



PEAK EXPERIENCES

May - November 2017

Science in Our Living Laboratories

Amid Lassen Volcanic National Park's towering volcanic peaks and delicate cascading creeks, science is in action. From studying microbes in bubbling mudpots, to tracking American pika populations—science plays a major role in both the discovery and conservation of this living laboratory.

Science plays a major role in both the discovery and conservation of this living laboratory

Lassen Volcanic is packed to the brim with opportunities for inquiry. While some are obvious—like the more than 250 species of fauna, eight hydrothermal areas, and 200 plus lakes—others are less apparent. Spread throughout the park are four biological zones and 11 properties on the National Register of Historic Places, all of which are just the cherry on top of an active volcanic center.

Since the establishment of both Lassen Volcanic National Park and the National Park Service (NPS) just over 100 years ago, the NPS has been tasked with conserving some of the best research sites in the world. Such a mission is not without its challenges. The NPS Organic Act outlines two seemingly opposing mandates: conserve our remarkable natural and cultural resources and provide for the enjoyment of them—all in way that “will leave them unimpaired for the enjoyment of future generations.”

The NPS has been tasked with conserving some of the best research sites in the world

How do we both enjoy and conserve our protected places? Like all great challenges, we learn along the way. Throughout the last century, science has allowed us to constantly

Continued on page 6

Lassen Welcomes Superintendent Richardson

Superintendent Jim Richardson joins the park staff, partners, and visitors in ushering in the park's second century.

"I look forward to working with the team at Lassen Volcanic National Park and neighboring communities where our success complement each other," says Richardson.

Richardson celebrates 31 years with the National Park Service. He most recently served as superintendent of the War in the Pacific National Historical Park in Guam and American Memorial Park in Saipan.



Superintendent Jim Richardson

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This visitor guide is made possible through support of the Lassen Association.
www.lassenassociation.org

GENERAL INFORMATION



Lassen Volcanic National Park

National Park Service
U.S. Department of the Interior

Kohm Yah-mah-nee Visitor Center

Phone: (530) 595-4480 (year-round)
Fax: (530) 595-4477

Loomis Museum

Phone: (530) 595-6140 (summer only)
Fax: (530) 595-6149

Website

nps.gov/lavo

Email Address

lavo_information@nps.gov

Mailing Address

Lassen Volcanic National Park
P.O. Box 100
Mineral, CA 96063-0100

Social Media

facebook.com/LassenNPS
youtube.com/LassenNPS
twitter.com/LassenNPS
instagram.com/LassenNPS
flickr.com/LassenNPS



Watercraft Rental

Kayak, canoe, stand-up paddle board, and cataraft rentals are available in the Manzanita Lake Camper Store. Watercraft rentals are offered from 10 am to 4 pm on a first-come, first-served basis. Call the Manzanita Lake Camper Store at (530) 335-7557 for more information or view camper store hours on page 5.



Accessibility

Accessible facilities include the Loomis Museum, Discovery Center, Manzanita Lake Camper Store, and the Kohm Yah-mah-nee Visitor Center. Wheelchair-accessible restrooms are located at Loomis Plaza, Devastated Area parking area, Summit Lake and Kings Creek picnic areas, Lassen Peak parking area, Bumpass Hell parking area, Sulphur Works parking area, and the Kohm Yah-mah-nee Visitor Center. Wheelchair accessible paths include the Devastated Area interpretive trail, Sulphur Works area, and the Lassen Crossroads information area. Multiple scenic pullouts on the park highway have wheelchair accessible wayside exhibits. See page 4 for accessible campsites. An accessibility guide is available at visitor centers or online.

ATM

The Manzanita Lake Camper Store has an ATM.

Bicycles

Bikes are permitted only on roads and parking areas, not on hiking trails. Ride single file and be attentive to passing cars and recreational vehicles that may not be aware of cyclists. There are no shoulders or bike lanes on Lassen National Park Highway.

Drones / Unmanned Aircraft

Launching, landing, or operating an unmanned aircraft within park boundaries is prohibited.

Emergency

If you have an emergency call 911. If phone service is not available, contact a park employee or go to a visitor center.

Firearms

Visitors are responsible for understanding and complying with all applicable State of California, local, and federal firearm laws. Federal law prohibits firearms in certain facilities in this park identified by posted signs at public entrances. For more information, visit oag.ca.gov/firearms or contact the chief park ranger at (530) 595-6100.

Fishing

California fishing regulations apply to all areas within Lassen Volcanic National Park. A California fishing license is not required on two free fishing days: July 1 and September 2, 2017. Additional fishing regulations apply at Manzanita Lake:

- Catch and release only.
- Artificial lures with a single barbless hook. No power bait.
- Manzanita Creek above Manzanita Lake is closed to fishing.

Gasoline

Gasoline is available at the Manzanita Lake Camper Store. Gasoline may be purchased with a credit card 24 hours a day from May 19 to October 10, 2017. Note that there is no gas available within 30 miles of the southwest entrance.

Food Storage

Proper food storage keeps wild animals wild. Allowing a bear to obtain human food often results in aggressive bear behavior. Aggressive bears are a threat to human safety and must be relocated or euthanized. Do not feed bears or other wildlife for any reason. Federal regulations require that all food and scented items be properly stored when in the park. Help keep bears wild and humans safe. Remember, a fed bear is a dead bear.

- In campgrounds and cabins, store your food and scented items in food lockers. Only have the food out that you are actually using; if you are not using it, please put it back into the food locker.
- In picnic areas and on the trail, always keep your food within arm's reach and do not turn your back on your food. Never leave food unattended.

Lost and Found

Stop by the Loomis Museum or Kohm Yah-mah-nee Visitor Center to leave a found item or report a lost item. Be sure to file a lost item report if you misplaced something during your visit, as items can often turn up several weeks later.

Hydrothermal Area Safety

For your safety, please stay on established trails, boardwalks, and sidewalks. The ground in hydrothermal areas can look solid but may actually be a thin crust hiding pools of acidic boiling water. Traveling off-trail in hydrothermal areas is illegal and has resulted in severe injuries for previous visitors.

Picnic Areas

Picnic areas are found throughout the park (see the map on page 14). Charcoal disposal is available at Kings Creek Picnic Area only.

Phones

Cell phone coverage in the park is limited and unreliable. Pay phones are located outside the Manzanita Lake Camper Store and the Loomis Museum. An emergency phone is located in the Kohm Yah-mah-nee Visitor Center.

Pets in the Park

Activities with pets are limited at Lassen Volcanic. Pets must be restrained at all times and are not permitted on hiking trails, in the park backcountry, in any body of water, or inside visitor centers or other park facilities. A good rule of thumb is that a pet may go anywhere a car may go: roads and road shoulders, campgrounds, picnic areas, and parking areas. For your pets' safety, do not leave them in vehicles when temperatures are high; they can die of heat exhaustion. Vast public lands nearby offer great hiking with pets. Ask a ranger for information on areas outside the park that allow pets.

Share the Road

Park roads are narrow and winding. Do not stop in the roadway—save sightseeing for designated viewpoints. Watch for pedestrians, bicycles, and wildlife. Ensure a minimum passing distance of three feet (one meter).

Showers and Laundry

Coin-operated showers and laundry machines are available 24 hours a day at the Manzanita Lake Camper Store. A change machine is located in the laundry room.

Sunrise and Sunset

Date	5/15	6/15	7/15	8/15	9/15	10/15
Sunrise	5:52 am	5:38 am	5:52 am	6:20 am	6:51 am	7:21 am
Sunset	8:20 pm	8:42 pm	8:39 pm	8:07 pm	7:18 pm	6:29 pm

Weather

With elevations from 5,650 feet to 10,457 feet, a wide variety of weather conditions occur in Lassen Volcanic. Expect a 5° temperature decrease for every 1,000 foot increase in elevation. Prepare for your visit; bring layered clothing, a raincoat, and sunscreen.

Month	Average High/Low
May	70/29 °F
June	79/34 °F
July	84/40 °F
August	85/40 °F
September	78/36 °F
October	69/30 °F

Manzanita Lake Temperatures

CAMPGROUNDS

First-Come, First-Served

All campgrounds (except group campsites), have designated first-come, first-served campsites. You cannot reserve these sites, but they can fill up. You may not hold a site for someone who has not arrived.

Reservable Sites

Sites may be reserved in advance for certain campgrounds—see the chart below. For reservations call 1-877-444-6777 or visit www.recreation.gov. Reservations are required for group campsites.

Stock Corrals

Stock corrals are available at Butte, Summit, and Juniper Lakes. Potable water is not available at Juniper Lake and Summit Lake Stock Corrals. Reservations are required; call 1-877-444-6777 or visit recreation.gov.

Check-in & Check-out

Check-in any time, but sites may not be available until noon. Check-out time is noon.

Campsite Capacities

A maximum of two vehicles are allowed at each campsite, except at designated group sites. An RV, tow vehicle, trailer, car, or truck each count as one vehicle. Campsite capacity is limited to six persons and three tents. Group campsite capacity is 25 persons per site. Group campsites at Juniper Lake are restricted to tents with a maximum of 15 persons per site.

Quiet Hours

Each visitor deserves to hear the natural sounds of this beautiful environment. Respect this by complying with the regulations: generator operation hours are 8-10 am, 12-2 pm and 5-7 pm; quiet hours are 10 pm-6 am. Generators are not allowed in tent only loops. Please be considerate of your fellow campers.

Services and Dump Station

In-park services including pay showers, laundry, and a dump station are available near the Manzanita Lake campground. Hookups are not available in the park.

Campground	Elevation	# Sites	Season	Daily Fee	Accessible	Flush Toilets	Vault Toilets	Services	Boat Launch	Reservable	RV Sites
Butte Lake*	6100'	101	6/9 - 10/24	\$20	•	•	•		•	•	•
Juniper Lake*	6800'	18	6/30 - 10/10	\$12			•		•		
Manzanita Lake	5900'	179	5/26 - ^{snow} closure	\$24	•	•	•	•	•	•	•
Summit Lake North	6700'	46	6/30 - 9/12	\$22	•	•			•	•	•
Summit Lake South*	6700'	48	6/30 - 9/26	\$20			•		•	•	•
Southwest Walk-In	6700'	20	Year-round	\$16		•	•				
Warner Valley*	5600'	17	6/9 - 10/24	\$16			•				
Butte Lake Group Sites	6100'	6	6/9 - 9/12	\$60			•		•	•	•
Lost Creek Group Sites*	5900'	8	6/16 - 9/26	\$60			•			•	•
Manzanita Lake Group Sites	5900'	4	5/26 - 10/17	\$70		•	•	•	•	•	•
Juniper Lake Group Sites	6800'	2	6/30 - 10/10	\$30			•		•	•	
Butte Lake Stock Corral	6100'	1	6/9 - 9/12	\$35			•		•	•	
Juniper Lake Stock Corral	6800'	1	6/30 - 10/10	\$28			•		•	•	
Summit Lake Stock Corral	6700'	1	6/30 - 9/12	\$35			•		•	•	

*See special considerations on next page

*Special Considerations

Roads to Juniper Lake, Warner Valley, and Butte Lake are rough gravel. Trailers are not advised on Juniper Lake and Warner Valley roads. Potable water is not available at Juniper Lake. Potable water at Butte Lake and Summit Lake South is available through 9/11. Lost Creek Group Sites are closed 8/1 to 8/8 for a special event. Crags is closed to the public; read about the new Volcano Adventure Camp on page 13.

Discounts

Holders of Senior and Access passes receive a 50% discount on camping fees, except for group campsites.

Length of Stay

Camping is limited to 14 days per year, per campground, except at Summit and Juniper Lakes, which are limited to 7 days per year.

Overflow Camping

No overflow camping exists in the park; however, the park rarely fills all available campsites. Camping or overnight vehicle parking in pullouts, parking areas, picnic grounds, or any place other than a designated campground is not permitted.

Camping in Vehicles

Camping in self contained vehicles is allowed in a designated area of the Kohm Yah-mah-nee Visitor Center parking area with campground payment (a campsites is not required).

Campfire Restrictions

Open fires are restricted to metal fire rings only-no fires in the backcountry. Gather only dead and down wood less than 4 inches in diameter and within 30 feet of roadways. Attend to campfires at all times and ensure your campfire is out cold before you leave. Wood is available for purchase at the gift shop in the visitor center and at the Manzanita Lake Camper Store. Help prevent the spread of invasive insects and diseases by buying or collecting firewood where you camp. Learn more at dontmovefirewood.org.

Reduce Waste and Save Money

Safely dispose of camping propane canisters in the new bin outside the Kohm Yah-mah-nee Visitor Center. You can also help reduce the more than four million canisters wasted in California each year by buying a refillable canister.



Services and Facilities



Southwest Area

6700' (2042 m) elevation. 50 miles east of Red Bluff on Highway 36 then 6 miles north on Highway 89.

Kohm Yah-mah-nee Visitor Center

Exhibits, park film, maps, and Lassen Association bookstore. Lassen Café & Gift offers supplies, gifts and food. The visitor center is open 9 am to 5 pm daily. (Lassen Café & Gift is open daily 4/29 through 10/11).

Manzanita Lake Area

5900' (1798 m) elevation. 47 miles east of Redding on Highway 44, then one mile beyond the northwest park entrance.

Loomis Museum

Exhibits, park film, maps, and Lassen Association bookstore. Open 9 am to 5 pm.

▶ 5/26 to 6/11 Fri-Sun only
6/12 to 10/29 Daily

Manzanita Lake Camper Store

Supplies, gifts, food, and gasoline.

5/19-5/25 9 am to 4 pm
5/26-6/15 8 am to 6 pm (Mon-Fri) | 7 am to 8 pm (Sat-Sun)
6/16-8/20 7 am to 9 pm
8/21-9/10 8 am to 6 pm (Mon-Fri) | 8 am to 8 pm (Fri-Sun)
9/11-10/10 9 am to 5 pm

Manzanita Lake Cabins

1-room, 2-room and bunk cabins for \$69 or \$95. Available 5/19 to 10/9. For reservations call: 1-877-444-6777. Check-in at Camper Store. After hours call (530) 335-7557 or manzanalake@calparksco.com.

Warner Valley Area

5600' (1707 m) elevation. 17 miles north of Chester.

Drakesbad Guest Ranch

Lodging, restaurant, thermal-heated pool, and horseback riding. Open 6/2 to 10/10 (weather permitting). Reservations required, call (866) 999-0914.

SCIENCE IN THE PARK

Science in Our Living Laboratories

Continued on from the front page

improve our methods for managing and enjoying our parks. As ecology—the science of ecosystems—was gaining footing in the scientific community, park staff stocked Emerald Lake with rainbow trout from local hatcheries. The "outdoor aquarium" was a big hit with visitors who liked to watch and feed the fish. Over time, the predatory fish added to existing stressors on the now absent Cascades frog. Today, guided by ecological principles, parks are engaged in restoring and maintaining natural conditions for native species like the Cascades frog.

Science has allowed us to constantly improve our methods for managing and enjoying our parks

Scientific research not only improves our understanding of parks and the resources they protect, it provides the knowledge and tools to react to change. Some changes are natural, like the seasonal shift from snowpack to spring flowers or Lassen's ever-changing hydrothermal areas. A current planning effort to rehabilitate the trail and boardwalk in the dynamic Bumpass Hell area is guided by research findings from the US Geological Survey and input from visitors like you.

Although nature is a formidable force, many of the greatest changes parks face stem from human impact. Both the parks and our enjoyment of them are affected by the roar of jet planes, the death of old growth trees, and the early arrival of spring. Even as America's first national parks were forming, scientist Joseph Grinnell noticed that California was changing rapidly with the arrival of non-native species and dramatic changes in land use. Between 1904 and 1940, Grinnell and

students documented more than 100,000 specimens, creating a snapshot of birds and small mammals before the onset of human-caused change. Today, researchers from the University of California, Berkeley are resurveying the same sites, including locations within Lassen Volcanic.

Monitoring and inventory allows us to take a pulse on our parks. Park and partner scientists track and study a wide variety of resources, from soundscapes to cultural and historical sites. A long history of forest health monitoring, informed park response to bark beetle infestation in old growth trees in the Manzanita Lake area. Recent acoustic monitoring at three areas in the park showed that birds were audible over 75% of the time—albeit often along with voices, jets, propeller planes, and other noises.

Monitoring and inventory allows us to take a pulse on our parks

Science has helped us to conserve our parks and transform the way we use and manage them. Last year, data from hiker-reported wildlife sightings helped guide the development of a new bear-resistant food canister requirement that protects black bears and backcountry users. This year, budding scientists in Lassen's new park-based education partnership, enjoy hands-on learning with park rangers.

Science, like stewardship, is the key to successful conservation of our nation's unrivaled network of national parks. So grab your hiking shoes and magnifying glass, because our living laboratories are both open to and in need of amateur and professional scientists alike.



A young visitor compares acidity levels



USGS scientists measure hydrothermal gases



A girl participates in a hands-on science demonstration

A Behind the Scenes Look at Science in the Park

From Lassen Peak to Warner Valley, scientists are using Lassen as an outdoor laboratory to understand the natural world and how we affect it. Below are a few of the many research projects underway in the park.

When Will Lassen Erupt Again?

Volcanologists from the US Geological Survey study and monitor the Lassen Volcanic Center to uncover the history of century-old eruptions and prepare for future activity. Scientists also remotely monitor data from instruments throughout the park. You can view real-time seismic activity in the park at the Loomis Museum or learn more about monitoring instruments at the station adjacent to the Bumpass Hell parking area overlook.



Scientists monitor data at California Volcano Observatory in Menlo Park, CA.

What Might Life on Other Planets Look Like?

Heat and acid-loving microbes called extremophiles may help us unlock the mystery of life on early Earth or other planets. NASA astrobiologists and local high school students study park hydrothermal areas to help understand the origins and evolution of life on earth and to discover clues in our search for life on other planets. You can meet NASA scientists at the Lassen Dark Sky Festival (details on page 8) or learn more about NASA research at Sulphur Works hydrothermal area.



A student assists a NASA scientist obtain a temperature reading at Sulphur Works.

How is Air Quality Changing?

Lassen Volcanic is a Class I airshed and is afforded the highest level of protection under the law. Park scientists measure air quality to track changes in: ground-level ozone air pollution (formed when pollutants in the atmosphere react to sunlight), visibility (how far and clearly we can see), and atmospheric deposition (levels of pollutants like nitrogen and sulfur, much of which originates in nearby Central Valley).



A biologist inspects the wing of a banded songbird.



A student scientist records evidence of pika.

Why Are Songbird Populations Declining?

Biologists from the park and Point Blue Conservation Science complete annual surveys to gather information to help understand the causes of and then reverse declines in songbird populations. You can meet the scientists (and the birds) at a public bird banding demonstration at Manzanita Lake (details on page 8).

How are American Pika Populations Changing?

Student scientists and park biologists complete field surveys and genetic analyses to identify impacts on these heat-intolerant, alpine mammals. Learn more or join the *Adopt a Pika* program at the Kohm Yah-mah-nee Visitor Center of Loomis Museum (details on page 12).

What is the Status of Mesocarnivores?

This summer, biologists will conduct a survey of medium-sized carnivores (mesocarnivores). With the help of remote cameras placed throughout the park, they hope to gain a better understanding of the number and location of American pine martens and Sierra Nevada red foxes, a state threatened species.

How are Whitebark Pine Faring against Blister Rust?

More than 300 acres of whitebark pine are potentially susceptible to infection of an exotic pathogen known as white pine blister rust. This summer, student scientists will assist park ecologists in mapping the distribution and rate of infection in these ancient, alpine trees.

PROGRAMS & EVENTS

Field Seminars



Watercolor by Yvonne Jordan-Sherwood

Learn, explore, and discover through Lassen Association field seminars. For more information or to register call (530) 595-4464, email lassenassociation@yahoo.com or visit go.nps.gov/lavo/seminar.

Guided Hike with Tracy Salcedo

6/15 or 8/27 | Devils Kitchen
7/20 | Boiling Springs Lake

Discover new hiking best practices and trails on a walk-and-talk hike with author of *Hiking Lassen Volcanic National Park*, Tracy Salcedo. Cost is \$10.

Watercolor Plein Air Workshop

6/25 | Manzanita Lake

Join artist Yvonne Jordan-Sherwood for a two-hour watercolor painting workshop for ages 10 and older. Cost is \$30 (\$25 for members) or \$10 for children ages 10-18 (with a paying adult).

Photography Field Workshops

7/14-15 | Park highway highlights or
9/15-16 | Bumpass Hell to Kings Creek

Hone your nature photography skills at a two-day field workshop with photographer Terry Nathan. Participants of all experience levels are welcome. Cost is \$150 (\$135 for members).

Ranger-led Programs

July through August

September - limited offerings

Discover your park through a ranger-led program from Junior Ranger activities to evening talks. View program schedules and descriptions at park visitor centers and campgrounds. Programs are primarily offered at the Kohm Yah-mah-nee Visitor Center, Sulphur Works, Loomis Museum, and Manzanita Lake amphitheater.

Bird Banding Demonstrations

July 16 | 8:00 to 9:30 am

Manzanita Lake

Join biologists from the park and Point Blue Conservation Science for a bird banding demonstration on the shores of Manzanita Lake. Watch as the biologists use nets to capture and band migratory birds for an annual survey. Meet a ranger at the Manzanita Lake boat ramp on the hour and half hour between 8:00 and 9:30 am for a short walk to the banding site.

Astronomy Programs

June 24, July 15 & September 17
Bumpass Hell parking area

Join a park ranger for an evening program on stars, planets, and constellations. Hear stories and learn to locate objects in the sky. Visit park visitor centers for program times.

Lassen Dark Sky Festival

August 11-13

Join park rangers, NASA scientists, astronomers, and astrobiologists in celebrating all that is out of this world. Enjoy special programs, presentations, hikes, and Junior Ranger activities both day and night. View the event schedule online at go.nps.gov/darksky (available early July).

Partial Solar Eclipse

August 21 | 10:18 am

A partial solar eclipse will be visible throughout the park (weather permitting). The nearest areas the total solar eclipse will be visible are in Oregon and Idaho. Purchase eclipse glasses ahead of time to view the eclipse from anywhere the sun is visible within the park or briefly catch a glimpse through a solar scope outside the Loomis Museum or Kohm Yah-mah-nee Visitor Center. Learn more at eclipse2017.nasa.gov.

Art & Wine of Lassen

September 16 | 11 am to 5 pm

Kohm Yah-mah-nee Visitor Center

Taste wine from local vineyards, sample products from regional entrepreneurs, and enjoy music from local artists on the visitor center patio. A tasting fee includes a commemorative glass. This event is hosted by the park concessioner, California Guest Services.



Night sky viewing near Manzanita Lake



Gazers use special eclipse glasses



Lassen Art & Wine Event



Annual bird survey and banding

Self-guided Activities

Park challenges and self-guided tours are a great way to discover the park at your own pace.

Roadside Audio Tour

Delve into Lassen Volcanic's 101-year history with a roadside audio tour. Download the MP3 files before your visit for use on any mobile device or media player at go.nps.gov/lavo/audio.



Nature Trails

Learn more about the 300-year-old eruption of this conical volcano on the Cinder Cone Nature Trail near Butte Lake or explore pond ecology on the Lily Pond Nature Trail near Manzanita Lake. Pick up either brochure at the trailhead or park visitor centers. And, discover the story behind Lassen Peak's dramatic 1915 eruption on the short Devastated Area Interpretive Trail.

Parkcaching Challenge

Earn a free carabiner

Locate at least 6 of 11 parkcaches along the park highway using GPS coordinates to earn a free carabiner. Get a copy of the challenge brochure at go.nps.gov/lavo/gps or at park visitor centers.



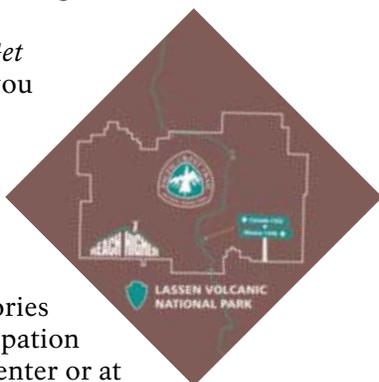
Lassen Peak Crater Loop Audio Tour

Travel back in time with eight stories from earlier visitors to Lassen Peak. Download the MP3 files and location map for use on any mobile device or media player and enjoy a narrated tour of the colorful eruption crater on the summit of Lassen Peak.

Reach Higher Trail Challenge

Earn a free bandana

Beginning on *National Get Outdoors Day*, June 10, you can participate in the Reach Higher Trail Challenge. Exercise in the great outdoors by completing at least three hikes in the park and calculating your calories burned. Pick up a participation brochure at any visitor center or at go.nps.gov/reachhigher.



Wilderness Camping



Overnight backcountry users must use an approved* bear resistant food storage container to store food and scented items.

Permit Required

A free wilderness permit is required for overnight camping and stock use in Lassen Volcanic's backcountry wilderness. Permits are available in-person during operating hours at the Loomis Museum and the Kohm Yah-mah-nee Visitor Center. Self-registration is available after hours at the above locations and at the Juniper Lake, Butte Lake, and Warner Valley Ranger Stations. Permits are also available at least two weeks in advance through the park website.

Leave No Trace

Enjoy Lassen Volcanic Wilderness responsibly. Observe Leave No Trace principles including: camp at least 300 feet from other groups, 100 feet (about 30 paces) from streams and lakes, and at least 1/2 mile from any developed area.

Protect Yourself and the Park

To protect fragile resources, campfires are not allowed anywhere in the backcountry; gas stoves are permitted. Filter or treat all drinking water; Giardia has been found in park surface waters.

Bear Resistant Food Storage Required

NPS approved* containers are required for overnight backcountry users and are available for rent at the Kohm Yah-mah-nee Visitor Center and Loomis Museum.

*View a list of NPS approved containers go.nps.gov/lavo/backpacking

Hydrothermal Area Danger

For your safety, stay on established trails and boardwalks. The ground in hydrothermal areas can look solid but may actually be a thin crust hiding pools of acidic boiling water. Traveling off-trail in these areas is illegal and may result in severe injury.



Stay on established trails to avoid injury

"It feels like I put my leg in a flame"

- Visitor injured at Devils Kitchen

HIKING TRAILS

Which Hike is Right for You?

There are over 150 miles of trails in Lassen and each one offers its own reward. Below is a selection of day hikes in the park. Information about additional trails including backpacking routes is available at park visitor centers.

Average Level of Difficulty: Easy ● Moderate ●● Moderately Strenuous ●●● Strenuous ●●●●

Manzanita and Summit Lakes Area	Level of Difficulty	Round-trip Distance (mi)	Elevation Change (ft)*
Echo Lake Trail climbs through forest and woodland before arriving at Echo Lake; offers spectacular views of Lassen Peak. Trailhead 1/2 mile north of Summit Lake campground.	●●	4.4	416
Paradise Meadow Trail skirts Hat Lake and then climbs into a narrow ravine with small footbridges over creek crossings. Trail ends at a meadow lined by talus cliffs. Trailhead across highway from Hat Lake parking area.	●●	2.8	700
Devastated Area Interpretive Trail ♿ Accessible path with signs about the effects of the 1915 Lassen Peak eruption. Excellent for families or those unable to take longer trails. Trailhead at Devastated parking area.	●	0.5	0
Lily Pond Nature Trail Easy trail skirts Reflection Lake and a lily pond. A trail brochure and corresponding posts highlight the plants and trees in the area. Trailhead across from the Loomis Museum.	●	0.75	0
Manzanita Creek Trail climbs gently through firs and pines; switchbacks to a meadow alongside Manzanita Creek; then ends in a meadow with views of Eagle Peak, Vulcan's Castle and Loomis Peak. Trailhead at end of Manzanita Lake Campground road.	●●	7.0	1,110
Manzanita Lake Easy, mostly flat trail wraps around Manzanita Lake. Superb views of Lassen Peak and Chaos Crags. Great for birdwatchers, wildflower enthusiasts, and families. You can pick up this loop trail from the boat launch area or behind the Loomis Museum.	●	1.5	0
Chaos Crags and Crags Lake Climbs gently through forest before opening to the thinly forested edge of Chaos Jumbles. The trail continues down a steep path to the lake which is often dry in the summer. Trailhead 0.1 miles after turnoff to Manzanita Lake Campground.	●●	4.0	850

Butte Lake Area			
Cinder Cone Exposed path of loose cinders skirts the Fantastic Lava Beds and the Painted Dunes before climbing steeply to the summit. Trail continues into the crater and offers spectacular views of Lassen and the eastern park. Trailhead on southwest side of Butte Lake boat ramp.	●●●●	4.0	846

Warner Valley Area			
All trails below begin from trailhead across from Warner Valley Campground			
Devils Kitchen ♿ Trail gradually crosses through meadow and forest to a circuit that winds through mudpots, steam vents, fumaroles, and milky Hot Springs Creek.	●●	4.2	440
Boiling Springs Lake Trail climbs gradually through meadow and forest to the lake. Steam vents under the lake keep the water around 125 degrees. Good wildflowers and bird viewing.	●	1.8	300
Terminal Geyser Continues from Boiling Springs then follows the Pacific Crest Trail. Drops steeply to a clearing where a stream runs over a steam vent (not a true geyser).	●●	5.8	610

Pets and Trails

Pets are not permitted on hiking trails, in any body of water, or in park buildings. Ask a ranger for information about pet-friendly hikes outside the park.

Explore Safely

Your Safety is Your Responsibility

- Bring water
- Wear sturdy boots
- Bring extra food
- Pack a map and compass
- Check the weather forecast
- Carry extra layers for warmth
- Tell someone where you are going and when you will return



Southwest Area	Level of Difficulty	Round-trip Distance (mi)	Elevation Change (ft)*
Brokeoff Mountain <p>Mostly steep, forested trail climbs to the shoulder and then to the top of Brokeoff, providing excellent panoramic views of the park and surrounding area. Trailhead ¼ mi south of SW entrance.</p>	●●●●	7.4	2,600
Mill Creek Falls <p>Rises and falls through the red fir forest to an overlook of the falls. Continue across the creek to reach the top of the falls. Trailhead behind Kohm Yah-mah-nee Amphitheater.</p>	●●●	3.2	307
Ridge Lakes <p>Steep trail climbs up a ridge and then through a ravine to Ridge Lakes nestled in a basin between Brokeoff Mountain and Mt. Diller. Trailhead at Sulphur Works parking area.</p>	●●●●	2.0	1,045
Bumpass Hell <p>Rocky trail with grand vistas descends to a boardwalk through Lassen's largest hydrothermal area. Trailhead at Bumpass Hell parking area.</p>	●●	3.0	300
Lassen Peak <p>Exposed, steep trail of loose rock and cinder switchbacks up a ridge to the peak. Great views along the trail and superb panoramic views from the top. Trailhead at Lassen Peak parking area.</p>	●●●●	4.8	1,957
Cold Boiling Lake <p>Easy trail passes through forest and meadow to this bubbling lake in an alpine basin. Tiny gas bubbles escape Lassen's hydrothermal system below making it appear to be boiling. Trailhead at Kings Creek Picnic Area.</p>	●	1.4	40
Kings Creek Falls <p>Trail crosses through Kings Creek Meadows and forests before dropping steeply down to the cascades and falls. Trailhead 1 mile east of Kings Creek Picnic Area.</p>	●●	3.0	500
Terrace, Shadow, and Cliff Lakes <p>Rocky trail through the basin between Reading Peak and Lassen Peak. Lakes offer good swimming. Trailhead halfway between Lassen Peak parking area and Kings Creek Meadow.</p>	●●●	3.4	700

Juniper Lake Area	Level of Difficulty	Round-trip Distance (mi)	Elevation Change (ft)*
Mount Harkness <p>Climbs through forest and open woodland to the peak. A staffed fire lookout and panoramic views are found at the top. Trailhead adjacent to Juniper Lake Campground.</p>	●●●●	3.8	1,246
Crystal Lake <p>Short ascent winds through forest to this small tarn in a rocky basin. Trailhead 0.3 miles north of Juniper Lake Campground.</p>	●	0.8	380
Inspiration Point <p>Climbs through forest, meadow patches, and a sunny bench section. The summit rewards hikers with stunning views of Lassen, Prospect Peak, Cinder Cone, and Mount Harkness. Trailhead 50 feet east of Juniper Lake picnic area parking.</p>	●●	1.4	400
Horseshoe Lake <p>Easy trail climbs gently to a saddle between Juniper and Horseshoe Lakes. Good fishing. Trailhead at Juniper Lake picnic area.</p>	●	2.8	240

SUPPORT YOUR PARK

Entrance Fees

Your park fees provide funding for park projects that improve and enhance the experience for all park visitors.

Valid for 1-7 Days at Lassen Volcanic

Vehicle Pass	\$20
Motorcycle Entry Pass	\$15
Individual Entry Pass	\$10

Annual Passes

Lassen Pass **\$40**

Valid one year from month of purchase at Lassen Volcanic and Whiskeytown National Recreation Area.

Interagency Pass **\$80**

Valid for entrance to all federal recreation sites for one year from month of purchase.

Military Pass **Free** (in-person only)

Available to active duty military members and their dependents.

4th Grade Pass **Free**

Available to all U.S. 4th graders with a valid Every Kid in a Park paper pass.

Lifetime Passes

Access Pass **Free** (in-person)

Available to U.S. citizens or permanent residents with permanent disabilities. **\$10** (by mail)

Senior Pass **\$10** (in-person)

Lifetime pass for U.S. citizen or permanent residents age 62 or over. **\$20** (by mail)

Adopt a Pika

More often heard than seen, the American pika is a vocal habitant of Lassen Volcanic National Park. You can hear their high-pitched "eek" in the boulder strewn talus fields of the southwestern and Lassen Peak areas of the park.

Pika are considered an indicator species for detecting ecological effects of climate change.

Research suggests that this heat-intolerant relative of the rabbit is being lost to lower elevations in some areas in response to increased warming.

Park scientists complete annual surveys to track pika populations and impacts that might affect them. Using the pikas' calls and previously identified locations, survey crews look for signs of peppercorn-sized scat and small piles of dried grasses, called haypiles, to help confirm the presence of pika.

You can support pika research in the park by participating in the Adopt a Pika program offered in partnership with Lassen Association. Your symbolic adoption donation of \$25 provides funding for field scientists, remote camera equipment, and educational products for both pika and park stewards like you.



AMERICAN PIKA

Ochotona princeps



4 to 6
ounces

6 to 9
inches long



10
states
in which
American
pika are found



Lassen Association bookstores, located within the Kohm Yah-mah-nee Visitor Center and the Loomis Museum, offer books, maps, and videos about the natural and cultural history of Lassen. **All profits go directly to the park.**

Bear canisters are also available for rent at either location. Join the association and support your national park.



(530) 595-4464
lassenassociation.org
lassenassociation@yahoo.com

The Lassen Park Foundation provides support to preserve and interpret the special natural and cultural resources of Lassen Volcanic National Park and its environs for future generations.

Become a Friend of Lassen by contributing to the Lassen Park Foundation! Donations are tax-deductible.



(530) 378-2600
lassenparkfoundation.org
info@lassenparkfoundation.org

NEXT GENERATION STEWARDS



LAVA students create seed "bombs" for native plant restoration



Lassen Antelope Volcanic Academy

The 2016-2017 school year marks the beginning of a new partnership for learning between Lassen Volcanic National Park and Antelope School District. The resulting charter school, Lassen-Antelope Volcanic Academy (LAVA), provides flexible scheduling, innovative teaching, and hands-on learning for 71 fifth through eighth graders from Red Bluff, California.

Less than an hour away from Red Bluff, Lassen Volcanic provides fieldwork opportunities students can't get elsewhere. So far, LAVA students have joined park rangers and scientists in a variety of in-park and classroom activities. From sampling aquatic insects at Manzanita Lake, to creating seed "bombs" in the classroom for native plant restoration, to investigating winter ecology on a snowshoe walk.

LAVA Director John Sheffield and Lassen Education Specialist Robert Cromwell work closely to develop a culture that allows students to acquire the skills and knowledge that will motivate them to become lifelong learners and park stewards. Learn more at lavaantelope.org.

Volcano Adventure Camp

Lassen's first designated youth-camping facility opens its doors to campers this summer. Volcano Adventure Camp supports low-cost group camping experiences by reducing the amount of equipment required and providing necessary amenities for first-time campers. Learn more at go.nps.gov/vac.



Tent cabins



Stacked cots



Ranger-led programs

Activities for Young Explorers

Chipmunk Club

Our youngest explorers are welcome to participate in our Chipmunk Club. Kids can learn more about wildlife in the park and earn a Chipmunk Club sticker. Pick up a Chipmunk Club card at the Loomis Museum or Kohm Yah-mah-nee Visitor Center.



Junior Ranger Program

Kids between the ages of 7 and 12 are invited to participate in our Junior Ranger program. Choose from a variety of activities while learning more about Lassen Volcanic National Park. Kids who complete the Junior Ranger activity booklet can earn a Lassen Junior Ranger patch. Pick up a Junior Ranger activities booklet at the Loomis Museum or Kohm Yah-mah-nee Visitor Center.



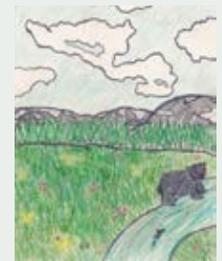
Free Parks Pass for Fourth Graders

Get and print your pass at everykidinapark.gov. Use your printed pass or trade it in for a pass card for free entrance for you and your family to all federal lands and waters through August 31.



Junior Ranger Art Contest

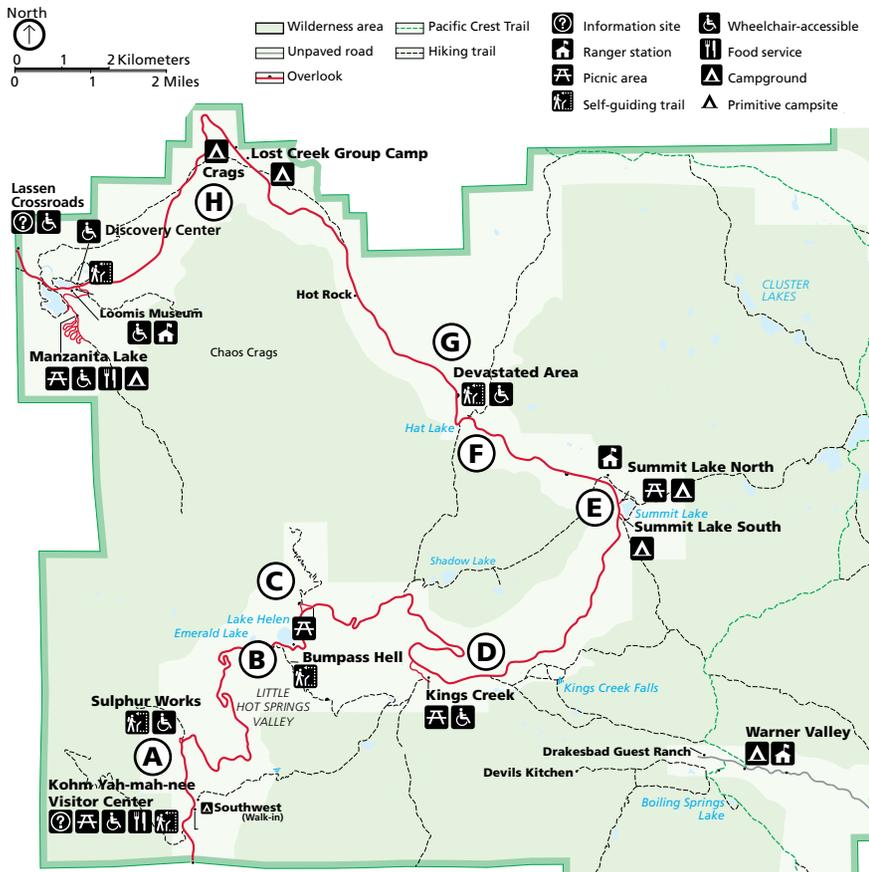
Artists age 12 and younger are invited to submit a drawing of an American pika in the park by September 1, 2017. First place will receive a Lassen Annual Pass and an Artist-In-Residence print; runner-up will receive an Artist-In-Residence print. All prizes are courtesy of the Lassen Association.



2016 First Place by Maria Szadkowska

LASSEN HIGHWAY

The 30-mile Lassen Volcanic Park Highway provides an excellent overview of the park. Travel the highway in either direction and enjoy numerous roadside highlights or learn about the park as you go with the new centennial audio tour or the in-depth, printed road guide.



Hwy 36 Road Work

Be prepared for possible delays on CA-36 both east and west of the CA-89 junction (access to the southwest entrance of the park); and CA-44 just west of the park entrance. See the map to right for approximate road work locations denoted by . Visit dot.ca.gov for the latest highway conditions.

Roadside Audio Tour

Delve into Lassen Volcanic's 101-year history with a roadside audio tour. Download the MP3 files before your visit for use on any mobile device or media player at go.nps.gov/lavo/audio.

Printed Road Guide

For a more in-depth auto tour, you can purchase a recently updated version of the printed park road guide *Lassen Volcanic National Park: Auto Tours, Trips, and Trails* at Lassen Association bookstores in the Kohm Yah-mah-nee Visitor Center or Loomis Museum.



Highway Highlights

A. Sulphur Works

Surround yourself in the gurgling symphony of boiling mudpots and hissing steam vents at the park's most easily accessible hydrothermal area.

B. Bumpass Hell Parking Area and Overlook

Can you spot the former Brokeoff Volcano, also known as Mt. Tehama, in the volcanic remnants that surround you? The nearby boulder tells the story of this massive volcano's slow disappearance.

C. Lassen Peak Parking Area and Viewpoint

Experience the majesty of Lassen Peak from the highest point on the park road at 8,512 feet.

D. Kings Creek Meadow Scenic Pull-out

Get your camera ready for this scenic spot where Kings Creek meanders through an expansive meadow at the foot of Lassen Peak.

E. North Summit Lake Picnic Area and Loop Trail

This perfect picnic spot invites you to take a dip in Summit Lake, stroll around the Summit Lake loop trail, or get ready for a trek out to Twin Lakes.

F. Hat Creek

Don't miss this area's fantastic fall colors. Use the crosswalk to access hidden Hat Creek meadow. Can you tell what animal used to live here?

G. Devastated Area

Discover the story of devastation and forest recovery following Lassen Peak's 1915 eruption on this short, accessible trail.

H. Chaos Crag and Jumbles Scenic Pull-out

Imagine a rock slide racing nearly 100 miles an hour down Chaos Crag at this pull-out on the north side of the highway about a mile from the Loomis Museum.

TRAVEL AROUND THE PARK



Travel Around the West Side of the Park

This route is the shortest route around the park. This windy road is not recommended for RVs and trailers. **Average travel time is one hour and 45 minutes.**

1. From the Kohm Yah-mah-nee Visitor Center, head south on Lassen National Park Highway (SR-89) for 6 miles.
2. Turn right (west) on SR-36. Continue for 23 miles.
3. Turn right (north) onto Lanes Valley Road. A large road sign on the north side of the highway marks the turnoff approximately one mile before the town of Paynes Creek. Continue for 7 miles.
4. Turn right onto Manton Road (CR-A6). Continue for 7 miles.
5. In Manton, turn left onto Wilson Hill Road. Continue for 1.5 miles.
6. Turn left to stay on Wilson Hill Road. Continue for 6 miles.
7. Turn right (east) onto SR-44. Continue for 17 miles.
8. Turn right (south) into the park. Continue 1 mile to the Manzanita Lake entrance.

Travel to the Butte Lake Area

The road to Butte Lake is gravel and passable by most vehicles. From the Manzanita Lake Entrance, follow SR-89 east 13.5 miles to the SR-44/89 junction in Old Station. Turn right to follow SR-44.

1. From SR-44, turn south onto Butte Lake Road (FR-32N21). Look for signs indicating Butte Lake Campground.
2. Continue 6 miles to the Butte Lake Campground and day use area.

Travel Around the East Side of the Park

This route is slightly longer than the west route, however it has fewer curves and is appropriate for RVs and trailers. **Average travel time is two hours.**

1. From the Kohm Yah-mah-nee Visitor Center, head south on Lassen National Park Highway (SR-89) for 6 miles.
2. Turn left (east) on SR-36. Continue 38 miles to CR-A21/Mooney Road located in the town of Westwood. Continue for 18 miles. Turn left (west) onto SR-44. Continue for 28 miles.
3. Turn left (west) onto SR-44/89. Continue for 13.5 miles.
4. Turn left (south) into the park. Continue 1 mile to the Manzanita Lake entrance.

Travel to the Warner Valley/Juniper Lake

The roads to the Warner Valley and Juniper Lake areas are partly gravel and are not recommended for trailers.

1. From CA-36 in Chester, turn onto Feather River Road (on the northeast side of the Feather River).

To Warner Valley

2. Continue a half mile and veer left onto CR-312.
3. Continue 4 miles and veer right to stay on CR-312. Follow signs to Drakesbad.
4. Continue 12.5 miles to Warner Valley campground and day use area.

To Juniper Lake

2. Continue a half mile and veer right onto CR-318.
3. Continue 13 miles to Juniper Lake campground.
4. Continue an additional half mile to the day use area.



2017 Annual Pass Photo Contest winning photo *American Pika along the Lassen Peak Trail* by Michele Swartout.

Annual Pass Photo Contest

Do you have the perfect photo of Lassen Volcanic National Park? Submit your photo in the Annual Pass photo contest for a chance to have your photo featured on the 2018 Lassen Annual Pass.

Photo entries must be submitted by September 8, 2017. Entries are limited to two per household. The winner will receive photo credit and a \$50 gift certificate for park bookstores, compliments of Lassen Association.

Call (530) 595-6120 or visit go.nps.gov/lavo/photocontest for more information.



National Park Service
U.S. Department of the Interior
Lassen Volcanic National Park
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Mineral, CA 96063-0100