

Providence Mountains State Recreation Area



Our Mission

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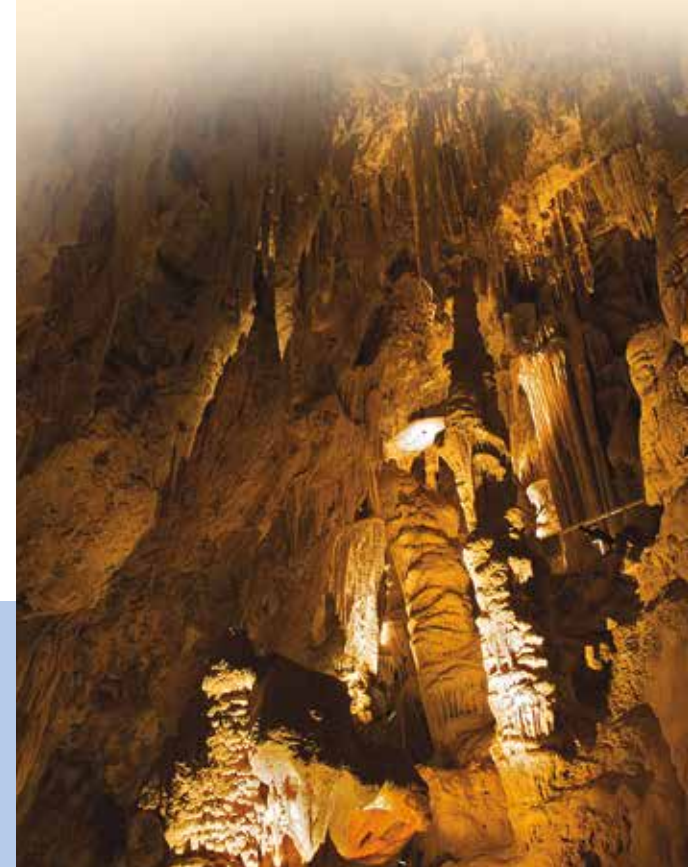
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**Providence Mountains
State Recreation Area**
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In the middle of the Mojave Desert, Jack and Ida Mitchell shared with thousands of fortunate visitors the cool beauty of the caverns' magnificent "draperies" and "coral pipes" formations.



Visitors to Providence Mountains State Recreation Area are greeted by the sight of jagged slopes of gray limestone, topped by volcanic peaks of red rhyolite. Located on the eastern slope of the Providence Mountains Range, the park lies within the boundaries of the 1.6-million acre Mojave National Preserve. From its vantage point at 4,300 feet above the valley floor, the park headquarters offers stunning views of the surrounding Mojave Desert. On extremely clear days, the distant granite peaks of Arizona's Hualapai Mountains are visible.

PARK HISTORY

Geology

The park has the oldest known rocks of the State Park System—pre-Cambrian granitoids as old as 1.7 billion years. These ancient rocks can be seen as outcroppings on the slopes below the dark to creamy gray limestone of the Bird Spring Formation. The contact between the pre-Cambrian rocks (gneiss) and the overlying Paleozoic Bird Spring Formation was created by movement along the East Providence fault. The Bird Spring Formation represents a 50-million-year period of quiet stability—when this region was covered by a warm, shallow sea

that left abundant shell-covered organisms on the sea floor.

The shells and plant materials that settled on the sea bottom eventually became limestone. As the restless land heaved upward, these formations were pushed above the level of the former ocean bed.

Fountain Peak and Edgar Peak, at the westernmost edge of the park, stand nearly 7,000 feet above sea level. These peaks are composed of Jurassic-aged Fountain Peak Rhyolite, which intruded into the limestone about 150 million years ago. Over time, the overlying rocks eroded and were transported bit by bit to the expansive basins of today's Mojave Desert.

About 12 million years ago, this area was much wetter than today and covered with luxuriant vegetation. Rainwater seeped through the soil, absorbing carbon dioxide and forming a weak solution of carbonic acid. The acid dissolved the underlying limestone, enlarging cracks and pockets that eventually joined to form subterranean chambers and passageways. Over thousands of years, the water table dropped, emptying the caverns and leaving the area intensely dry. Small amounts of groundwater became saturated with dissolved calcium from



Travertine (limestone cave deposits) forms "draperies" on the walls at Mitchell Caverns.

the limestone parent rock. As the water evaporated, it left behind thin layers of calcite crystals. Over millennia, these countless drops of water created the fanciful and intricate formations that make up Mitchell Caverns.

Native People

The Chemehuevi (pronounced Chem-e-WAY-vee) people, a branch of the Southern Paiute, have lived in the area of



Providence Mountains SRA for at least 500 years. Known among themselves as Nüwü, or the People, they migrated into the area beginning about 1,000 years ago.

When the Spanish arrived in the late 1700s, they were the first to document the Chemehuevi as a distinctive group of people. Modern local Chemehuevi live and work in Twentynine Palms, Banning, and Indio.

Europeans

Father Francisco Garcés, the first European in the area, crossed the Mojave Desert in 1776 on his way to the San Gabriel Mission. Fifty years later, Jedediah Smith and a party of trappers took the same route. The proximity of water sources governed the construction of wagon roads and settlements, and remnants of some wayside camps are visible today.

Mining

The Providence Mountains were named by travelers who believed that abundant water sources had been “sent from Providence.” Around the early 1860s, word got out that the area was rich in mineral deposits. Thousands



Jack and Ida Mitchell at cavern entrance, ca. 1940

of prospectors arrived, seeking their share of the silver, lead, gold, and copper they had heard about. Soon the area was home to tent cities—some of which became permanent settlements.

The arrival of miners devastated the culture of the native people. Water and food sources were overtaken by the new arrivals, and the Chemehuevi were powerless to resist

effectively. Some eventually took menial jobs in mining camps.

The years of greatest prosperity for the mining industry were from 1870 to 1893, when the U.S. government was buying up most of the silver ore at high prices. When the government stopped buying large amounts of silver, the industry began its decline. Small mines closed, and in the economic recession of 1907, mining investment stopped.

During the late 1920s and early 1930s, people periodically attempted to prospect in the abandoned mines.

A few would-be miners brought their families with them, taking up residence in abandoned mine buildings.

Jack Mitchell

In 1929 amateur silver miner Jesse E. “Jack” Mitchell, on a trip to the Providence Mountains, visited two limestone caverns locally known as the “Crystal” or “Providence” Caverns. The idea of turning



these caverns into a tourist attraction excited Mitchell.

Mitchell staked mineral claims on what are now the Mitchell Caverns in 1930. In 1932, nearly ruined by bad business ventures, Jack and his wife Ida moved to the desert to try prospecting for silver. To keep his claims valid according to mining law, Mitchell needed to show ongoing progress. He built tunnels, shipped ore, and hired an attorney to file patents on the claims.

Mitchell's dream of sharing the beauties of the caverns stayed alive, and lack of money did not stop him. While he constructed stone houses and other buildings, he and Ida lived in the mines. The rocky, dry terrain was nearly impassable, so Mitchell moved rocks with hand tools, creating a four-mile trail from an existing road to his property. To bring water to his property, he laid pipe from a spring $\frac{3}{4}$ of a mile away in a steep canyon down to the house he had built.

Over the next 20 years, Jack and Ida did not amass much wealth; most of their income came from the \$1-per-person fees they charged tour groups, and from the meals that Ida cooked for their visitors.

Four of Jack's buildings, made from found materials, still stand in today's park. The Mitchells' native-stone home is now the visitor center. Mitchell built three other guest buildings—two stone guest dwellings and a small, rounded stone structure sometimes called "the igloo" that Jack Mitchell termed "the Honeymoon Cottage." The rocks he used for the buildings included geodes



Barrel cactus

(hollow, crystal-lined rocks), petroglyphs (rocks covered with prehistoric art work), speleothems (cavern limestone), limestone with fossils, and bits of glass.

A New State Park

Beginning in the 1940s, Ida Mitchell petitioned the California Division of Beaches and Parks to add Mitchell Caverns to its inventory of parks. Following Jack Mitchell's death in 1954, the State of California agreed to accept Mitchell Caverns as a state reserve. In 1972 the caverns and reserve became part of Providence Mountains State Recreation Area.

Vegetation

The plants growing in the Mojave Desert are tough survivors, and many are prized for their medicinal properties. Drought-resistant piñon pines, junipers, and scrub oaks thrive in the canyon above Crystal Springs. Drifts of wildflowers, such as the perennial Mormon tea, can be seen in spring. Other species include the evergreen cliff rose, Mojave and banana yucca, and barrel cactus.

Wildlife

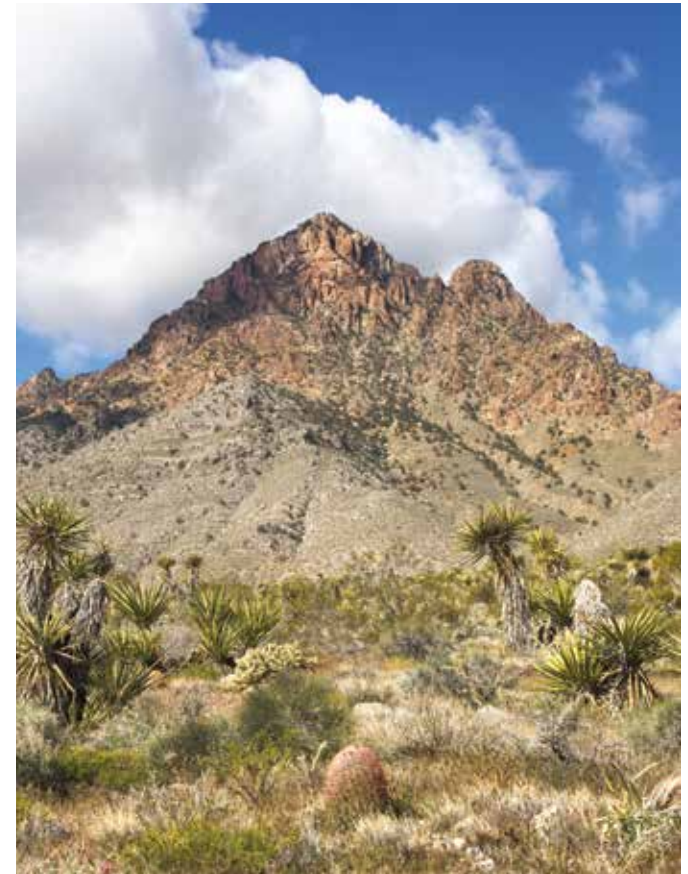
The animal species occupying this landscape include badgers—aggressive carnivores that prey on the park's antelope squirrels, cottontail rabbits, and small rodents. Various lizard and snake species do well in this habitat. Rarely, bighorn sheep are seen, and predators such as

mountain lions, coyotes, gray foxes, and bobcats hunt in the dark hours. Plentiful bird species include Gambel's quails, piñon jays, roadrunners, and cactus wrens.

Inside the caverns, elusive cave species include ringtails—small, carnivorous raccoon-like mammals—and Townsend's big-eared bats. Many cavern dwellers are nearly invisible. Tiny crab-like creatures are called stingerless pseudoscorpions. Spider-like Niptus beetles are found only in the El Pakiva Cave at the caverns but nowhere else on Earth.



Niptus beetle



RECREATION

Climate—Dress in layers and carry water on outdoor walks. Spring and fall temperatures reach the 70s and 80s. June through August temperatures often exceed 100 degrees. The caverns maintain a constant 65-degree temperature throughout the year.

Cavern Tours—Spectacular and intricate limestone formations include stalagmites, stalactites, helictites, lily pads, draperies, curtains, and popcorn. On busy weekends and holiday weeks, tours often sell out.

Call the park first at (760) 928-2586 for updated tour information and to begin the group tour reservation process.

Reservations for group tours should be made three weeks in advance.

Trails—The Mary Beale Nature Trail, near the visitor center, is a self-guided moderate walk. The half-mile Niña Mora Trail is named for the child of a Mexican silver miner who worked here in the early 1900s. The trail passes near the child's grave marker and offers matchless views of desert grandeur.

ACCESSIBLE FEATURES

Restrooms—A unisex restroom at the west end of the campground also serves the visitor center. A drinking fountain and telephone are nearby.

Visitor Center—Both the visitor center and the route of travel between the parking lot and the visitor center are accessible.

Cavern Tours—Visitors may need assistance with slopes and uneven surfaces on the 1.5-mile round trip tour. The inside path is firm and stable. Many stairs are of uniform height, and there are some handrails in the caves. Some passages are as low as 62 inches tall and as narrow as 14 inches wide.

PLEASE REMEMBER

- In order to protect the fragile limestone formations, the caverns may be seen only on guided tours.
- Bring your own drinking water—the park's water supply is limited—and extra food and gasoline. Gas stations and stores are many miles away.
- Respect the desert climate. Dress appropriately for extremes of weather; winter can bring high winds and cold, wet or even snowy weather.
- No smoking is allowed on trails, in the caverns, or during tours.
- Pets must be under a person's immediate control and on a leash no longer than six feet at all times. They must not be left in vehicles under any circumstances. Clean up after your pet.
- Do not enter caves or mines without a permit or approved prior arrangements.
- Stay alert and watchful for rattlesnakes, cactus spines, and tree thorns. Stay on trails for your safety.



MITCHELL CAVERNS MAP (aerial view)



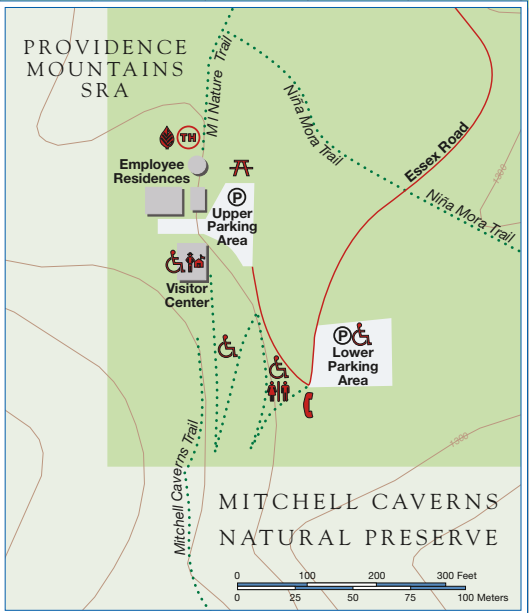
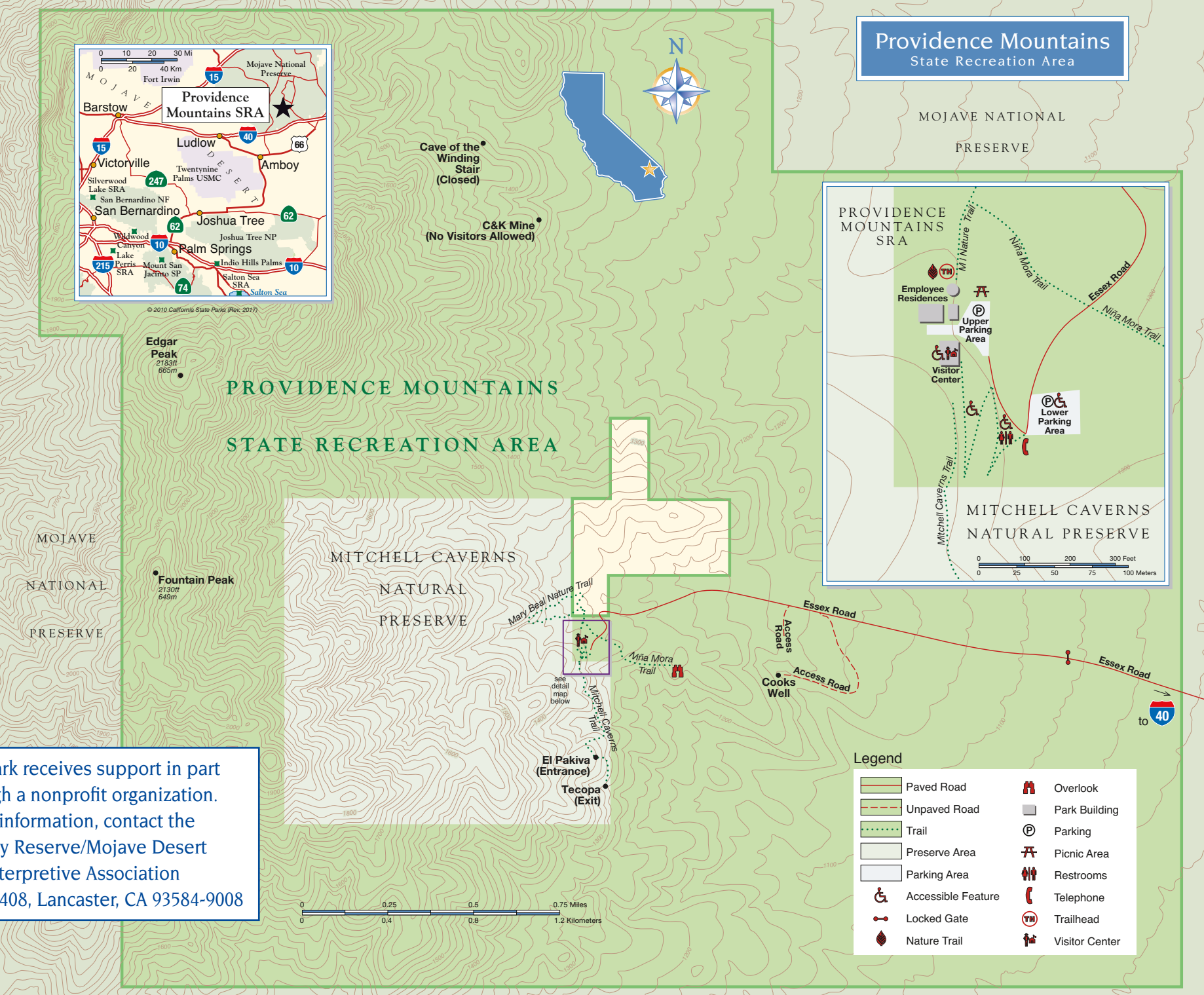
HIGHLIGHTS OF THE CAVERN TOUR

Escape from the dry, hot landscape into the cool caverns; their intricate dripstone forms will capture your imagination. Visitors walk through the two main caves, which Mitchell named El Pakiva (The Devil's House) and Tecopa (after a Shoshonean chieftain). Admire the stalactites flowing from the ceiling like draperies, the beautiful cave shields, and the staunch stalagmites—formed when mineral deposits dripping from the stalactites built up from the floor, sometimes meeting to form a solid column.

Marvel at the graceful waterfall shapes of flowstone, left behind when water seeped down the stone walls, over rocks, and down onto the cave floor. You will also see rimstone dams, thin calcite deposits that formed around the edges of ancient pools of water. The small clusters of knobs, found in only seven caves around the world, are called coral pipes.

Among the most curious formations are helictites, which take random, gravity-defying shapes. These delicate features curve and seem to wander in various directions, the likely result of capillary forces working on infinitesimal water droplets, where the capillary forces are stronger than simple gravity.

Providence Mountains State Recreation Area



This park receives support in part through a nonprofit organization. For information, contact the Poppy Reserve/Mojave Desert Interpretive Association P.O. Box 1408, Lancaster, CA 93584-9008



Legend

	Paved Road		Overlook
	Unpaved Road		Park Building
	Trail		Parking
	Preserve Area		Picnic Area
	Parking Area		Restrooms
	Accessible Feature		Telephone
	Locked Gate		Trailhead
	Nature Trail		Visitor Center