



photo by Ray Davis

The Importance of Ray V. Davis in Early Caverns History

by Bob Hoff

I would speculate that almost everyone who knows about the early history of Carlsbad Caverns knows about the importance of explorer and guide Jim White. For some people, including myself, White's contributions were so large and long-lasting that he is "Mr. Carlsbad Caverns." I would also speculate that another important contributor to the early caverns history, photographer Ray V. Davis, is virtually unknown to many people. In their book *Carlsbad Caverns: The Early Years—A Photographic History of the Cave and Its People*, William Halliday and Robert Nymeyer include a chapter entitled, "The Story of George Adams and Ray V. Davis, Photographers," richly illustrated with some of Davis' photographs. The life of Ray Davis reveals how the unplanned and seemingly inconsequential aspects of our lives can lead to greater events, destined to be historic in scale.

In 1913, nineteen-year-old Ray Vesta Davis was traveling to California from Kansas with his parents Martin and Nevada Davis and the rest of his family. While stopped in Clovis in northeastern New Mexico, the Davis family chanced to hear some land "boosters" from Eddy County in southeastern New Mexico. The boosters promoted the virtues of settling down in this area of the Pecos River Valley, claiming that Carlsbad might be a better place to continue farming than in California, especially with the massive irrigation and reclamation projects underway in the Pecos Valley. The Davis family agreed and came to Carlsbad to settle.

For young Ray Davis, his interest in farming quickly sputtered out after arriving in Carlsbad, replaced by a burning desire to be a photographer. Shortly after moving to Carlsbad, he opened a photographic studio named the "Picture Gallery." In later years, he recalled that his first camera was a small box Kodak made by Eastman. He also recalled that the camera began his

seventy year love affair with photography (Halliday and Nymeyer, 1991, p. 57.)

In 1915, explorer and guide Jim White was 33 years old, with nearly two decades under his belt of exploring and guiding others in what was then called "Bat Cave." The underground wonders that White and his companions had seen defied description. White was stymied in his effort to promote awareness of the cavern to those who refused to believe what they hadn't seen with their own eyes. Imagine trying to put the caverns into words for others before it became known to the world through publicity.

Sometime around 1915-1918, the paths of Jim White and Ray V. Davis crossed and Jim invited Ray to the caverns to take pictures. Davis, twelve years junior in age to White, fell in love with the cavern just as White had himself years before. Almost immediately, Davis, like White, also realized the need to make known the caverns in order to share it with others.

With White guiding Davis in the caverns and Davis taking photographs, the key combination for bringing the caverns to the attention of the world began, starting the changes that would evolve the "Bat Cave" as an early 20th century bat guano mining site into a National Monument in 1923, a National Park in 1930, and a World Heritage Site in 1995.

Just how important were Ray V. Davis's photographs to the future of Carlsbad Caverns? Consider:

- His pictures began attracting local interest in the early 1920s. He even organized an expedition of prominent city people to explore the cavern in 1922.
- Davis turned over some of his earliest photographs to the New Mexico Land Office; copies of these photos ended up in the possession of the U.S. General Land Office who shared their interest with the National Park Service in Washington D.C. in March 1923.
- The National Park Service responded by

asking the GLO to send an exploration expedition to the caverns. In April 1923, an expedition from Roswell, New Mexico, headed by GLO Mineral Examiner Robert Holley arrived on the scene. Holley estimated several

...see **Ray Davis** on page 3

What Is It Worth?

by Mike Oakley

The Big Room at Carlsbad Cavern is among the natural wonders of the world. It isn't the biggest, the longest, or the deepest, but it is spectacular. The opportunity to spend considerable time touring the Big Room is one of the benefits of being a volunteer at Carlsbad Cavern National Park.

Another benefit is the opportunity to talk to the park visitors and answer their questions about the formation and history of the cavern. On one memorable day, I met a school group at the Top of the Cross. When I asked if there were any questions, I got the usual responses: How old is it? How big is it? How was it made? What's it worth?

What's it worth? That last question took me a little off guard. I had never thought of the cavern as a thing with a specific value. While I tried to think of a proper answer, I started talking about the cavern...The abbreviated version of Geology 101.

The group seemed to be willing to listen, so I talked for a few minutes about the geology and formation of the cavern. I explained that, essentially, we have 250 million years of labor, vast amounts of materials and the efforts of a truly superb designer...What's it worth?

Let's compare Carlsbad Cavern to some of the great man-made objects in the world. How about the Great

...see **Worth** on page 3



photo by David Harris



NPS photo

Cave Tours see pages 4-5

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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 fossilized reef. Both parks are located within the Chihuahuan Desert, a fascinating place to explore desert life.

Within the boundaries of these parks, you will find areas preserved as wilderness. A wilderness designation is the highest level of land protection our society can grant. Here, travel is by foot or horseback only and natural processes are allowed to operate freely. September 3, 2004 marked the 40th anniversary of the Wilderness Act. What better way to honor the Wilderness Act than to enjoy the gift of wild lands inherited from one generation and passed on to the next? Ask a ranger where you can hike into the wilderness and how best to prepare.

The park staff is 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 continue through the winter months. These tours offer a variety of caving experiences, from easy lantern tours to challenging trips involving crawling and squeezing through tight passages. Fall Colors at Guadalupe Mountains National Park is an exhilarating experience. Please call us for updated information on the changing colors and the best time to visit. And don't forget, the highest peak in Texas and some of the most incredible vistas around are just a few hours away.

As you travel and spend time in the area, please remember to keep safety in mind. Icy roads are infrequent, but do occur, especially on the Caverns access road and at the top of the Guadalupe Pass near the Guadalupe Mountains Headquarters Visitor Center. Call the numbers listed on this page to check road conditions if there is a chance of severe weather. 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. Even in cooler temperatures, hikers can become dehydrated in our dry climate; carry plenty of water. 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 Benjamin
Superintendent
Carlsbad Caverns
National Park

John Lujan
Superintendent
Guadalupe Mountains
National Park



The National Park Service
cares for special places saved by the American
people so that all may experience our heritage.

Telephone and Web Directory

Carlsbad Caverns National Park
3225 National Parks Hwy
Carlsbad, NM 88220
(505) 785-2232
www.nps.gov/cave

Guadalupe Mountains National Park
HC60, Box 400
Salt Flat, Texas 79847
(915) 828-3251
www.nps.gov/gumo

Weather Conditions
Carlsbad Weather Watch:
(505) 885-1848

Road Conditions
New Mexico: (800) 432-4269
Texas: (800) 452-9292.

Carlsbad Caverns Guadalupe Mountains Association
Operates both parks' bookstores.
Books may also be purchased by mail or online.
PO Box 1417
Carlsbad, NM 88221
(505) 785-2486
(505) 785-2318 FAX
www.ccgma.org

Food, Lodging, and Camping
Carlsbad Chamber of Commerce:
(505) 887-6516
www.caverns.com/~chamber/

Van Horn, Texas Visitors Bureau:
(915) 283-2682
www.vanhornadvocate.com/communityad1.shtml



Thank You, Volunteers!

Your work above and below ground is key to caring for the parks! Carlsbad Caverns and Guadalupe Mountains National Parks appreciate our volunteers' generous donations of time and skills. Volunteers do everything from staffing the information desk, roving interpretation, patrolling surface and cave trails, to trail maintenance, research, cave restoration, cave mapping, and more. Your dedication helps both parks reach their goals.

To become a volunteer contact...

Carlsbad Caverns
Jason Richards
(505) 785-3135

Guadalupe Mountains
Doug Buehler
(915) 828-3251 x105

Experience you America

365 DAYS • 379 WAYS • 365 DAYS • 379 WAYS • 365 DAYS

The National Parks Pass costs \$50.00 and covers entrance fees into National Park Service areas for one year. It is available at any National Park Service site with an entrance fee. Passes are available by phone at 888-GO-PARKS or on the web at www.nationalparks.org.



A reminder from Ranger Rufus...

On a warm day the temperature inside a car can kill a pet. Do not leave an animal unattended; the kennel is the only safe place for your pet.

At **Carlsbad Caverns**, pets are not permitted in the cave or at bat flight programs; during the day your pet may be cared for at the kennel for a small fee.

At **Guadalupe Mountains**, pets are not allowed on trails, in the backcountry, in buildings, or at evening programs; they are permitted in the campground.

In any national park, your pet must be physically restrained at all times.



Ray Davis continued from page 1

days for the exploration; instead it took five weeks and was guided by Jim White and photographed by Ray Davis. In his report, Holley urged that the caverns be established as a national monument.

- After U.S. Geological Survey geologist Willis T. Lee visited for two weeks in August later that summer, he rushed backed to Washington D.C. to urge what Holley had recommended. When Lee led a six-month expedition of day trips here from March – Sept 1924, he used Davis' pictures to illustrate his first article for the *National Geographic* magazine.

A now world famous cavern owes its fame in part to the contributions of an obscure photographer. Ray Davis combined a passion for photography with an appreciation of the natural world. His talent and efforts helped bring the world's attention to the hidden treasure beneath our feet.



Photo by Ray Davis

Worth continued from page 1

Pyramid of Giza? The archeologists say that it took over 20 years and 20 thousand men to build the Great Pyramid. Without adding in the cost of materials this adds up to over four-hundred thousand man-hours. If they were worth as much as the average auto mechanic that adds up to nearly \$70 Billion not including overhead and benefits.

Of course a pyramid isn't a cavern, although they did move millions of cubic yards of material. A better example might be some of the great holes in the ground that have been built. For example, the "chunnel" across the English Channel, or New York City's third water tunnel. The Chunnel is about 30 miles long and consists of two railroad tunnels and a service tunnel. The third water tunnel in New York will be sixty miles long when it is finished, and about 30 feet in diameter.

Without going into a lot of detail, the cost of drilling a nice straight hole in the ground 30 miles long is about 7 billion dollars. Of course there is more to a cavern than just the hole. There needs to be some decoration. In the cavern there are stalactites, stalagmites, columns, draperies, helictites, a wide variety of decorations in truly stupendous numbers; the cavern is truly a world class piece of art.

What does art cost? Christie's is an auction house that sells some of the greatest art ever made by man. In their catalogue of May 8, 2000, there are works by Monet, Gauguin, Lautrec, and many others. Using the prices from this catalog as a basis, the average cost per square foot of world class art is \$854,000.

Of course, that number represents some of the most expensive art works in the world with prices ranging from 1.5 to 24.5 million dollars. Let's say the decoration of the cavern is based on a more reasonably priced artist at perhaps \$10,000 per square foot.

How many square feet of cavern wall are there? Let's make a gross estimate. Carlsbad Cavern has about 30 miles of surveyed passages. To calculate the surface area to be decorated, a cave 30 miles long and fifty feet in diameter has approximately 24.8 million square feet of surface area. That gives us the fantastic number of 248 billion dollars worth of decoration. Add to that the 7 billion dollars for construction and we get a really fantastic number.

The cost to build and decorate the cavern is 255 billion dollars. Compare that to the 70 billion dollars required to build the Great Pyramid...What's it worth?

But is that the only value the cavern holds for us? Today the cavern provides a home to many microbes, and animals that live both in the cave and in the surrounding desert. The most visible of these is the Mexican Freetail bat.

The bats that live in the cavern fly out each summer night in search of a meal. They eat insects. A few more numbers to throw around: a Mexican Freetail bat weighs around ½ ounce. Each night the bats will eat 60 percent or more of their body weight in insects. A pregnant female bat will eat even more. Stretching the calculator again: 100 thousand bats will eat nearly a ton of insects each night. Since we have about 300 thousand bats that live in Carlsbad Cavern in the summer time, that works out to 3 tons of insects eaten every night. Without the bats, the insect population would explode making this part of the world a pretty miserable place to live...What's it worth?

When we look for life in the unspoiled caves such as Lechuguilla Cave, we have to look at the cave pools.

The water in these pools is home to several thousand different types of microbes. The microbes that live here are called extremophiles and they are completely different from any life form found in what we consider normal conditions. They don't depend on the sun for energy. There is no photosynthesis in the dark depths of a cave. They are so different, in fact, that they may form a completely new family of life.

So far we know of more than 1,200 new microbes that have been identified in Lechuguilla cave, the Hawaiian Lava Tubes, Mammoth Cave and others around the world. Scientists have a saying, "New bugs, new drugs."

Just as in any food chain, bigger bugs eat little bugs and little bugs eat smaller bugs. But scientists noticed that some of the bugs weren't being eaten. They were giving off toxins that protected them. These toxins are being studied in research laboratories around the world and are showing promise as antibiotics, fungicides, anti-malarial agents, and even as treatments for certain types of cancer.

Perhaps in a few years we will live longer and healthier lives due to research that started in a cave like Carlsbad Cavern. What's it worth?

The Volunteer Experience

by Sarah Ruhland

How many people do you know who gladly show up at work every morning, knowing they will not get paid? Volunteers at Carlsbad Caverns and Guadalupe Mountains National Parks do just this, generously giving their time to both the parks and the visitors who come to learn and experience.

Volunteers in our national parks bring with them a wide variety of backgrounds and experiences. They are college students and retirees, teachers and former bankers, extroverts and sometimes, aspiring park rangers. Our volunteers are diverse, yet they all share a love of our national parks that has inspired them to donate their time and skills.

Jerry Kinersly first came across the Volunteers in Parks (VIP) program when visiting Petrified Forest National Park. A former employee of the park service, Jerry spent the late 1940s guiding visitors at Oregon Caves National Monument. Now retired, Jerry is spending his summer volunteering for the interpretation division at Carlsbad Caverns National Park.

A dynamic, upbeat man, Jerry can be seen giving orientations, leading tours, roving the cave, and working at the park's information desk. "I love people," he says. "The best part of my job is talking to visitors and sharing my knowledge with them."

Seeing visitors' response to the caverns as well as constantly learning new things are volunteer Paul Volpe's daily motivations. Paul is a high school physics and chemistry teacher who is returning to Carlsbad Caverns for a second summer of volunteer work in interpretation. Paul explains, "My experience in the park has made me a better public speaker, and I have more to share with the students in my classes."

Other volunteers work behind the scenes, applying their unique skills to areas such as outreach, education, and cultural resources. In the past, volunteers have been responsible for creating educational materials for local schools, giving children's programs, and cataloging library materials for the park historian. Verna Kinersly, Jerry's wife, is also a VIP, working in the park's library. She brings with her experience as a teacher's aide and computer skills she gained when working for a health organization. Verna's assistance has been essential in providing resources to park employees developing programs and tours.

Volunteering is an excellent way to learn about the park service and to explore future career options. The Student Conservation Association provides students and others opportunities to work in our national parks. The SCA is the largest and oldest conservation service organization in the United States with volunteers completing almost 1 million service hours annually at over 400 sites. 40,000 alumni have used their experience to start and supplement careers in the National Park Service, education, conservation, and a multitude of other fields.

SCA volunteer Luke Fields hopes that his experience working with park visitors will apply to any career he may pursue in the future. Also working in interpretation, Luke encounters visitors in the caverns, always learning and sharing new skills and information. Luke finds it hard to identify the best part of his job, but "living in one of the most beautiful parts of the country" is an unquestionable benefit.

The next time you see a volunteer, be sure to thank them for all they do. Our parks could not operate without them. Parks all over the country are always looking for willing volunteers; for more information, contact parks directly, or visit www.nps.gov/volunteer. More information on the Student Conservation Association can be found at www.sca-inc.org, or by calling their offices at (603) 543-1700.



Carlsbad Caverns

Tour the Main Cave...

Spring, Fall, & Winter Hours

Natural Entrance	8:30 a.m. - 2:00 p.m.
Big Room	8:30 a.m. - 3:30 p.m.
Visitor Center	8:00 a.m. - 5:00 p.m.

Summer Hours (May 28 - August 14)

Natural Entrance	8:30 a.m. - 3:30 p.m.
Big Room	8:30 a.m. - 5:00 p.m.
Visitor Center	8:00 a.m. - 7:00 p.m.

Fees

Entrance Fees

Adults—age 16 and over	\$6.00	Audio Guide plus \$3.00
Children—age 6 to 15	\$3.00	plus \$3.00
Children—age 5 and under	free	plus \$3.00

The National Parks Pass, Golden Age Passport, Golden Eagle Passport, and Golden Access Passport all cover the basic entrance fee.

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

All fees and tours are subject to change at any time.

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:

Reservations	(800) 967-CAVE (2283)
TDD	(888) 530-9796
Cancellations	(800) 388-2733

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 age 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.
- leave your baby stroller in the car; child-carrying backpacks are recommended.
- leave your pet at the kennel, not in your car.

Protect the Cave

- Never touch the cave formations; the natural skin oils on your hands damage the formations
- Never take gum, food, or drinks into the cave
- Never use tobacco of any kind in 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, keep tripods on the trail, and do not use the rocks as your personal tripod. 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.



Cavern Supply Company



Cavern Supply Company



Cavern Supply Company

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 with good physical fitness and health; sturdy footwear required. Highlights include the Natural Entrance, Devil's Spring, Whale's Mouth, and Iceberg Rock.

Rent the Cavern Audio Guide!

This guide is available for \$3.00 and is essential for both self-guided tours. It offers commentary by park rangers, researchers, and others who are knowledgeable about the cave's science and history.

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. This trail is partially accessible to visitors using wheelchairs, with assistance. The park does not provide wheelchairs. This trail can be accessed after hiking the 1.25 mile Natural Entrance Self-Guided Route.

King's Palace Guided Tour

Length: 1 mile, 1.5 hours
Fee: Entrance fee and \$8.00 Tour Ticket

Tours depart from the Underground Rest Area. Tickets may be purchased at the visitor center. However, reservations are recommended; call ahead. You will visit four highly-decorated chambers: King's Palace, Papoose Room, Queen's Chamber, and Green Lake Room. The tour guide will turn out the lights for a blackout experience. The trail is paved; however, there is a steep hill that you must walk down and then back up.

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-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 most vehicles except trailers and motor homes. 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 U.S. Highway 62/180, then 2.5 miles west on a signed county road. Day use only.

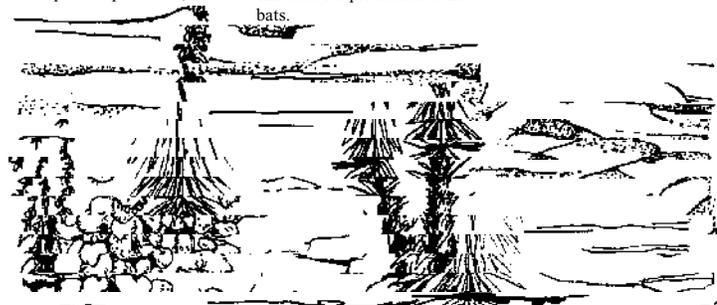
Hiking & Camping

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 (Summer Only)

A few hundred thousand bats fly from Carlsbad Caverns 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. **No Flash Photography** is allowed as it may be a disturbance to the bats. This rule is strictly enforced for protection of the bats.





Carlsbad Caverns

...or try something different!



NPS Photo/Ed O'Connor

Left Hand Tunnel

On this lantern-lit tour your guide will highlight cavern history, formations, cave pools, and Permian Age fossils. This is the easiest of the adventure tours on unpaved trails. Be aware that the dirt trail winds over small uneven or slippery slopes and careful footing is required to avoid cavern pools and fragile formations. Lanterns are provided. Tour departs from the Visitor Center lobby.



Cavern Supply Company

Slaughter Canyon Cave

This moderately strenuous tour is through a well-decorated undeveloped backcountry cave. *Tours depart from the cave entrance at the schedule time.* It is mandatory for each person to bring a two to four C or D-cell alkaline battery flashlight with fresh batteries. Penlights are not permitted. The route is slippery, muddy, and at times requires a supervised ascent of a 15-foot flowstone slope using a knotted rope.

Do not drive to the Visitor Center for this cave tour. Allow plenty of time to drive to Slaughter Canyon and 45 minutes for the steep and strenuous 0.5-mile hike to the cave entrance. Attempt this hike only if you are in good health. Carry water—the desert is dry, and can be very hot in summer and very cold in winter. Stay on the trail and wear good walking shoes.



NPS Photo/Ed O'Connor

Lower Cave

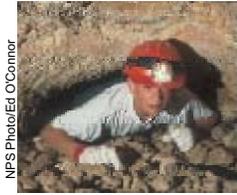
This moderately strenuous tour begins with a ranger supervised descent down a 10-foot flowstone slope using a knotted rope, followed by a 30-foot series of three ladders. Bring gloves and four AA alkaline batteries per person. The park provides helmets, headlamps and optional kneepads. Tour departs from the Visitor Center lobby. You will see evidence of early exploration, cave pools, and beautiful formations.



NPS Photo/Ed O'Connor

Hall of the White Giant

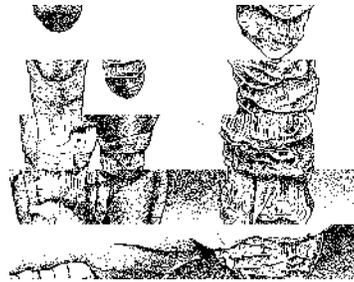
This is a strenuous, challenging tour to a remote chamber in Carlsbad Caverns. You will be required to crawl long distances, squeeze through tight crevices, and climb up slippery passages. Bring gloves and four AA batteries per person. We provide helmets, headlamps, and kneepads. Tour departs from the Visitor Center lobby.



NPS Photo/Ed O'Connor

Spider Cave

On this strenuous tour you can expect tight crawls, canyon-like passages, and bizarre formations. Bring gloves and four new AA batteries. The park provides helmets, headlamps, and kneepads. The tour departs from the Visitor Center for a short drive and then a short hike to the cave. Bring water for the hike.



**Cave Tours
Reservations:
call
1-800-967-2283**

Tour	Trail Surface	Offered	Departure Time	Adult Fee	Age Limit	Tour Length	Group Size
King's Palace	Paved trail; 80' hill must be climbed on return trip	Daily	Summer 10,11,2 & 3 Fall-Spring 10 & 2	Adults \$8 Golden Age \$4 Golden Access \$4 Children (6-15) \$4 Children (4-5) Free	4	2 hours	75
Left Hand Tunnel	Packed dirt trail	Daily	9:00 am	\$7.00 and General Admission Ticket	6	2 hours	15
Slaughter Canyon Cave	Strenuous climb required to reach cave entrance. Trail in cave is slippery, uneven, and rocky	Saturday and Sunday (Tours offered daily in summer)	10:00 a.m.	\$15.00	6	2 hours	25
Lower Cave	Must negotiate fifty feet of ladders, variable dirt trails, might get dirty	Monday through Friday	1:00 pm	\$20.00 and General Admission Ticket	12	3 hours	12
Wild Caving – kneepads required!							
Hall of the White Giant	Climbing and crawling, tight squeezes, drop-offs, will get dirty	Saturday	1:00 pm	\$20.00 and General Admission Ticket	12	4 hours	8
Spider Cave	Climbing and crawling, tight squeezes, drop-offs, will get dirty	Sunday	1:00 pm	\$20.00	12	4 hours	8



Guadalupe Mountains



Rachele Riley



Rachele Riley



John Cwiklik

Plan Your Trip Wisely!

Facilities and services within and near Guadalupe Mountains National Park are extremely limited. The nearest gasoline stations are 32 miles west or 35 miles east. There is no campstore; bring everything you need with you.

Information and exhibits

Headquarters Visitor Center

Elevation 5,740'. On U.S. Highway 62/180, 55 miles southwest of Carlsbad and 110 miles east of El Paso. Open every day except Christmas. Open Memorial Day to Labor Day 8:00 A.M.- 6:00 P.M.; Labor Day to Memorial Day 8:00 A.M.- 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 Mountains. Grounds include a picnic area near a spring shaded by large oak trees. Restroom available. Staffed intermittently.

McKittrick Canyon

Highway entrance gate is open 8:00 A.M.- 4:30 P.M., Mountain Standard Time; 8:00 A.M.- 6:00 P.M. Mountain Daylight Savings Time. Closing time changes when Daylight Savings Time begins and ends. Restrooms, outdoor exhibits, slide program.

Dog Canyon

This secluded, forested canyon on the north side of the park is a great place to begin a backpacking trip for those coming through Carlsbad.

Ranger Station and 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 feet. The campground has nine tent sites and four RV spaces.

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 Golden Age or Golden Access Passport. No wood or charcoal fires are permitted; camp stoves are allowed.

Pine Springs Campground

Located near the Headquarters Visitor Center, there are twenty tent and nineteen RV campsites available on a first-come, first-served basis. Two group campsites are available for groups of twenty or less. Reservations (for group sites only) can be made by phoning (915) 828-3251.

Backpacking

Eighty-five miles of trails lead through forests, canyons, and the desert. 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.

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

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.

Day Hikes at Dog Canyon

Indian Meadow Nature Loop

Easy. 0.6 miles roundtrip. A guide booklet describes ecology and geology.

Marcus Overlook

Moderate. 4.6 miles roundtrip. Follow the Bush Mountain Trail to the ridge-top for a view into West Dog Canyon. Trail climbs 800 feet in elevation.

Lost Peak

Strenuous. 6.4 miles roundtrip. Climb out of Dog Canyon on the Tejas Trail to visit the conifer forest above. Outstanding views from Lost Peak. Trail climbs 1,500 feet in elevation.

Day Hikes

Entrance Fees (\$3.00 per person 16 years and older) can be paid at trailheads. Good for one week.

Trail-Head	Trail	Roundtrip length	Description
Visitor Center	Pinery Trail	0.75 mile	Easy. 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; wheelchair accessible.
Pine Springs Campground	Guadalupe Peak Trail	8.4 miles	Strenuous. Hike to the "Top of Texas" at 8,749 feet, for spectacular views. Trail climbs 3,000 feet in elevation. Avoid the peak during high winds and thunderstorms.
	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	9.1 miles	Strenuous. The Bowl shelters a high country conifer forest. Recommended route: Tejas Trail to Pine Top, Bowl Trail to Hunter Peak, Bear Canyon Trail, Frijole Trail back to the campground. Trail climbs 2,500 feet in elevation.
	El Capitan Trail	11.3 miles	Strenuous. 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 Trail, and return on the El Capitan Trail. Beyond the Salt Basin Overlook the El Capitan Trail continues to Williams Ranch, an additional 4.7 miles one-way.
Frijole Ranch	Smith Springs Loop Trail	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. Please do not drink the water or wade in the springs. The first 0.2 miles to Manzanita Springs is wheelchair accessible.
McKittrick Canyon	McKittrick Canyon Trail	4.8 miles	Moderate. Follow an intermittent stream through the desert and canyon woodlands to the historic Pratt Cabin. A guidebook is available at the trailhead. One mile beyond the Pratt Cabin is the Grotto Picnic Area and Hunter Line 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.
	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 feet in elevation.

Hike safely...

- There is no water available along park trails, so be sure to bring plenty with you. One gallon per day is recommended.
- Trails are rocky—wear sturdy shoes.
- 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 visitor center.
- Collecting of natural, historic, or prehistoric objects is not allowed.

Weather	Temperatures (F.) Average		Rainfall Average
	High	Low	Inches
Jan	53	30	1.04
Feb	58	35	1.04
March	63	38	0.87
April	71	46	0.57
May	78	55	1.26
June	88	63	1.48
July	87	63	3.08
Aug	84	62	3.77
Sept	78	57	5.22
Oct	71	49	1.41
Nov	61	38	0.65
Dec	57	33	0.67

Average annual precipitation is 21.06 inches.
Pine Springs Weather Station, Guadalupe Mountains National Park, elevation 5,500'.

To the Top of Texas and Back

by Doug Buehler

The day starts as first light peeks over the eastern horizon. The air is cool and the awakening of the landscape is signaled by chirping of birds and quiet rustling of mule deer in nearby bushes. A water check is made, sunscreen put on exposed skin, and shoelaces tightened to insure good footing. Thus begins a hike up to Guadalupe Peak, the highest point in Texas at 8,749 feet. The trailhead starts at the back of the Pine Springs Campground.

The first 1-1/2 miles ziz-zag up switchbacks along a very steep portion of the trail. One can easily imagine a sure-footed Desert Big Horn sheep being in the area. These animals were here until the early 1900's. Native Americans hunted them and drew pictographs depicting them. Rest stops are taken frequently on this steeper section of trail. While resting and viewing the surrounding landscape it is hard to imagine the area was once a large inland ocean where a world famous fossilized reef formed—the Capitan Reef. The sheer walls of the neighboring mountain El Capitan are made up of debris from the reef. You are actually walking on the reef and rocks associated with it on parts of the hike. At times each step you take is upon ancient sea life such as algae, sponges, brachiopods mixed in with lime and sand sediments. Watching for fossils is an interesting challenge while hiking trails in the park.

After about 1 1/2 hours of hiking there is a notch in the trail and it switches back to a less severe slope. One walks through conifer trees on this cooler north-facing slope. The wind continues to increase as the trail climbs. It is easy to believe that this is one of the windiest places in the United States, especially in the spring. Winds in Guadalupe Pass have been strong enough to topple over 18-wheeled trucks on the highway.

More continuous climbing brings one into an exposed area without trees. Moving about is a rock squirrel looking for food and hiding from a high flying red tailed hawk. Your legs are feeling the effect of the effort hiking up the trail. A long drink of water energizes you before the last section of switchbacks to the top. After about four hours, 4.2 miles of climbing, and three thousand of elevation change, you take one final step onto the top of Texas—8749 feet. You sign the peak register and read with interest comments made by other

hikers. Some are humorous, some thoughtful, and more than a few mention the view. The view from the top is one of the best in the region. Looking far to the north Sierra Blanca is seen which is a scared mountain to the Mescalero Apache who once roamed throughout the Guadalupe. One might reflect what they felt about the land and how they found a way to survive using many of the plants you have walked by. Looking south at the wide-open spaces for over 100 miles you can almost visualize ocean waves roaring across the area. The white stark-looking terrain to the west is called the Salt Flats. Gypsum and other salts have accumulated there from evaporation of mineral saturated water draining to a low section of the land. In fact a short war was fought in 1876 over the right to collect salt between local Mexican people and an aggressive outsider who moved into the El Paso area. It is easily 10 degrees cooler on the peak than in the lower elevations of the park. Walking up 3,000 feet is like traveling hundreds of miles north in terms of how the climate affects plant and animal life.

After a short rest to admire the view it is time to make the trip downhill which will take 2-2 1/2 hours; less time than uphill, but hard on the knees. On the way down one reflects on what has been seen and experienced. You notice some plants such as the sotol, which are yucca-like plant except the long, green leaves have edges like a saw. Native Americans pounded the leaves mixed with water and made thread used for producing a variety of items including baskets and blankets. The fleshy center section of the plant was baked and eaten.

As the end of the trail approaches you have completed a seven-hour accomplishment well worth the effort. The hike brings a greater appreciation of the landscape and the satisfaction of being to the top of Texas. National Parks help provide experiences where one can get in touch with the natural world in a special way. Even for those unable to go to the top of a mountain there is a certain satisfaction knowing places like Guadalupe Mountains National Park are protected from human impacts. Future generations will also have a chance to experience what the park has to offer. This rugged landscape has stories to tell you. Look and listen to what it is saying. What you see and hear could be a magic moment in life's adventures.

Autumn's Splendor

The canyons of the Guadalupe Mountains fill with colorful displays of maple, sumac, walnut, and ash leaves. It's no wonder that Fall Colors draw some of the largest crowds of the year.

Late October and early November are the prime weeks for viewing fall colors.

Weekends in McKittrick Canyon are extremely busy, and access is limited. Those arriving late may have to wait several hours to enter. Rangers recommend that you visit

during the week. On weekends, consider hiking the Devil's Hall Trail near Pine Springs Campground or in Dog Canyon.

McKittrick Canyon hours are from 8:09 a.m. to 6:00 p.m. (4:30 p.m. starting on Nov. 1st.) Other trails are always open. Plan to spend at least three hours to hike in far enough to fully appreciate the area. There are no restrooms available at Pratt Cabin.

Help protect fragile park resources. Stay on the trail and out of the stream.

Call (915) 828-3251 for current conditions.

Your Connection to the Wilderness



photo by Laurence Parent

by Andrew Smallidon

Wilderness is different for each one of us. It may be a place that is unknown, a place to face a challenge, or an area that you feel is being protected. To many it is a place that allows us to experience nature on its own terms. Wilderness is seen as a living, breathing thing; something to go into. Only in a Wilderness area, where there is the least amount of influence by man, can we test ourselves to see if we measure up to our personal beliefs. Many individuals do so every year by camping, hiking, and enjoying the Wilderness. As a society we are challenged to use our voices to keep the wilderness system alive. Some supporters of the wilderness may never step foot into it. It is the knowledge that it is there that satisfies them.

We all connect to the wilderness in some form, whether we know it or not. For some of us it is hiking trips and living close to nature without the conveniences of today. It may be a response to the misuse and needless destruction of natural areas that give profit to a few. Wallace Stegner called wilderness "part of the geography of hope." The pain that many feel when they witness or hear of destruction of the natural world is alleviated by the knowledge that some wilderness remains protected forever. One connection to the wilderness that is not always obvious is that wilderness can benefit society at large by helping to protect the water we drink and the air we breathe. Some people resent their connection to wilderness, because they see wilderness as locking up the land. To them wilderness is not a place free of machines and the excesses of civilization, but a place where they cannot log, mine, or build a house. Some of us may not have found our connection with wilderness. We may be pushed and pulled by things we hear. Do we need less Wilderness? Do we need more? Whatever your connection, take a moment to consider where you stand. Do you stand in the wilderness or outside of it?

The backcountry of the Guadalupe Mountains in Texas and New Mexico is home to an array of plant and animal life that has adapted to the harsh climate of the Chihuahuan Desert. This domain has long been viewed as a hazard and inhospitable by man. It is also where thousands come every year to enjoy the diversity of life. Allowing access to these areas helps us all connect with nature.

The idea of setting an area of land aside for an intangible purpose makes little sense to many. Does it need to have a purpose or is it just to be? You may think there is nothing happening out in that neck of the woods, but there are people thinking about it and appreciative of its significance even if they never set foot in it. The National Wilderness Preservation System is one of the nation's hottest environmental topics of our time. Each of us has the key to unlock the wilderness. What is your connection to the Wilderness?

Area Attractions



Brantley Lake State Park

(505) 457-2384
Open all year.
Wheelchair accessible.

Fees
Day Use—\$4.00 per vehicle
Camping—\$14.00 per night
Primitive—\$8.00 per night

Located 12 miles north of Carlsbad on U.S. 285, the campground has 51 sites with water and RV electric hookups, a dump station, restroom with hot showers, tables, and grills.

Other facilities include picnic areas with sheltered sites, tables and grills, playgrounds, a fishing pier, boat ramps, and a visitor center.

Living Desert State Park

(505) 887-5516
Open daily except December 25.
Wheelchair accessible.

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

Winter Hours
Labor Day to Memorial Day,
9:00 a.m. - 5:00 p.m.
Last tour entry—3:30 p.m.

Summer Hours
Memorial Day to Labor Day
8:00 a.m. to 8:00 p.m.
Last tour entry—6:30 p.m.

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, New Mexico's state bird. 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 Highway 285 and features exhibits, an art gallery, gift shop, and refreshments.

Lincoln National Forest

(505) 885-4181

The forest encompasses 285,000 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.

Sitting Bull Falls
Wheelchair accessible.
Day use only—no camping.
Entrance fee—\$5.00 per car.

Seven miles southwest of State Highway 137 on Forest Route 276, this 130 foot falls is one of the highest in New Mexico. Picnic area, trails, and restroom.

Five Points Vista

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

