

OREGON CAVES

underworld

THE NEWSPAPER OF OREGON CAVES NATIONAL MONUMENT

VOLUME ELEVEN, 1997-1998

FORESTS AND CAVES: ROLE MODELS FOR PRESERVATION

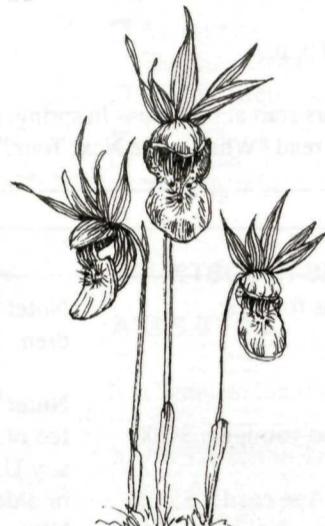
Caves are an excellent example of habitats that remain relatively unchanged over long periods of time. They are environments which are protected from the elements, with nearly constant climatic conditions. Ancient forests are also enclaves of preservation, with their shelter and varied habitats moderating the local climate. Research at Oregon Caves National Monument focuses on the life which has coexisted for thousands of years in these two unique ecosystems. With this understanding, resource managers are better able to conserve the Monument's resources unimpaired for future generations.

BATS, BUGS, AND BONES: The World Below Ground

Underground, we are learning about the human-caused impacts on cave life in order to preserve and protect it. We are using microbial, invertebrate and bat surveys to establish the limits for size, locations, and numbers of tours entering the cave so that significant and irreversible damage does not occur.

Microbes are extremely important, as they form the base of the food chain in the cave, and also affect growth processes of some cave formations. Recent studies of cave

micro-organisms have compared their numbers in water pools near the tour route with those farther away from the main path. We have found that slow growing varieties near the tour route have indeed been reduced in number by human visitors, while faster growing species appear to be less affected.



During the 1980s, the Monument's bat populations began to show a decline. Recent changes in cave management and restoration, however, such as the installation of bat-friendly gates, have been successful in increasing their numbers locally inside the cave. It is hoped that new low-intensity lights, reduction in noise from having smaller cave

tour sizes, and the discovery of the cave gates by the bats will continue to increase their populations.

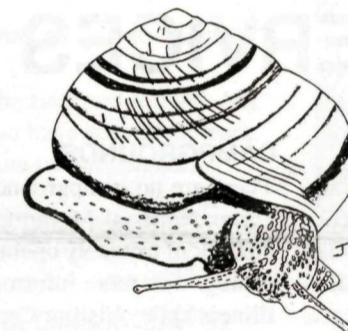
We have recently had an exciting discovery of ancient jaguar and bear bones in one of the small crawlway passages at the back of the cave. This has reopened interest into the age of the cave system itself. Carbon 14 testing of the animal bones and uranium/thorium testing of the nearby cave minerals should give us benchmark dates for the creation of different cave formations. We have already gained some insight, and should have a clearer idea of ages of cave processes within the year.

Jumping around the edges of rimstone pools in the cave, or in the leaf litter of the forest floor, you can often find tiny insects called springtails. Underground species are different from those found above, each having special adaptations to survive in their own unique environment. They are sensitive indicators of the health of the ecosystems and can be easily affected by human-caused changes, which makes them an important focus of research. In the forest, we are looking at changes in springtail populations resulting from edge effects (such as natural meadows, rock outcrops, and adjacent clear cutting), while studies in the cave focus on species diversity and richness on and away from the tour route. Results show that cave springtails have been adversely affected by human activity; forest studies are still inconclusive.

SNAILS, SEDGES, AND SPRINGBLOOMS: The World of the Forest

Above the cave, in the ancient forest, we are investigating the flowering times of spring-blooming plants and the locations of epiphytic lichens, soil animals (springtails), bark beetles, snails, calypso orchids, and certain rare plants to determine how Monument life is affected by changes in climate, fire cycles, and adjoining lands.

The first, peak, and last flowering times of over 200 species of herbs, forbs, and shrubs have been monitored for the last nine years. Herbarium records at Oregon Caves suggest that some plants are flowering earlier than they did fifty years ago. There may be a link between our findings and global research which indicates that climatic warming appears to have affected flowering times where records go back over 200 years.



Due to continual fragmentation, we are increasingly concerned about the health of our old-growth forests. One way to help us understand forest dynamics is to use sensitive organisms such as lichens (small crusty plants that are part alga and part fungus) to monitor ecosystem change. In the summer of 1996, we began sampling the most common species of lichens

throughout the Monument to measure their diversity and biomass in the park and neighboring cut-over areas. This data will help us manage the forest more effectively.

In late spring and early summer, you can often see the most common snail found on the Monument, the Pacific Forest Snail. It is a beautifully colored, hard-shelled mollusc visible on even the shortest of walks through the area. Recent studies have been made to determine its most preferred soil and rock types. It seems to favor marble over volcanic argillite soils, possibly due to the abundance of calcium carbonate in the marble, a substance needed by the snails in the building of their shells. They also prefer shady, forested areas over open and cut-over lands.

Alien, or plant species introduced from elsewhere, are a constant resource problem on the Monument, outcompeting and taking over areas of native vegetation. This is especially challenging in habitats where rare species exist. To help us control this situation, we have initiated an ongoing project to inventory sedges, grasses, and rushes in wetland areas. These plants and habitats were chosen because similar research in other areas suggested that they would be at risk. Nine sedge, five rush, and forty-two grass species were found; none of them were rare, but many of the grasses were aliens.

These are just a few examples of the current research projects on the Monument that will help us successfully manage and preserve our delicate natural heritage for future generations.

EMERGENCY: DIAL 911
For medical, fire, or law enforcement emergencies, dial 911 from any phone.

GETTING HERE & THINGS TO KNOW

CAVE JUNCTION

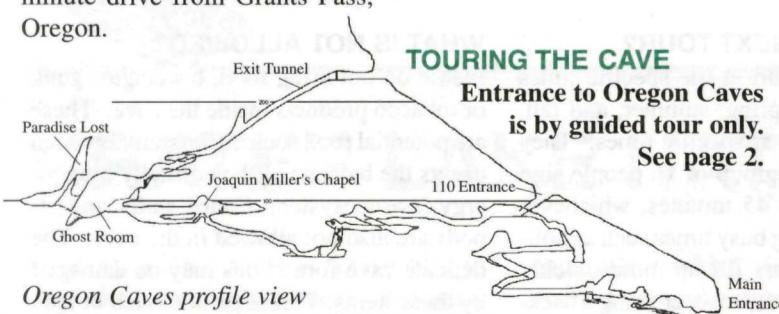
The community of Cave Junction, Oregon, located at the junction of Highway 199 (Redwood Highway) and Highway 46 (Caves Highway), is the gateway to Oregon Caves National Monument. Cave Junction is a full service community providing gas, food, and lodging. Cave Junction is a ninety minute drive from Crescent City, California and a forty-five minute drive from Grants Pass, Oregon.

HIGHWAY 46

The Monument lies 20 miles east of Cave Junction at the end of Highway 46. The drive from Cave Junction to the Monument takes about 45 minutes. The final 8 miles of Highway 46 are narrow, steep, and winding. Trailers are not advised and may be parked at the Illinois Valley Visitor Information Center (see right). Gas is not available beyond Cave Junction.

TOURING THE CAVE

Entrance to Oregon Caves is by guided tour only.
See page 2.



VISITOR CENTER

For information about travel conditions, tours, and facilities at Oregon Caves National Monument, please stop at the Illinois Valley Visitor Information Center before proceeding to the Monument. The Center is located in the community of Cave Junction, Oregon, one-half block up Highway 46.

NO FUN FOR DOGS

National Park Service areas like Oregon Caves are not great vacation destinations for pets. Pets can only go where cars can go, roads and parking lots, and are not allowed on trails or in the cave. The parking lot is not shaded for most of the day. Pets must be attended and kept on a leash at all times. Although pets are not allowed on any

trails in the Monument, nearby Forest Service areas will permit pets in designated areas.

THE WEATHER

Summers are characterized by warm, sunny days and cool nights with an occasional afternoon or evening thunderstorm. The winters are moist and cold with an average yearly snowfall of 14 feet.

WINTER TRAVEL

The final 8 miles of Highway 46 may be covered with snow or ice from November to April. When these conditions exist, tire chains are advised. The Monument's developed area lies at approximately 4,000 feet. Two feet of snow normally accumulates near the cave entrance. The nearby trails may

have patches of ice and should not be used during cold, snowy, or windy weather unless you are well prepared.

KEEP WILDLIFE WILD

Please do not feed the wildlife. Although the birds and rodents at Oregon Caves National Monument will try to convince you otherwise, their dependence on human food is not a healthy lifestyle.

KEEP YOUR DISTANCE

Rodents, including squirrels and chipmunks, can carry diseases that make humans ill. Bites, beside being painful, can transmit rabies. Hantavirus, a recently diagnosed illness that is potentially fatal, can be transmitted by contact with rodents or their droppings.



RANGER NATURALIST PROGRAMS

Activities also take place above ground at Oregon Caves National Monument! National Park Service naturalists offer a variety of programs in summer which highlight the natural and cultural history of the area.

For more specific titles, times, and descriptions, inquire at the Illinois Valley Visitor Information Center in Cave Junction or at the Information Booth in the Oregon Caves National Monument parking lot. Also, look for naturalist program flyers on bulletin boards at the Monument, Cave Creek Campground, and Grayback Campground.

These programs are offered in summer only:

CHATEAU EVENING PROGRAM

- Nightly, except for Tuesday, in the lobby of the historic Oregon Caves Chateau.
- 9:00 p.m. through mid-August, 8:30 p.m. mid-August through Labor Day.

This is a 45 minute slide show or other interpretive activity about the human or natural history of the Monument.

NATURALIST'S CHOICE PROGRAM

- 2:00 p.m. daily through Labor Day.
- Meet at the upper fish pond in front of the Chateau.

This 20 to 30 minute program may be a walk, a talk, a game, a demonstration, etc.

GRAYBACK CAMPGROUND PROGRAM

- Friday and Saturday nights only.
- 9:00 p.m. through mid-August, 8:30 p.m. mid-August through Labor Day.

This is a 45 minute slide show or other interpretive activity about the human or natural history of the Monument. Grayback Campground is located at mile twelve on Highway 46, approximately eight miles from Oregon Caves National Monument. The campground amphitheater is near the picnic area.



VISITOR SERVICES

CONCESSION SERVICES

The Oregon Caves Company, a subsidiary of the Estey Corporation, operates concession services at Oregon Caves National Monument. Services include a lodge, dining room, coffee shop, gift store, and cave tours. The Oregon Caves Company serves the public under a contract with the National Park Service. Call 541-592-3400 for information about these concession services.

PICNICKING

Two wooded picnic areas are located just off the main parking area at Oregon Caves National Monument.

LOST AND FOUND

Lost and found items should be reported to the National Park Service at the office building located adjacent to the main parking lot.

CAMPGROUNDS

There are no campgrounds within Oregon Caves National Monument. There are a number of privately operated campgrounds nearby. For more information, contact the Illinois Valley Visitor Center at the address and phone number below.

Two Siskiyou National Forest campgrounds are located along Highway 46 between Cave Junction and the Monument. These campgrounds are operated by the Oregon Caves Company. Reservations are available by calling 541-592-3400.

- Grayback Campground is at milepost 12, 8 miles from the Monument. The cost is \$12.00 per site per night. (\$15.00 hookup)
- Cave Creek Campground is located at milepost 18, 4 miles from the Monument. It is a primitive campground and costs \$8.00 per site per night.

GUIDED CAVE TOURS



Guided tours of Oregon Caves are offered year round (except Christmas and Thanksgiving) by the concessionaire, the Oregon Caves Company. Guides lead you through 0.6 miles of marble cave passage and discuss natural and cultural history topics related to the cave and its preservation.

PLEASE NOTE: The cave is an environment that contains natural hazards such as uneven walking surfaces, steep grades and stairs, and low rock ceilings.

FOR YOUR OWN SAFETY, PLEASE EXERCISE CAUTION.

WHAT ARE THE HOURS?

Hours of operation change with the seasons. You may register for tours in person at the following times (dates are subject to change):

Spring (May):

9:00 a.m. to 5:00 p.m.

Summer (Memorial Day - Labor Day):

9:00 a.m. to 7:00 p.m.

Fall (September):

9:00 a.m. to 5:00 p.m.

Winter (October - April):

Set times: 10:00 a.m., 11:30 a.m.,

1:00 p.m., 2:30 p.m., and 4:00 p.m.

(closed Christmas and Thanksgiving)

Note: In winter, tours start at set times. In spring, summer, and fall, tours do not start at set times. Please read "When is the Next Tour?"

HOW MUCH DOES IT COST?

Rates for tours are as follows:

Adults: \$6.25

Children age 11 and younger: \$4.00

Seniors w/ Golden Age cards: \$5.25

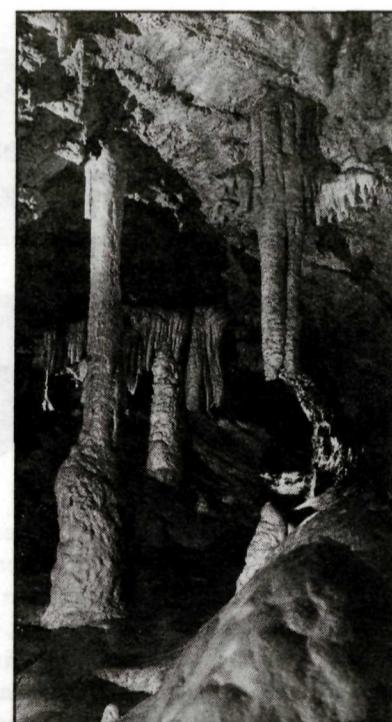
Prices are subject to change.

Note: Special restrictions apply to children. Please read "May My Child Go?"

Note: Golden Age cards cost a one time fee of \$10.00 and can be purchased by any U.S. resident that is 62 years of age or older. They may be purchased at any NPS area that charges an entrance fee. (There is no entrance fee at Oregon Caves National Monument.)

HOW STRENUOUS IS THE TOUR ROUTE?

The cave tour is considered strenuous and is not recommended for people with heart, breathing, or walking problems. The entire route, including cave passage and exit trail, is nearly a mile in length. The route includes over 500 stair steps, most of which are steep and wet. The exit trail has a 16% downhill grade.



MAY MY CHILD GO?

Special regulations pertain to children. Children must be able to climb a set of test stairs unassisted and must be at least 42 inches tall. Childcare is not available.

HOW LONG IS THE TOUR?

Allow about one and one-half hours for the complete tour. The guided tour inside the cave lasts 75 minutes.

After exiting the cave, the walk on the return trail to the parking lot takes approximately 15 minutes.

WHEN IS THE NEXT TOUR?

In winter, tours start at the specific times listed above. In spring, summer, and fall, tours do not begin at specific times. They begin whenever a group of 16 people sign up or about every 45 minutes, whichever comes first. During busy times such as holiday weekends, tours fill up more quickly than they can enter the cave, creating a backlog. During these times, you may have to wait up to two hours for the next available tour.

WILL I BE COMFORTABLE INSIDE THE CAVE?

Some people feel anxious and claustrophobic inside the cave. Where the cave ceiling is low, you must bend over and watch your head. Many of the passages are narrow and, depending on your size, there may be areas where your torso touches both sides. Water drips from the ceiling and puddles form on the uneven trail surface.

WHAT SHOULD I BRING?

Wear warm clothing and good walking shoes with rubber or vibram soles. The temperature inside the cave is 41 degrees Fahrenheit (5 degrees Centigrade) year round. The trail surface is uneven and slippery. Cameras are allowed, but be advised that the lighting inside the cave is spotty and dim, very similar to inside a house.

If you use a flash, please point your camera away from visitors and your guide so that they are not temporarily blinded.

WHAT IS NOT ALLOWED?

Please do not bring food, beverages, gum, or tobacco products inside the cave. These are potential food sources for animals which upsets the balance of the normally low-energy cave ecosystem. Canes, staffs, and tripods are also not allowed in the cave. The delicate cave formations may be damaged by these items. Please do not touch or lean on any of the cave walls or formations. Formations are easily worn down, stained by skin oils, and are very fragile.

FOR MORE INFORMATION ABOUT:

The Monument in general -

- **National Park Service**
- **Oregon Caves National Monument**
- **19000 Caves Highway**
- **Cave Junction, OR 97523**
- **541-592-2100**

Lodging or dining at the Monument -

- **Oregon Caves Company**
- **20000 Caves Highway**
- **Cave Junction, OR 97523**
- **541-592-3400**

Siskiyou National Forest -

- **U.S. Forest Service**
- **Illinois Valley Ranger District**
- **26568 Redwood Highway**
- **Cave Junction, OR 97523**
- **541-592-2166**

Lodging and food services in the area, other public lands -

- **Illinois Valley Visitor Center**
- **201 Caves Highway**
- **Cave Junction, OR 97523**
- **541-592-2631**

JUNIOR RANGERS!

Take the time to learn some wonderful things about Oregon Caves National Monument and earn a Junior Park Ranger badge! Junior Rangers are special people who help National Park Rangers do their job of keeping Oregon Caves National Monument a beautiful and enjoyable place. Junior Rangers also learn some interesting things about Oregon Caves which they can share with their friends at home.



Your Name: _____ Your Age: _____

TO BECOME A JUNIOR RANGER, complete tasks #1 and #2 below AND all the activities listed under your age group. THEN, turn in your work at the Ranger Office in the main parking lot, the Tour Registration Booth, or the Illinois Valley Visitor Information Center to earn a badge that looks just like the ones Rangers wear on their uniforms.

1. HELP KEEP THE MONUMENT CLEAN. Pick up any litter you see and put it in a trash can where it belongs. Recycle aluminum in special containers. Be careful of traffic in the parking areas!

(adult sign here when completed)

2. TRY THIS SCAVENGER HUNT! See how many of these you can find during your stay here.

- | | |
|---|---|
| <input type="checkbox"/> Black-tailed deer | <input type="checkbox"/> Stalagmite |
| <input type="checkbox"/> Stellar's jay | <input type="checkbox"/> Building covered with bark |
| <input type="checkbox"/> Smiling Cave Guide | <input type="checkbox"/> Marble fireplace |
| <input type="checkbox"/> Squirrel | <input type="checkbox"/> US flag |
| <input type="checkbox"/> Animal tracks or scat | <input type="checkbox"/> Waterfall |
| <input type="checkbox"/> 3 different kinds of flowers | <input type="checkbox"/> The Big Tree |
| <input type="checkbox"/> Stalactite | <input type="checkbox"/> Bat |

AGES 9 TO 12:

- Complete items #1 and #2 above.
- Do **Which is Which?**
- Go on a guided cave tour *.

(Cave Guide signs here when completed)

- Write answers in the space provided:

Describe one way that people have changed the cave:

If that change has harmed the cave, how can we fix the problem?

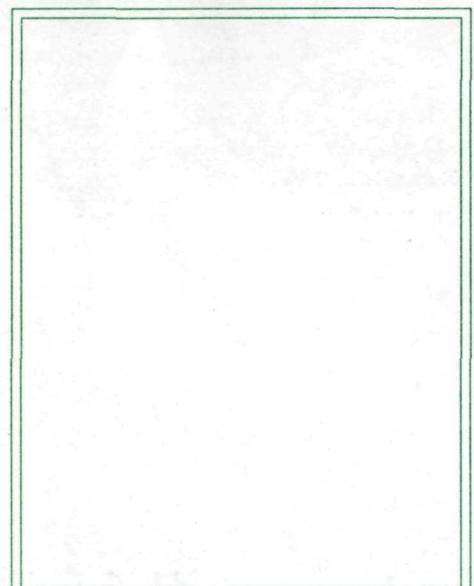
In what ways are old forests important for wildlife?

AGES 6 TO 8:

- Complete items #1 and #2 above.
- Do **Which is Which?**
- Go on a guided cave tour *.

(Cave Guide signs here when completed)

- Look high into the branches of trees. In the box below, draw a picture of an animal you would expect to see there:



UNDER AGE 6:

- Complete items #1 and #2 above.
- Do **Who Lives at Oregon Caves?**
- Animals do the strangest things! Act out an animal you have seen in the park. Have an adult guess what you are.

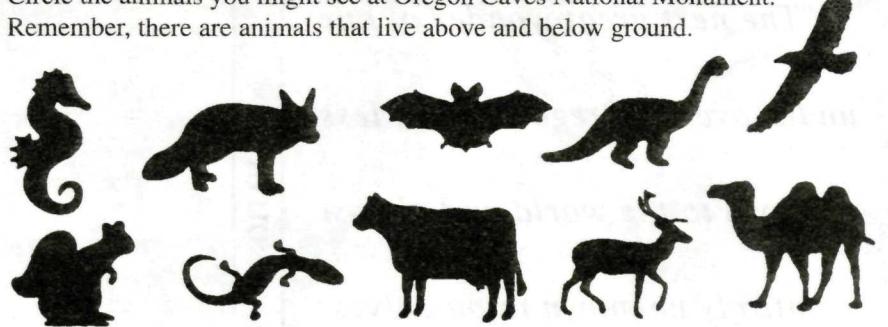
(adult names animal here)

Junior Ranger Pledge:

"I promise to protect the plants, animals, and rocks of Oregon Caves National Monument, to hike safely, and to keep this wilderness beautiful forever."

Who Lives at Oregon Caves?

Circle the animals you might see at Oregon Caves National Monument. Remember, there are animals that live above and below ground.



* Note: If a child age 6 to 12 is unable to attend a cave tour in order to fulfill the requirements for a Junior Ranger badge, please stop by the Ranger Office in the main parking lot. We will describe alternative activities which will allow the child to earn a badge.



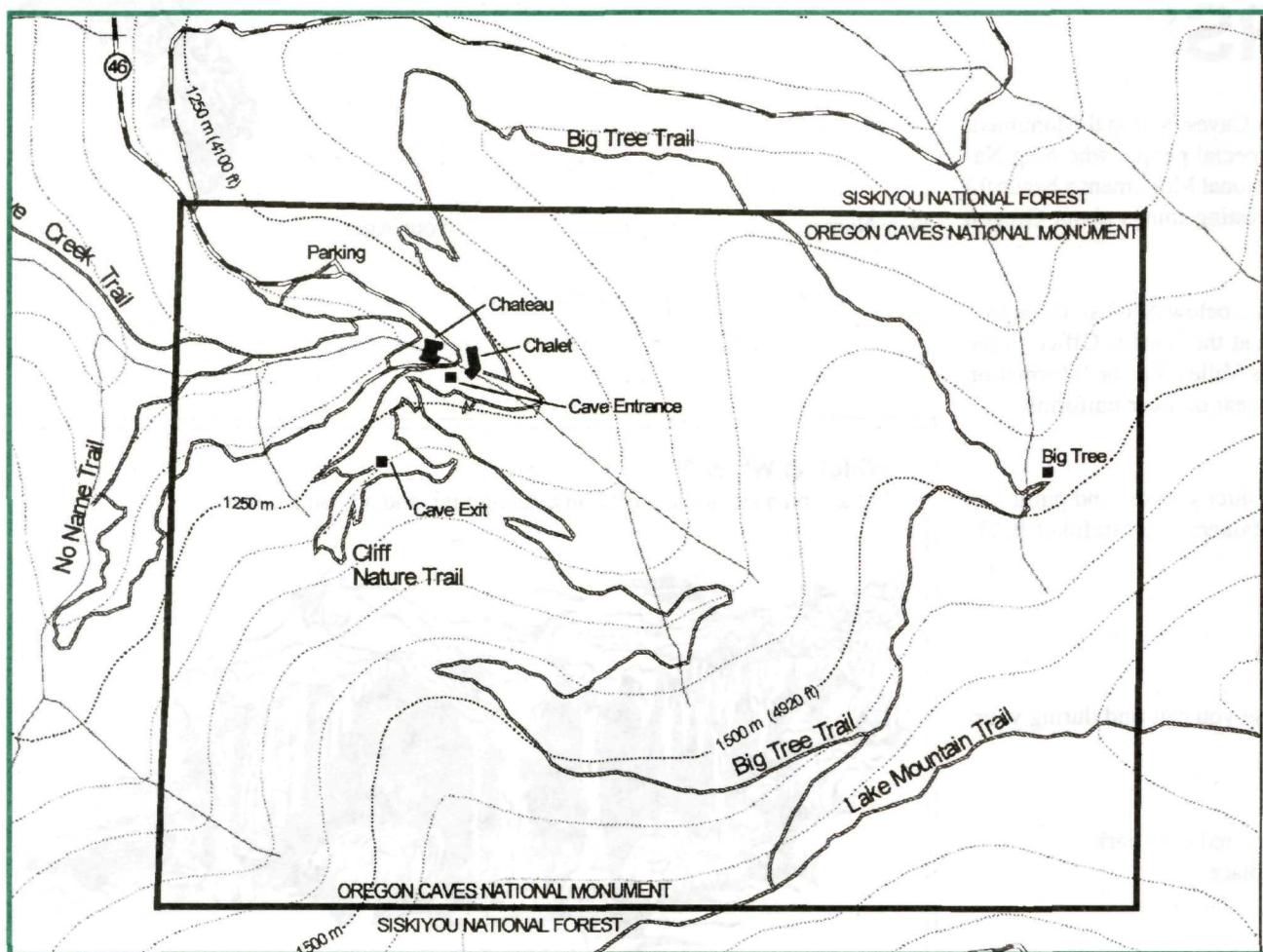
CRATER LAKE NATURAL HISTORY ASSOCIATION

The *Oregon Caves Underworld* is published for park visitors by the Crater Lake Natural History Association in cooperation with the National Park Service. The Crater Lake Natural History Association is a nonprofit organization working with the National Park Service to provide programs of education, interpretation, and research in Crater Lake National Park and Oregon Caves National Monument.

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To help visitors to Oregon Caves better understand, appreciate, and protect the Monument, an Association sales outlet at the Illinois Valley Visitor Center in Cave Junction offers selected publications, maps, price

lists, order forms, and applications for membership in the Association. Or write to:
Crater Lake Natural History Association
P. O. Box 157
Crater Lake, OR 97604



TIPS FOR HIKERS

DAY HIKING

There are 6 miles of day hiking trails within the boundary of Oregon Caves National Monument. For your safety and for the preservation of the natural environment, please observe the following when hiking on Monument trails:

- Bring water and wear good hiking shoes.
- Stay on marked trails.
- Do not litter. If you pack it in, be sure to pack it out.
- Pets are not permitted on trails.
- Camping and fires are not permitted.
- Smoking is not permitted on any of the trails.
- Hunting, trapping, and/or the possession of weapons or firearms is prohibited

BACKPACKING

The Big Tree Trail connects with a National Forest trail to Bigelow Lakes, a popular overnight back-country hike. Surface water may contain *Giardia lamblia*, a protozoa which can cause disease. Treat all water or carry your own. Campfires are allowed only in designated areas. Stop at the Siskiyou National Forest Ranger Station in Cave Junction for maps and information on backcountry travel.

HIKING TRAILS

NO NAME TRAIL

Length: 1.5 miles (2.4 km)
Duration: 45 minutes to 1 hour
Elevation gain: 400 feet
 The No Name Trail leads past tumbling mountain streams, mossy cliffs, and dense mixed forests.

CLIFF NATURE TRAIL

Length: 1.0 mile (1.6 km)
Duration: 45 minutes
Elevation gain: 400 feet
 Trail-side signs describe some of the natural features. You'll see tall conifer forests, marble rock outcrops, and mountain vistas.

BIG TREE TRAIL

Length: 3.5 miles (5.7 km)
Duration: 2 to 3 hours
Elevation gain: 1,100 feet
 See the largest-diameter Douglas-fir tree known in Oregon. The trail meanders through an old-growth forest to striking vistas.

"The next great wonder of our undiscovered Oregon is still less known to the world and almost entirely unknown to ourselves.

This is the great Marble Halls of Oregon; a cavern, greater, so far as yet known, than the great Mammoth Cave of Kentucky.

Its existence was first known only a few years back and, to this hour, has been explored for the depth of but a few miles."

Joaquin Miller

Songs of the Sierras
Volume Two, 1915

NATIONAL PARK SERVICE



OREGON CAVES NATIONAL MONUMENT



Trails

Monument Boundary

Main Highway

Minor Roads

Streams

Index Contours

Contours

Loop Trail Distances

Big Tree Trail 5.7 km (3.5 mi)
No Name Trail 2.4 km (1.5 mi)
Cliff Nature Trail 1.6 km (1.0 mi)

0 100 200 Meters

0 500 1000 Feet

Contour Interval
50 meters
(164 feet)



N

A

Superintendent
OREGON CAVES
NATIONAL MONUMENT
19000 Caves Highway
Cave Junction, OR 97523

