Pinnacles

NATIONAL MONUMENT • CALIFORNIA

Here the last remnants of an ancient volcano, carved into spectacular pinnacles and spires by rain, wind, heat, and frost, rise against the sky. This cluster of jagged peaks—a result of ages of relentless erosion and change—contrasts strikingly with the smooth contours of the surrounding country. Caves, watered canyons, and sweeping views await hikers who follow the trails.

Mantling these rugged slopes, a dense, brushy plant cover known as chaparral thrives in the hot, dry summers and sparse rainfall that characterize this part of California. It is the finest example of Coast Range chaparral in the National Park System and is the habitat for an interesting association of plants and animals.

The monument can be enjoyed at any season. One of the most pleasant times to visit is spring, when the hills are covered with new vegetation and dotted with a multitude of colorful wildflowers. In summer, grassy slopes turn golden brown under daytime temperatures that occasionally reach 100°F.

THE GEOLOGIC STORY

The earth shook as volcanic eruptions belched forth from the mountain some 30 million years ago. It is a relatively simple geologic story—the building up and the tearing down of a gigantic volcano while it was partially sinking between two faults.

The action began when, over a long period, vast quantities of lava poured from cracks in the earth some 5 miles long. These flows formed a dome-like mountain that is believed to have been 8,000 feet high—more than three times the height of the pinnacles today.

Often, the vents became plugged by the thick, heavy, and cooling lava. When gas pressure built up high enough within the mountain, it blew the top off, blasting some old flows into dust and rock fragments. This material fell back onto the mountain along with liquid lava spray from the blast. (This mixture—volcanic breccia when consolidated—is a common rock along most of the trails.) As the breccia cooled and came under the influence of pressure and crustal deformation, it developed many vertical cracks known as joints.

As active volcanism gradually subsided, erosion and faulting began to play important roles. Two major faults developed on either side of the mountain. Movements along these faults slowly lowered the central mass between Chalone Creek Fault on the east and Pinnacles Fault on the west. They are considered to be splinter faults of the great San Andreas Fault, along which movement still occurs, 6 miles east of the monument.

Water, seeping into the joints, separated large blocks of breccia which have become the fingers of rock or pinnacles of the high peaks. Geologically recent tilting of the mountain between the faults accelerated the stream cutting that produced very narrow gorges in Bear Gulch and at Old Pinnacles. Great detached pinnacles tumbled into these gorges, possibly shaken loose by earthquakes, and became wedged above the stream, thus forming covered canyons or "caves."

The creation of pinnacles and the deepening of canyons are still going on. As pinnacled rocks are formed, winter moisture soaks into the porous rock and dissolves minerals. Summer sun draws the moisture out, creating a mineralized-hardened surface which resists erosion. When this crust is broken by surface weakening, erosion takes place rapidly to destroy the rock mass.

THE CHAPARRAL COMMUNITY

Chaparral is a shrub community specially adapted to a light annual rainfall of about 15 inches, mostly during winter and early spring, followed by a long, hot, dry summer and autumn. These shrubs have many of the water-saving characteristics of desert vegetation and often grow to large size, simulating trees in shape and form. Thus, chaparral is sometimes referred to as a pygmy forest. At Pinnacles it is composed chiefly of greasewood chamise, mixed with smaller amounts of manzanita, buckbrush ceanothus, and hollyleaf cherry.

Wildfire, also an important factor controlling the vegetation, has repeatedly swept this region for thousands of years. Because chaparral plants are adapted to this frequent burning, they have been able to survive. Some sprout from a large root crown after fire has destroyed the rest of the plant. Others produce seeds which are stimulated to germinate by the heat of the fire that kills the parent plant.

Suppression of natural wildfire by man in this century has created an old and dense growth of chaparral that yearly becomes more inadequate as browse and cover for animals adapted to the chaparral habitat.

Chaparral holds the soil on steep hillsides and the foliage provides vital food and shelter for wildlife. Many animals make their homes in this plant community. They are often small and dull-colored, matching the dwarf forest. Much in evidence during the breeding season, animals become more retiring as the vegetation dries in late summer.

Black-tailed deer are seen often, whereas the gray fox and bobcat, also quite common, are nocturnal and secretive. Rabbits and rodents are common and provide food for some of the larger predators. Several species of bats patrol evening skies in search of insects. The more

frequently seen birds include California woodpecker, brown towhee, California quail, and turkey vulture.

ABOUT YOUR VISIT

The monument, about 35 miles south of Hollister and a short distance off Calif. 25, can be reached from the south through King City. The entrance to the west side of the monument, from U.S. 101 at Soledad, is not a through road. Travel by car to the visitor center at Bear Gulch is not possible from that direction.

Naturalist Services

Your first stop should be at the visitor center, which is about 2 miles from the east entrance. It contains a small museum and has post cards and color slides available, as well as checklists and trail maps. A park naturalist is on duty to interpret the geological and other natural features of the monument. Evening talks are presented on summer weekends.

Picnicking and Camping

Campsites for trailer and tent camping are available, but there are no utility connections. Water and comfort stations are accessible, and each campsite is provided with a fireplace and a table. Camping and fires are permitted only in the campgrounds. Bring your own fuel, as cutting or gathering firewood is not allowed. Use extreme care with smokes and matches.

Organized groups must make advance camping arrangements.

The nearest store and service station is in Paicines, 23 miles to the north.

Pets

Pets are permitted if they are kept under physical control at all times. They must not be taken on trails, into buildings, or into areas where people customarily gather.

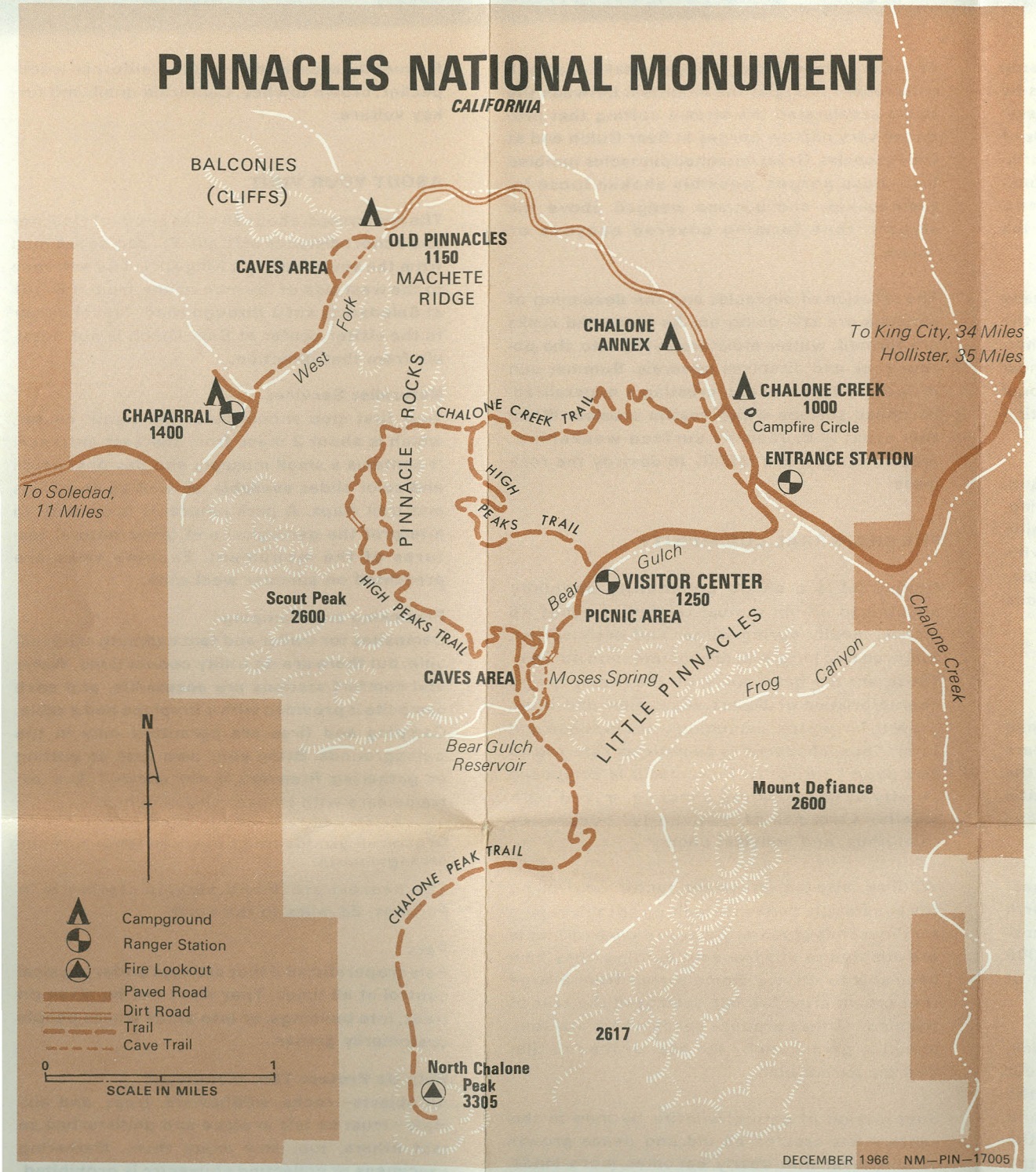
Help Us Protect This Monument

All objects—rocks, wildflowers, trees, and animals—must be left in place and undisturbed so that others, too, may enjoy them. Gathering specimens or collecting souvenirs is prohibited. This protection is a matter of law and of good citizenship and consideration for others.

Park rangers are here to assist you and to enforce regulations.

PINNACLES NATIONAL MONUMENT

CALIFORNIA



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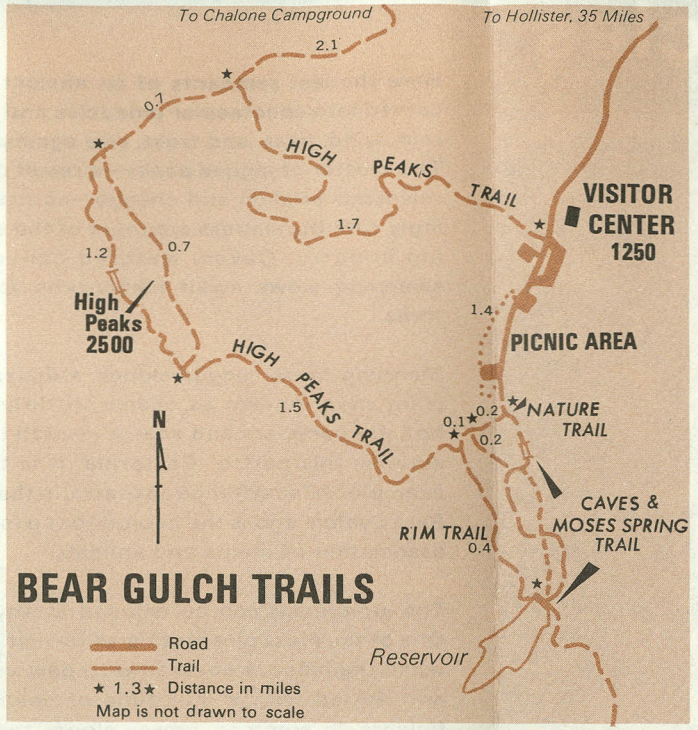

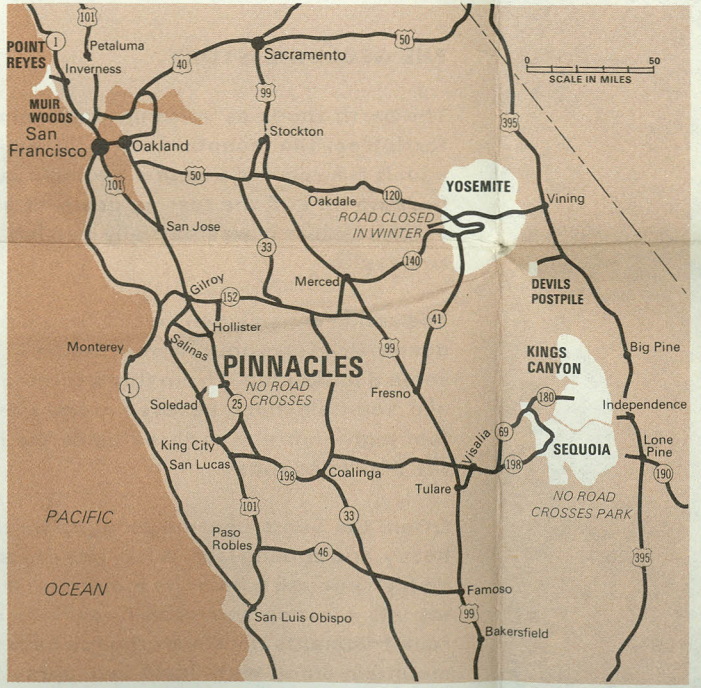

Trails

Motor vehicles and horses are not permitted on trails. Avoid shortcuts. Drinking water is available only at the visitor center and in the developed camping and picnic areas.

High Peaks Trail can be started at the visitor center in Bear Gulch or at the parking area at the upper end of Bear Gulch Picnic Area. Climbing about 1,300 feet, hikers are rewarded with panoramas of the entire monument. Allow 3 to 4 hours for the 5-mile round trip.

Chalone Creek Trail connects with High Peaks Trail about 2 miles from Chalone Creek Campground.

Chalone Peak Trail is a fairly strenuous 8- to 9-mile round trip from Bear Gulch to the top of North Chalone Peak, the location of a fire lookout. Starting on Caves Trail and continuing beyond Bear Gulch Reservoir, Chalone Peak Trail wanders uphill through dense stands of chaparral and provides a distant view of Pinnacle Rocks.

Caves-Moses Spring Nature Trail is a self-guiding 1-mile round trip. You start this trip on the Caves Trail, which follows the bottom of Bear Gulch canyon through dark passages beneath gigantic boulders wedged between canyon walls. The trail is lighted, but a flashlight may come in handy. A leaflet, available at the start, is keyed to numbered stakes along the way that point out features of interest. The stakes continue on Moses Spring Trail, along which you

can return from the reservoir to Bear Gulch parking area. This is a shaded path along the canyon wall above the caves.

Rim Trail, connecting High Peaks Trail with Caves-Moses Spring Nature Trail at the reservoir, follows a scenic route along the rim of Bear Gulch canyon. Taking this trail you can return to the parking area from the reservoir or continue up through Pinnacle Rocks from its junction with High Peaks Trail.

Balconies Trail, a hike of about 2 miles round trip, joins Old Pinnacles Campground and Chaparral Campground, and traverses the slope at the base of the Balconies (cliffs). Views of Pinnacle Rocks from Chaparral Campground are especially good.

ADMINISTRATION

Pinnacles National Monument, established on January 16, 1908, is administered by the National Park Service, U.S. Department of the Interior.

A superintendent, whose address is Paicines, Calif. 95043, is in immediate charge of the monument.

THE DEPARTMENT OF THE INTERIOR—the Nation's principal natural resource agency—has a special obligation to assure that our expendable resources are conserved, that our renewable resources are managed to produce optimum benefits, and that all resources contribute to the progress and prosperity of the United States, now and in the future.

U.S. GOVERNMENT PRINTING OFFICE : 1967 O—244-607

U. S. Department of the Interior

National Park Service