

# SPELEO-ED 2007

*Focusing on Geology, Cartography, Biodiversity, Photography and an Orientation to Cave Rescue*

**For the first time in history, the Western Region of the NSS is pleased to join forces with the Northwest Caving Association and the National Cave Rescue Commission to present Speleo-Ed 2007 at Lava Beds National Monument! Our traditional educational sessions and workshops will be supplemented by numerous opportunities for cave trips including an intensive two day Orientation to Cave Rescue presented by the NCRC. We hope you can join us!**

## About the Seminar

This year's Speleo-Ed seminar is an outstanding way to learn more about cave exploration and science while enjoying a fun and social weekend with friends from across the eight western states and southern Canada. Building on last year's popular seminar, we have arranged an even broader collection of interesting topics for 2007. With the gracious assistance of numerous speakers and organizations, we have worked together to design what should be an outstanding spring weekend!

## Lava Beds National Monument

The legacy of Northern California's volcanic activity is both hidden and observable in this rugged landscape. Cinder cones, shield volcanoes, stratovolcanoes, spatter cones and nearly 700 lava tubes are all part of this legacy. In fact, several caves and surface features are within walking distance of the campground. Many Speleo-Ed sessions and workshops will be held underground.

## Camping and Accommodations

The Western Region has reserved sites 18 through 30 in Loop B of the public campground. We have also rented the nearby group camping area to accommodate all of our participants. The camping areas provide running water and basic toilets but no showers. All campers must be registered participants in the Speleo-Ed Seminar. Day use rates are available but do not include camping, field trips or evening activities. Pets are allowed in the park but *not* in the Research Center. Owners are expected to follow the park's specific leash laws. The nearest hotels are located 40 miles away in Tulelake. Camping fees are included in your registration. Park entrance fees are \$10 per car. If possible, please carpool. Limited RV hookups might be available at a separate location.

**Please note: Due to program constraints, there will be no available sleeping accommodations in the Lava Beds Research Center during Speleo-Ed weekend.**

## Additional Caving Opportunities

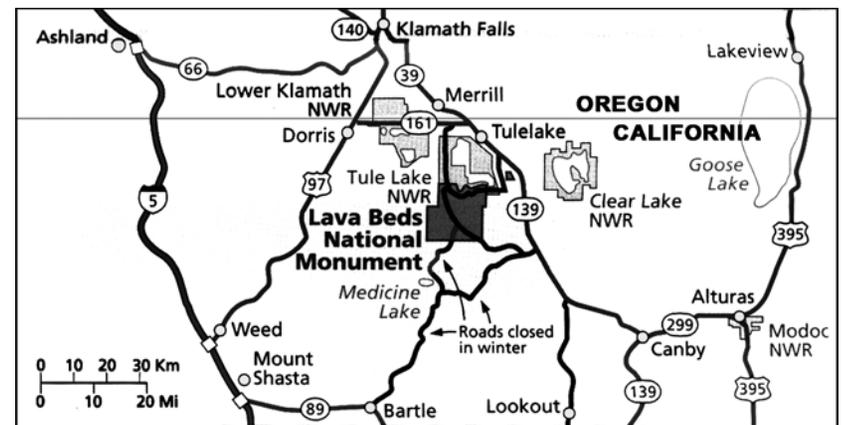
The Cave Research Foundation plans to conduct several study and work projects during the week following Speleo-Ed. If you are interested in staying past the seminar weekend and would like to help out, please contact Bruce Rogers or Pat Helton at [BruceAndPat@heltonweb.com](mailto:BruceAndPat@heltonweb.com).



## Lava Beds National Monument

**May 18-20, 2007 ~ Tulelake, California**

*Produced by the Western Region and the Northwest Caving Association of the National Speleological Society*



# SPELEO-ED 2007

## Lava Beds National Monument

May 18-20, 2007 ~ Tulelake, California

For the first time, the Speleo-Ed schedule is offering two distinct tracks of sessions and workshops to match the diverse interests of our members and friends. Track 1 features traditional Speleo-Ed sessions in the natural sciences with additional workshops on cave photography and cartography. Track 2 includes an intensive Orientation to Cave Rescue conducted by the National Cave Rescue Commission. Brief descriptions of each track are included below. Please be aware that EACH track is mutually exclusive. On your registration form you will need to declare which track you will attend. Participants will not be allowed to attend portions of both tracks. We do this because the OCR program is an intensive two day seminar on cave rescue. Participants that successfully complete the OCR will receive a certificate of completion from the National Cave Rescue Commission. At the end of each day, participants from both tracks will join together for evening activities and social events.

### Track 1: Speleo-Ed

From paleoclimatology to speleo-history, this track of our 2007 seminar promises to offer something for everyone! Several new presenters will share information from two national parks, the US Geological Survey, the Cave Research Foundation and five different grottos in the Western Region and Northwest Caving Association.

All sessions will be based at the Lava Beds Research Center - just walking distance from the campground and Mushpot Cave.



Afternoon workshops and field trips will be held in several nearby caves, so be sure to bring your gear!

On Sunday, additional field trips will depart for many of the area's lava tubes and geological areas. Trip sign-up sheets will be available at the campground starting Friday evening. Sunday will also include a discussion in the research center on the national karst map project hosted by Dan Doctor of the USGS.

### Track 2: Orientation to Cave Rescue

The Orientation to Cave Rescue track will introduce students to cave rescue practices and the caving environment. This introduction class will prepare students for the first of three levels of week-long cave rescue training classes offered by the NCRC. This class gives a brief introduction to the major topical areas that are covered more thoroughly in the week-long classes. This course does not cover vertical rope techniques or surface search and rescue. Saturday's OCR sessions will be held in the Fire Center located near park headquarters.

#### Each student will need:

1. HELMET. A caving or climbing helmet is preferred. Modified construction type helmets with good chinstraps are acceptable. NO broad brimmed helmets.
2. LIGHTS. Three dependable, independent sources are required. Each must be capable of getting you out of the cave and must provide ample light to see. Each should be rugged and at least one, preferably all three, must be helmet mounted.
3. RUGGED CLOTHING
4. GLOVES. Good leather or at least leather palm work gloves are a must.
5. BOOTS. Sturdy, lug soled, lace-up type boots with good support.
6. FOOD. Quick energy, ready to eat like trail mix, candy bars, small can of beans, fruit, etc.
7. WATER. Good water bottle or an army surplus canteen.
8. SMALL PACK. Items 2,6,7,9 and 10 go into this pack as well as extra batteries, bulbs and a note pad with short wooden pencils in Zip Loc bags.
9. GARBAGE BAGS. At least two 30-33 gallon size.
10. PERSONAL FIRST AID KIT and SUPPLIES including knife and whistle.

Some people will find 20' of tubular one-inch nylon webbing and a couple of locking D carabiners handy, but they are not required. Participants under 18 years of age must contact Roger Mortimer at [RMortimer@fresno.ucsf.edu](mailto:RMortimer@fresno.ucsf.edu) or (559) 442-4156 before registering. All participants must sign a liability waiver.

### Evening Social Events

Following the field trips and workshops on Saturday, the Speleo-Ed evening events and optional dinner will bring participants from both tracks together for a fun night of social activities. Business meetings of the Western Region and the Northwest Caving Association will be held after dinner in the Lava Beds Research Center. Dave Bunnell, Editor of the NSS News, will also present his "Virtual Lava Tube" show in Mushpot Cave for those not interested in the business meetings.

# Friday

WELCOME!



- 7:00 PM** Registration open - Please come to Loop B in the campground. Speleo-Ed participants may use sites 18 through 30 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

## TRACK 1: Speleo-Ed

<b>RESEARCH CENTER</b>	9:00 AM	Paleoclimatology Studies in Sierra Nevada Caves - Jessica Oster, UC Davis	<b>WORKSHOP</b>	9AM - 12PM	"Happy Snappers: An Introduction to Cave Photography"	<b>WORKSHOP</b>	10AM - 12PM	"Cave Radio Location Workshop"
	9:30 AM	Bioinventory of Great Basin National Park Caves - Ben Roberts, Great Basin NP		Starts in the research center lab room with an equipment review then continues in Valentine Cave. No experience necessary. Bring your cameras & manuals!	Intro. to techniques used to transfer underground location data to the surface. Workshop starts in research center lab. Field exercises at 1PM			
	10:00 AM	JD Howard: Father of the Lava Beds - Bill Devereaux, CRF		John Woods, SoCal Grotto, NSS	Bart Rowlett, NSS Electronics Section			
	10:30 AM	Macroinvertebrates of Lava Beds Caves - David Larson, Lava Beds Natl. Monument						
	11:00 AM	Hydrologic Measurements in Caves / Natl. Karst Map - Dan Doctor, US Geological Survey						
12:00 PM Lunch Break								
<b>WORKSHOP</b>	1:00 PM to 5:15 PM	Cartography Workshop Liz Wolff, Shasta Area Grotto	<b>FIELD TRIP</b>	1:00 PM to 5:15 PM	The Geology of Lava Beds Natl. Mon. & Lava Tube Genesis Bruce Rogers, CRF, USGS, SFBC	<b>WORKSHOP</b>	1:00 PM - 4:00 PM	"Cave Radio Location Workshop"
	Class session begins at the research center and then moves underground. Cave TBD			Cave Loop & Sentinel Cave. Departs from research center			Field exercises from morning lab. Cave TBD	
5:30 PM Social Hour! Please join us at the Research Center to catch up with old and new friends. Hosted beer & sodas.								
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, Room 1 Northwest Caving Association: Research Center, Room 2								
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!								

## TRACK 2: Orientation to Cave Rescue

<b>ALL SESSIONS ARE IN THE FIRE CENTER</b>	8:00 AM	Intro. to the NCRC and Cave Rescue
	8:20	Caves, Gear, Safety, & Conservation
	8:45	Rescue Operations and Management
	9:15	Logistics
	9:30	Equipment Planning and Packaging
	9:45	Cave First Aid / Medical Equipment
	10:00	Documentation
	10:20	Break
	10:30	Communications
	10:50	Cave Search
	11:05	Initial Response
	11:20	Media Interaction
	11:35	Lunch Provided at the Fire Center
	12:35 PM	Medical Considerations
	1:05	Psychological Considerations
1:20	Hypothermia	
1:40	Difficult Evacuation and Water Problems	
2:00	Litters and Patient Packaging	
2:15	Break	
2:30	Field Practice:	
	Patient Packaging and Litter Handling	
5:15	Briefing for Mock Rescue	

# Sunday

## TRACK 1: Speleo-Ed Field Trips & Workshops

<b>FIELD TRIPS</b>	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)

## TRACK 2: Orientation to Cave Rescue

<b>MOCK RESCUE</b>	8:00 AM	All OCR students please meet at the Fire Center. Sunday's OCR sessions will likely end by 3:00 PM.



## Speleo-Ed Notes

The Western Region is attempting to get lunch donated on Saturday. This has not been confirmed as of press time. If this occurs, a notice will be posted on WR and NCA e-mail lists.

## OCR Notes

Students that successfully complete the Orientation to Cave Rescue will receive a certificate of completion from the NCRRC office following the seminar. Students under 18 years of age must contact Roger Mortimer prior to registering. All participants must sign a liability waiver.

## All Participants

Pets are allowed in the park, but NOT in the research center, the fire center or any caves. Owners must follow park leash laws.

The OCR track will be open to local search & rescue teams in southern Oregon and northern California. They may join us in the campground. Please don't scare them.

Bruce Rogers and Pat Helton of the Cave Research Foundation will be conducting various research projects in the park during the week following Speleo-Ed. If you wish to join them, please contact:  
BruceAndPat@heltonweb.com

If possible, PLEASE CARPOOL!

## Contacts

### Registration:

Dan Snyder (831) 421-0430  
daniel@snyder-haye.com

### Event Coordinator:

Matt Bowers (209) 529-9000  
mattb@ThirdMedia.com

### Orientation to Cave Rescue:

Roger Mortimer (559) 442-4156  
RMortimer@fresno.ucsf.edu

# Speleo-Ed 2007 Registration

## May 18-20, 2007 - Lava Beds National Monument, Tulelake, California

Please type or print legibly - Use one form per person - Detach and mail with registration payment.

Name: \_\_\_\_\_ National Speleological Society #: \_\_\_\_\_

Address: \_\_\_\_\_ Age: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ E-mail: \_\_\_\_\_

Day phone: \_(\_\_\_\_\_) \_\_\_\_\_ Evening phone: \_(\_\_\_\_\_) \_\_\_\_\_ Mobile/pager: \_(\_\_\_\_\_) \_\_\_\_\_

Grotto/Agency Affiliation: \_\_\_\_\_ Dietary or health considerations: \_\_\_\_\_

Emergency contact: \_\_\_\_\_

### Please mail registration form and your check or money order payable to:

Western Region NSS  
Attn: Speleo-Ed 2007  
213 Elm Street  
Santa Cruz, CA 95060  
(831) 421-0430

<sup>1</sup> Children 12 & under free with paid adult registration.

<sup>2</sup> Tracks are mutually exclusive. Participants may not mix & match parts of both tracks.

<sup>3</sup> Children 5 & under free, 6-12 are half price with paid adult dinner.

<sup>4</sup> Includes subscription to California Caver. Family rates are available for \$1 if at the same residence as a member.

Basic Registration - Includes camping, sessions and field trips <sup>1</sup> :	\$36.00	
I plan to attend <sup>2</sup> : Speleo-Ed <input type="checkbox"/> Orientation to Cave Rescue <input type="checkbox"/>		
<b>Day-Use Only:</b> No camping, no OCR, 9AM to 10PM Saturday Only:	\$24.00	
Lava Beds Research Center Fund-Raising Dinner <sup>3</sup> :	\$15.00	
Western Region Membership <sup>4</sup> (optional):	\$10.00	
Late registration - after May 1st or on-site:	\$8.00	
Speleo-Ed 2007 T-shirts - priced per shirt, list quantity and sizes:	\$12.50	
T-shirt size: sm. <input type="checkbox"/> med. <input type="checkbox"/> lg. <input type="checkbox"/> xl. <input type="checkbox"/> xxl. <input type="checkbox"/>		
Western Region Logo Ballcap:	\$15.00	
Cap: Black <input type="checkbox"/> Charcoal <input type="checkbox"/> Hunter <input type="checkbox"/> Khaki <input type="checkbox"/> Maroon <input type="checkbox"/> Navy <input type="checkbox"/>		
50th Anniversary Western Region Logo Coffee Mug:	\$6.50	
<b>TOTAL ENCLOSED:</b>		

Visit Lava Beds Natl. Monument online at <http://www.nps.gov/labe>