

# Cave Tour Information

A trained guide leads all tours. Reservations are recommended and can be made by calling **520-586-CAVE (2283)**.

The cave averages 70° and 99% humidity year-round. It may be uncomfortable for visitors with respiratory problems. All cave trails are barrier-free but have grades up to 12%.

Parents: Children under 5 years old may become frightened or uncomfortable in the cave. If this occurs, the child and parent will be allowed to leave the tour for the child's well-being and safety. If you have any questions or concerns, please let us know at check-in.

## Rotunda / Throne Room Tour (Year-round)

**Length: ½ mile Time: approximately 1½ hours**

Discover the role that water plays at Kartchner Caverns. You will see the discoverers' original trail, 45,000-year-old bat guano, delicate formations and Kubla Khan, the largest column in Arizona. The Rotunda / Throne Room tour is approximately 1½ hours long, 50 minutes of which is underground.

## Big Room Tour (October 15 - April 15)

**Length: ½ mile Time: approximately 1½ hours**

The Kartchner Caverns story is one of amazing discoveries, past, present and future. Marvel at the strange and colorful formations. Learn about the cave fauna, both ancient and living. Experience the wonder of cave discovery. Hear about new research and discoveries as scientific studies continue. Children age 6 and under are not allowed on this tour. The tour is approximately 1½ hours long, 1 hour of which is underground.

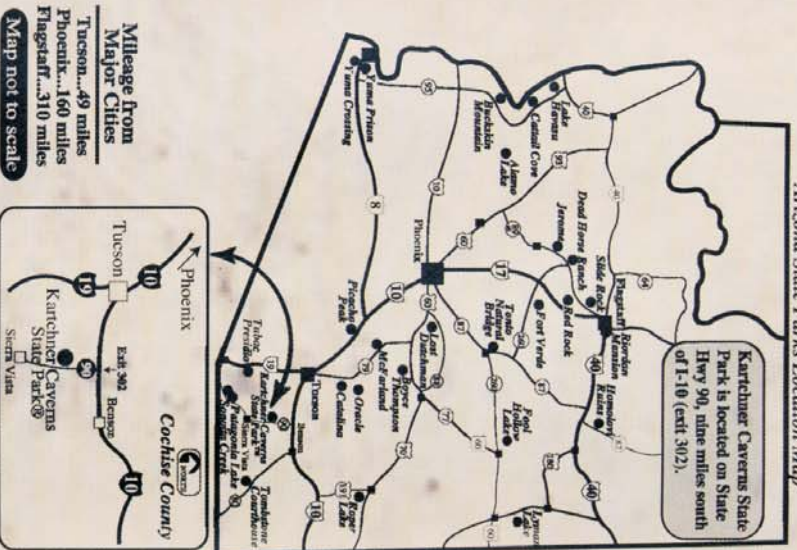
## Kartchner Caverns State Park®

P.O. Box 1849  
Benson, AZ 85602  
**520-586-CAVE (tour reservations)**  
520-586-4100 (information)  
Discovery Center Hours: 7:30 a.m. to 6:00 p.m. (MST)  
Closed Christmas Day

## Kartchner Caverns State Park

P.O. Box 1849  
Benson, Arizona 85602  
**520-586-CAVE (tour reservations)**  
520-586-4100 (information)

Arizona State Parks Location Map



"Managing and conserving Arizona's natural, cultural, and recreational resources for the benefit of the people, both in our Parks and through our Partners."

For more information contact:

**Arizona State Parks**  
1300 W. Washington  
Phoenix, Arizona 85007  
Tel & TTY 602-542-4174  
[www.azstateparks.com](http://www.azstateparks.com)  
800-285-3703  
from (520) and (928) area codes

This document is available in alternative formats by contacting the ADA Coordinator at (602) 542-7152.

# Kartchner Caverns State Park®



# An Aboveground Journey

## Discovery Center

- Restrooms
- Telephones
- Food vending
- Information on cave tours, hiking and area attractions
- Interactive displays
- Theater with video program
- Hummingbird garden
- Gift shop
- Lockers

## Picnicking

- Shaded ramadas
- Outdoor dining area at the Discovery Center.
- Group area available by reservation

## Camping

- 60 campsites with electric hook-ups and water
- Dump station
- Restrooms with showers and flush toilets
- 14-day maximum stay
- Park gates close at 6:00 pm

## Hiking

- Foothills Loop Trail, a 2.4 mile moderate-rated interpretive nature trail
- Trail access to Coronado National Forest

## Reminders

- Cave formations protected by law
- No photography, including video cameras and camera phones, permitted in cave
- No strollers or baby backpacks in cave
- No food, drink, gum or tobacco products allowed on tours
- No purses, fanny packs, other bags, umbrellas or other loose items in cave
- No crutches or walkers in cave

*Thank you for helping keep our park clean.*

## Cave History



In November 1974 two young cavers, Gary Tenen and Randy Tufts, were exploring the limestone hills at the base of the Whetstone Mountains. In the bottom of a sinkhole they found a narrow crack leading into the hillside. Warm, moist air flowed out, signaling the existence of a cave. After several hours of crawling, they entered a pristine cavern.

During four years of secret exploration, the discoverers realized that the cave's extraordinary variety of colors and formations must be preserved. It wasn't until February 1978 that Tenen and Tufts told the property owners, James and Lois Kartchner, about their amazing discovery.

The cave's existence became public knowledge in 1988 when it was purchased by Arizona State Parks. Extraordinary precautions have been taken during development and operation to protect the cave's natural environment.

## Bats and Other Cave Creatures

During the summer months, the cave's Big Room serves as a nursery for around 1,000 female cave myotis bats (scientific name *Myotis velifer*). Pregnant females return to Kartchner Caverns around the end of April, where they give birth to a single pup in late June. The babies remain in the roost each evening while their mothers forage for insects in the surrounding countryside. By early August the babies are flying and have joined their mothers in feeding outside the cave each night. Mothers and their offspring will leave in mid-September to begin their migration to their winter hibernation roosts.

The cave myotis eat insects that they catch on the wing. Each bat will eat up to half its body weight each night. Although each bat weighs only about half an ounce, that adds up. Each summer, the colony consumes almost a ton of insects, mainly moths, beetles, flying ants and termites, mayflies, and mosquitoes.

The bats of Kartchner Caverns are nocturnal. They emerge from the cave around dusk each night and spend several hours feeding. Occasionally, visitors will see bats flying in the early evening or in the cave; however, most visitors will not see bats at the park.

Arizona State Parks has tried to protect the bats' home, while still allowing people to visit. We conducted several studies before development to see how we could best protect the bats. The results of the studies led us to close the Big Room for tours while the bats are using it. We also monitor the bat populations each summer to see that they remain stable.



The bats are important to the ecosystem of the cave because they are the main source of food for all sorts of tiny invertebrates that live in the cave. The bats produce guano that accumulates in small piles. Fungus and bacteria grow on the guano. These fungi and bacteria are eaten by nematodes, springtails and bristletails (primitive wingless insects), mites, isopods (a cave-adapted relative of the pillbug), flies, and a species of book louse. These animals are in turn eaten by other mites, spiders and pseudoscorpions. Cave crickets will either eat fungus and decaying material in the cave, or they will go outside in search of food. In all, approximately 40 species of invertebrates are found the cave. Several of the species may be new to science, and our study of the cave ecosystem continues.

## Paleontology

While exploring the cave, paleontologists, people who study prehistoric life, uncovered numerous interesting fossils that tell us about past life in the area. Their finds include an 86,000-year-old skeleton of a Shasta ground sloth; 45,000-year-old bat guano; a variety of 37,000-year-old fossils including snails, clams, toads, lizards, snakes, rabbits, rodents, bears and a horse; and a 100-year-old coyote. These cave finds add to the world-class status of the fossils of the San Pedro Valley.



# Nature's Creation and Cave Formation

## It all began with a drop of water...

A shallow inland sea covered this area 330 million years ago, depositing layers of sediment that eventually hardened into limestone. Millions of years later this Escabrosa Limestone along with other rock layers uplifted to form the Winerstone Mountains. Due to this mountain building, the block of Escabrosa Limestone that contains the cave was left on the valley wall several thousand feet below the mountains to the west.

Rainwater, made slightly acidic by absorbing carbon dioxide from the air and soil, penetrated cracks in the limestone block and slowly dissolved passages into it. Later, falling groundwater levels left behind vast, air-filled rooms.

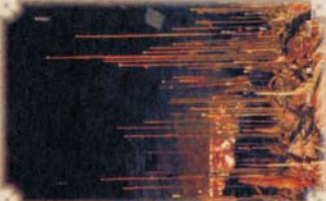
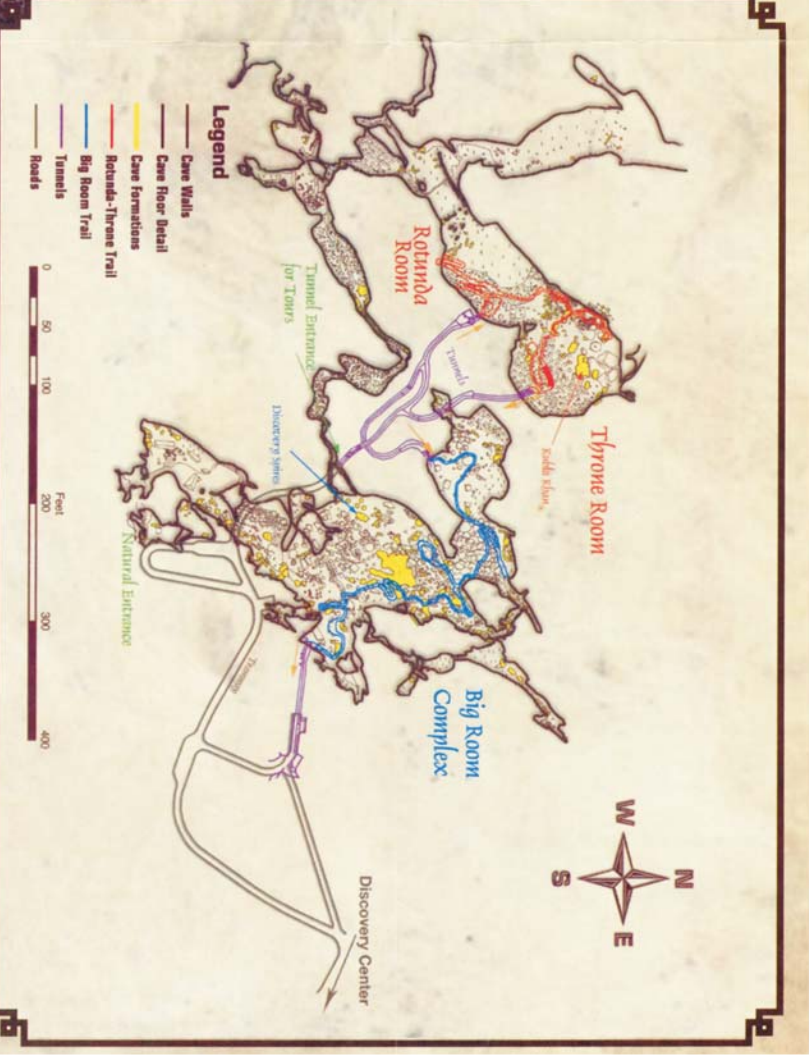
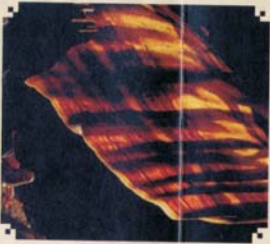
Kartchner Caverns' wide variety of decorations, called speleothems or cave formations, began forming drop by drop over the last 200,000 years.

Water seeping from the surface dissolves minerals on its trip through the limestone. Once it reaches the cave, trapped carbon dioxide escapes from the water drop. No longer able to hold the dissolved calcite, the drop deposits its tiny mineral load. Over time, these minerals create the beautiful speleothems and a variety of colors found in a living cave. The formations are still growing!

Most formations are composed of layers of calcite deposited by water. The form a speleothem takes is determined by whether the water drips, flows, seeps, condenses or pools.

Dripping: soda straw, stalactite, stalagmite, conulite, coral pipes  
 Flowing: flowstone, canopy, rimstone dam, drapery  
 Seeping: helictite, shield, coralloids, cave cotton  
 Condensing: rims, coralloids  
 Pooling: cave raft, shellstone, cave pearl, spar crystal

- Kartchner Caverns is home to several very unusual cave formations including:
- A soda straw stalactite 21 feet 2 inches long (one of the world's longest) (Throne Room)
- The tallest and most massive column in Arizona, Kubla Khan, 58 feet tall (Throne Room)
- The world's most extensive deposit of brushite moonmilk (Big Room)
- The first reported occurrence of "turnip" shields (Big Room)
- The first cave occurrence of "birdsnest" needle quartz formations



Many of the formations you will see have been growing for tens of thousands of years. The formations grow very slowly and are extremely fragile. When visiting, remember that formations damaged even by accident, may stop growing. To avoid damage to the cave and injury to yourself, please refrain from touching any of the formations.

### Please Remember