

# Lava Beds

NATIONAL MONUMENT • CALIFORNIA

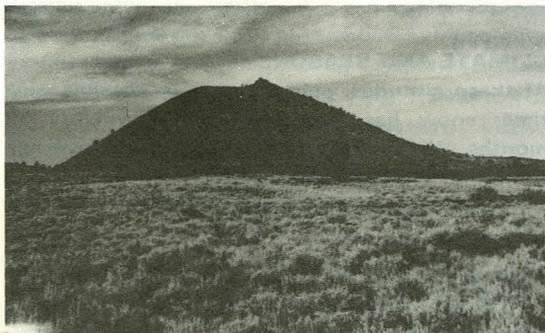
Centuries ago, a group of volcanoes erupted great masses of molten basaltic lava, which spread over the surrounding level land as rivers of liquid rock. The lava cooled and hardened, forming a rugged landscape, part of which is now preserved in Lava Beds National Monument. The monument, lying on the 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 honey-comb 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.



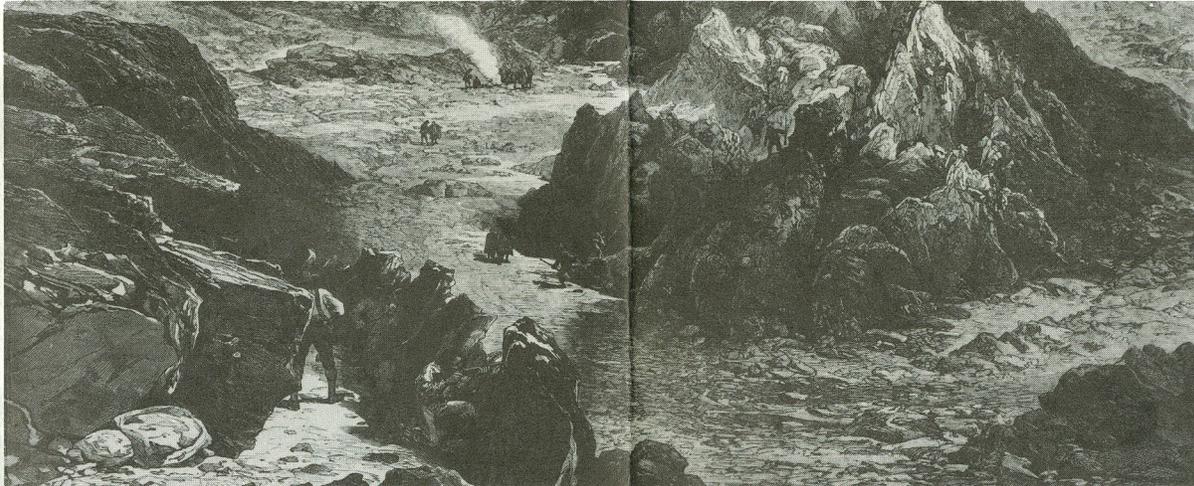
## LAST STAND OF THE MODOCS

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 assassinated.

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.

A short visit to 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.



Courtesy Library of Congress.

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.)



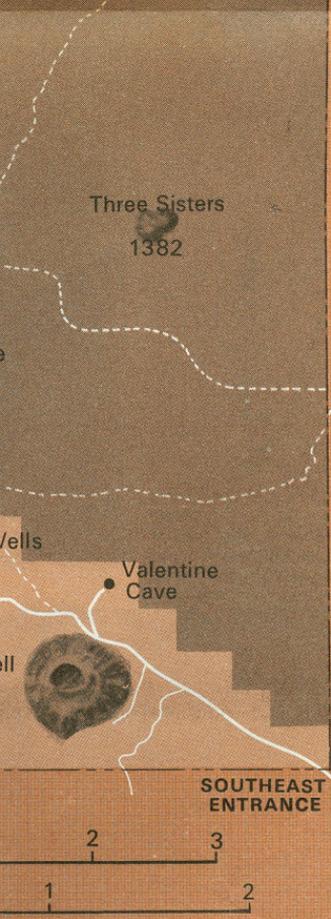
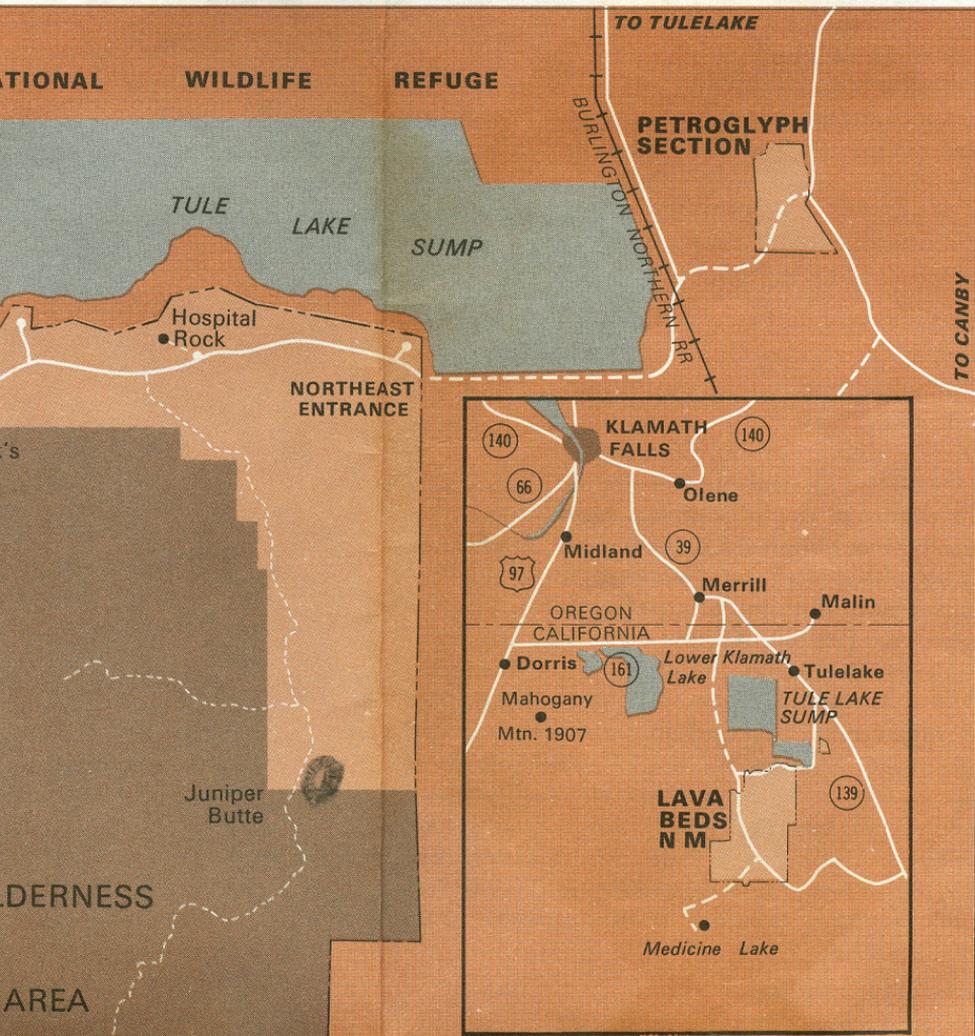
Courtesy Library of Congress

Gillem's camp at Tule Lake, 1873.



Courtesy National Archives





s, and distances are in kilometers.  
1 kilometer is 0.62 miles.

REV SEPT 1976

**TO CANBY & ALTURAS**

## 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.

- Take more than one light source. Wear protective headgear. Wear adequate clothing—cave temperatures are cool.
- 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.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. 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**

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