

## Backcountry Caves

### Caving Opportunities

You may be able to enter one of several wild caves in Carlsbad Caverns National Park by obtaining a special permit from the Cave Resource Office. This brochure provides information to help you decide which cave to visit based upon your caving experience, interests, and abilities. Some caves are difficult to locate and enter, requiring technical caving skills, experience in reading topographic maps, extended hiking in very rough and potentially hazardous terrain, and adjusting to the extremes of a desert climate. Therefore, we suggest you acquire this type of experience before you visit the caves in this area.

Most caves are between one and four miles from the nearest road. Be sure to carry plenty of water, particularly in the summer when daily requirements may exceed a gallon a day per person.

Overnight camping is permitted only in the back country, and requires a separate non-fee camping permit which can be obtained at the visitor center.

Any entry into a wild cave may result in irreparable damage to the cave. All park caves are carefully monitored for impacts. Caves impacted by careless users will be closed. Please support the wild caving program by caving in a safe manner, taking care to preserve cave features.

Entry into any wild cave on the park requires a permit. Entry into any cave other than that specified on the permit is illegal.

### Cave Permits

To schedule a trip, contact the park at least one month in advance. Permits are issued on a first-come, first-served basis. The park may deny a permit to any group that does not have proper equipment or experience. Once approved, the permit will be sent to you or arrangements will be made for you to pick it up in person.

**Write to:** Cave Resource Office  
Carlsbad Caverns National Park  
3225 National Parks Highway  
Carlsbad, NM 88220

**Or call** (575) 785-3105 or 3107

**Or e-mail:** Stan\_Allison@nps.gov or  
Dale\_Pate@nps.gov

Response from the park may be slow at times. Please be patient and plan ahead.

### Fees

Entry to Ogle Cave requires a fee and a ranger escort. All other permit caves do not require a fee.

Reservations for ranger-led trips to Ogle Cave must be re-confirmed 30 days before the scheduled date, otherwise the trip may be cancelled.

Ogle Cave Fee Schedule:  
Age 18-62 \$7.50  
Golden Eagle Passport \$4.50  
Golden Eagle Access Pass \$7.50  
These trips are closed for special use, therefore, the Golden Eagle Passport does not apply.

### Age Limits

Trip leaders must be at least 18 years of age. Visitors to vertical caves must be at least 16 years of age for most caves, and at least 18 years of age for Ogle or Deep Cave. Visitors to horizontal caves must be at least 13 years of age and if under 16 must have a legal parent or legal guardian with them. Visitors to permit caves less than 18 years of age must have special permission in writing, signed by their parent or guardian, before entering any permit cave. This written permission must be received by the Cave Resource Office before the trip may take place.

### Safety Requirements

These caves are preserved in their natural state; therefore, potential hazards exist that require certain safety precautions:

- Wear a UIAA approved helmet.
- Each person must have 3 independent sources of light (no carbide lamps).
- At least one of your lights must be helmet mounted.
- Wear sturdy shoes that protect the ankle and have non-marking soles.
- Wear gloves and kneepads.
- Three people is the minimum group size for all permit caves.
- Use a surface watch so someone will make sure you exit safely and will call for help if you don't.
- **For vertical caves, each person must have their own vertical caving equipment and be experienced in its use.**

### Natural History

Rocks of the Guadalupe Mountains were deposited about 250 million years ago when this area was adjacent to the deep Delaware Basin, a large inland arm of the Permian Ocean. On the shelf surrounding this basin, limestone formed from the accumulation of vast numbers of the limy skeletons of various marine organisms and by direct precipitation from sea water. Eventually, water circulation in the basin was restricted, the water became very salty from evaporation, the reef organisms died, and the basin was filled with sediment.

About 15 to 25 million years ago the Guadalupe Mountains began to uplift. Caves developed deep in the ground as fresh waters beneath the mountains mixed with briny basin water and formed sulfuric acid that dissolved the limestone.

Continued uplift of the Guadalupe Mountains elevated some caves above the level of the ground water, causing them to drain and dry. Erosion by water removed the deposits above the limestone and cut deep rugged canyons into the rock and opened entrances to some caves. Water seeping through the rock into caves precipitated the dissolved minerals to create the fantastic array of beautiful cave formations that make Guadalupe caves world famous.

### Conservation

Your actions while caving will be one of the greatest determining factors in the condition of cave resources and enjoyment of the caves by future generations.

Every entry into a cave, by any person, creates disturbance. The cumulative impact of even slight changes and disturbances, even innocent ones, can lead to dramatic alterations of the cave environment, or to people's enjoyment.

It is everybody's responsibility to respect the cave environment. Make sure that all clothing, gear and boots are completely clean before entering any cave.

People can impact caves far faster than nature can repair them, or create new ones—please cave softly.

### Cave Trails

Some routes are marked with flagging tape to reduce impact on delicate formations or floors. Please stay on these routes; do not disturb or step outside the tape.

Boot scuff marks on rocks are an unsightly sign of human usage; therefore, the use of non-marking boots is required.

### Wildlife

It is illegal to disturb or kill any wildlife within a National Park. Most of the caves have been used, at one time or another, by bats. Several of these species are extremely sensitive to the mere presence of humans. To reduce stress and possible death in bats, please do not disturb them – reduce the amount of time near bats; do not shine lights directly on them; and do not make any sudden movements or loud noises.

There are over 130 species of insects and other invertebrates found in the caves within the park. Many of these species are true troglobites, meaning the cave is their home and they never leave. Since these creatures are small, be extra careful where you step so you don't disturb these very sensitive creatures.

### White Nose Syndrome

White Nose Syndrome (WNS) is a disease that has killed over 1 million hibernating bats in the United States. It has spread across the US and Canada and may spread through New Mexico within the next year.

To protect bats, all cavers are required to follow WNS decontamination procedures listed below. Please arrive with decontaminated gear and decontaminate your gear outside the park after using it.

<http://www.fws.gov/WhiteNoseSyndrome>

## Vertical Caves



These caves require the use of vertical caving techniques which is potentially hazardous. Each person must have their own vertical caving equipment and must be experienced in its use. Groups may be required to show their vertical equipment and rope(s) to a park ranger before being issued a permit.

### CHRISTMAS TREE CAVE

Elevation: 4,892 feet  
Distance from trailhead: 1.25 miles  
Approximate walking time: 1.25 hours  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 50' rope, vertical caving equipment for each person.

The entrance of Christmas Tree Cave consists of a 15' vertical drop around a rock partition. The entrance chamber is covered with breakdown and gradually slopes to the first level of the cave. Here one finds numerous delicate formations. At the rear of this chamber is a large pile of breakdown blocks, beyond which a lower chamber is reached. The floor of this room is silt covered and care must be taken not to track silt through the cave. This cave is well decorated and fragile. Cave swallows nest in the entrance. Please do not disturb them.

## Horizontal Caves

### CORKSCREW CAVE

Elevation: 4,803 feet  
Distance from trailhead: 0.5 mile  
Approximate hiking time: 1 hour  
Group size: minimum 3, maximum 4  
Trip maximum: 2 trips per week

People planning on entering this small cave should be experienced cavers. The entrance passage must be chimneyed. People with minimal climbing experience should be belayed. Portions of the cave are very delicate. A very large shield is present in the first chamber below the entrance passage.



### CHIMNEY CAVE

Elevation: 4,328 feet  
Distance from trailhead: 0.5 mile  
Approximate walking time: 0.5 hour  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 120' rope, 15' handline, vertical caving equipment for each person.

The entrance to this cave is through a tight, squeeze through opening, followed by an awkward 10' free climb (use handline). The main chamber is reached by a 45' drop which is located well into the dark zone of the cave. This chamber is approximately 100' in diameter and contains large formations and a bell canopy.

### DEEP CAVE

Elevation: 5,946 feet  
Distance from trailhead: 1.5 miles  
Approximate hiking time: 0.75 hour  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 350' rope, 150' handline to reach rig point; vertical caving equipment for each person.

This cave must be reached by traveling very rough and rocky roads through the Lincoln National Forest; a high-clearance four wheel drive vehicle is needed. Access to the cave may be closed during periods of high fire danger. The entrance passage slopes down from the 50' diameter entrance at a 45 degree angle, coming to a ledge containing a large boulder and a small stalagmite. The vertical drop requiring the use of the 350' rope is rigged from this ledge. This drop brings you to the top of a breakdown hill in a large, dome-shaped room. The passage then runs back another 500'. Except for one pool, the cave is dry, and is well decorated with totems (tall, narrow stalagmites), shields, dog-tooth spar, bell canopies, and helictites.

### HELENS CAVE

Elevation: 4,580 feet  
Distance from trailhead: 1 mile  
Approximate walking time: 1 hour  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 100' rope, rope pads, vertical caving equipment for each person.

Though the entrance drop is only 30', a 100' rope is needed due to the scarcity of anchor points. Below the entrance drop, the cave heads off in two directions. The right-hand passage ends in a crawl after 50'. The main portion of the cave lies beyond a three foot high constriction on the left-hand side. The main chamber is decorated with a variety of delicate speleothems. Additional passages can be found up a 15' climb (no rope needed) on the left-hand side of the room. This passage is heavily decorated and requires extreme care not to damage the many fragile formations hanging from the ceiling.

### LAKE CAVE

Elevation: 5,340 feet  
Distance from trailhead: 2.5 miles  
Approximate walking time: 2.5 hours  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 50' handline recommended

Lake cave is closed from April 1 to November 1 each year to protect the sensitive maternity bat colony. Groups should be experienced hikers. A good condition hike to the cave takes 1,133' in elevation and is thus very hard and steep. The cave runs NE for about 1/2 mile with the first chamber approximately the same size as the entrance. The hundred feet from the entrance, the cave opens up into a 200' chamber, at the end of which is the Lake Room. The slope leading down to the Lake Room is 35', guano-covered, and slick; a handline is recommended. The lake itself is 135' long, 20' to 30' wide, and up to 10' deep. Even though this cave has been extensively vandalized, it is still a very scenic cave. It contains many unusual speleothems which have been partly corroded by atmospheric condensates into strange, freeform shapes.

### OGLE CAVE

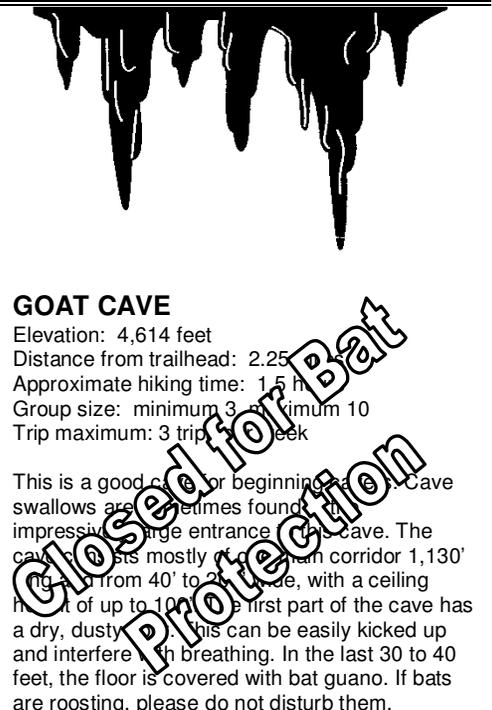
Ogle Cave is very delicate and still contains historic guano mining equipment. For these reasons, a ranger escort is required for all trips to this cave. Trips are also limited to a total of two per month, so advance planning is recommended. The fee for ranger escort is \$15 per person.  
Elevation: 4,854 feet  
Distance from trailhead: 1.5 miles  
Approximate hiking time: 1.5 hours  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 50' rope, vertical caving equipment for each person.

The rappel on the west side of the pit drops into the main walking passage. Several rope pads are needed for this rappel. The main chamber extends to the south for approximately 1,450'. The Boulder Room leads off from the main chamber roughly 600' from the entrance. Ogle Cave, one of the largest in the park, contains shields, breccia, helictites, and massive stalagmites. This cave also contains a 106' tall column, the Bicentennial, which is the tallest in the park and one of the tallest in the world. Guided tours vary in length and are confined to a flagged trail.

### WEN CAVE

Elevation: 4,747 feet  
Distance from trailhead: 0.5 miles  
Approximate hiking time: 0.5 hour  
Group size: minimum 3, maximum 6  
Trip maximum: 2 trips per week  
Equipment: 100' rope, vertical caving equipment for each person.

Wen Cave is a small, pretty cave decorated with very fragile formations. The entrance is roughly 7' by 5' and is somewhat hidden by vegetation. The entrance passage extends for about 20', at which point it opens up into a 55' vertical drop. The lower chamber runs in two directions from the base of the drop. The southern passage continues for 100' and terminates in a room 30' in diameter with a 40' ceiling. To the north, the passage continues for about 175' and terminates in a flowstone block. Much of this area is decorated with flowstone, columns, shields, and pool features.



### GOAT CAVE

Elevation: 4,614 feet  
Distance from trailhead: 2.25 miles  
Approximate hiking time: 1.5 hours  
Group size: minimum 3, maximum 10  
Trip maximum: 3 trips per week

This is a good cave for beginning cavers. Cave swallows are sometimes found in the cave. The cave has a large entrance. The cave consists mostly of a main corridor 1,130' long and from 40' to 20' wide, with a ceiling height of up to 10'. The first part of the cave has a dry, dusty floor which can be easily kicked up and interfere with breathing. In the last 30 to 40 feet, the floor is covered with bat guano. If bats are roosting, please do not disturb them.

**White-Nose Syndrome (WNS) Decontamination Protocol**  
**Adapted for Carlsbad Caverns National Park**  
**From U.S. Fish and Wildlife Service – Version 01.25.2011**

**I. GENERAL INFORMATION:**

The US Fish and Wildlife Service (USFWS) strongly recommends, first and foremost, compliance with all cave<sup>1</sup> closures, advisories, and regulations on all Federal, State, Tribal, and private lands. However, where such closures are not required, the following protocol outlines the best known procedures to help reduce the transmission of the fungus *Geomyces destructans*. This fungus is believed to be the cause of White Nose Syndrome (WNS). White Nose Syndrome has already killed over 1 million hibernating bats in the eastern United States and appears to be spreading westward.

**DO NOT HANDLE BATS:** If you observe live or dead bats (multiple individuals in a single location) that may exhibit signs of WNS, contact a Park Ranger or contact your nearest USFWS Ecological Services Field Office (<http://www.fws.gov/offices/>).

**Under no circumstances should clothing, footwear or gear that was used in a cave within an affected state or region be used within Carlsbad Caverns National Park.**

- Affected States: **Connecticut, Delaware, Indiana, Kentucky, Maine, Maryland, Massachusetts, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Vermont, Virginia, and West Virginia**
- Affected Places Outside US: **Canada (Quebec, New Brunswick, Ontario, and Nova Scotia), European Continent**

**II. RECOMMENDED DECONTAMINATION PRODUCTS:**

All necessary and appropriate precautionary use, storage, and disposal information should be apparent on each of the product labels. It is critical that all cavers and researchers read and follow all label instructions provided on the products mentioned in this protocol. It would be a violation of federal law to use, store, or dispose of a regulated product in any manner not prescribed on the approved label/MSDS.

The following chemical (a minimum of 0.3% quaternary ammonium compound, unless otherwise denoted) and natural products were tested in the laboratory and determined effective for killing the *Geomyces* fungus.

1. Lysol® IC Quaternary Disinfectant Cleaner - (A product effective at 1:128 dilution, or 1 ounce of concentrate per gallon of water.)<sup>2</sup>
2. Professional Lysol® Antibacterial All-purpose Cleaner (A product effective at 1:128 dilution, or 1 ounce of concentrate per gallon of water.)<sup>2</sup>
3. Formula 409® Antibacterial All-Purpose Cleaner (Off-the-shelf concentrations as specified by label)<sup>2</sup>
4. A 10% solution of household bleach – (A product effective at 1 part bleach to 9 parts water)<sup>2</sup>
5. Lysol® Disinfecting Wipes (0.28 % di-methyl benzyl ammonium chloride)<sup>2 & 3</sup>
6. Boiling in water for 15 minutes<sup>2</sup>

**III. DECONTAMINATION PROCEDURES:**

In order to effectively reduce the risk for human transfer of WNS, it is imperative that everyone follow these decontamination procedures any time you plan cave visits. Clothing or gear that has been or is suspected of being exposed to WNS may NOT be used in Carlsbad Caverns National Park. The WNS decontamination procedures provided in this document should always be followed prior to entering caves within Carlsbad Caverns National Park.

If gear cannot be decontaminated, either for safety reasons or fear that equipment may be damaged, it should not be used or must be designated for use only in caves within Carlsbad Caverns National Park. Gear must be cleaned before entering the park boundaries and should be cleaned before using the gear outside the park. Since all the park caves are within 10 miles, decontamination is not required between park caves. Removing sediment from your clothes and gear is required between every cave trip.

<sup>1</sup> The use of the word "cave" in this document includes natural caves, man-made mines, or any other site that may harbor G.d. spores.

<sup>2</sup> Use of some products which contain quaternary ammonia, isopropanol, and other potentially harmful chemicals or boiling water in confined spaces needs to be approached carefully due to inhalation or contact risks of the product. Since products/procedures may also cause damage to clothing, gear, and sensitive electronic equipment, all users should be aware of these risks prior to entering cave environments. Use of personal protective equipment to reduce contact with the product is strongly encouraged, particularly if extended contact is anticipated or as recommended by the manufacturer. Always read and follow the MSDS information and all safety/use criteria for every product used.

<sup>3</sup> The active ingredient is considered to be at the effective concentrations known to kill the conidia of *Geomyces spp.*; however, the efficacy of field application remains to be demonstrated. Any equipment decontaminated with this product should be used with extra precaution until laboratory results are finalized.

### **III. DECONTAMINATION PROCEDURES (cont.):**

#### **A. Submersible Gear** (i.e. clothing and equipment that can be submerged without damage):

Wash all clothing and any appropriate equipment in washing machine or by hand using conventional detergents in cold, warm, or hot water. Woolite® fabric wash has been found to be highly effective for this procedure. Rinse thoroughly, and then follow by soaking for a minimum of 10 minutes in one of the decontaminating products in Section II, then rinse well and air dry. Please notice when boiling water is selected as the decontamination method, all gear must be submersed for 15 minutes, then followed by air drying.

##### **1. Footwear:**

When safety permits, rubber (wellington-type) caving boots (which withstand harsh decontaminating products and are easily cleaned) are recommended. Boots need to be fully scrubbed and rinsed to remove all soil and organic material. Decontaminate rubber and leather boots, (including soles and leather uppers) with a product listed in Section II for a minimum of 10 minutes, then rinse repeatedly and air dry.

##### **2. Ropes and Harnesses:**

To date, only Sterling rope and webbing have proved to sustain no damage when using the following procedure. Wash rope/webbing in a front loading washing machine on the gentle cycle using Woolite® Extra Delicates detergent. Immerse in a dilution of Lysol IC Quaternary Disinfectant Cleaner for 15 minutes. Rinse twice in clean water and air dry. Brands of rope/webbing other than Sterling have not yet been tested for integrity after decontamination. Other rope brands not tested should be dedicated for use only at Carlsbad Caverns National Park or not used at all.

#### **B. Non-submersible Gear** (i.e. equipment that will be damaged by submersion):

Clean thoroughly with soap (i.e. Dawn® antibacterial dish soap) and water, where appropriate, and then decontaminate all equipment by applying one of the recommended chemical products (understanding certain products are tougher on surfaces than others) in Section II to the outside surface for a minimum of 10 minutes, then rinse and air dry.

##### **1. Cameras and Electronic Equipment:**

If possible, do not bring electronic equipment into a cave. If practical, cameras and other similar equipment that must be used in a cave may be placed in plastic casing (i.e. underwater camera housing) or wrapped in plastic wrap where only the lens is left unwrapped to allow for photos to be taken. The plastic casing should be decontaminated using one of the appropriate products in Section II. The plastic wrap should be discarded after use and followed up by decontaminating the camera surface with Lysol® Disinfecting Wipes, realizing this could damage the body of the camera.

##### **2. Vehicles:**

In addition to gear, vehicles used to transport equipment can also harbor spores. Keep vehicles as clean as possible by taking extra precautions (e.g. storing gear in clean containers, bringing a change of clothes, conducting all work outside of the vehicle once in the cave) and decontaminating storage containers along with all other clothing, gear, and equipment using the appropriate decontamination products in Section II.

#### **C. After Visiting Caves**

Thoroughly scrape or brush off any dirt and mud from clothing, boots, and gear. Then place all in a sealed plastic bag or plastic container (with lid) to be cleaned and disinfected off-site. At a minimum, outer clothing should be removed prior to entering a vehicle after/between a cave visit. A clean change of clothing is recommended. **Care should be exercised at all times to prevent contamination of clean clothing, equipment, and/or vehicles.** To decontaminate clothing, footwear and gear, please follow all relevant procedures listed above.

**Note:** Protocol adapted from FWS update as of 01.25.2011.

Please visit <http://www.fws.gov/WhiteNoseSyndrome> for updated materials and for supplemental documents that detail decontamination procedures for 1. cavers, and 2. researchers.