are excellent views into McKittrick Canyon from the ridgetop. Trail climbs 2,000'.
Dog Canyon	Indian Meadow Nature Loop	0.6 miles	Easy. Enjoy a stroll around a meadow frequented by a variety of birds and other wildlife. Along the way you will see evidence of recent fires and regrowth.
	Marcus Overlook	4.6 miles	Moderate. Follow the Bush Mountain Trail to the ridgetop for a view into West Dog Canyon. Trail climbs 800'.
	Lost Peak	6.4 miles	Strenuous. Climb out of Dog Canyon on the Tejas Trail to visit the conifer forest above. Outstanding views from Lost Peak. Lost Peak is a short distance off trail to the right before the horse hitches. Trail climbs 1,500'.
Salt Basin Dunes	Salt Basin Dunes (Day Use Only)	3-4 miles	Moderate. Follow the old roadbed from the parking area for a little over a mile to the north end of the dune field. There is one high dune to ascend that some may find difficult. No shade. Enjoy the contrast of the pure white dunes with the sheer cliffs of the Guadalupe as a backdrop. Great for sunrise or sunset hikes all year, and daytime hikes during the winter.



NPS Photo/Michael Haynie

creatures are prey to travelling mouths. Typical predators include foxes, coyotes, and the always-nocturnal ringtail. The Texas horned lizard or “horny toad” is listed as threatened in the state of Texas and is especially interesting for its adaptations to escape predation. Not only is it armored by the many spikes on its body, but this lizard can shoot blood out of its eye as a scare tactic. That would definitely make me think twice if I were a predator! To avoid predation, the Merriam’s kangaroo rat employs move-freeze motion, jumping up to eight feet at a time. More impressive however, is its unique adaptation to desert conditions. This animal drinks no water; it receives all the water it needs through the seeds it eats. The combination of high metabolism and specialized kidneys of the Merriam’s kangaroo rat is a marvel. While it may be difficult to observe animals during a visit to the dunes, their tracks in the sand paint a picture of the activities that occur under the moonlight.



NPS Photo/Michael Haynie

The dunes are accessible from Williams Road and Farm Road 1576 near Dell City, Texas. The dunes are located on the west side of the park and offer great views of the western escarpment. New facilities have been erected at the the trailhead, including a paved parking area, restrooms, and picnic tables under a shade structure. The hike to the dunes is a little over one mile and is a great way to spend a morning, or watch the sunset. Only day use is permitted.

At 3,640’, the Salt Basin Dunes are lower in elevation than most areas of the park. The weather is generally warm in the winter and can be dangerously hot in the summer. Spring winds can make the area inhospitable. Wear sunscreen and a hat and carry plenty of water. A quart (32 ounces) per hour for hot days is needed. Glass containers are prohibited to prevent injuries.

Venomous snakes are occasionally encountered in the dunes area. Walking in areas of open sand allows you to better see where you step. If you encounter a rattlesnake, do not kill it. Give a venomous snake plenty of room and slowly walk away from it.

HIKING IN MOUNTAIN LION COUNTRY

WITH THEIR LARGE SIZE AND VERY LONG TAILS, mountain lions are unmistakable. Adult males may be more than eight feet in length and weigh an average of 150 pounds. Adult females may be up to seven feet long and weigh an average of 90 pounds. Their tracks show four toes with three distinct lobes present at the base of the pad, which is generally greater than 1.5 inches wide. Claw marks are usually not visible since their claws are retractable.

WHEN YOU HIKE IN MOUNTAIN LION COUNTRY:

Travel in groups. Lions may key in on easy prey, like small children. Make sure children are close to you and within your sight at all times—do not let children run ahead of adults! Talk with children about lions and teach them what to do if they meet one.

IF A LION IS SIGHTED, THERE ARE SEVERAL THINGS TO REMEMBER:

Do not approach a lion, especially one that is feeding or with kittens. Most mountain lions will try to avoid confrontation. Give them a way to escape.

Stay calm; speak calmly, yet firmly. Move slowly. Avoid prolonged eye contact.

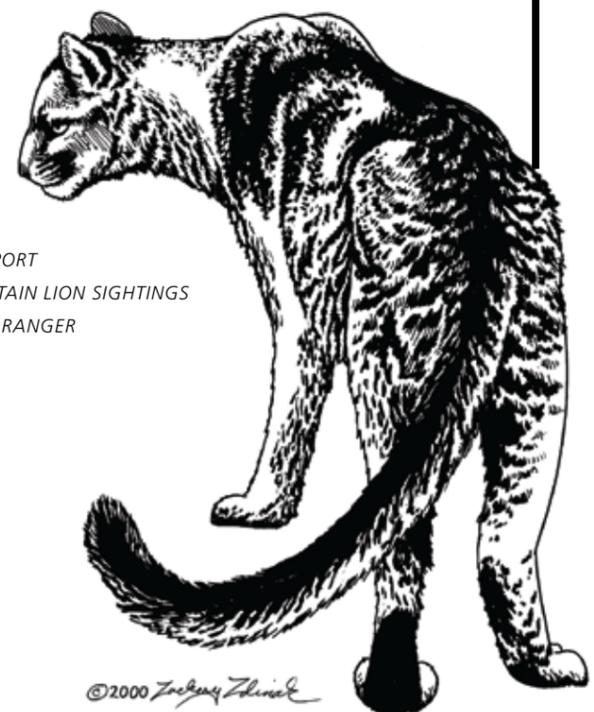
Face the lion and stay upright. Do all you can to appear larger. Raise your arms, or open your jacket.

Protect small children by picking them up so they won’t panic and run.

Back away slowly, if you can do it safely. Do not run! Running may stimulate a lion’s instinct to chase and attack.

If the lion behaves aggressively, throw stones, branches, or whatever you can get your hands on without crouching down or turning your back. Wave your arms slowly and speak firmly.

Fight back if a lion attacks you. People have fought back successfully with rocks, sticks, jackets, and their bare hands. Protect your head and neck with your arms. Remain standing or try to get back up.



PLEASE REPORT ALL MOUNTAIN LION SIGHTINGS TO A PARK RANGER

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Nearby Attractions

LIVING DESERT ZOO & GARDENS STATE PARK

575-887-5516

Come face to face with a mountain lion at this unique zoo and botanical garden offering an opportunity to experience the Chihuahuan Desert first-hand. See a large collection of live animals, including the rare Mexican gray wolf, and the roadrunner, the state bird of New Mexico. There is also an unusual collection of cacti and other succulents from around the world.

The park is located high atop the Ocotillo Hills overlooking the northwest edge of Carlsbad, just off U.S. Highway 285, and features exhibits, an art gallery, gift shop, and refreshments.

Open daily except December 25.
Wheelchair accessible.

Summer Hours
(Memorial Day to Labor Day)
8:00 a.m. to 5:00 p.m.
Last tour entry—3:30 p.m.

Winter Hours (after Labor Day)
9:00 a.m. to 5:00 p.m.
Last tour entry—3:30 p.m.

Fees
Ages 13 and up \$5.00
Children 7 - 12 \$3.00
Children 6 and under free
Group (20+) discount available.

BRANTLEY LAKE STATE PARK

575-457-2384

Located 12 miles north of Carlsbad on U.S. Highway 285, the campground has 51 RV sites with water and RV electric hookups (a few with sewer), a dump station, playground, restroom with hot showers, shelters, tables and grills. Other facilities include picnic areas with sheltered tables and grills, playground, a fishing dock, boat ramps with docks, and a visitor center.

Open all year—24 hours/day.
Wheelchair accessible.

Fees
Day Use Only—\$5.00 per vehicle
Camping—\$14.00 per night (\$10.00 for each additional vehicle driven into the same site)
Primitive Camping Area—\$8.00 per vehicle per night.

LINCOLN NATIONAL FOREST

575-885-4181

The forest encompasses 1,103,441 acres for hiking, caving, camping, picnicking, horseback riding, hunting and sightseeing. Maps are available at the Guadalupe Ranger District Office located in the Federal Building, 114 S. Halagueno, Room 159, in Carlsbad.

Five Points & Indian Vistas

Eleven miles south of State Highway 137 on Forest Route 540, an improved gravel road. A panoramic view of the desert from the top of the Guadalupe Mountains. Interpretive signs explain natural features.

