Getting There
Watch for Deer!
Lava Beds staff has reported that they hear of several deer-car accidents *every day* this time of year! Please be careful.

From the I-5 corridor, take U.S. 97 north at Weed. This highway offers some stunning views of Mount Shasta, but be on the lookout for any Lemurians crossing the road! Continue north on U.S. 97 to a right turn on California Hwy. 161, also known as Stateline Road, as shown by large signs. Travel east on CA 161 through the Lower Klamath National Wildlife Refuge to Hill Road. Turn right on Hill road at the West End Grocery Store, following monument signs. Travel south on Hill Road 10 miles until you enter Lava Beds National Monument.

From the Klamath Falls area, take Oregon Hwy 39 south approximately 20 miles until it enters the town of Merrill, OR. Approximately one (1) mile south of Merrill, turn right (south) on Malone road. Travel south on Malone road approximately 2 miles until you reach Stateline Road 161. Turn left (east) and then take the immediate right at West End Grocery Store onto Hill Road. Travel south on Hill Road 10 miles until you enter Lava Beds National Monument. You will pass the visitor center for Tulelake National Wildlife Refuge on your way to the monument.

For those traveling east on California Hwy 299 from the Redding or Lassen National Volcanic Park areas, turn north at Bieber on Hackamore / Lookout Road to California Hwy 139. Travel north on CA 139 until meeting directional signs that will direct you to the monument at a left turn. NOTE: This south entrance into the park is paved, but in very poor repair. Drive slowly and carefully around the potholes.

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Website: www.Caves.org/region/western/se2007
Getting In
The management of Lava Beds National Monument has graciously waived the park’s entrance fee for participants in the Speleo-Ed Seminar and Orientation to Cave Rescue. Upon your arrival, if there is an attendant at the gate, please identify yourself as a participant in the Speleo-Ed Seminar. If you do not do this and accidentally pay the entrance fee, no refund will be possible. Once inside the park, please follow the signs to the campground. There is only one campground in the monument.

Friday Arrivals
If you arrive Friday evening, please come directly to the campground. Registration will be set up in Loop A starting at 7:00 PM. Just follow the crowd. At 8:30 PM, there will be a video showing at the amphitheater but you must check in at the registration table first. Quiet time in the campground starts at 10:00 PM. Please be considerate of your fellow campers.

Saturday Arrivals
If you arrive Saturday, please come to the park’s research center. Registration will be set up outside the research center starting at 7:30 AM. All participants in both the Speleo-Ed Seminar and the Orientation to Cave Rescue need to register before attending sessions. The research center is within easy walking distance of the campground. Please refer to the aerial photo on page 5 for directions.

Getting Settled
The Speleo-Ed Seminar has reserved all sites in Loop A of the campground and the group camping area near Loop B. As of this writing, we are expecting around 130 participants to attend, so we will need to fill campsites with more than one tent. Parking is not allowed in the group campsite area. Campers staying in the group area may drive in and drop gear, but must park in the group parking area on Loop B as shown on the map below. In Loop B, only 2 cars are allowed to be parked at each campsite. Additional vehicles must be parked at the group campsite parking area or at the research center. When setting up your tent, please stay on the gravel footprint area of the campsite. The park is trying to revegetate the grass and will move any tents placed in those areas. Keep in mind that you will be sleeping on the remnants of an old volcano - a good ground pad will make your stay more comfortable! ALL campers must be registered participants in the Speleo-Ed Seminar or the Orientation to Cave Rescue.
Getting Comfortable
Please Be Aware
Lava Beds National Monument has no food service, gas, or grocery facilities. The nearest store is 30 minutes away in Tulelake. Please come prepared with everything you need for an enjoyable stay. The campsites offer water service from a common location, but no electrical hookups are available. Fires are allowed in the campground, but wood must be brought from outside the park. Pets are also allowed in the campground, but NOT in the research center or the fire center. The optional fund-raising dinner on Saturday evening is almost sold out and you should not count on extra tickets being available. Due to the intense nature of the Orientation to Cave Rescue, the NCRC will provide students in that track with lunch on Saturday and Sunday. There are NO lunch options for the Speleo-Ed sessions. Please plan ahead. The park’s visitor center sells ice and small amenities, but no food. Sodas and beer will be available during the social hour on Saturday starting at 5:30 PM.

What About the Weather?
The weather at Lava Beds National Monument in May could be very nice on Speleo-Ed weekend..... or it could snow. Anything in between is also a possibility. The bottom line is - be prepared for anything. We have been quite fortunate the last several years during this event, but getting surprised by inclement weather is never any fun. The ideal temperatures could possibly range from daytime highs in the mid 70’s to evening lows in the 40’s. Again, be prepared for anything. Click the weather chart below for a current forecast.
Getting Around
Speleo-Ed Seminar sessions will be based in the research center
Orientation to Cave Rescue sessions will be based in the fire cache building

With a few exceptions, most events and sessions during the weekend are within walking distance of the campground. We would like to limit the number of cars at the fire center and at the research center, so walking or ride sharing is encouraged. Fields trips and workshops will likely require you to drive to a nearby location, but no events are more than a few minutes away. Check with the trip leader or instructor in each session for additional information. The park’s Cave Loop Road is a very nice drive and features numerous opportunities for cave trips (see page 8). Additional caves are scattered throughout the park and may require longer drives. Again, check with trip leaders for details. Of course, you should always yield the right of way to any Lemurians you may meet in the road.

Walking time from the campground to the research center is about 8 minutes. The fire cache building is probably another 8 minutes from there.

Earth Friendly?
Lava Beds National Monument and the National Speleological Society are interested in reducing waste during the Speleo-Ed Seminar as much as possible. Please be sure to use the recycling containers you will see in the campground and at the research center. Additionally, if you wish to drink at the social events, we encourage you to bring a reusable mug. We’ll certainly have cups available, but washable mugs are much more friendly. Thanks!
### Friday

**7:00 PM**
Registration Open - Please come to Loop A in the campground. Seminar participants may use any site in Loop A or the group camping area.

**8:30 PM**
Special Video Screening: Lava Flows and Lava Tubes - What they are and how they form. (Shown at the campground amphitheater)

Rivers of red-hot lava, exploding cinder cones, cascading walls of lava... How do these landscapes form? Why does lava make smooth pahoehoe flows or jagged 'a'a flows? If you've crawled through a lava tube or climbed a big cinder cone and wondered how it formed, this video will answer your questions.

### Saturday

**9:00 AM**
Paleoclimate Studies in Sierra Nevada Caves - Jessica Oster, UC Davis

**9:30 AM**
Bioinventory of Great Basin National Park Caves - Ben Roberts, Great Basin NP

**10:00 AM**
JD Howard: Father of the Lava Beds - Bill Devereaux, CRF

**10:30 AM**
Macroinvertebrates of Lava Beds Caves - Shane Fryer, Lava Beds Natl. Monument

**11:00 AM**

**12:00 PM**
Lunch Break - There is no foodservice in the park, please plan ahead.

### Workshop

**1:00 PM to 5:15 PM**
Cartography Workshop - Liz Wolff, Shasta Area Grotto

Class session begins in the research center lab and then moves underground. Cave TBD.

**9AM - 12PM**
“Happy Snappers: An Introduction to Cave Photography”

Starts in the research center lab room with an equipment review then continues in Valentine Cave. No experience necessary. Bring your cameras & manuals!

John Woods, SoCal Grotto, NSS

**10AM - 12PM**
“Cave Radio Location Workshop”

Intro. to techniques used to transfer underground location data to the surface. Workshop starts in research center lab. Field exercises at 1PM

Bart Rowlett, NSS Electronics Section

### Field Trip

**5:30 PM**
Social Hour! Please join us at the Research Center to catch up with old and new friends. Hosted beer & sodas.

### Workshops

**6:30 PM**
Chef Belan presents Dinner at the Research Center - Proceeds to benefit the Lava Beds Research Center operations.

**7:30 PM**
Regional Business Meetings

- Western Region: Research Center, Main Room
- Northwest Caving Association: Research Center, Lab Room

**9:00 PM**
Marianne Russo's Schnapps Tasting & Lemurian Summoning Party!

Perhaps the most popular legend of Mount Shasta lore concerns the mystical brotherhood of Lemurians believed to roam through jeweled corridors deep inside the mountain. By the late 19th Century, occult theories had developed that the people of this ancient civilization were highly advanced beings from a lost continent. Join us this evening - who knows what might show up!

### Sunday

**9:00 AM - 12:00 PM**
Cave Photography Skills Workshop, John Woods, Hopkins Chocolate Cave

**9:30 AM - 12:00 PM**
Surface Map & Compass Workshop, Marc Hasbrouck, Mother Lode Grotto

**10:00 AM - 12:00 PM**
National Karst Map Discussion, Dan Doctor, USGS (Research Center)

**11:00 AM**
Petroglyph Point & Captain Jack's Stronghold (self-guided hike)

**11:00 AM**
Mammoth Crater (self-guided hike)

**8:00 AM**
All OCR students please meet at the Fire Center. Sunday’s OCR sessions will likely end by 3:00 PM.
Planning Your Weekend
There are several options for you to choose from during the Speleo-Ed & Orientation to Cave Rescue weekend. We have tried to accommodate as many interests as possible. Most people have specified their preference on the registration forms, but you can change your choice up until Saturday morning. Please be aware that both tracks are mutually exclusive. Participants in one track may not mix and match portions of the other. Participants from both tracks will join together in the evenings for social events and the optional fund-raising dinner for the park’s research center. To help you decide, we offer the following information;

Orientation to Cave Rescue
The NCRC’s Orientation to Cave Rescue is an intensive two-day introduction to the science and management of cave rescue operations. Led by a team of highly qualified instructors, this seminar will be the first to teach specifically to the rescue pre-plan created for Catacombs Cave in Lava Beds National Monument. The techniques and skills gained through this seminar can be directly applied to cave rescue scenarios across the western states. Upon the successful completion of this seminar, students will receive a certificate of completion from the National Cave Rescue Commission. Please be aware that students in this track are expected to attend all sessions on both days.

Day 1 will be held in the park’s fire operations center and will teach a wide range of concepts and skills unique to cave rescue. Day 2 will deliver a full mock rescue and debriefing designed around the Catacombs Cave rescue pre-plan. All OCR students should refer to the list of required equipment in the registration flyer. All participants will be required to sign a liability waiver prior to the seminar. Since this track allows little free time, lunch will be provided.

Speleo-Ed Seminar
This year’s Speleo-Ed Seminar features speakers on a wide range of cave-related topics from around the western states. Within this track, participants may choose from a wide variety of programs that meet their specific interests. Sessions will include paleoclimatology studies using speleothems, cave biota studies from two national parks, a discussion on the USGS national karst map project and several hands-on workshops in photography and cave radio location tracking. Most Speleo-Ed sessions will be held in the park’s research center. Sign-up sheets for the workshops and field trips will be available at registration on Friday night and at the research center on Saturday morning.

Additional Program Notes

Happy Snappers: An Introduction to Cave Photography
John Woods from the Southern California Grotto will lead this informative session for both new and experienced photographers. This session starts at 9:00 AM with an equipment review in the research center’s lab room and then departs for Valentine Cave at 10:00 AM. Driving will be required to reach the cave. All participants are encouraged to bring the operations manual for their cameras. Without a reference manual, it may be impractical to assess your camera properly or to use it effectively during the field session. A light jacket may be handy inside the cave.

Cartography Workshop
Liz Wolff from the Shasta Area Grotto will lead this outstanding hands-on workshop covering the basics of cave cartography. The workshop includes the use of basic survey instruments, scales, map symbols, and the specifics of how to get a detailed drawing. The focus will be on producing a detailed sketch of the cave during the survey so that an accurate map can be drafted. Students in this session should bring two pencils and a hard surface to write on. A few clipboards may be available and copies of a standard survey book page will be provided. The workshop will begin in the research center lab room and then move to a nearby cave.

National Karst Map Project Discussion
Dan Doctor from the US Geological Survey will be hosting several geologists from the western states at his discussion on the national karst map project on Sunday morning starting at 10:00 in the research center. Cavers are welcome to attend.
Cave Trips!
With over 700 caves, Lava Beds National Monument offers nearly endless exploration opportunities. Several trips will be arranged by the Speleo-Ed committee, but participants are welcome to post their own trips on the sign-up sheets for the group. Sign-up sheets will be available at registration on Friday evening and at the research center starting Saturday morning. They will include all field trips and workshops. If you would like to join in, just add your name to the list!

Additionally, the monument’s visitor center can suggest many different self-led hikes through the park that you may wish to consider. Many guidebooks are available through the visitor center that cover some of the rich history of this outstanding park.

Cave Closures
To protect the maternal colonies of Townsend’s Big-eared bats, some caves in the monument are closed this time of year. Please respect all closure signs.

Sunday Cave Trips
Several trips will be available on Sunday. Some may be designed to give you something to do on your way home, so check with trip leaders about where their trip will end. It may not be necessary for you to return to the park.

The Cave Research Foundation
Bruce Rogers and Pat Helton will be running several research projects in the park during the week following Speleo-Ed. If you wish to stay over and participate, please contact them at BruceAndPat@heltonweb.com.

What is a Lemurian anyway?
Silly of you to ask, really, but if you want more information, please click on this link; http://www.siskiyous.edu/shasta/fol/lem/index.htm

Travel Safely!
As always, please drive carefully. We look forward to seeing you at Speleo-Ed 2007 at Lava Beds National Monument!