

**FOR YOUR SAFETY**

*Cave exploration.* Among the potential hazards which you may encounter in the lava tubes are low ceilings, steep trails and stairways, and uneven footing.

Always follow the printed instructions issued with the lanterns to ensure safe operation. Report immediately any problem encountered while operating lanterns.

Notify a park ranger before exploring caves other than those named in this brochure, or if you plan to use your own lighting equipment.

*Surface hiking.* Be aware that rattlesnakes are found throughout the park; children should be cautioned never to put their hands and feet in places they cannot see.

While every effort is made to provide for your enjoyment, you must remain alert and cautious. Your safety and your children's safety are of primary concern to us.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, park and recreation areas, and for the wise use of all those resources. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

**National Park Service**  
**U.S. DEPARTMENT OF THE INTERIOR**

# Lava Beds

NATIONAL MONUMENT • CALIFORNIA

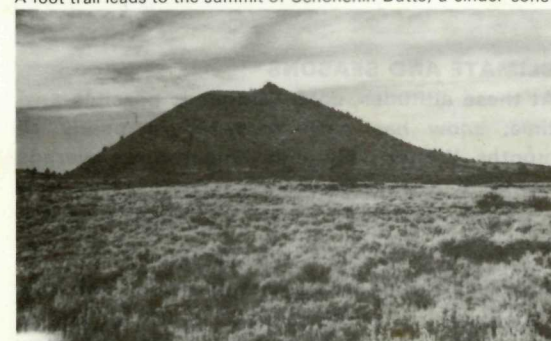
Centuries ago, a group of volcanoes erupted great masses of molten basaltic lava, which spread over the surrounding level land as rivers of liquid rock. The lava cooled and hardened, forming a rugged landscape, part of which is now preserved in Lava Beds National Monument. The monument, lying on the flank of the Medicine Lake Highlands, ranges in elevation from about 1,200 to 1,700 meters (4,000 to 5,700 feet). Its grassland, chaparral, and pine-forest communities are habitat for a variety of wildlife. Tule Lake National Wildlife Refuge, adjoining the monument on the north, is a haven for millions of birds, especially during the spring and fall migrations.

This is an area of diverse interest. Volcanic activity of the past has left varied formations. Cinder and spatter cones dot the landscape. Schonchin Butte, one of the largest cinder cones, can be reached by road; and a trail leading from base to summit offers excellent views of the landscape. Black Crater (reached by a short self-guiding trail) and the Fleener Chimneys are fine examples of spatter cones.

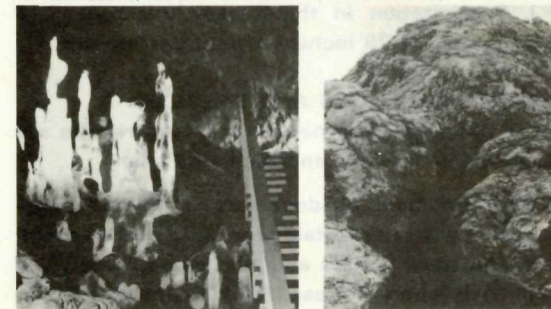
Most of the monument is covered with relatively smooth, undulating pahoehoe (pronounced pah-hoy-hoy) lava. Devil's Homestead Flow, Schonchin Flow, and Black Lava Flow are examples of rougher aa (ah-ah) flows. Mammoth Crater and Hidden Valley present another aspect of volcanic activity.

Viscosity, flow patterns, and cooling of the lava flows created the lava-tube caves that honeycomb the area. Nineteen caves are open for exploration by visitors.

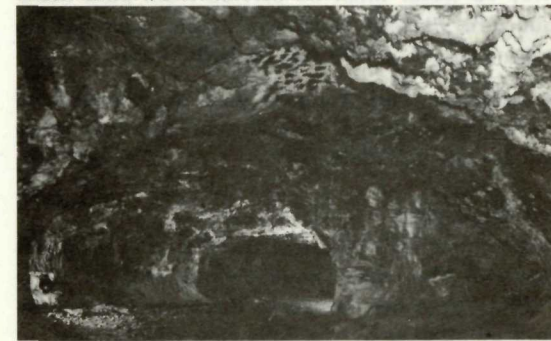
A foot trail leads to the summit of Schonchin Butte, a cinder cone.



Ice formations, Indian Wells Cave. A lava chimney.



Catacombs Cave, a lava-tube formation.



Although there is a difference of only 518 meters (1,700 feet) in altitude between the highest and lowest points in the monument, the resulting differences in temperature and rainfall account for distinct plant associations. The grassland-sagebrush community at lower elevations merges into juniper-chaparral, which gives way at higher elevations to coniferous forest dominated by ponderosa pine.

Each plant community harbors its own association of animals. Species include the chipmunk, golden-mantled squirrel, California ground squirrel, black-tailed jackrabbit, bobcat, coyote, mule deer, California quail, scrub jay, and mountain bluebird. Sparrows and warblers are common, and you may see a great horned owl, red-tailed hawk, golden eagle, bald eagle, or peregrine falcon. The cougar is rare.

The California bighorn, a species absent here since the late 19th century, has been reestablished in a cooperative program with other Federal and State conservation agencies. The bighorn live within the confines of the 445-hectare (1,100-acre) fenced enclosure in the northwest corner of the monument.

A band of California bighorn on Gillem's Bluff.



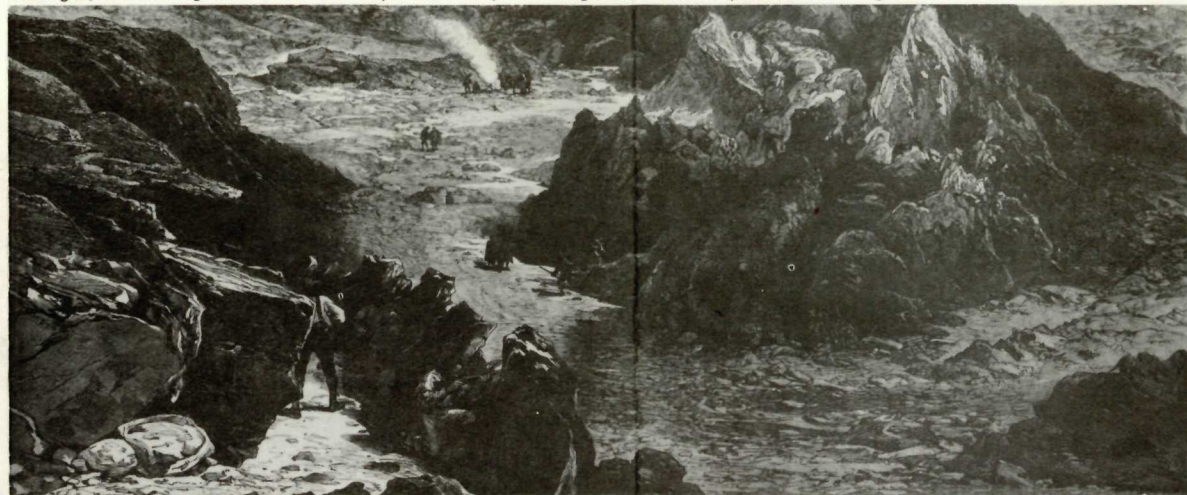
### LAST STAND OF THE MODOCS

A major Indian war, the only one to be fought in California, took place in these rugged lava flows. In 1872, after several years of disputes with settlers, "Captain Jack" and his band of Modoc Indians took refuge in the lava beds immediately south of Tule Lake. In the area now known as Captain Jack's Stronghold, the small Modoc band held out against Federal and volunteer troops for nearly 6 months. This and four other sites prominent in the Modoc War are included in the monument. Hospital Rock marks the nearest military camp east of the Stronghold. In the Stronghold, both Indian and troop positions can still be seen. Canby's Cross marks the spot where peace negotiations were held and where Gen. E. R. S. Canby, during one such meeting, was killed.

Gillem's Camp was U.S. Army headquarters during later phases of the war. It is named after Col. A. C. Gillem, who, in an effort to demoralize the Modocs by a show of strength, moved all his troops on the west side of the Stronghold to this point. The Thomas-Wright Battlefield at Hardin Butte marks the site of the defeat of an army patrol. Of nearly 70 soldiers, five officers and 20 enlisted men were killed and another 16 were wounded; the rest fled in panic.

A small museum at monument headquarters will help you understand the geology, natural history, and history of the area.

Etching from a drawing made on the scene by William Simpson during the attack on Captain Jack's stronghold.



Captain Jack, Modoc leader.



Courtesy National Archives

The Modoc medicine flag, made with a mink's skin, hawk feathers, and a medicine bead, was supposed to have magical powers against the enemy. (Sketched by William Simpson.)



Gillem's camp at Tule Lake, 1873.



Courtesy Library of Congress

Courtesy Library of Congress

Courtesy National Archives

## CLIMATE AND SEASONS

At these altitudes, cold weather is possible any time; snow has been recorded in nearly all months. Winter daily high temperatures average around 5 degrees Celsius (40's F.); lows are only a few degrees below zero C. (in the 20's F.). Fog is frequent.

Summers are moderate on the whole, with daytime highs averaging from 24° to 27° C. (75° to 80° F.), lows about 10 degrees C. (40's and 50's F.). Precipitation in this season averages 3.18 centimeters (1.25 inches) or less per month.

## ACCOMMODATIONS AND SERVICES

Food, lodging, gasoline, oil, and auto repairs are available in Tulelake and Klamath Falls.

Near Monument headquarters, a 40-unit campground (with sites suitable for tents, pickup campers, and small trailers and with wood, water, and toilets) is open all year. From September 15 to May 15 water must be carried from park headquarters. Fleener Chimneys picnic area has no water, and fires may not be built there.

In summer, park rangers give daily talks and campfire programs. Check a bulletin board or ask for the schedule.

## REGULATIONS

The natural and historical features of Lava Beds National Monument have been protected since 1925. Please help preserve them for future visitors by abiding by the following regulations:

- All objects, natural and historical, must be left in place and undisturbed so that others may also enjoy them.
- Gathering specimens or collecting souvenirs is prohibited.
- Hunting or use of any firearm is prohibited.
- Base hunting camps are not permitted.
- Be careful with all fire, including cigarettes, and make sure your campfire is out.
- Pets must be kept leashed at all times.

## HOW TO REACH THE MONUMENT

Access to monument headquarters, 48 kilometers (30 miles) from the town of Tulelake, Calif., and 93 kilometers (58 miles) south of Klamath Falls, Oreg., is over paved roads from Calif. 139, 8 kilometers (5 miles) south of Tulelake or 42 kilometers (26 miles) north of Canby. Commercial airlines serve Medford and Klamath Falls, where rental cars are available.

## ADMINISTRATION

Lava Beds National Monument, established on November 21, 1925, and containing about 186 square kilometers (72 square miles), is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is Box 867, Tulelake, CA 96134, is in immediate charge.

## WE'RE JOINING THE METRIC WORLD

The National Park Service is introducing metric measurements in its publications to help Americans become acquainted with the metric system and to improve interpretation for park visitors from other nations.

