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YOUR COMPLETE GUIDE TO THE PARKS

MAMMOTH CAVE NATIONAL PARK

ACTIVITIES • SIGHTSEEING • DINING • LODGING TRAILS • HISTORY • MAPS • MORE













TASTY BITE

SO TASTY EVERYONE WILL WANT A BITE.

The cave boasts an incredible 412 miles of explored and mapped passageways, and geologists estimate there could be

many more. Mammoth Cave National Park achieved official park status from Congress on July 1, 1941. Since then, millions of visitors have journeyed to south-central Kentucky to experience the grandeur of this awe-inspiring sight.

Welcome to Mammoth Cave-the longest cave in the world and one of

the first tourist attractions in America.

WELCOME

The National Park Service and Ortega Parks work jointly to provide an unforgettable experience for visitors. This *American Park Network* guide to Mammoth Cave National Park is provided in partnership with Ortega Parks LLC and aims to foster appreciation and respect for the park, while also providing the information to make your visit as smooth as possible. It has been made possible by the support of the sponsors whose messages appear inside.

Throughout your visit, please respect the delicate nature of the park's diverse ecosystem and its astounding geology. Carry out what you carry in, treat wildlife with respect, and follow all park regulations so that future generations will have the opportunity to enjoy this geologic wonder of the world as much as you.

Enjoy your visit!





Established: Mammoth Cave National Park was officially designated on July 1, 1941. It later gained World Heritage Site designation in 1981 and became the core area of an International Biosphere Reserve in 1990. **Land Area:** The park encompasses 52,830 acres in south central Kentucky.

Plants and Animals: 130 animal species use the cave on a regular basis, some as visitors and some for their entire life cycle. More than 70 species are threatened or endangered.

Popular Sights: The park is home to the world's longest known cave system, with more than 400 miles explored.

Popular Activities: Visitors can enjoy cave tours, hiking, biking, camping, scenic drives, ranger-led activities, horseback riding, birdwatching, wildlife watching, canoeing, fishing and more!

Hiking: There are nearly 84 miles of hiking trails in the park and 12 miles of developed cave trails. Be sure to select a trail with the appropriate level of difficulty for everyone in your group.

Camping: There are three campgrounds located in Mammoth Cave National Park: Mammoth Cave Campground, Houchins Ferry Campground and Maple Springs Campground.

Lodging: The Lodge at Mammoth Cave is the only hotel located in Mammoth Cave National Park. It is operated by Ortega Parks and offers Hotel Cottages, Woodland Cottages, Heritage Trail Rooms and Sunset Terrace Rooms.

For More Information: Please visit the official park website at **nps.gov/maca** or call the park directly at **(270) 758-2180**. For lodging reservations, visit **mammothcavelodge. com** or call **(844) 760-2283**.

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Cover: Mammoth Cave's original entrance (iStock)



| MAMMOTH CAVE NATIONAL PARKS $\mathbf{3}$

WHAT'S NEW!

"When we try to pick out anything by itself, we find it hitched to everything else in the Universe." -John Muir

As a young man, John Muir, the naturalist known as, "Father of the National Parks," had an accident that left him temporarily blinded. It changed his life forever. When he regained his sight, he emerged into the light ever-determined to pursue his dreams of exploration. Fortunately for the world, Muir's trials led him to help move Congress to set aside Yosemite, one of his many contributions to our nation's preservation movement.

When faced with adversity, we have but two choices. We can either rise above our circumstance or succumb to our demons of doubt, fear, resentment and apathy. While Muir was lucky to have his sight return, his subsequent efforts drew strength from hope, compassion, kindness and love to rise up from personal adversity.

Lately, it feels like we're all dealing with too many hurdles. Every hour, "breaking" news spews forth accounts of tragedy and divisiveness. It was with this backdrop that I was preparing to teach a restorative yoga class, to create a safe environment for my students and provide an hour's worth of peace and quiet to carry out into the world. What theme would capture their imagination and neatly underscore our human need for connectedness?

When teaching, I try to use examples that marry ancient tradition with contemporary



Mark, Joel & Alex – connecting in parks!

science. I often find inspiration in parks. In its traditional form, yoga was about joining with the collective universe. So, too, is Muir's quote, best illustrated by an example from Yellowstone. When wolves were reintroduced there after a 70-year absence, the rampant elk population could no longer leisurely nibble on willows, graze in open meadows or congregate by the rivers. In a short period of time, the forests and meadows began to regenerate. Song birds appeared. Beavers flourished, building dams, which created habitats for otters, muskrats and ducks. Cooler waters, shaded by more trees, attracted different species of amphibians and fish. Tree roots stabilized the river banks, diminished erosion and even changed the geography of the park! Indeed, pick out anything by itself and we guickly find that everything is connected.

Now is the time to seek out connection whether in a park, a yoga studio or anywhere you find inspiration—to find strength to rise up and overcome the obstacles that face us all...

mark@americanparknetwork.com

GET CONNECTED AT YOUR FAVORITE PARKS!

Parks are about enjoying nature, but what if you want to share a great picture or are awaiting an important email? If you're looking to add connectivity to your park, or if you already have Wi-Fi and would like help adding content or generating sponsor revenues, please let us know at **wifi@americanparknetwork.com**.



Darknetwork.com



SOMEWHERE

STUNNING

BETWEEN

③) AT A GLANCE

From the beginning, underground explorers doubted that they would ever find the end of Kentucky's Mammoth Cave. Currently measuring 412 miles long, Mammoth Cave is known as the longest cave in the world and further exploration to discover more continues today. Geologists estimate that there are hundreds more miles of undiscovered passageways yet to be mapped and explored.

In Mammoth's vast subterranean world there are giant vertical shafts, from the towering 192-foot-high Mammoth Dome to the 105-foot-deep Bottomless Pit. Some passages and rooms are decorated with sparkling white gypsum crystals, while others are filled with stalactites, stalagmites and other cave formations. Underground rivers, including Echo River and the River Styx, flow through Mammoth's deepest chambers. And in the cave's absolute blackness dwell many rare and unusual animals, including eyeless fish, ghostly white spiders and blind beetles. While most visitors to Mammoth Cave National Park come to view its subterranean wonders, its surface beauty should not be overlooked. Above ground, Mammoth offers 52,830 acres of scenic parkland perfect for hiking, fishing, biking, horseback riding, paddling and wildlife viewing. Buried within a thriving secondgrowth woodland forest, you'll find extraordinary and unusual ecosystems in the bowl-shaped sinkholes, limestone bluffs, and wetlands scattered throughout this lush park.

Keep a look out for common woodland creatures like deer, raccoon, opossum, gray squirrel, rabbit, woodchuck, muskrat, beaver, red fox, coyote, owls and wild turkey, but be careful not to disturb some of Mammoth Cave's most precious endangered animals, like the Kentucky cave ahrimp, the Indiana bat, the gray bat and seven species of freshwater mussels.

FEDERAL RECREATIONAL LANDS PASSES

A federal recreation pass is helpful if you plan to visit many national parks, forests or other federal lands. For information, call **(888) 275-8747** or visit store.usgs.gov/pass.

Туре	Cost	Availability	Details
Annual Pass	\$80 \$20	General Public Seniors age 62+	This one-year pass is available on site, by phone or online (see above).
Senior Lifetime Pass	\$80	U.S. residents age 62+	This annual pass is available on site, online, or via mail order. \$10 fee for passes purchased online or by mail.
Military Pass	Free	Active duty U.S. military members and their dependents	This one-year pass is available on site. ID (CAC Card or DoD Form 1173) required.
Access Pass	Free	U.S. residents with permanent disabilities	This lifetime pass is available on site or via mail order. ID and documentation required.
4th Grade	Free	Pass for 4th graders & their families	Pass available during school year and through following summer. Voucher required.
Volunteer Pass	Free	250 cumulative volunteer service hours	Inquire locally to obtain information about this one-year pass.



Visitors stroll through Broadway, or Main Cave, inside Mammoth Cave's massive tunnels.

Canoe or kayak the Green River or Nolin River for a close-up view of dramatic bluffs, majestic trees, curious wildlife, and the plants that ancient explorers used as torches to explore the cave. The river, dotted with sandbars, islands and subsurface springs, supports one of the most biologically diverse ecosystems in North America. Among the creatures that call it home are over 50 species of freshwater mussels.

Along with its stunning natural splendor, the Mammoth Cave area boasts a rich and colorful human tale that began 5,000 years ago. It's a fascinating story that features ancient miners, saltpeter mines, the first underground tuberculosis hospital in history, trapped cavers, clever guides, the birth of modern tourism and the creation of America's 26th national park.

The park's 52,830 acres offer many opportunities for recreation. Cave tours

are available throughout the year for everyone—young and old. They range from 1.25-hour strolls to six-hour adventures. On the surface, park rangers lead walks to remarkable features like Green River Bluffs and the River Styx Spring. More than 80 miles of hiking trails cross the park, ranging from easy jaunts around the visitor center to intense treks in the backcountry. Other recreational activities include: horseback riding, hiking, canoeing, biking, bird watching and fishing.

In 1941, Mammoth Cave National Park was established to preserve the caves, the river valleys and the stunning topography. On October 27, 1981, it became a World Heritage Site; on September 26, 1990, it became an International Biosphere Reserve. Visitors still come by the thousands, drawn by the dark frontier that is Mammoth Cave.



PLAN YOUR VISIT

ENTRANCE FEES

Entrance to Mammoth Cave National Park is free, although there is a fee for cave tours. The park is open year-round, except for December 25, but may close for severe weather. Activities and programs vary by season. Call **(270)** 758-2180 for current information. See the "Things to Do" chapter for more information and see the "Caves" chapter for specific information and charts on the cave tours.

PERMITS & RESERVATIONS

Reservations are strongly recommended for cave tours. Those wishing to camp overnight in the backcountry must obtain a backcountry use permit (no charge) at the visitor center information desk. No license is required for fishing in the park.

GETTING TO MAMMOTH CAVE

Mammoth Cave National Park is located in south central Kentucky, about 35 miles northeast of Bowling Green, Kentucky, approximately 90 miles south of Louisville, Kentucky, and about 90 miles north of Nashville, Tennessee. The park is in the Central Time Zone. Do not rely on GPS, Google Maps or other navigation systems. Please review your route before you travel. Once tours leave, you cannot venture into the cave on your own to catch up.

TRANSPORTATION

Car: From the north, take I-65 South from Louisville, Kentucky, (about 90 miles away) to Exit 53, turn right. Another 15 minutes of driving will bring you to the park visitor center.

From the south, take I-65 North from Nashville, Tennessee (about 90 miles), to Exit 48. Turn left and follow KY-255 as it becomes Park City Road, which joins Mammoth Cave Parkway. Head straight for 15 minutes until you reach the park visitor center.

From the east, use Bluegrass Parkway, Cumberland Parkway (Louie B. Nunn Parkway), and U.S. 68.

From the west, use U.S. 68 & 80, Natcher Parkway, and the Wendell H. Ford Western Kentucky Parkway. Exits at Park City and Cave City are for the park along I-65. KY 70 also provides park access through Brownsville, Kentucky (on the southwest border of the park).

Air: Louisville International Airport and Nashville International Airport, both about 90 miles from Mammoth Cave, offer daily flights on major airlines. A smaller regional airport in Bowling Green is approximately 35 miles from the park.

GETTING AROUND OUTSIDE OF THE PARK

Cars: All parts of the park are easily reached by car. There are also many scenic drives along the way.

Taxi: A taxi service is available from the bus station at Bowling Green. The distance is approximately 35 miles to the park.

Rental Cars: Contact airports for rental car information or go online. Bowling Green: (270) 842-1101 Louisville: (502) 367-4636 Nashville: (615) 275-4311 Enterprise Rental: (270) 782-7700 Hertz Rental (270) 796-3677

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CAVE CITY Kentucky

VISITOR CENTER

Located in the middle of the park, the Mammoth Cave National Park Visitor Center is open every day of the year (severe weather notwithstanding), except December 25. Hours vary depending on the season, though standard hours are 8 a.m. to 6 p.m. in warmer seasons and 8 a.m. to 4:30 p.m. in winter. Call or visit **nps.gov/maca** for current information.

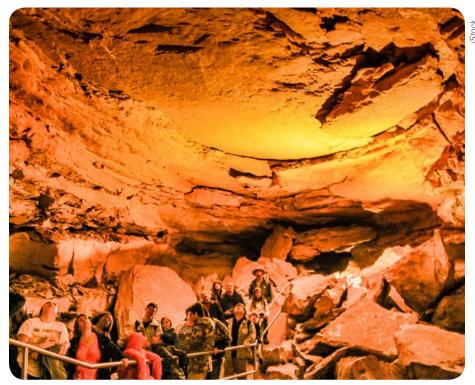
Inside you will find the ticket office, tour schedules, restrooms, a bookstore, water fountains, weather reports, exhibits and an information desk. Check at the information desk about special programs, ranger-led talks and seasonal evening programs. For more information, please call **(270) 758-2180**.

WEATHER

Summers are hot with highs in the 80s and 90s°F. Winters are mild with highs in the 30s and 40s°F, although temperatures can drop to well below freezing. In winter it is very cold just inside the cave entrance. Temperatures in the cave, however, are around 54°F year-round, so bring a light jacket if you plan to take a cave tour. It can seem chilly!

SIZE AND VISITATION

Mammoth Cave National Park comprises 52,830 acres. The park is open year-round with the highest visitation in June, July and August, and the lowest in January. More than 500,000 people visit the park annually.



With so many tours to choose from, you could spend many days exploring Mammoth Cave.

VISITOR SERVICES

At Mammoth Cave, you'll find gift shops, camping supplies and other necessities that will make your trip more enjoyable. Have a question about park rules and regulations? See the "Park Regulations and Safety" chapter for tips.

BANKING SERVICES

There is an ATM located in the Lodge at Mammoth Cave. Banks in the nearby towns of Cave City, Horse City and Park City have 24-hour automated teller machines (ATMs), foreign currency exchange and other services.

CAMPING SUPPLIES

Camping and picnic supplies are available in the Caver's Camp Store, located near the campground.

GIFT SHOPS

Souvenir books and historical cave information are available in the Cave Company Gift Shop located near the main lobby of the Lodge at Mammoth Cave or the Eastern National Book Store located in the visitor center. For more upscale shopping, visit the Kentucky Home Store off the lodge's main lobby, featuring varied and unique creations, many made by Kentucky craftsmen.

EMERGENCIES

Dial 911. For non-emergency assistance, dial **(270) 758-2180**; **(270) 758-2115**.

FIRST AID

First Aid is available at the visitor center. Dial 911 for emergencies.

KENNEL

Outdoor kennels are available at the

Lodge at Mammoth Cave. Inquire at the lodge front desk for more information. Note that pets are not permitted on any of the cave tours at any time, with the exception of service animals.

LAUNDROMAT

There is a self-service laundry service adjacent to the post office at the Caver's Camp Store near Mammoth Cave Campground. The laundry facility has 2 coin-operated washers and 2 coinoperated dryers. Hours vary by season; check at the camp store for information.

LOST AND FOUND

In the event that you find or lose an item during your stay at the park, please visit the ticket sales area in the visitor center for the lost and found. For more information, please call **(270) 758-2419**.

POSTAL SERVICES

There is a U.S. post office behind the Caver's Camp Store near Mammoth Cave Campground. For more information, please call **(270) 758-2311.**

RELIGIOUS SERVICES

There are a variety of religious options in nearby towns. For more information, call (270) 773-5159.

SERVICE STATION

Gas is not available in the park. It can be purchased in nearby towns, so it's best to fill up before you enter.

SHOWERS

Coin-operated shower facilities are available at the Caver's Camp Store near Mammoth Cave Campground. For more information, please call **(844) 760-2283.**

ACCESSIBILITY

VISITOR CENTER

The visitor center and its restrooms, information desk, ticket counter and exhibits are accessible. Please inquire about ranger-led activities around the visitor center including cave tours that are accessible.

HOTEL & RESTAURANT

The Lodge at Mammoth Cave offers access for visitors in wheelchairs. The Heritage Trail Rooms are ADA-accessible and accommodate between two to four people with fully accessible restrooms.

CAMPING

Mammoth Cave Campground has two designated wheelchair-accessible

IMPORTANT NUMBERS

Emergency	Dial 911
General Park Information	(270) 758-2180 nps.gov/maca
Cave tour reservations	(877) 444-6777 recreation.gov
Lodging within the park	(844) 760- 2283 mammothcavelodge.com
Non-emergency assistance, dial	(270) 758-2180
Camping	(877) 444-6777 recreation.gov
Canoe Rentals: Green River Canoeing	(270) 773-5712
Mammoth Cave Canoe and Kayak	(270) 773-3366
Big Buffalo Crossing Canoe and Kayak	(270) 774-7883
Cave Country Canoe	(270) 773-5552
Lost and Found	(270) 758-2180
Cave City Tourist & Convention Commission	(270) 773-8833

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campsites. Restroom facilities are also accessible. The nearby camp store, post office and laundry facilities are also accessible. Camping facilities are available March through November.

PICNIC AREA

Open seasonally, the picnic area is minimally accessible. There are two parking spaces and picnic tables, an accessible picnic shelter and accessible restrooms.

TRAILS

Ask at the visitor center about the **four** accessible trails in the park: Sand Cave Trail, Echo Spring Trail, Sloan's Crossing Pond Trail and the Heritage Trail as well as the Mammoth Cave Accessible Tour. See the "Walking and Hiking" chapter for more information.

LODGING & DINING

The Lodge at Mammoth Cave is located within the park near the historic entrance to the cave and a short walk to the visitor center. Spelunker's Cafe & Ice Cream Parlor offers quick service items and complete meals-to-go. The Green River Grill offers full-service breakfast, lunch and dinner featuring local and regional farm-fresh foods. The Caver's Camp Store near the Mammoth Cave Campground stocks a limited supply of groceries.

The Service Center also features showers, a laundromat and a post office. Mammoth Cave Hotel will be operated by Ortega National Parks, an authorized concessionaire of the National Park Service, through the year 2032. For more information or reservations, call **(844) 760-2283** or visit **mammothcavelodge.com**.



If you're looking to stay close to the action, the Lodge at Mammoth Cave is the only lodging within the boundaries of the park.

The Lodge at Mammoth Cave has a number of air-conditioned, ADA-accessible rooms. Each accommodates two to four guests, and they are on the ground floor, adjacent to the historic entrance to Mammoth Cave.

Sunset Terrace Rooms: Twenty airconditioned rooms—including two that are ADA-accessible—are located in a picturesque setting at the forest's edge. The motel-style Sunset Terrace rooms are a perfect location for larger gatherings, such as family reunions, and are not far from the Heritage Trail and the stunningly beautiful Sunset Point Overlook.

Historic Hotel Cottages: 10 air-conditioned single unit cottages are nestled near the forest with close proximity to the outdoor amphitheater and historic Engine No. 4. They are fully furnished, comfortable and just a short walk from the hotel. (Available mid-March through October.)

The Woodland Cottages: The Woodland Cottages are situated in a grove of trees a short distance from the hotel. These single-, two-, three- and four-bedroom rustic cottages offer basic accommodations (no heat, A/C, TV, or WiFi) and are a great location for retreats. They have mini-fridges, coffee makers, ceiling fans and can accommodate up to 16 people. Pets are welcome for an additional \$9 per night. (Available Memorial Day through November 30th).

Since 1816, the Lodge at Mammoth Cave has served regional southern cuisine to visitors. The Lodge at Mammoth Cave provides delicious home-style cooking in the Spelunkers Cafe and the Green River Grill. Restaurant hours vary by season. For more information, call **(844) 760-2283**.

PARK REGULATIONS & SAFETY

You can make the most of your visit to Mammoth Cave National Park by planning ahead and becoming acquainted with some simple precautions. All of these regulations are designed to enhance your safety.

SAFETY TIPS

- On cave tours, it is vital that you wear proper footwear (with tread) and select a tour that is appropriate for your physical abilities. Many cave tours and nature walks are considered strenuous.
- Do not approach or feed animals. All animals in the park are wild, and feeding them harms their well-being.
- Do not drink from rivers, ponds, lakes or springs in the park without first treating the

water. Potable water is available at the visitor center, the lodge, Caver's Camp Store and Houchins Ferry Campground.

• Swimming in the Green River is not recommended due to strong currents and deep holes. Lifeguards are not on duty.

REGULATIONS

- Camping along the floodplain is by permit only. Inquire at the visitor center.
- Boats may be taken in and out of the water at Green River Ferry (if open). Canoes may be taken in and out at Green River, Houchins and Dennison Ferries. Before launching pick up a Backcountry Map & Guide at the visitor center.
- All boat passengers must have a U.S.



Some tours are better for kids than others-but all offer an unforgettable experience.

Coast Guard approved personal flotation device. It should be worn at all times while on the river.

• Never dump or discharge refuse in the water.

FISHING REGULATIONS

- At First Creek Lake and Sloan's Crossing Pond, it is prohibited to use any live bait other than worms. On the rivers, you can use minnows or worms. Using bait seines in the park is strictly regulated, so please check with rangers for specific rules.
- Collecting frogs, turtles, mussels, etc., or digging for bait is strictly prohibited.
- No fishing license is required in the park. Kentucky fishing regulations apply. Inquire at the visitor center. Fish by hand line, rod and reel, or trot and throw line. All other methods are prohibited.

CAMPING REGULATIONS

- Transporting firewood into the park is strictly prohibited. Confine fires to ground grills. You can buy wood at Caver's Camp Store.
- A **Backcountry Use Permit** is required for all backcountry camping. A free permit may be obtained at the park visitor center.
- Use only fallen dead wood for fires.
- Do not hang lanterns in trees to prevent forest fires.

HORSE REGULATIONS

- Horseback riding is permissible on many designated trails north of the Green River.
- Travel by horseback off designated trails is prohibited.
- Walk horses through mud on trails and not around it. Do not shortcut trails or follow "pig-paths"—this damages trails.
- Never tie horses to trees. Always crosstie horses between trees.

- Hitching horses to trees is prohibited. Use a picket line or hobble horses during breaks.
- Scatter horse manure at least 200 feet from trails, water sources and campsites.
- Horseback riding is prohibited on all roads and trails south of the Green River.

HOMELAND SECURITY

The following items are not permitted in the visitor center area:

- Firearms (see park brochure)
- Knives
- Luggage (suitcases, duffel bags, etc.)
- Pepper Spray/Mace
- Sharp Instruments (box cutters, scissors)
 Strollers
- Weapons (clubs, batons, brass knuckles)

PETS

- Pets must be on a leash and under physical restraint at all times. Do not leave pets unattended at your campsite.
- The hotel maintains a kennel (\$3.50 for first hour; \$1 per hour thereafter). Pets are not permitted on cave tours, except service animals.

PACKING ESSENTIALS

Don't hit the trail without:

- Topographic map and compass + GPS
- Whistle
- Flashlight or head lamp
- Sunglasses, sunscreen and hat
- High-energy food and plenty of water
- Appropriate clothing and extra layers
- Waterproof matches
- Insect repellent
- Pocket knife
- First-aid kit
- Sturdy footwear

WHO'S WHO AT THE PARK

NATIONAL PARK SERVICE

The National Park Service (NPS) is the federal custodian of Mammoth Cave National Park. As an agency of the U.S. Department of the Interior, the NPS has the responsibility of preserving and protecting the natural and cultural values of our national parks, protecting the wildlife therein and providing for public use and enjoyment of the parks.

The NPS regulates all prices and operating standards within Mammoth Cave National Park. To contact the NPS at Mammoth Cave, visit **nps.gov/maca**, check out their Facebook page, or call **(270) 758-2180**.

ORTEGA PARKS LLC

Located in pristine settings of national parks, forests and well-known destinations around the world, Ortega Parks strives to provide a fun-filled vacation while helping to create an awareness of the area's history, culture and environment.

Ortega Parks will operate the Lodge at Mammoth Cave, Spelunkers Cafe & Ice Cream Bar, Green River Grill and the cave shuttle bus service through 2032. Ortega Parks is dedicated to its corporate ideology of taking time to play, preserve and protect our national resources and recreational destinations. For more information, call **(505) 310-6753** or visit **ortegaparks.com**.

EASTERN NATIONAL

Eastern National has been a valued partner of the National Park Service since 1947 and operates a bookstore in the visitor center. Its mission is to offer quality educational materials and services to park visitors and supporters and to aid the NPS with income derived from these activities.

CAVE RESEARCH FOUNDATION

The Cave Research Foundation (CRF) grew out of the efforts of cave explorers working in the Mammoth Cave area of Kentucky in the late 1940s. It is a private, nonprofit organization dedicated to: facilitating research, management, and interpretation of caves and karst resources; forming partnerships to study, protect, and preserve cave resources and karst areas; and promoting the long-term conservation of caves and karst ecosystems.

Most work conducted by the Cave Research Foundation is on state and federal lands under a Memorandum of Understanding with the National Park Service and the U.S. Department of the Interior.

FRIENDS OF MAMMOTH CAVE

The Friends of Mammoth Cave National Park, a 501(c)(3) nonprofit, serve as ambassadors for the Park and work in cooperation with the National Park Service to fund projects and programs that protect, preserve, and enhance the natural and cultural resources and the visitor experience of Mammoth Cave National Park.

Friends of Mammoth accomplish these goals through the support of individuals and organizations that care about Mammoth Cave and want to help ensure that its magic endures forever. For volunteer opportunities, please call (270) 758-2152 or visit friendsofmammothcave.org.

SIGHTS TO SEE

There is a lot to do and see at Mammoth Cave National Park, both above ground and below. While the cave itself is the main attraction, make sure to check out all the park has to offer, including rivers teeming with wildlife, strikingly beautiful karst terrain and diverse bird populations. Recreational activities abound at MammothCave—don'tlimityourselftoacave tour. Canoe down the beautiful Green River, hike on the rugged North Side, bike on Mammoth Cave Railroad Bike & Hike Trail and camp under the stars.

FROZEN NIAGARA

A visit to Mammoth Cave is not complete without a glimpse of this massive curtain of flowstone. The incredible formation cascades downward for 75 feet, creating the illusion of a stone waterfall and striking wonder into all that see it.

Frozen Niagara is located in one of the few areas in Mammoth Cave with the speleothem that most people associate with caves. To see Frozen Niagara, take the Domes and Dripstones, Frozen Niagara, Wild Cave, or Grand Avenue Tours.

BIRDS GALORE

Mammoth Cave National Park is home to a variety of species of birds. Birdwatching is an extremely popular activity in the park. Some species include grebes, herons, ducks, vultures, hawks, bald eagles, quail, wild turkey sandpipers, doves, hummingbirds, kingfishers, whip-poorwills, owls, flycatchers, crows, blue jays, chickadees, titmice, nuthatches, wrens, thrushes, catbirds, starlings, vireos, wood warblers, tanagers, cardinals, sparrows, blackbirds and finches.

A MAMMOTH FISH

Anglers will find good fishing in Mammoth throughout the year, with spring and summer being most productive. Black bass, crappie, bluegill, muskellunge and catfish—not to mention almost 100 other species—frequent the Green and Nolin Rivers. These rivers support an unusual diversity of fish, as well as over 50 species of freshwater mussels, including seven en-



Flowstones are composed of deposits of calcite or other carbonate minerals.



Don't underestimate the adventures above ground! Wildlife are another reason to visit the park.

dangered species. Nolin Lake's tail waters (just north of the park) are stocked with nonnative rainbow trout.

A WILD CAVE

Family-friendly tours, such as the halfmile Discovery Tour, highlight Mammoth Cave's history of mining and exploration, as well as the history of its amazing geology. The park also offers wild caving tours for the serious spelunker and cave explorer in you. For more information and a comprehensive chart—with detailed descriptions—of all the tours offered in the park, please see the "Caves" chapter.

A SINKHOLE

Besides the incredible caverns below, Mammoth's surface acreage includes large tracts of second-growth oak and hickory woodlands, sinkhole-ridden karst topography—the limestone foundation for Mammoth's underground wonders—and modest wetlands.

About 84 miles of trails wind through the park, all open to hikers, many to horseback riders—north of the Green River—and some to bikers. There are six trailheads, including the popular Lincoln Trailhead, that serve as a jumping-off points for the park's north side backcountry trails, which wind past sinkholes and springs.

The north side's trails traverse the park's steep, oak and hickory-covered hills, running alongside streams and waterfalls.



❀) GEOLOGY

Beneath the surface of southcentral Kentucky lies a world that is virtually unparalleled. It is a labyrinth characterized by mile upon mile of dark, seemingly endless passageways. The geological process resulting in Mammoth Cave began hundreds of millions of years ago and continues to this very day.

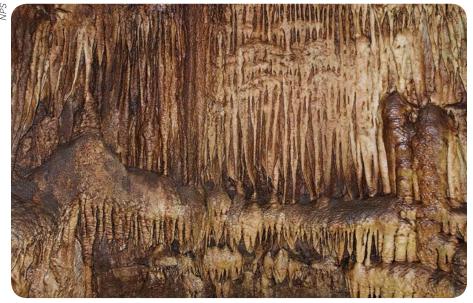
HOW THE CAVES FORMED

According to geologists, 350 million years ago, Kentucky was covered by a shallow sea teeming with tiny shell life. As these creatures died, their shells accumulated by the billions on the sea floor.

Life and death continued for millions of years. Layer upon layer of dead organisms built up and hardened to eventually form 700 vertical feet of limestone and shale. The sea changed over time and Kentucky became a shoreline. (Key point: limestone is soluble.)

A large Mississippi-sized river from the north deposited sand on its Kentucky delta. More time passed until the sand hardened into 60 vertical feet of sandstone. (Key point: sandstone is insoluble.)

Tectonic plates moved causing Kentucky to bulge up, and the many strata of limestone and sandstone cracked. Rain fell and drained into the cracks. In some places, the rainwater dissolved cavities below the surface and formed conduits. In some places the exposed limestone was washed away. Where the sandstone layers remained intact they acted as a roof for the limestone underneath. Time passed.



While the cave has been forming for millions of years, humans have only recently begun to explore its more remote passageways.

EARTHQUAKE

Mammoth Cave lies 150 miles from a major earthquake fault along the Mississippi River. In 1811 and 1812, a series of three earthquakes with estimated magnitudes of approximately 8.0 on the Richter Scale struck the Midwest. In the cave, saltpeter miners reported that "About five minutes before the shock, a heavy rumbling noise was heard coming out of the cave like a mighty gust of wind; when that ceased, the rocks cracked, and all appeared to be going in a moment of final destruction. However, no one was injured—although large rocks fell in some parts of the cave." Geologists believe that the effects of earthquake tremors are less significant in caves than on the surface. The shock

Rainwater drained from a broad plain into the underground conduits that stretched through the protected limestone layers. Runoff waters flowed through underground streams until they resurfaced and fed into a surface river, the Green River. The plain became pocked with funnel-shaped sinkholes; the underground became a series of caves.

More time passed. The Green River cut down into its valley between sandstone-covered ridges. When its valley was 100 feet deep, the underground tributaries, or cave streams, were 100 feet below the surface.

And yet more time passed. When the Green River's valley was 200 feet deep, the cave streams were 200 feet below the ridge tops, and upper stream beds dried up. Cave passageways that formed under the protection of the sandstone ridge tops were preserved.



Mammoth Cave is located only 150 miles away from a major fault.

waves that would have the most potential to cause damage to caves are displaced on the surface, much like ripples on a pond.

Today, there are 400 caves within the boundary of Mammoth Cave National Park, including the eponymous Mammoth Cave.

The great cave has five levels of passageways and winds through four ridges. Rain still drains off the broad sinkhole plain into cave streams that flow 360 feet below the ridge tops, making more caves to this day.

WHY IS MAMMOTH CAVE SO LONG?

A unique combination of circumstances have come together to make Mammoth Cave the longest cave in the world.

First, the karst setting (a limestone region with sinkholes, disappearing streams and underground streams) is ideal for the formation of caves.

Second, the Green River Valley has deepened throughout time, causing multiple levels to form.

Third, the sandstone caprock on the pla-

teau above protects the older upper level passages from destruction. If that sandstone didn't exist, portions of the caves would erode and eventually collapse.

CAVE FEATURES

Speleothem: Cave formations caused by the deposition of dissolved minerals in crystalline form. Gypsum flowers, stalactites and stalagmites are examples of speleothem.

Stalactite: A speleothem that hangs from cave ceilings. They form when water containing calcium carbonate drips into an air-filled passage. Remember: stalactites hang from the ceiling.

Stalagmite: A speleothem that rises from the floor when water containing calcium carbonate drips onto the floor of an air-filled passage. Remember: stalagmites grow from the ground. **Gypsum**: Hydrous calcium sulfate mineral found in dry sections of a cave that is colorless, white or yellowish and found in powder or crystal form. Gypsum can form spectacular flower-like structures that seem to ooze and curl from the walls and ceilings.

A SCIENTIFIC TREASURE CHEST

Mammoth Cave is truly a scientific treasure chest. In addition to being the world's longest known cave, it contains a clear and complete record of geomorphic and climatic changes over the past 10 million to 20 million years, making it one of the most diverse cave ecosystems in the world.



PRESERVING OUR PAST. PROTECTING OUR FUTURE.



THE CAVE

Beneath the dimpled surface of the park, the splendid sights of Mammoth Cave impress hundreds of thousands of visitors each year. Ancient artifacts, fascinating cave critters and breathtaking mineral formations are just a few of the extraordinary sights visitors will find on tours led by National Park Service rangers.

Before venturing below, however, carefully consider individual limitations and the fragile nature of the cave system. Make sure to choose a cave tour that matches your physical ability. Once underground, follow all of the ranger's instructions so that the beauty of Mammoth Cave will be preserved for future generations.

The following sections contain more information focusing on cave etiquette, availability, photo tips inside the cave and cave tours. It is recommended that anyone who plans on taking a cave tour read the following sections before entering and exploring.

BEFORE ENTERING THE CAVE

- Consider your physical limitations realistically when choosing a cave tour. Some tours are not recommended for visitors who fear heights or confined spaces and/or cannot climb steps. Do not let friends or family members talk you into joining a cave tour if you feel uncomfortable about it.
- Walking sticks and canes with rubber tips are permitted on cave tours only when sufficient need is demonstrated.
- Tripods (and monopods like selfie sticks) are not allowed on cave tours. No flash photography is permitted.
- Strollers and backpack child carriers are not permitted on cave tours.

- Large or metal-framed backpacks and backpack child carriers may not be worn on cave tours.
- Smoking is not permitted in the cave or at the cave entrance.
- The cave's interior passageways remain constant in the mid-50s (°F) year-round. In most areas of the cave, you'll be comfortable if you wear long pants and take a sweater or jacket with you.
- Cave trail surfaces vary; some are dry and dusty while others may be wet and slippery. You'll encounter numerous stairs and some steep inclines on many cave tours. Durable, flat-soled footwear (with tread) suitable for walking on uneven surfaces is essential.
- Regulations are in effect to protect bats from white-nose syndrome (see the "Preservation" chapter of this guide). Do not wear shoes or clothing or carry objects that have been in another cave or mine since 2005. All participants are required to walk the length of an artificial turf mat to remove spores and dirt after exiting caves.

AVAILABILITY

Availability of certain interpretive tours varies from season to season. The Historic, Domes and Dripstones and Frozen Niagara tours are offered all year. Other special tours are offered seasonally. Consult the seasonal tour schedule or call the park for more information on what parts of the cave will be shown during your visit.

PHOTO TIPS FOR THE CAVE

Even though the cave is electrically lit, taking photos in the cave can be a tricky



Tours leave from both the new and historic entrances of the cave..

task to navigate—especially in large caverns where the light dissipates. Ensure that your photos are picture perfect by following these tips:

- Set your camera before entering the cave or use the automatic setting
- Make sure that you are using a high ISO (generally 400 or greater).
- Take photos of objects less than 12 feet away.
- Note that no flash photography is allowed on the cave tours.

RESERVATIONS

Making advanced reservations is one of the best ways to ensure you get on the cave tour you want! The online reservation system is easy and convenient—you can use it at any time of the day. You can also make reservations by phone: please call the following numbers to make advance reservations, which are strongly recommended. Tours can, and often do, sell out.

By Phone: **(877) 444-6777 /** TDD (hearing impaired): **(877) 833-6777**

Online: recreation.gov

Payment: Visa, Discover, MasterCard and American Express accepted.

Call Center Hours:

9 a.m. to 9 p.m. Central Time, daily.

Cancellation: All changes of tour reservation will be considered a cancellation and charged \$3 per ticket. Cancellations made fewer than 24 hours in advance of the tour will not receive a refund.

The Friends of Mammoth Cave National Park, a 501 (c)(3) non-profit, serve as ambassadors for the park and work in cooperation with the National Park Service to fund projects and programs that protect, preserve, and enhance the natural and cultural resources and the visitor experience of Mammoth Cave National Park.

HELP SUPPORT MAMMOTH CAVE

For volunteer and support opportunities, please visit friendsofmammothcave.org or call (270) 758-2152.



FRIENDS

CAVE TOURS

Tour Name	Elevation Change Difficulty	Cost	Duration Distance	Description
Domes and Dripstones Tour (formerly New Entrance)	250 feet <i>moderate</i>	Adults \$17 Youth \$12 Special Access \$8.50	2 hours 0.75 miles	A wonderful complement to the Historic Tour, this trip includes a dramatic series of domes and pits, typical large trunk passageways, a short journey through dripstone for- mations and stairs, stairs, stairs!
Cleaveland Avenue Tour	moderate	Adults \$20 Youth \$14 Special access \$10	2.5 hours <i>2 miles</i>	Descend nearly 200 stairs to see gypsum in crystalline shapes and sizes. An elliptical passage termi- nates in the Snowball Room.
Historic Tour	300 feet <i>moderate</i>	Adults \$17 Youth \$12 Special Access \$8.50	2 hr 2 miles	This journey through the natural en- trance leads to "classic" Mammoth Cave landmarks visited by writers, scientists, military figures and celeb- rities of the 1800s and early 1900s.
Wild Cave Tour	300 feet <i>very</i> strenuous	Adults \$60 (must be 18 years + or with adult)	6 hr 30 min <i>5 miles</i>	Journey with experienced guides and a small adult group through some of the starkly beautiful yet physically demanding "wild" areas of the cave. Sat/Sun only
Trog Tour	moderate	Adults n/a Youth \$20 Special Access \$10	1.5 miles 2.75 hours	For kids only, this tour offers several activities supervised by two rang- ers. Twelve children participate by going overland and under land on this kid's-eye view of the caves.
Discovery Tour (Self-Guided)	140 feet <i>easy</i>	Adults \$6 Youth \$4 Special Access \$3	30 min minimum <i>0.75 miles</i>	Visit the Rotunda, one of the larg- est rooms, explore vast passage- ways and learn about 19th-century saltpeter mining operations and the geologic origins of Mammoth Cave on this self-guided tour. Available by demand.
Mammoth Cave Accessible Tour	platform <i>easy</i>	Adults \$20 Youth \$14 Special Access \$10	2 hours .5 miles	Elevator allows visitors with special needs to see unique gypsum for- mations, cave writing and Snowball Room and portions of Cleaveland Ave. and Grand Ave. Tours
Frozen Niagara Tour	40 feet <i>easy</i>	Adults \$14 Youth \$10 Special Access \$7	1 hr 15 min <i>0.25 miles</i>	Depart by bus and journey over the top of the cave to the Frozen Niag- ara Entrance. This entrance created in 1924 makes it possible to see this decorative area of the cave. Good for families.

THE CAVE 🕵 /////

Tour Name	Elevation Change Difficulty	Cost	Duration Distance	Description
River Styx Cave Tour	360 feet <i>moderate</i>	Adults 18 Youth \$13 Special Access \$9	2.5 hours 2.5 miles	At the cave's lowest level, you'll see the River Styx and Lake Le- the, where water is still working to lengthen the cave system.
Star Chamber Tour	160 feet <i>moderate</i>	Adults 20 Youth \$15 Special Access \$10	2.25 hours <i>1.5 miles</i>	Follow the passageway taken by Dr. John Croghan as he tended patients in his "hospital" 160 feet under- ground. Must be over 6 years old.
Mammoth Passage Tour	160 feet <i>easy</i>	Adults \$8 Youth \$6 Special Access \$4	1 hr 15 min <i>0.75 miles</i>	This short visit into the cave's larg- est and most visited entrance area is a "smorgasbord" of cultural and natural topics. Available by demand.
Great Onyx Lantern Tour	30 feet <i>easy</i>	Adults \$20 Youth \$15 Special Access \$10	2 hr 15 min <i>1 mile</i>	Exploring this geologic beauty by lantern light offers a shadowed back- drop for the multitudes of dripstone gypsum and helictite formations.
Violet City Lantern Tour	160 feet strenuous	Adults \$20 Youth \$15 Special Access \$10	3 hours 3 miles	A trip through classic Mammoth Cave by lantern light. This visits numerous historic landmarks with a good physical workout as well as nostalgic insights to the cave's earliest tours. Only visitors age 16 and over may carry lanterns.
Grand Avenue Tour	280 feet strenuous	Adults \$30 Youth \$23 Special Access \$15	4 hr 30 min <i>4 miles</i>	This long, physically challenging tour includes tough hill climbs and lots of geological variety. Great for those who are looking for a challenge or who have already experienced other shorter tours.
Gothic Avenue Tour	140 feet <i>moderate</i>	Adults \$15 Youth \$10 Special Access \$7.50	2 hours 1.5 miles	This route enters via the Historic en- trance and follows the Rotunda, the Church, Giant's Coffin, and the TB Huts. Centered around Gothic Ave- nue, one of the most historically sig- nificant passageways of the cave.
Introduction to Caving Tour	Strenuous	Adults: \$30 Youth \$24 Special Access \$15	3.5 hours 1 mile	Families can explore together on this tour that involves climbing, hik- ing, and crawling through parts of Mammoth Cave that most tours never visit. For children 10 and up.

Note: Schedules and prices are subject to change based on demand, available staff and other factors involving the health and integrity of the caves. Please visit nps.gov/maca for more information and an up-to-date schedule of offered tours and prices by season. Adults: 13+ years, Youth: 6-12 years,

) THINGS TO DO

Regardless of the season, there is no limit to activities and programs available at Mammoth Cave and the surrounding area. The following is a partial list of the various recreational activities, classes, programs and tours offered in and around the park.

SURFACE ACTIVITIES

Daily activities at Mammoth Cave National Park include free coffee with a Ranger, birding, porch talks on the cultural history of Mammoth Cave, nature hikes, evening events and much more. For current information, call the park at **(270) 758-2180**, visit **nps.gov/maca** or find Mammoth Cave National Park on Facebook.

BIKING

Bikes are welcome on the Mammoth Cave Railroad Bike and Hike Trail, Maple Springs Trail, White Oak Trail and the Big Hollow Trail. Street bikes are allowed on all paved roads. Mountain bikes are also allowed on certain administrative roads including Licklog Road, Great Onyx Road, Crystal Cave Road, Union City Road, White Oak Road. These are gated administrative roads. Visitors can park by the gate and bike in, but cannot block the roads. Each is 1-2 miles one way and goes straight in and back.

Additionally, Friends of Mammoth Cave host an annual Pedal for the Parks in May. There are usually three routes of varying lengths (75 miles, 40 miles and 27 miles).

BIRDWATCHING

Mammoth Cave National Park is home to more than 200 species of birds and has a number of visitors on seasonal migrations. Naturalists lead **Let's Go Birding** talks on Tuesdays and Thursday mornings. 37 species of warbler (11 of these actually nesting in Mammoth), barred owl, horned owl, pileated woodpecker, scarlet tanager, sparrow and wild turkey have been spotted. Besides more common inhabitants such as the great blue heron, the red-tailed hawk, the spotted sandpiper and the belted kingfisher, the park also receives a number of rare visitors: the snow goose, the double-crested cormorant, bald eagle, osprey and snowy owl. The birdwatching near Green River is notable for its diversity.

BOATING/CANOEING

Within the boundaries of Mammoth Cave National Park, 25 miles of the Green River and six miles of the Nolin River carry boaters past dramatic bluffs, scenic woodlands and diverse wildlife. Boating from Dennison Ferry launch area down the Green River is a popular voyage.

The access at Dennison is steep and therefore suitable for kayaks and canoes only. Dennison Ferry is the upstream launching point and is 7 miles (3-4 hours) to Green Ferry. For a longer, overnight trip, launch at Munfordville—located upstream from the park boundary.

No launch fees are necessary in the park, but riverside camping requires a free backcountry permit (Go in person to the backcountry permit office, located in the visitor center ticket sales area, to obtain your permit). Dotted with sandbars, islands and subsurface springs, the Green River averages 200 feet wide and 10 feet deep; at normal water levels, it runs at about five miles per hour. Motorized crafts are permitted in the park. Canoes are available for rental outside Mammoth. No personalized watercrafts are permitted. For rentals, call Big Buffalo Crossing Canoe: (866) 223-2690, Green River Canoeing, Inc.: (270) 773-5712; Mammoth Cave Canoe and Kayak: (270) 773-3366; Cave Country Canoe: (270) 773-5552. River users must wear personal floating devises at all times when on the Green and Nolin Rivers within Mammoth Cave National Park. Note: The Green River Ferry will be closed for a portion of the year for ramp improvements. This will close Green River Ferry Road from Maple Springs Campground to the Green River Ferry South Ramp. Find up-to-date information at nps.gov/maca.

CAMPING

There are three campgrounds in the park. Choose from Mammoth Cave Campground, Houchins Ferry Campground, and Maple Springs Campground. See the "Camping" chapter for more information about pricing, reservations and site size. Reservations can be made in advance for select campgrounds and sites.

FISHING

Fishing in the Green and Nolin Rivers is good throughout the year, with spring and summer being most productive. Black bass, crappie, bluegill, muskellunge and catfish, along with almost 100 other species, frequent the river. You do not need a state fishing license as long as you fish within park boundaries. In the park, you can fish with pole and line, rod and reel, or trot and throw line.

Other methods, including limb lines and jug lines, are prohibited. If you use trot lines, you must attach a tag with your name and address, place hooks 30 or more inches apart, tend your lines daily, and remove lines when you are not using them. It is important to follow all of the park regulations at all times.



Campers at Homestead Campsite, one of thirteen campsites in Mammoth Cave National Park, can make reservations through the National Recreation Reservation Service



Biking is permitted on any road and several trails in Mammoth Cave National Park.

At First Creek Lake, using any live bait other than worms is prohibited. On the rivers you can use minnows or worms. Using bait seines in the park is prohibited. Because all park wildlife is protected, collecting frogs, turtles, mussels or digging for bait is strictly prohibited. Harvesting of any mussels—endangered or otherwise or taking shells is strictly prohibited as well.

HIKING

In addition to the underground cave tours, there are nearly 84 miles of trails on the north side. Hike here and you may not see another living soul. Seek solitude in the rugged hills and deep valleys, camp by river, lake or waterfall, explore bluffs and ridge tops. See the "Walking & Hiking" chapter for more detailed information.

HORSEBACK RIDING

Sixty miles of trails north of the Green River are open for horseback riding. Dayuse horseback riders can park trailers at Lincoln, Temple Hill and First Creek trailheads.

A trail map is available in the National Park Service's free brochure, while other maps and guides sold at the visitor center show topographic features and trails in greater detail.

Double J Stables conducts guided horseback rides on the north side of the park. They are located off of Lincoln School Road. Call (270) 286-8167 or visit doublejstables.com for more information.

RANGER ACTIVITIES AND PROGRAMS

Rangers deliver a wide variety of talks throughout the park. Longer surface activities, offered in season, start from specified locations. Near Mammoth Cave Campground, rangers give seasonal evening programs at the amphitheater.

Parking near both locations can accommodate non-campers. A schedule of ranger-led walks, evening programs and kids' activities are available at the visitor center. Call (270) 758-2180, visit the park's website, or check out their Facebook page for more information.

SCENIC DRIVING

Try Flint Ridge, Green River Ferry, Houchins Ferry, Joppa Ridge and Ugly Creek roads for a spectacular tour of the park. The latter roads are not passable for trailers or mobile homes. Drive slowly and keep your eyes open for wildlife.

Ask for more information about scenic driving at the visitor center to plan the best route. Be aware that GPS and Google Maps are not totally reliable and sometimes takes drivers the long way to certain destinations.

$\left(\right)$ **EXPLORING THE AREA**

When you are visiting Mammoth Cave National Park, there are plenty of museums and attractions nearby. Learn more about the history and culture of the land. Enjoy the beauty of nature throughout this area of south central Kentucky.

BARREN COUNTY AND GLASGOW

Barren River Lake State Resort Park After exploring the subterranean wonders at Mammoth Cave National Park, spend time above ground at Barren River Lake State Resort Park in Lucas, Kentucky, in southern Barren County. The Park's lodge and cottages offer easy access to a 10,000-acre lake that hosts plenty of bass and crappie and boasts some of the most impressive sunsets in the state. Boating and fishing are popular, as are camping, picnicking, horseback riding, birdwatching, biking and hiking. The park has an 18-hole golf course and sand beach open to the public.

South Central Kentucky Cultural Center. Stop by the South Central Kentucky Cultural Center to take a trip back in time to learn about the people, places and events that encompasses the "Barrens"—a geographic area that includes the counties of Barren, Allen, Metcalfe, Hart and Monroe. This museum is housed in the old Kentucky Pants factory in downtown Glasgow.

CAVE CITY

Located in Barren County, Cave City is one of the gateway communities to Mammoth Cave National Park. Situated near the southeastern entrance of the park, Cave City offers lodging, dining, attractions and much more. Rich with caves of its own, the town is a great jumping off point for your adventures.

DINOSAUR WORLD

Located in the heart of Cave City is one of the biggest attractions in the area: Dinosaur World. Travel back in time and observe life-sized models of dinosaurs in a walkthrough park setting. Built to scale, these dinosaurs give you a realistic sense of what it would be like to walk with the extinct giants. While walking through, you'll notice the dinosaurs are placed in live vegetation and some gathered in groups.



Dinosaur World is a fun attraction for kids of all ages!

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Nolin Lake State Park is the perfect location to take the whole family. It offers hiking, swimming, picnicking, camping and much more!

With some models reaching up to eighty feet, it's an experience you and your family won't soon forget!

The park is open every day of the year except Christmas and Thanksgiving Day. Admission costs \$12.75 for adults and \$9.75 for children (plus tax). For more information, call **(270) 773-4345** or visit **dinosaurworld.com**

CAVES IN THE AREA

They don't call it Cave City for nothing! Mammoth Cave isn't the only place in the area to get your geology fix. Visitors can check out and tour a variety of caves in the area and enjoy the amazing history that comes along with it!

Some of the many caves in the area include Cub Run Cave, Diamond Caverns, Hidden River Cave, Lost River Cave, Mammoth Onyx Cave, Onyx Cave and Outlaw Cave. Each cave is different and has its own unique features.

KENTUCKY ACTION PARK

Kentucky Action Park, at 3057 Mammoth Cave Road, offers a variety of outdoor adventures and amusements. Jesse James Riding Stables, one of the oldest and largest stables in Kentucky, has gentle horses for riders of all ages and over 500 acres of trails. Canoeing, cave tours, an Alpine slide and zip line, bumper cars, a rock wall, a trampoline, even an old-time photo shop—here you can find them all! For more information, go to **kentuckyactionpark.com**.

PARK CITY

Park City is also in Barren County and sits right outside the south entrance to Mammoth Cave National Park. Stop by before you head to the Park to stock up on supplies and gasoline.

BELL'S TAVERN PARK

Park City is rich in history given its proximity to the national park. During the Civil War Era, the town served as a major transportation hub for visitors and developed around the historic Louisville & Nashville Railroad that once covered over 6,000 miles and three states.

Bell's Tavern, more than 150 years old, served as a place for travelers to rest their heads while exploring the area. Travelers arrived on horseback or stagecoach.

Today, travelers can see what remains of Bell's Tavern. The stone structure is open to the public free of charge and is on the National Register of Historic Places.

HORSE CAVE

Horse Cave, located in Hart County, is located on the eastern side of the park off I-65. The town is home to a population of just over 2,000 and offers a small-town feel with plenty to do.

AMERICAN CAVE MUSEUM

The American Cave Museum offers the geological history of the caves in the area as well as the people who helped to uncover some of their greatest mysteries. Located in Horse Cave, minutes away from Mammoth Cave National Park, the museum is worth a trip. View exhibits focusing on prehistoric cave explorers, modern cave exploration, mining, living in cave country, the story of Floyd Collins and the history of Horse Cave and Mammoth Cave.

After exploring the museum, visitors can also take a historic tour of the nearby Hidden River Cave. On the tour, visitors will see a subterranean river and cave geology. The best part? The tour is included in the museum admission price! For more information on hours and ticket pricing, visit **hiddenrivercave.com** or call **(270) 786-1466.** The museum, operated by the American Cave Conservation Association, is located at 119 Main St., Horse Cave, KY 42749.

NOLIN LAKE STATE PARK

Camp out just minutes away from Mammoth Cave and explore a park with thrills of its own. Located in Edmonson County, Nolin Lake State Park offers an abundance of recreational opportunities. The park offers camping, hiking, birdwatching, boating, fishing, picnicking and swimming.

The 5,795-acre Nolin Lake is actually manmade and a popular location for dropping a line. Try to reel in a bass, catfish, crappie or walleye. Boating and swimming are great summer activities for the whole family. While you're near the water, bring out your binoculars and try to spot a Great Blue Heron or a bald eagle, as both of these majestic species live in the park. If you want to stay a little longer, reserve a campsite and sleep underneath the stars for a night or two. For more information about the park, please visit **parks.ky.gov/parks/** recreationparks/nolin-lake or call the park directly at (270) 286-4240.

KENTUCKY DOWN UNDER ADVENTURE ZOO

Tucked into the heart of the American South lies a slice of Australia. Skip the long plane ride and head to the Kentucky Down Under Adventure Zoo. The attraction gives visitors the opportunity to experience all things down under: pet kangaroos, enter the bird garden, explore the Land of the Lories, take an Outback Walkabout and much more. After exploring, stop in for lunch at the Outback Cafe. If you want to bring home a memento, pick out a souvenir over at the gift shop. Do you happen to have a sweet tooth? You'll be sure to enjoy the Fudge Factory, which offers a variety of delicious, homemade fudge.

Located in Horse Cave, the attraction is open year-round. Tickets include admission into both the Adventure Zoo and Mammoth Onyx Cave. Entry fees are as follows: adults, \$25.95; seniors, military and students,\$19.95; children ages four to 13, \$15.95; children three and under, free. Educational rates are also available. For more information, visit **kentuckydownunder.com** or call **(270) 786-1010**.



NATURE & WILDLIFE

Mammoth Cave is home to a wide variety of plant and animal life ranging from rare exotic cave species to more common woodland creatures found in eastern deciduous forest environments. Mammoth Cave is home to 70 state-listed endangered and threatened species.

Scientists have discovered a total of more than 130 species that use the cave during some part of their lives, in addition to 1,200 species of flowering plants on the surface, hundreds of animal species, more than 80 types of fish, and over 50 kinds of freshwater mussels. It truly is a unique ecosystem.

FAUNA

THE SURFACE

The surface contains animals that are typical of an eastern hardwood forest. Larger mammals include bobcats, coyotes, muskrats, white-tailed deer, fox, raccoon, opossum, woodchuck, beaver, rabbit and squirrel. Smaller mammals, such as bats, mice and chipmunks, also abound.

Many reptiles and amphibians find protection in the park, too. Copperheads and rattlesnakes are also common. Birds such as **mourning doves, whip-poor-wills, owls, bald eagles, hawks, woodpeckers and warblers** fly through Mammoth Cave's forests. Wild turkeys, reintroduced in 1983, are now seen on a regular basis by park visitors.

THE RIVERS

The Green River, which meanders through the park, supports an unusual diversity of fish and bivalves. The river contains a wide variety of **freshwater mussels**, that survive in the sand and gravel. Over 50 species of mussels, including seven on the endangered species list, call the park home.

Mussels are filter-feeders that clean the river water and are crucial to its health. Aquatic animals in the river play an important role in providing nourishment for other animals—in the cave, in the river and on land.

THE CAVES

There are 130 species that use the cave on a regular basis within the Mammoth Cave system. These species are divided almost equally among three classes of cave dwellers: **troglobites**, like **cave crayfish**, cannot complete their life cycle outside of caves; **troglophiles**, like **cave crickets**, use caves for refuge; **trogloxenes**, such as **phoebes** like to live close by, but not in the caves.

Although Mammoth Cave is not currently used by large numbers of bats, 12 species, including two that are endangered, do live in the cave. By consuming huge numbers of insects, bats work as a "natural insecticide," controlling crop pests and insects that may spread disease. **Little brown bats,** one of the more common species in Mammoth Cave, can eat about 600 mosquitoes in an hour.

When you visit Mammoth Cave, you're far more likely to see crickets than bats. **Crickets** are troglophiles too. They spend much of their life in the cave but depend on night-time forays on the surface to gather food. Crickets are extremely important in delivering energy, in the form of droppings, eggs and carcasses, to other animals in the cave. Troglobites, the group of cave animals most highly adapted to cave life, cannot survive outside caves. Many, including **eyeless fish** and **crayfish**, illustrate creative adaptations to thrive in their dark, cave environment.

With no need for camouflage or protection from the sun, many of these animals have no pigmentation and are translucent or white. Some have no eyes. Most have developed other highly sensitive sensory organs to detect predators and prey. The **Kentucky cave shrimp** is an excellent example of an animal with these adaptations. Because food in caves is scarce, full-time cave dwellers tend to be smaller, with lower metabolism and longer life spans than their surface dwelling counterparts.

FLORA

Park vegetation features mostly second growth forests of various vintages and small areas of old growth. Much of the park land was used for agricultural purposes prior to park establishment. These areas are largely dominated by eastern red cedar and Virginia pine mixed with deciduous trees along the outer margins. More mature upland sites are generally oak hickory forests while beech-maple-tulip poplar forests dominate in moist hollows.

Along the Green and Nolin Rivers, populations of **sycamore**, **silver poplar**, **river maple** and **box elder** are found. Special communities of limited distribution include upland swamps with **pin oak**, **sweetgum** and **red maple**; deep sandstone hollows with **hemlock** and **umbrella magnolia**; dry limestone **cedar oak** glades; and cliff margin stands of **Virginia pine** on sandstone cliff margins.



At Mammoth, be sure to look up, down, and around. You're not alone, wherever you are.

Mammoth Cave National Park is a great place for plant-lovers to come and explore the vegetation!

Kentucky once had a vast area of grassland known as the "Barrens." This was, in part, a human-engineered ecosystem maintained through intentional burning by American Indians before European contact in an effort to attract deer and buffalo.

Although largely eliminated from the region because of agricultural practice and fire suppression, small remnant stands of native grasses still exist in certain areas of the park including varieties of **Indian Grass, Big Bluestem, Little Bluestem** and others genetically distinct from a variety of their cousins in the Great Plains.



There are few better ways to discover the pleasures and curiosities of the sunlit side of Mammoth Cave National Park than to camp among the trees or by the waters.

There are three campgrounds located in Mammoth Cave National Park that can accommodate tents, RVs and even horses. Mammoth Cave Campground, Houchins Ferry camping area and Maple Springs Campground range in size from 7 to 109 sites and offer a wide range of different amenities.

Campground reservations may be made in advance mid-May through mid-September for Mammoth Cave Campground. Call the National Park Reservation Service at (877) 444-6777 or reserve your site online at **recreation.gov**. Drive-ins will be accommodated if space is available.

Camping fees range from \$15 to \$35. Discounts apply for visitors with Interagency Senior or Access Pass. Reservations are encouraged. Picnic shelters are available and may be reserved. One open-air picnic shelter, \$50 per day, limited availability, and one enclosed picnic shelter, \$75 per day, available Saturday and Sunday, March 1 through Memorial Day; daily Memorial Day through Labor Day; Saturday and Sunday, Labor Day through November 30.

Please note that firewood from several states is quarantined due to an insect infestation that can devastate park flora. To prevent infestation of trees in the park, transport of firewood into the park is prohibited

BACKCOUNTRY CAMPING

Over a dozen campsites dot the 70 miles of trails on the north side. Seek solitude in the rugged hills and deep valleys, camp by a river, lake or waterfall, and explore bluffs and ridge tops. Ride horses along these backcountry trails, or drive the scenic routes of Ugly Creek Ferry Road. Inquire at the visitor center for more information.

MAMMOTH CAVE CAMPGROUNDS															
Campground	FEE	NUMBER OF SITES	RESERVATIONS	RV SITES	RV HOOKUPS	DUMP STATION	GRILL & TABLES	CAMP STORE	SHOWERS (BUY TOKENS AT CAMP STORE)	TOILETS:FLUSH	TOILETS: CHEMICALS	COIN LAUNDRY	WATER	LARGE GROUPS	GROUP CAMPING
Mammoth Cave Group/VIP	\$10-\$25 \$25/\$50	109	•	•		•	•	•	•	•		•	•	•	•
Houchins Ferry	\$7.50- \$15	12					•				•		•		
Maple Springs Group/ Equestrian only	\$25-\$35	7	•		•		٠				•		•	٠	•
NOTE: Rates are subject to change. Tax and utility fees may apply.															

) WALKING & HIKING

The surface of Mammoth Cave National Park is best divided into three sections: the north side, the south side and the visitor center area. The north side is the largest region and home to the park's backcountry trails. The south side and visitor center area feature shorter trails (that make good day hikes) that also introduce visitors to the park's natural beauty.

SOUTH SIDE TRAILS

The **Sand Cave Trail**, just off the Cave City Road at the park boundary, is a short .2-mile walk to the Sand Cave where unsuccessful efforts to rescue trapped caver Floyd Collins in 1925 captured worldwide attention. Sand Cave is a boardwalk trail.

The **Turnhole Bend Nature Trail** takes you to an overlook at Turnhole Bend blue hole, the park's largest spring at over 50feet deep.

Off of the Mammoth Cave Parkway (Kentucky 70), **Sloan's Crossing Pond Walk** is a kid-friendly, ADA accessible trail on an elevated boardwalk around Sloan's Crossing Pond. The boardwalk circles a standstone ridge.

Cedar Sink Trail traverses a valley before looping into a karst window where an underground river briefly emerges. The one-mile trail meanders through a range of ecosystems supporting an abundance of wildflowers. Cedar Sinks' geology and diversity of flowering plants make this one of the Park's premiere spring destinations.

Mammoth Cave Railroad Trail is used by both bikers and hikers. The trail follows an old railroad corridor for 8.6 miles, but has many natural stopping points like Shackleford Cemetery. Use caution as sections are steep and require road crossings.

VISITOR CENTER AREA TRAILS

From the visitor center picnic area, the **Green River Bluffs Trail** is an easy walk to some great views of the Green River and its surroundings.

Designed especially for wheelchair access, the **Heritage Trail** will take you to a beautiful overlook and the Old Guides' Cemetery. Both of these trails are located near the visitor center and provide nice hikes.

The trails near the visitor center are some of the best places to view the unusual karst topographical features indigenous to cave country. These trails include Green River Bluff, Sinkhole, River Styx, Echo River Spring, and Dixon Cave.

NORTH SIDE TRAILS

On the north edge of the park, you'll come to the Lincoln Trailhead. From here you can access the **Collie Ridge Trail**, which cuts through the heart of the park's backcountry. The trail is nearly level over the entire course of its fourmile length.

In the remote western region of the park, Houchins Ferry Road rambles through the forest to **First Creek Trailhead** and **Temple Hill Trailhead**. Two campsites along the river are an ideal base camp for fishing the Nolin. Trails on the north side range in difficulty from relatively easy terrain to challenging ascents with steep grades. Each part of the park has something different to offer; be sure to pick a trail that is appropriate for you and your group.

PARK TRAILS - VISITOR CENTER AREA

TRAIL	BEGINS AT	LENGTH
Sunset Point Trail &	Heritage Trail	0.3 mi/0.5 km
Dixon Cave Trail	Historic Entrance	0.4 mi/0.6k m
White Cave Trail	Mammoth Campground	0.6 mi/1.0 km
Echo River Spring Trail હં	Green River Ferry	1.0 mi/1.6 km
Green River Bluffs Trail	Visitor Center Picnic Area	1.3 mi/2.1 km
Heritage Trail ऊं	Mammoth Cave Hotel	0.5 mi/0.8 km
Sinkhole Trail	Heritage Trail	1.0 mi/1.6 km
River Styx Spring Trail ऊं	Historic Entrance	0.4 mi/0.7 km

PARK TRAILS - NORTH SIDE AREA

TRAIL	BEGINS AT	LENGTH
Big Hollow Trail North Loop	Big Hollow Trailhead	5.3 mi/8.6 km
Blair Springs Hollow Trail	Collie Ridge Trail at Raymer Hollow	1.8 mi/2.9 km
Bluffs Trail	Buffalo/Good Spring Junction	0.63 mi/1.01 km
Buffalo Creek Trail	Maple Springs Trailhead	4.4 mi/7 km
Collie Ridge Trail	Lincoln Trailhead	3.8 mi/6.2 km
Dry Prong Trail	Bluffs Campsite	2.4 mi/3.9 km
First Creek Trail	Temple Hill Trailhead	6.3 mi/10.2 km
Maple Springs Trail	Maple Springs Trailhead	1 mi/1.6 km
Miles-Davis Cemetery Trail	Good Spring or Raymer Hollow Trail	0.4 mi/0.6 km
Mill Branch Trail	Temple Hill Trailhead	3.0 mi/4.8 km
Raymer Hollow Trail	Maple Springs Trailhead	6.2 mi/9.9 km
Sal Hollow Trail	Maple Springs Trailhead	0.2 mi/0.4 km
Big Hollow Trail South Loop	Big Hollow Trail North Loop	3.7 mi/6.0 km
Turnhole Bend Trail	Maple Springs Trailhead	1.8 mi/2.9 km
Wet Prong Trail	Blair Spring Hollow Trail	4.6 mi/7.4 km
White Oak Trail	Ugly Creek Road	2.47 mi/3.98 km

PARK TRAILS - SOUTH SIDE AREA

TRAIL	BEGINS AT	LENGTH
Cedar Sink Trail	Cedar Sink Trailhead, Hwy. 422	1.0 mi/1.6 km
Mammoth Cave Railroad Hike/Bike Trail	Visitor Center	8.6 mi/14.0 km
Sand Cave Trail	Sand Cave Trailhead; Hwy 70 (Cave City Entrance)	0.1 mi/0.2 km
Sloan's Crossing Pond Walk	Sloan's Crossing Pond Trailhead, Hwy. 70	0.4 mi/0.6 km
Turnhole Bend Nature Trail	Brownsville Road, Hwy. 70	0.5 mi/0.9 km

PRESERVATION

Despite the incredible amount of work performed by dedicated scientists, park administrators and citizens since the park's establishment in 1941, Mammoth Cave's unique biologic and geologic assets continue to face threats from a variety of sources. Air and groundwater pollution, invasive species and white-nose syndrome are just a few of the many factors that threaten this fragile ecosystem.

POLLUTION

Degraded scenic vistas: The estimated annual average natural visibility at Mammoth Cave is 113 miles. Air pollution, however, can reduce average visual range to approximately 14 miles from June through August, making Mammoth Cave one of America's haziest national parks.

Ozone exposure: Mammoth Cave is affected by ozone pollution. Scientists are beginning to investigate whether ozone exposure in the park causes injury to sensitive species such as milkweed, tulip poplar and sweet gum trees. Air quality monitoring systems have been installed in the park to measure concentrations of this pollution.

Mercury deposition: The National Park Service and other agencies have been monitoring mercury levels at Mammoth Cave since 2002. Scientists are concerned about mercury's impacts on the park's endangered freshwater mussels. The Green and Nolin Rivers, which flow through the park, are included in a statewide fish consumption advisory due to mercury contamination.

Fine particle pollution: Recent studies increasingly show that pollution in the form of small particles, called fine

particulate matter, impairs visibility and poses significant risks to human health. Monitoring in Mammoth Cave National Park has shown high levels of particulate pollution occur in the region.

POLLUTION SOLUTION

Although there is no such thing as an easy solution to pollution, Mammoth Cave National Park is making its best efforts to improve the quality of the air overhead. The park was the first national park in the country to use 100% alternative fuels in their fleet of vehicles.

Mammoth Cave concessionaire Ortega Parks has introduced sustainable and local ingredients into the food service and increased environmental measures throughout concession operations. Mammoth Cave National Park has also increased the use of recycled lumber for park projects.

ENDANGERED SPECIES

Mammoth Cave National Park is home to over 70 threatened and endangered species. This long wildlife list includes bats, mussels, plants and the Kentucky Cave Shrimp.

The Federal Endangered Species Act of 1973 recognizes that many of our species across the United States have been lost and others are close to extinction. This act requires agencies to take measures to protect and restore natural habitats. Through education and restoration programs, the park hopes to see a growth in these populations.

EXOTIC SPECIES

Exotic species have a significant impact on park forests. Chestnut Blight and Dutch

CAVE DWELLERS



Mammoth Cave Cravfish lack pigmentation. Species that live in the cave on a full-time basis (troglobites) have developed a variety of adaptations to survive in this dark

Elm Disease have virtually eliminated American Chestnut and American Elm and a similar fungal disease is currently affecting the American Butternut tree. Invasive exotic plant species such as honeysuckle, garlic mustard, kudzu, Microstegium, wild rose, silver poplar and Ailanthus crowd out native species and spread with little competition. With more than 1,000 species of plants and trees the potential for loss of biodiversity in Mammoth Cave National Park is great.

American Elm is still found along the Green River. Chestnut stumps still sprout, and the park is doing work with restoration. Young chestnut still succumb to the blight, but park experts are hoping they will adapt.

The park is currently monitoring invasive insect species and visitors may see traps in the form of big purple boxes that hang in trees across the park.

environment.

The cave crayfish (*Orconectes pellucidus*), which lives permanently in underground water systems, lacks functioning eyes and instead uses antenna and the sense of smell to help them function. In addition, because of the lack of exposure to light, its body is colorless and translucent.

The Kentucky cave shrimp, on the other hand, is a tiny crustacean that feeds on bacteria, protozoa and other minute organisms that wash into cave streams.

Both these federally listed threatened and endangered species, like all cave life, are vulnerable to degradation of water quality that could wipe them out completely. For these reasons, in 1990, the National Park Service and local communities constructed a regional sewage system.

GROUNDWATER

Since large portions of the upper Green River watershed and the groundwater basins affecting Mammoth Cave National Park lay outside park boundaries, the use of these areas influence water quality within the park. The park's water quality is affected by domestic, municipal and industrial sewage, solid waste disposal, agricultural and forestry management practices, oil and gas exploration and production, urban land-use and recreational activities. A railroad and interstate in the area also contribute.

As a result, groundwater has been intensively studied for years. Groundwater dye tracing is used to determine the path of underground streams and define groundwater basins. The park operates continuous-recording digital water monitoring to collect data on groundwater contaminants.



United Nations Educational, Scientific and Cultural Organization (UNESCO) designated Mammoth Cave National Park as such for its exceptional natural features and habitat for endangered species.

WHITE-NOSE SYNDROME SPECIES

A disease called white-nose syndrome (WNS) is spreading through the eastern United States and Canada, decimating bat populations. Although this disease is not known to affect humans, it has been associated with the death of 5.5 million bats since it was first identified in 2006.

But what exactly is white-nose syndrome? WNS is a cold-loving fungus that grows on bats' bare skin (muzzles, wings, and tails) during their winter hibernation, when their body temperatures and immune systems are reduced. The fungus forms white patches on these areas, giving rise to the name. It disrupts bats when they're hibernating, exposing them to starvation and dehydration. To date, there is no known cure for the disease.

Bats devour millions of insect pests a single big brown bat eats about 150 beetles/moths/bugs per night. In the west, bats also play a role in pollination. Loss of bats could impact agriculture and the use of pesticides on crops.

WNS was discovered in Mammoth Cave in 2011. In 2014, a decline of as much as 80% was discovered, putting some species at risk for extinction.

Evidence indicates that humans can and have transmitted the fungus from one cave to another, and so all Mammoth Cave National Park cave tours require walking through sudsy biosecurity mats to remove spores and dirt from their shoes after exiting the cave. We also ask you to wash your hands and change clothes and footwear before visiting any other caves or mines.

WORLD HERITAGE SITE

On October 27, 1981, Mammoth Cave National Park joined the ranks of renowned places like Australia's Great Barrier Reef, Egypt's Pyramids of Giza, Nepal's Kathmandu Valley and India's Taj Mahal Historic Park and became a UNESCO World Heritage Site.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) designated Mammoth Cave National Park as such for its exceptional natural features and habitat for the many threatened and endangered species that live within the park's borders.

BIOSPHERE RESERVE

On September 26, 1990, Mammoth Cave was officially designated an International Biosphere Reserve by UNESCO. A biosphere reserve is a unique category of safeguarded, natural environments, each designated to protect the biological and cultural diversity of a region and sustain the economic use of its natural resources.

Each biosphere reserve represents a specific ecosystem; a place for research, monitoring and education, and a place where policy makers, scientists and locals can cooperate to manage land and water resources to meet human needs.

WHAT YOU CAN DO

Pack out what you pack in. Trash is not only an eyesore, but a risk to animals, plants, and water sources. Dispose of waste properly and use recyclable camp supplies.

If you happen to see trash, place it in a

garbage receptacle. By doing your part, you can help ensure that the park will be beautiful and clean for all the other visitors.

Don't feed the animals. By simply not feeding the animals, you will protect their welfare. When wild animals cease to find their own food, they cease to be part of the balance of nature. Feeding animals food they are not used to can also cause them to become sick.

Don't touch the cave formations. Please help keep the cave clean. Oils from your hands hinder the continued growth of speleothem.

Stay on established trails. By taking shortcuts you may get lost and may damage vegetation and animal life. Additionally, staying on the trails will help you stop erosion around the trail areas and reduce trail widening.

Camping. Help protect Mammoth Cave National Park by practicing minimumimpact camping and Leave No Trace principles. Obey park regulations and camp only in designated camping areas. Help protect the forests from invasive pests. Only use dead or downed wood from inside the park or purchase wood from the Caver's Camp Store.

Get involved in groups. Volunteering has made an immeasurable contribution to Mammoth National Park. Sign up to volunteer with groups that get together to rehabilitate ecosystems, improve hiking trails where erosion and overuse are taking a toll, or identify and remove exotic plants that might encroach on the habitat of native species.

Mammoth Cave welcomes both individuals and groups to participate in its Volunteers-in-Parks Program to give back to the park and help preserve it for future generations to enjoy.

) HISTORY & CULTURE

Indigenous peoples lived and hunted in Kentucky between 2,000 and 5,000 years ago in the Late Archaic Period (3000 – 1000 B.C.). These early explorers traveled miles within Mammoth Cave, using cane torches to explore and collect the minerals mirabilite, epsomite and gypsum. How they used the minerals is unknown but it's thought that they were valued for medicinal and/or ceremonial uses.

In addition to mining, American Indians lived in rock shelters or large cave entrances during parts of the year. Dry conditions in the cave preserved vast quantities of artifacts, including some of the earliest evidence of organized agriculture in the eastern United States. These part-time residents ate a variety of native plants including hickory nuts, dandelion, sunflowers, wild berries, **lambsquarters**, and acorns. When they could, they supplemented this plant-based diet with **deer**, **turkey**, **raccoon**, other small mammals, mussels and fish.

Exploration for minerals continued during the Early Woodland Period (1000 - 200 B.C.), but for reasons not yet understood, ceased soon afterward, According to legend, about 2,000 years later, in 1797, a hunter named Houchin rediscovered the cave while chasing a bear. Frontiersmen guickly realized that Mammoth Cave contained saltpeter (used in making gunpowder), and during the War of 1812, Charles Wilkens and Hyman Gratz established a commercial saltpeter leaching factory there. Vats and wooden pipes that were used in the operation are still visible today just inside the mouth of Mammoth Cave. Take the Historic Tour or the Violet City Lantern Tour, Mammoth Passage Tour, Star Chamber Tour, Discovery Tour to see these artifacts.

Beginning in 1816, the public began to appreciate the geologic, cultural and biological importance of Mammoth Cave. Capitalizing on this interest, Franklin Gorin, the owner at the time, initiated tours.

In 1838, a new owner—Dr. John Croghan—extensively developed and explored the cave, exploiting it commercially as one of the great wonders of the world. He built roads, and a large hotel to lodge tourists.

Dr. Croghan also established an underground tuberculosis hospital in the cave.



Stephen Bishop was an early cave explorer and was was famous for his tours.



The Mammoth Cave Baptist Church is one of the historic buildings that still remains in Mammoth Cave National Park today.

He believed that the stable temperature and humidity and apparent dryness would have a curative effect on patients. Volunteer patients lived in the cave but the experiment was a failure when within a few months, some invalids died or left the cave. Ironically, Dr. Croghan died six years after the experiment—a victim of tuberculosis. To view the structures where the patients lived, take the Star Chamber Tour.

Stephen Bishop was one of the early cave explorers in the area. Before he died at age 36, Bishop achieved worldwide fame for his discoveries and knowledge of the cave. Bishop had begun a tradition of excellence among cave guides that included the well-known Bransford Family and that tradition continues to this day.

Mammoth Cave was authorized as a national park in 1926 and was fully established in 1941. At that time, just 40 miles of cave passageway had been mapped. As surveying techniques improved, strides were made in describing and understanding the extent of the cave system. Several caves in the park were shown to be connected, and today, the cave system is known to extend well beyond the national park boundary. The park was named a World Heritage Site in 1981 and became the core area of an International Biosphere Reserve in 1990. With its nearly 53,000 surface acres and underlying cave ecosystem, Mammoth Cave National Park is recognized as an international treasure.

OUR READER FEEDBACK

"Walking into Mammoth Cave felt like being on a journey to the center of the earth. It was incredible!"- Audrey Moran

THE BIZARRE AND TRAGIC TALE OF FLOYD COLLINS

In 1925, Floyd Collins, today thought of as one of the world's premier cavers, met a tragic and bizarre end in Sand Cave. He knew of a small cave called Sand Cave, little explored, and situated along the road before many of the other show caves. He determined to explore the Sand Cave, and struck an agreement with the cave's owner, B. Doyel, to share one half of the profits if the cave proved worthy of show.

Floyd entered the cave with a single kerosene lantern, and shortly found that the cave offered challenges. He found himself squeezing through tight passageways-at one point so tight that he had to inch through on his stomach, with one arm stretched out ahead of him, pushing his lantern, and the other arm at his side. Beyond this crawl, the cave began to open up, but his lantern began to flicker.

Floyd knew the peril of losing light in a cave, so he reluctantly began his return journey. But as he returned through the tight crawl, his foot dislodged a 27-pound rock which wedged his ankle, and in his awkward position, he could not remove it. He was trapped in a stone straight-jacket.

Relatives noticed he was missing, and a quick check in Sand Cave confirmed the worst. Rescuers came in search of him, and for more than two weeks the rescuers attempted by various means to extract him. Engineers and geologists were called in, and when more conventional means failed, miners began digging a shaft to reach him.

In the meantime, the story became too big for Cave City; people began to arrive from all parts of the country. A "carnival atmosphere" took hold at the mouth of



William Floyd Collins, the renowned cave explorer met his demise in Sand Cave.

Sand Cave, and hawkers appeared, selling food, drink and souvenirs. Thousands of sightseers descended on Cave City, and the state was forced to dispatch troops.

But all rescue attempts would prove useless. On the eighteenth day after his entrapment, Floyd Collins was pronounced dead of exposure, and the cave was sealed. Only months later would his body be removed for burial closer to home. Eventually, his body was exhumed and toured the country. His body was eventually returned to Crystal Cave which his family owned. Cavers from around the world came to pay their respects to him for many years.

NPS absorbed Crystal Cave and closed it to the public. In 1989, Collins was buried in Mammoth Cave Baptist Church Cemetery on Flint Ridge.

PHOTOGRAPHY

For millennia, we've looked towards the heavens and contemplated what's beyond our orbit and universe. More recently, stargazing has become increasingly difficult for millions of people living in developed areas. If you live in a populated area east of the Mississippi or along the Pacific coast, odds are that you can count the number of stars you see on your hands. National and state parks—remote and minimally developed—not only protect our land, but also our dark skies which are ideal for astrophotography.

There are two primary types of astrophotography shots that yield different, but stellar compositions. A long exposure setting will show stars trailing across the sky, while a shorter exposure will show pinpoints of light—objects that a camera can capture that the unaided eye cannot. Both require a camera with interchangeable lenses and manual controls to set aperture, ISO, and exposure settings. Here's what you'll need to start:

- A sturdy tripod: Simply put, a shaky tripod will yield blurry photos.
- A cable release or remote control or intervalometer: You'll want to avoid touching your camera to minimize shake. The addition of an intervalometer will allow you to take sequential long exposures.
- **Batteries:** Your aperture may be open for several hours, so it's important to have multiple fresh and fully charged batteries.
- A wide lens: Use the fastest, widest lens available.
- A head lamp: It'll be useful to set up your equipment and illuminate your foreground. Check the cloud cover; if there's too much wait until you have a clearer night. Before you start, set your focus to infinity and turn off your autofocus and high ISO noise reduc-

tion. Next, set your white balance to daylight settings (5500k) and turn on your mirror lock to avoid mirror shake. Wait until the moon is out, too, as it'll illuminate and add detail to your foreground. Make sure that it's behind you. To capture star trails:

- Set your ISO at 200 to reduce digital noise.
- Compose your image, making sure you have interesting features in the foreground.
- Choose your focal length. The longer the focal length, the quicker your star trails will start to form.
- Set your camera to manual mode so that you can select your shutter speed and aperture.
- Set your aperture between f/2.8 and f/4 for best results.
- Select "bulb mode" as your shutter speed.
- Use your cable release or remote to open the shutter or set your timer for two to four minutes.

Check your results. If your picture is too dark, increase the exposure time. If your trails are to short, increase the exposure time. Keep playing around with your settings to get the results you desire. To learn how to take photos of the milky way and millions of points of light, visit **ohranger.com/brightskies.**



Photographing the night sky is as close as many of us will get to exploring space.



Discover Moab in the Off-Season

With unmatched solitude, spectacular views, and discounted rates, the off-season in Moab is fast becoming one of the most rewarding times to visit. Enjoy year-round access to Arches and Canyonlands National Parks, Dead Horse Point State Park and thousands of square miles of spectacular red rock scenery. No matter what time of year you visit, Moab's warmth and hospitality will shine through.



For a free Moab Travel Planner call 435-259-8825 or visit **discovermoab.com**







) JUST FOR KIDS

Mammoth Cave National Park is the perfect place to bring the kids for great outdoor activities and educational opportunities. Are you between 6 and 13? If so, do you want to learn all you can about Mammoth Cave National Park?

BECOME A JUNIOR RANGER

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Young people aged four years and older are eligible to become Junior Rangers. The Junior Ranger packet is available at the book sales area in the visitor center for free. Pick yours up and start rangering! Follow a ranger on guided activities and record your own discoveries in the free booklet and complete it to become a Junior Ranger.

TROG TOUR FOR KIDS ONLY

No parents are allowed on this kids-

only tour! On the Trog Tour, twelve children voyage overland and underground with two rangers for a kid's-eye view of the world's longest cave. The tour allows kids to ask any question, express their curiosity and learn about this UNESCO site.

CHECK OUT THE JUNIOR RANGER NATURE TRACK

Participate in activities designed for kids that teach them about Mammoth Cave National Park. Rangers will educate children on the park's plants, animals, cave forming process and delicate balance of the ecosystem. Only offered on weekends.

JUNIOR CAVE SCIENTIST

Download the free activity booklet to learn more about researching caves.



Don't miss taking one of Mammoth Cave's many tours. Family friendly tours include Domes and Dripstones and the Frozen Niagara Tour. The Trog Tour is just for kids ages 8-12 years old.



You can help protect the places you love to hike.

Join today and get a 20% discount on membership. Use this exclusive Oh, Ranger! code APN20

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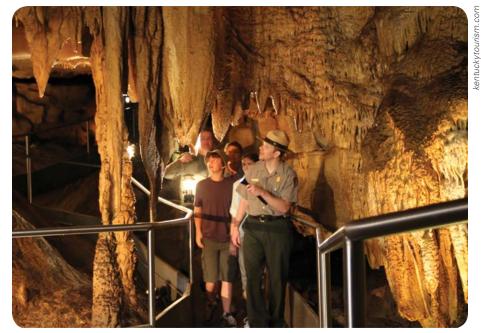
The compact nature of Mammoth Cave National Park means you can pack a lot into just one day. Start the day with a guided tour of the world's longest cave. Please choose a tour that is appropriate for your entire group.

The tours vary in length, but most are around two hours. Depending on the tour, you'll get an entertaining and educational crash course in cave geology, history or wildlife. Check the "Caves" Chapter to see a breakdown of the tours including difficulty, cost, distance and description.

When you emerge from the cave you'll most likely be hungry. Head to the Lodge at Mammoth Cave's Spelunkers Cafe & Ice Cream Parlor or Green River Grill where you'll find a variety of dishes to choose from. Over lunch discuss with your party how you'd like to spend the afternoon. The park offers a number of quick and unforgettable surface activities that many visitors overlook.

You have lots of options that everyone will be sure to enjoy: rent a canoe and explore the river on your own; look for wildlife on a scenic drive through some of the park's wildest areas; or participate in one of the many ranger-led activities and learn more about the park.

Before you leave, check out the gift shops located in the Lodge at Mammoth Cave and take a souvenir home to remember the trip. A day in Mammoth Cave is a day you won't soon forget.

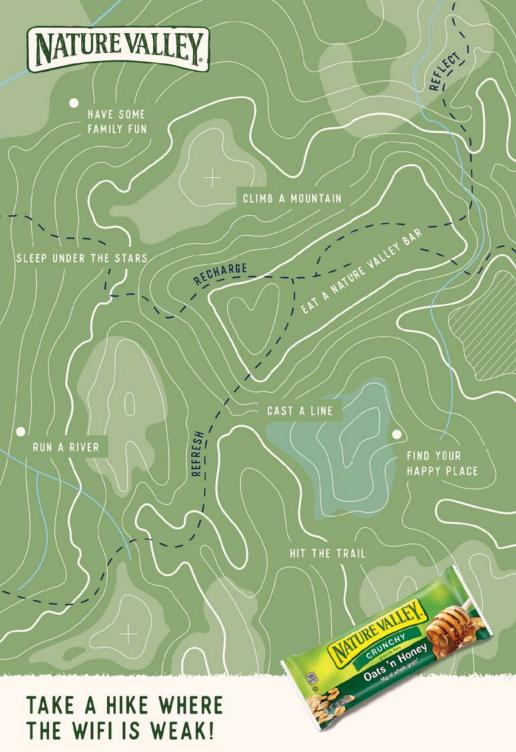


Don't visit the park without taking at least one of the many tours Mammoth Cave has to offer.

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