



PINNACLES *GUIDE*

Johnson & Cordone

La Siesta Press

PINNACLES GUIDE

Pinnacles National Monument
San Benito County, California

by

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COVER: Pinnacles from Chaparral Campground



Introduction

Pinnacles National Monument is a rugged land set apart. Oddly shaped spires, crags and pinnacles tower above the visitor. Chaparral-clad hills provide cover for most of the Monument's varied wildlife. Cool talus caves and steep-walled canyons offer relief from the summer heat. And many of the trails entice the hiker to see what is around the next bend.

To see, to know and to appreciate all that Pinnacles National Monument has to offer the visitor, one should hike one or more of its many trails.

Some beckon the hiker upward in a rather strenuous manner into an intimacy with the High Peaks vistas and their fascinating volcanic structure. The easier destination for others will be the always-popular caves, where adventures for all await and where alcoves of greenery appear unexpectedly around a bend below soaring spires and sheer walls.

Whatever the interest of the visitor to Pinnacles may be, its birds and wildlife, its rugged chaparral-covered topography or the always incredible geological features, the trails will lead him there for an hour or for a day.

The Monument, established on January 16, 1908 by Pres. Theodore Roosevelt, contains over 16,000 acres. Over 80% consists of steep, chaparral-covered slopes which are accessible on scenic trails of varying lengths and steepness.

The Monument is primarily a hiker's area because of its relatively small size and the fragile nature and inaccessible location of its principal ecological features. The major features for interpretation within the Monument include the spectacular pinnacles of volcanic origin, the ever-popular 'caves' and the diverse vegetation.

Once the home of the California Condor whose very survival is now threatened, the Monument is still blessed with many species of birds, both migratory and permanent, as well as a variety of other wildlife.

The rough, rocky and arid landscape of the Monument caps the low Gabilan mountain range about 150 miles (240 km) south

of San Francisco, 75 miles (120 km) south and east of San Jose and approximately 310 miles (500 km) north of Los Angeles.

The highest point of the Monument is North Chalone Peak at 3304 ft. (1007 m), while the lowest point is about 800 ft. (244 m) where Chalone Creek crosses the Monument boundary on its southeasterly side.

The major visitor area on the eastern side of the Monument is reached from the north via State Highway 25 and is 34 miles (55 km) south of Hollister. It can also be reached from King City via G13 and State 25. A four mile (6.5 km) surfaced road leads to the entrance station, just beyond the privately operated Pinnacles Campground.

The entrance to the west side of the Monument is a 12 mile (19 km) drive from Soledad on Highway 146 on a good but winding secondary road. It is not a through route. The Chaparral Campground and Ranger Station are located here. Trails but no road connect the east and west sides of the Monument.

Those wishing to see the Pinnacles from near a road can best do so from the west, where the jagged spires of the high peaks rise in a spectacular fashion.

History

The story of man at Pinnacles begins over 500 years ago with the Costanoan Indians who eked out a marginal living in this rugged land. Two subgroups of Costanoans, the Soledad and the San Juan Bautista, seasonally visited the area within the Monument. Aborigines, perhaps ancestors of the Costanoans, occupied or visited the area at a much earlier time. Archeologists have unearthed a large projectile point at the Pinnacles that dates back about 2000 years.

Anthropologists believe that the Pinnacles area was intermittently occupied by small groups of people. A lack of water during the summer suggest that the Costanoans did not live permanently in the Monument area. They probably came from along the Salinas River and those valleys that were more suited for year-round living.

The acorn was the main food. Deer, rabbits and birds were hunted with a bow and arrow or a throwing stick, and fish were caught in the meandering Salinas River.

The expansion of the Spanish mission system along with widespread disease all but eliminated the Costanoan population. By the time anthropologists began to study the Costanoan, the culture had almost become extinct.

Legend has it that high in the Gabilan Mountains are one or more 'Lost Spanish' silver mines. The rumor goes that the mines were found and kept in great secrecy by the padres from Mission San Carlos Borromeo (Carmel). Not long after the mission's founding in 1770, large amounts of silver found its way into the religious ornaments of this and other missions. All mining stopped when the Americans arrived. The mines were covered and, as usual, a curse was put on any foreigner who would go near the mines, and death would strike any Indian or Spaniard who led an American to the mines.

While it is true that the missions had a number of silver religious objects, as far as is known these were all fabricated in Mexico of Mexican silver. The first silversmith to appear in California, Jose de la Rosa, did not arrive until 1834 and then devoted most of his time to politics rather than smithing.

Over the years many people have searched the Gabilan Range in vain trying to locate lost mines. The story is told that in 1850 a prospector stumbled upon the mine in a thick fog. He spent the night there, and the next morning headed through the fog for the nearest cattle camp with some ore samples. The cattle camp crew spent five days searching for the mine but never did find it.

In 1874, B. F. Ross, sheriff of San Benito County, while pursuing horse thieves, found a smelter, but never could find a mine. It is believed that the smelter may have dated from the days of the Spaniards or Mexicans.

In 1957, Oliver Bowen, an engineer for the California Division of Mines, while making a survey for lime deposits, accidentally came on a mine high in the Gabilan Range. The mine did fit the description from the legend which said that the Soledad Mission could be seen from near the mine, which was hidden by pines and was high in the mountains. This old silver mine is located about 15 miles from the Pinnacles.

Silver mining has occurred over the years within the boundaries of the Monument. The Copper Mountain Mining Company once operated in the Old Pinnacles (westside) region. Another mine was located near the Headquarters area. The mines have not been worked since they were included within the Monument boundaries.

The notorious outlaw Tiburcio Vasquez and his band used the Pinnacles area as a hideout from the law. He had killed William Hardmount, an American constable, at a Monterey dance hall when Hardmount tried to arrest one of Vasquez' companions after a disturbance that centered around a dancer's atten-



tions to an American seaman. Vasquez escaped with his life, and this incident started him on his career of crime.

Vasquez and his gang were feared throughout Central California as they continued to kill, pillage and plunder. After a crime they would return to the safety of the rugged crags and caves. Many times they were pursued by the law only to 'disappear' among the rocks. Bear Gulch Caves was a favored hideout of Vasquez. One large room in the caves was called the Bandit Room.

The bandit's luck finally ran out. At Snyder's store in Tres Pinos (now Paicines), Vasquez and one of his men killed three men during a holdup. After the robbery Vasquez reportedly stashed the loot in the caves at the Pinnacles before fleeing to the Los Angeles region. The money was never found and many believe that its existence is only a myth.

Sheriff William R. Rowland of Los Angeles County got a tip that Vasquez was hiding out in a house west of Los Angeles. The sheriff's posse surprised the outlaw who was wounded as he tried to escape through a window. Surrounded by the law, Vasquez surrendered. He was later brought to trial, and his life of crime ended on March 19, 1875, when he was hung in San Jose.

Pinnacles had many boosters in the early days before it became a national monument, but the efforts of two men stand out. In 1891 Schuyler Hain arrived in the area from Michigan. He immediately was impressed with the rugged crags of the Pinnacles and worked tirelessly for 15 years to preserve the area. Hain spoke to many groups and guided numerous people through his beloved Pinnacles. In a large part, it was his untiring effort that led to this land becoming a national monument. Another ardent supporter of the Pinnacles preservation movement was Dr. David Starr Jordan, an early president of Stanford University. Dr. Jordan made brief visits to the Pinnacles and assisted Schuyler Hain in his preservation efforts. The unfaltering efforts of these two men and many others resulted in Pres. Theodore Roosevelt establishing the Pinnacles National Monument in 1908.

The Pinnacles Lodge was built in 1925 and stood near what is now the Visitor Center. The Lodge and cabins were popular with visitors for 23 years. It was known for its good food and reasonable rates. Operations stopped in 1948 and the old wooden building fell into disrepair. Sadly, in 1955 the old Lodge was dismantled. Park employees now reside and work in the cabins that once housed lodge guests.

Geology

The geology of the Pinnacles National Monument is complex, but certain features of this rugged topography are of interest to even the most casual observer:

- The rocky dramatic spires of the High Peaks and the reservoir area, plus the equally awesome pinnacles and sheer rock faces of Machete Ridge and the Balconies. What are they and how did they reach their present form?
- The ever-popular 'caves' of Bear Gulch and the Balconies, which offer such a pleasant and cool respite from the summer heat. These also prove to be an exciting adventure for visitors of all ages. How were they formed?
- The Chalone Creek stream-bed, which contains fascinating rocks of many types including granite, although the towering spires of Pinnacles National Monument are not composed of granite. Where did it all come from?

Geologically, the area known as the Pinnacles Volcanic Formation and its rocks have been dated by potassium-argon methods to $23\frac{1}{2}$ millions years of age. All rocks, whether they are volcanic, sedimentary or metamorphic, are composed of minerals, one or two or many. Volcanic rocks derive their appearance, structure and texture from their origin as molten material deep within the earth. Basically, if this material, called magma, cooled slowly under the surface of the earth, the individual minerals have more time to crystalize or grow into mature form — coarse-textured rock such as granite is the result. If the magma poured out of fissures onto the surface of the earth or emerged as a gas-choked explosive material from the vent of a volcano, it cooled rapidly. The individual mineral crystals did not have time to grow to maturity, so a fine-textured rock such as rhyolite is the result.

The inherent mineral composition gives the rock its color. Some of the volcanic rocks are high in minerals of the feldspar and quartz variety and are low in iron. They are relatively light in color like most granite. Others, such as lava flows of basalt, are lower in the feldspars and quartz and high in darker-colored minerals such as iron and are, therefore, quite dark in color. Several excellent identification charts of rocks based on color, texture, weight, mineral composition and other factors are available, as are useful books on this subject.

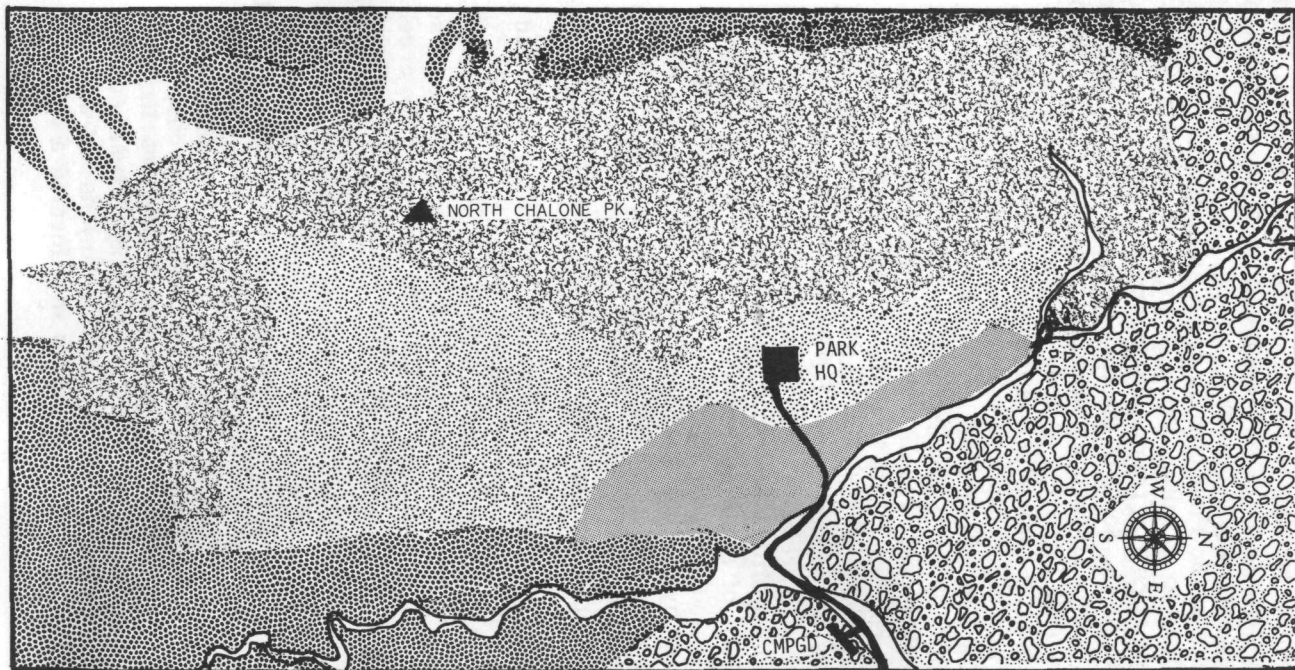
One might ask if granite was formed slowly under the surface of the earth, why is it now exposed throughout the high Si-

erra Nevada and, in places, near the seashore? In the process of uplift and mountain building over millions of years, the agents of erosion, running water including ocean activity, wind and glacial ice have stripped the original overlying cover from the granite, exposing it to view.


The rocks of the Pinnacles in color and mineral composition are close to granite. Much of its rock consists of volcanic pyroclastics (fire fragments) incorporated with rock from surface lava flows. Some of the rock of the Pinnacles has been altered by thermal (heat), chemical or climatic activity (such as in the caves). However, as they originated, largely as limited lava flows on the surface of the earth, they cooled rapidly. Thus they are much finer in texture (or grain) than granite. These rocks are called rhyolite. Many studies have shown that over 90% of the Pinnacles Volcanic Formation consists of three rock types: rhyolitic breccia, massive rhyolite and flow-banded rhyolite. The breccia is composed of small irregular fragments of rhyolite that became imbedded in still molten flows of the same material before cooling took place. Massive rhyolite presents itself as an homogenous mass. The flow-banded rhyolite takes on a layered appearance resembling the strata of some sedimentary rocks. A flow would emerge, cool and perhaps have some surface erosion before being covered by another, perhaps slightly different appearing flow. This presents a banded appearance at a distance in much of the pinnacled portion of the Monument. These bands and flow structures dip generally westward and are called an homocline.

To the west, the Pinnacles Volcanic Formation rests unconformably on older eroded bedrock granite. The water of Chalone Creeks has had upstream erosion access to some of this granite beyond the northwest portion of the Monument, so many small granite boulders are found in the bed of the creek which, in part, marks the trace of the ancient Chalone Creek Fault.

Over many millions of years following the cessation of volcanic activity, some of which was of an explosive nature, uplift occurred. Running water physically and chemically eroded several deep, narrow canyons within the Pinnacles Volcanic Formation. More erosion by water in flow joints, assisted by wind erosion, formed huge boulders above the canyons, which eventually were loosened by gravity and probably earthquakes caused by sudden earth movements of faulting. These boulders and large fragments fell into the narrow canyons but were too large to fill the gorges, so in places they formed a roof over





PINNACLES VOLCANIC FORMATION

 SEDIMENTARY [Sandstones - Conglomerates]

 GRANITIC BASEMENT

 ALLUVIUM

 BRECCIA - TUFF

 RHYOLITE GROUP

 ANDESITE - DACTITE

WALT WHELOCK

the canyons resulting in the 'caves' of Bear Gulch and the Balconies. Running water over the ages has further enlarged the 'caves' as the visitor sees and enjoys them today.

The continents appear to rest on what are called tectonic plates, great masses of heavy basaltic material deep within the earth. They shift, break and separate, causing earthquakes and rock movement called faulting.

Millions of years ago, two of these huge plates, running in a 600 mile (970 km) north-south line, were wrenched apart. The eastern continental plate, called the American, remained stationary. The western one, the Pacific plate, has been moving northward at an average rate of about one and one-half inches a year for millions of years. This awesome 600-mile rift marks the location of the infamous San Andreas Fault. Its north lateral movements have been responsible for many devastating earthquakes over the years, including the tragic San Francisco quake and fire of 1906.

Many geologists now agree that the pinnacles as the visitor sees them today were not born here. The lava flows, volcanic eruptions and subsequent uplift, plus water and wind erosion that formed them began 195 miles (316 km) south. There, the Pinnacles Volcanic Formation was a part of another identical volcanic area now called the Neenach Volcanic Formation and located along California #138 between Lancaster and Gorman. The San Andreas Fault separated the two parts and, perhaps 20 million years ago, the western half began its northward movement (called strike-slip displacement). This movement is still taking place, but since the establishment in 1908 of the Pinnacles National Monument, only a small amount of movement has taken place. At this rate it will be millions of years before the Monument will have moved northward to take the place of what is now San Francisco.

An even more disturbing suggestion is that millions of years hence, Los Angeles will have migrated north and will occupy the present site of the Pinnacles National Monument. Following these grim prospects, it has been suggested that the San Andreas Fault should be bolted together to prevent this!

In a more serious vein, many note that the present day San Andreas Fault is actually located four miles (6 km) to the east of the Monument's eastern boundary (in the valley of the San Benito River).

The major traceable break in the Monument is the Chalone Creek Fault, which is partly responsible for the stream-eroded valley of Chalone Creek. This fault has been traced both north and south of the Pinnacles for a total distance of

about 52 miles (85 km). Many miles to the south, it joins the San Andreas Fault and evidence now points to the fact that during the last few miles of the northward movement of the Pinnacles Volcanic Formation, the Chalone Creek Fault was actually the ancient trace of the San Andreas. Subsequent earth movement over the past few million years has separated the two faults. Roughly along a north-south line just to the west of the Chaparral Campground is the Pinnacles Fault Zone, where the westward-dipping rhyolite rocks come into contact with the older granitic rocks of the Gavilan Range. It is difficult to see with any accuracy, however, because of dense chaparral growth.

The rocks that hikers will see and visit frequently, then, are the rhyolite-breccias of the High Peaks. They are primarily rhyolite flows in which are imbedded angular fragments of more rhyolite. The rock faces composed of this material are frequented by rock climbers. This is also the predominant material of the spectacular Machete Ridge and the vertical walls of the Balconies.

The large area to the east of North Chalone Peak consists of massive fine-textured rhyolite of gray to pink, but it is largely concealed by chaparral. On the west edge of the Monument, banded rhyolite flows contact the old granite unconformably.

Other, small amounts of rocks are present, including andesites and dacites. Some tuff (a cemented volcanic ash) and pumice are present, but the rhyolite breccias, flows and massive rhyolite rocks predominate.

This is only a brief resume of the geologic story that apparently spanned $23\frac{1}{2}$ million years. Another few million years may see the Pinnacles reduced to a flat plain by erosion. Perhaps, however, more molten material will find its way up from deep within the earth and again explosive activity, lava flows and subsequent deep erosion by running water and wind will then sculpture a newer and even grander mass of pinnacles. And, who knows? Someday they may find their way via the San Andreas Fault route another 100 miles north to the San Francisco Bay region.



East-west Geological Cross Section

Natural History

To most visitors to the Pinnacles National Monument, the words 'natural history' refer to the great diversity of plants and animals, including the birds. Natural history does indeed refer to the study of living organisms, including both plants and animals, and their characteristics. It encompasses their distribution, behavior, life cycles and ecological relationships. Included are the smallest of living things, from insects to the lichens on the rocks — things most visitors may not even see.

The authors intend to brief only the most obvious features of the Monument. For those wishing more comprehensive information, please check the references. Some fine publications are available at the Visitor Center. Most of these refer to the scientific as well as to the common names.

Scientific names (usually in Latin) are used to specifically identify a plant or animal because many have various common names which may be confusing. For example, there are many native and exotic pines in the world all with the generic name *Pinus*. However, there is only one *Pinus sabiniana*, the Digger pine of the western United States. There are two manzanitas in the Pinnacles, the Mexican *Arctostaphylos pungens*, and the big-berried *Arctostaphylos glauca*.

BIOTIC COMMUNITIES

Most biologists recognize four major and reasonably well-defined biological communities in the Monument. Each, in general, has its own assemblage of plants and animals, although some, like the Digger pine, are growing freely in all four. These four communities are the Riparian, the Xeric, the Chaparral and the Foothill Woodland.

RIPARIAN COMMUNITY

This Community is not a large zone. The valleys of Chalone Creek, Bear Gulch and West Chalone Creek are the most visited of this water-requiring community. In the heat of summer, even Chalone Creek is seemingly dry, with only an occasional standing pool to reflect the overhead beauty. But don't be misled, the water is there just under the surface and the plants that require it know this. Usually enough surface water remains to give the animals enough to drink. During the rest



of the year all the intermittent streams carry considerable amounts of surface water. Chalone Creek can even become a small river.

The trees are the most obvious plants and help shade and control the growth of many of the smaller plants beneath.

The gray-green Digger pine, although extremely drought resistant and found throughout the Monument, is also prominent in the stream valleys. It has three long needles in each sheath and its short, thick, heavy cones lying beneath the trees are very characteristic. It is the only pine here.

Other obvious trees of the community are the huge, spreading and deciduous valley oaks, the largest tree of the oak family. The large and evergreen coast live oak is also common. In the fall its green foliage stands out against the surroundings of brown, parched-appearing vegetation. The large, white-barked California sycamore is conspicuous, as is the Fremont cottonwood. Two small willows, the sandbar and the arroyo, are common along stream courses.

In season, many lovely flowers are seen and early spring will witness the green meadows alive with the color of poppies, lupine, shooting stars and others. Roses, gooseberries, chainferns, blackberries and hedgenettles are prominent. Be alert for that infamous character, the three-leaved poison oak. It can be prostrate, shrub-like, or it can climb as a vine for many feet up a tree.

Birdlife is rich and varied. The two essentials, food and shelter, are here in abundance. On weekends, many people interested in birds—look eagerly for glimpses of the white breasted nuthatch, the black-headed grosbeak, woodpeckers, humming birds, scrub jays and many others. Hawks are often seen soaring over the rocks and stream valleys.

Mammals are often more obvious and are of great interest to young and old. The nocturnal raccoon, although a pretty animal, can be the scourge of a campground. They have been known to enter tents in search of food. Secure food at night.

Deer may be seen in the middle of the day, but are more obvious during the feeding times of early morning or late evening. Ground squirrels and chipmunks frequent campgrounds. More elusive, but often seen are foxes and coyotes.

Occasionally, the most furtive of cats, the bobcat and the mountain lion, are reported, but usually in the higher areas.

Several reptiles are here including salamanders, lizards and snakes. Only one, the Northern Pacific rattlesnake, is harmful to man. In April and May and again in early fall, be

watchful when on or off the trails. They coil when danger approaches but only strike when they feel radically disturbed. If you see one, do LET IT BE!

CHAPARRAL COMMUNITY

Over 80% of the Pinnacles National Monument consists of the distinctive plant community called Chaparral. Apparently the name is derived from the Spanish 'Chaparro' for scrub oak, which is found in the Monument.

Within only a few feet of rise from the lower stream valleys, the brushy, monotonous-appearing chaparral will commence. Many plants are found here, but the greater portion of the vegetation consists of three hardy shrubs: red-barked manzanita, buckbrush or ceanothus and chamise or greasewood. Off-the trail travel can verge on the impossible because of the thick, spiny and virtually impenetrable cover presented by these three species. Elsewhere, the authors have outlined the effects of fire, intentional or accidental, on the vegetation of the Chaparral.

The scarcity of water especially during the summer months, is reflected in the ability, through adaptations, of the plants and many of the animals to grow and survive here. The only tree of any size in the Chaparral is Digger pine, whose roots can penetrate many feet into the soil and cracks in the rocks in their quest for water. The holly-leaf cherry with its spring creamy-white flowers grows here as does the California toyon or Christmas berry. The seeds and the berries were used by the Indians of the area for various purposes.

The most characteristic bird of the Chaparral is the wren-tit, whose distinctive call is commonly heard. Other smaller birds often seen are the California thrasher and the brown towhee. A flash of grayish-blue will mark the presence of the scrub jay. Two small hawks, the sharp-skinned and the sparrow, are predators of this community.

Snakes are not often seen, but if a rattlesnake is to be spotted, it most often will be in the Chaparral. The enemy of the rattlesnake, the kingsnake, is also here.

Bobcats prefer the seclusion of the Chaparral and the rocks above. They are normally nocturnal hunters, but are occasionally seen in the daytime. Deer are quite common from the stream valleys to the base of the high rocks. Rabbits are here, but are more often seen in the open areas of the Riparian and the Foothill Woodland.

The ecological importance of the Chaparral to the surrounding communities is a vital one.

XERIC COMMUNITY

Xeric, which appropriately means extreme dryness, or aridity, is fitting for this rocky region. Like the Chaparral, the limiting factor here is water. Lack of water, rapid drying conditions in the hot summer temperatures and a generally poor, thin soil are the most important factors in the Xeric Community. Often, only a few feet separate the Chaparral from the Xeric.

Generally speaking, very few plants of any size exist here except occasionally where an eroded hollow has accumulated some soil. The most obvious plants to be noticed by observing visitors are the lichens, which grow on the rocks in profusion. These are tiny moss-like plants, which cover the rocks to such an extent that they lend a color. Light green, browns, light reds and faint orange colors are common. Some interesting literature and exhibits in the Visitor Center explain the life cycle of the plant, actually a fungus-algae partnership.

This community does support a population of small animals, with an ecological interaction between them and the plants continuously taking place. Birds nest here. The turkey vulture, a scavenger, is the largest bird seen in the Monument. The peregrine falcon, perhaps two or three nesting pairs, has been seen high on the rocks of the Balconies in the years past. It has been called the fastest of all American flying birds, and reportedly has been clocked in dives to 175 miles per hour. The golden eagle is still reported occasionally.

The California Condor, long gone from the Monument, used to nest among its high spires.

Bobcats are here and the elusive mountain lion is still occasionally seen. More often seen and heard among the high peaks, however, are the not-so-elusive rock climbers. They are reported to be increasing in population.

FOOTHILL WOODLAND

This distinctive community consists of grasslands dotted with trees. Its relief is usually gentle and it most commonly occurs on the north and east facing slopes. As usual, water, soil and temperature are limiting factors for both plants and animals. The only two large trees are the Digger pine and the blue oak, and the use of the word large is only relative. Both

are extremely drought-resistant and send long roots deep into the soil and rocks in search of water. Many species of grasses are found in the open areas of the Foothill Woodland Community and some are identified in the Visitor Center.

The California quail is a distinctive bird of the grassland although seen in other communities as well. Its principal enemies, the gray fox, red-tailed hawk and bobcat are found here also. The commonly seen mule or black-tailed deer are often a pleasant sight in the open grasslands. Rabbits, too, abound here. It has been estimated that this community only embraces about 7% or 8% of the Monument, but its ecological importance is far greater than its geographical extent.

The visitor who is interested in knowing about this complex ecological life will find much information at the Visitor Center.

Prescribed Burning

Traditionally in our forests, grasslands and outdoor recreational areas, fire has been looked upon as a dreaded enemy instead of a natural phenomenon. Over the years, great sums of money, both public and private, have been spent on many projects related to the prevention, detection and ultimate suppression of wildfires. Governmental agencies, notably the US Forest Service, National Park Service and state forestry organizations, have mounted impressive anti-wildfire programs. The nation-wide Smokey Bear campaign has probably been the most successful.

"Drown your campfire, every spark," and "Only you can prevent fires," have become familiar slogans to all frequent outdoor recreational visitors. The time-honored forest lookout system, summertime standby forest fire crews, the trained smokechasers and smokejumbers have all played their part in attempting to control fire on forest and grassland areas.

Lightning fires have actually set more disastrous forest fires than have people, and even Smokey Bear is helpless to prevent these.

Often visitors hiking the Pinnacles Monument trails, particularly through the chaparral, will see where large areas have recently burned. They see the blackened 'eyesore' and smell the pungent result. Most probably, they blame lightning or careless smokers. Many are indignant when they learn that some of the fires were intentionally set. Why? -- they ask.

The philosophy and practice of controlled or prescribed burning as an ally on certain forest and grassland areas is not new. Its recognition and acceptance as an important tool in forest management is still highly criticized by a great number of outdoor area users.

Overprotect a certain forest area for fifty years and the result will be a tremendous overabundance of fire susceptible, understory vegetation and organic cover on the forest floor. When tinder-dry in the summer and prone to lightning strikes or man's carelessness, a disastrous conflagration can result.

Fire ecologists contend that the best control is to intentionally use fire as a tool to prevent this potentially dangerous buildup of fire susceptible material. This makes sense. Some loss of esthetics and wildlife habitat will result, it is true, but not the tragic result that can follow an uncontrolled wind-drive wildfire. The classic example was the Peshtigo, Wisc. fire of 1879 that claimed 1500 lives and scarred thousands of acres of forest lands.

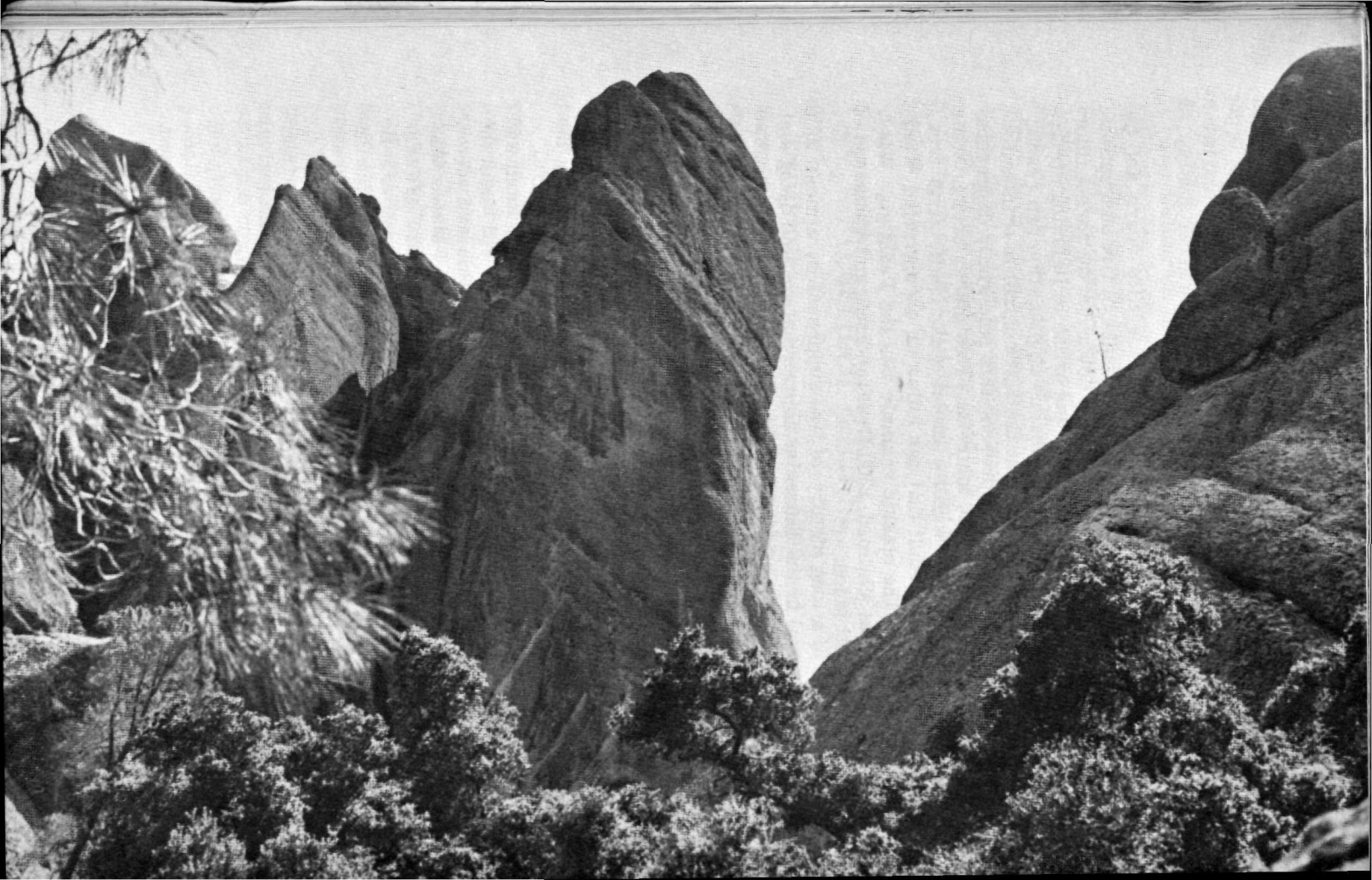
Because of a long history of fire suppression, almost 20% of the chaparral of the Pinnacles is overmature and dying and little new growth is evident in such areas. Its value as browse for deer is greatly lessened. Prescribed burning can partially solve this problem.

Chaparral vegetation has been dependent on fire to stimulate germination of seeds and, following fires, better growth results. Studies also show that manzanita and ceanothus seeds germinate well after the heat of surface fires have been applied. Because fires have been suppressed, non-fire tolerant species such as Digger pine and California live oak are invading the chaparral. Some visitors may ask "Is this bad?"

Chaparral vegetation depends upon fire to renew itself and its plants have adapted to this purpose. Growth will begin the first year and accelerate until maturity. Dr. Robert Sweeney of San Francisco State U, a noted fire ecologist, states that "Such vegetations that are dependent on fire and that are frequently burned, reproduce in abundance and prosper." He further states that some needed plants only sprout following fire and that the seeds of these have lain dormant for 60 years because fires have been suppressed.

Species such as the Digger pine will be forced back to their rightful ecological balance and the development of biological species will resume as it should in a natural area.

Considerable fire-scarred ugliness will briefly result, but new growth soon eliminates this. The controlled use of fire results is a great overall benefit to the natural areas affected.



It is not implied that fire control should be eliminated on all of our forests and grasslands but only on lands where the controlled use of fire may be beneficial.

The chaparral vegetation areas of Pinnacles National Monument are typical of these. Local studies, experience with fire use and public opinion may dictate the future use of this tool on other public and private lands.

Climate

The Monument, although only 35 miles (56 km) from the Pacific, is located in a semi-arid climatic area. The dominant range of the Santa Lucia Mountains across the Salinas River Valley to the west restricts most of the marine influence, and hot, dry summers with cool winters are the result. Temperatures of over 100° (38° C) are not uncommon in May, June, July, August and September while the cool winter season from November to April brings 16 inches of rain to the Monument. Daytime temperature variations between early morning and afternoon can exceed 50° (10° C). Some snow occasionally falls on the higher elevations.

Consistently, the most pleasant weather and the heaviest visitation to the Monument occur in the spring and the fall, especially during the months of April and May and again in October and November.

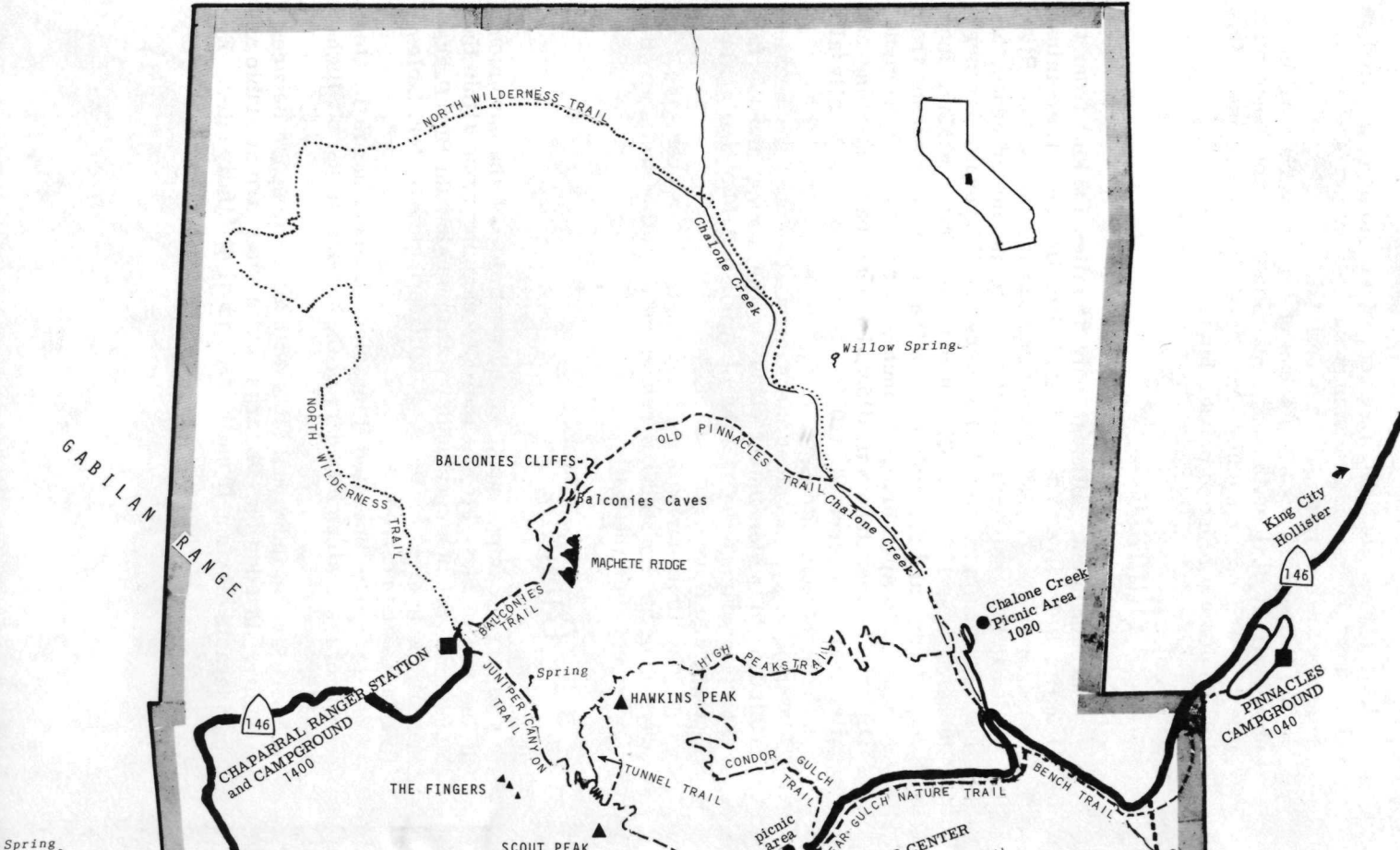
At any time during the winter months, however, pleasant days do occur, and hikers can enjoy an outing while meeting fewer people on the trails.

Camping

Chaparral Campground, on the west side of the Monument at the end of State 146, is the only camping area within the Monument. Set in a spectacular location below the High Peaks are 25 walk-in sites for tents. Facilities include water, tables, fireplaces and restrooms.

The privately operated Pinnacles Campground is located outside of the eastern boundary of the Monument just off Highway 146.

There are 78 individual sites with adequate space between each site. In addition, 14 large group sites are available at considerable distance from the individual or family sites. E-



GABILAN RANGE

NORTH WILDERNESS TRAIL

Chalone Creek

Willow Spring

BALCONIES CLIFFS

Balconies Caves

MACHETE RIDGE

HIGH PEAKS TRAIL

HAWKINS PEAK

BALCONIES TRAIL

JUNIPER CANYON TRAIL

Spring

TUNNEL TRAIL

CONDOR GULCH TRAIL

Picnic area

BEAR GULCH NATURE TRAIL

BENCH TRAIL

TRAIL CENTER

CHAPPARRAL RANGER STATION and CAMPGROUND 1400

Chalone Creek Picnic Area 1020

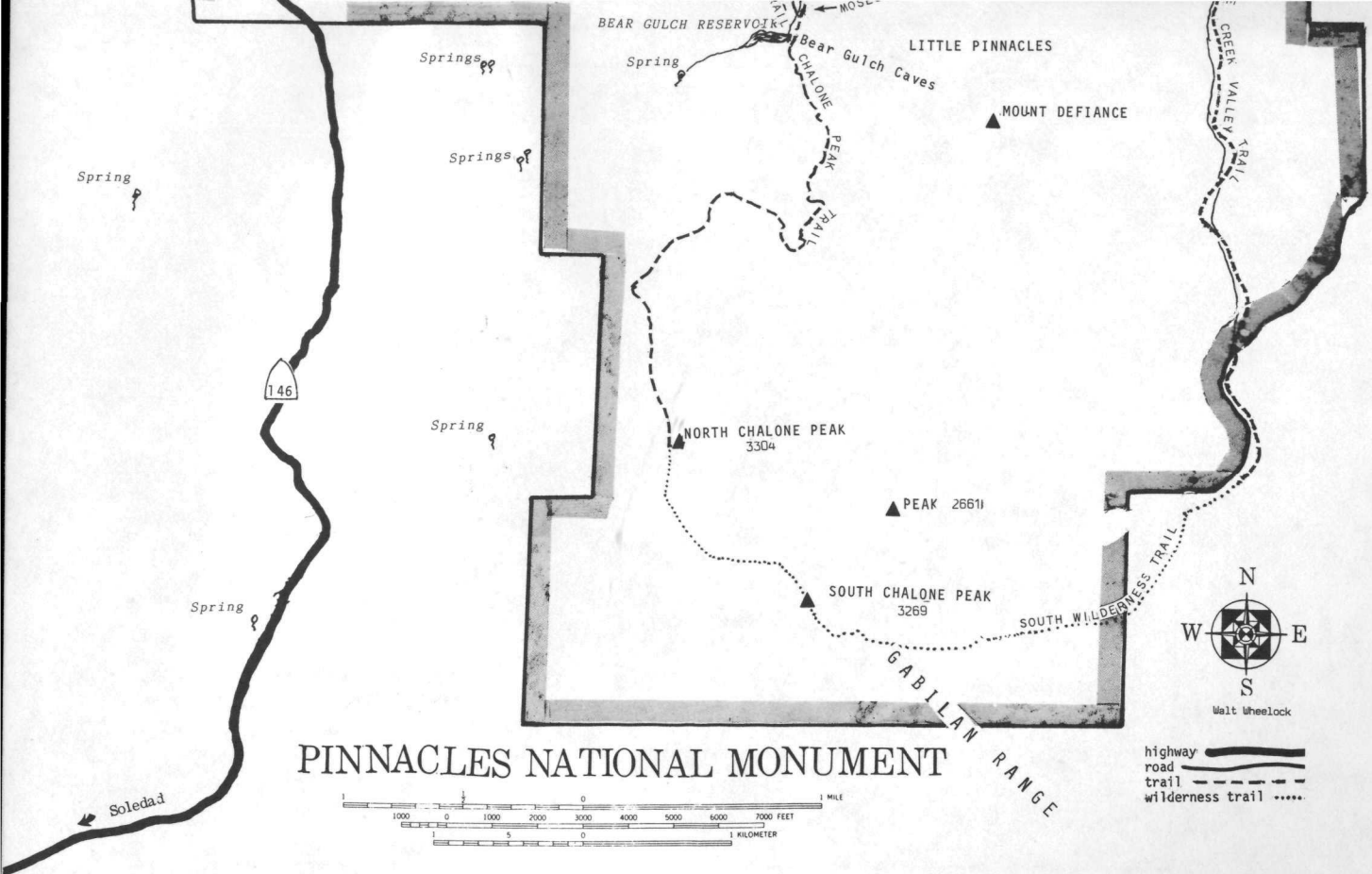
PINNACLES CAMPGROUND 1040

King City Hollister

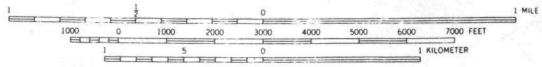
Spring

146

146



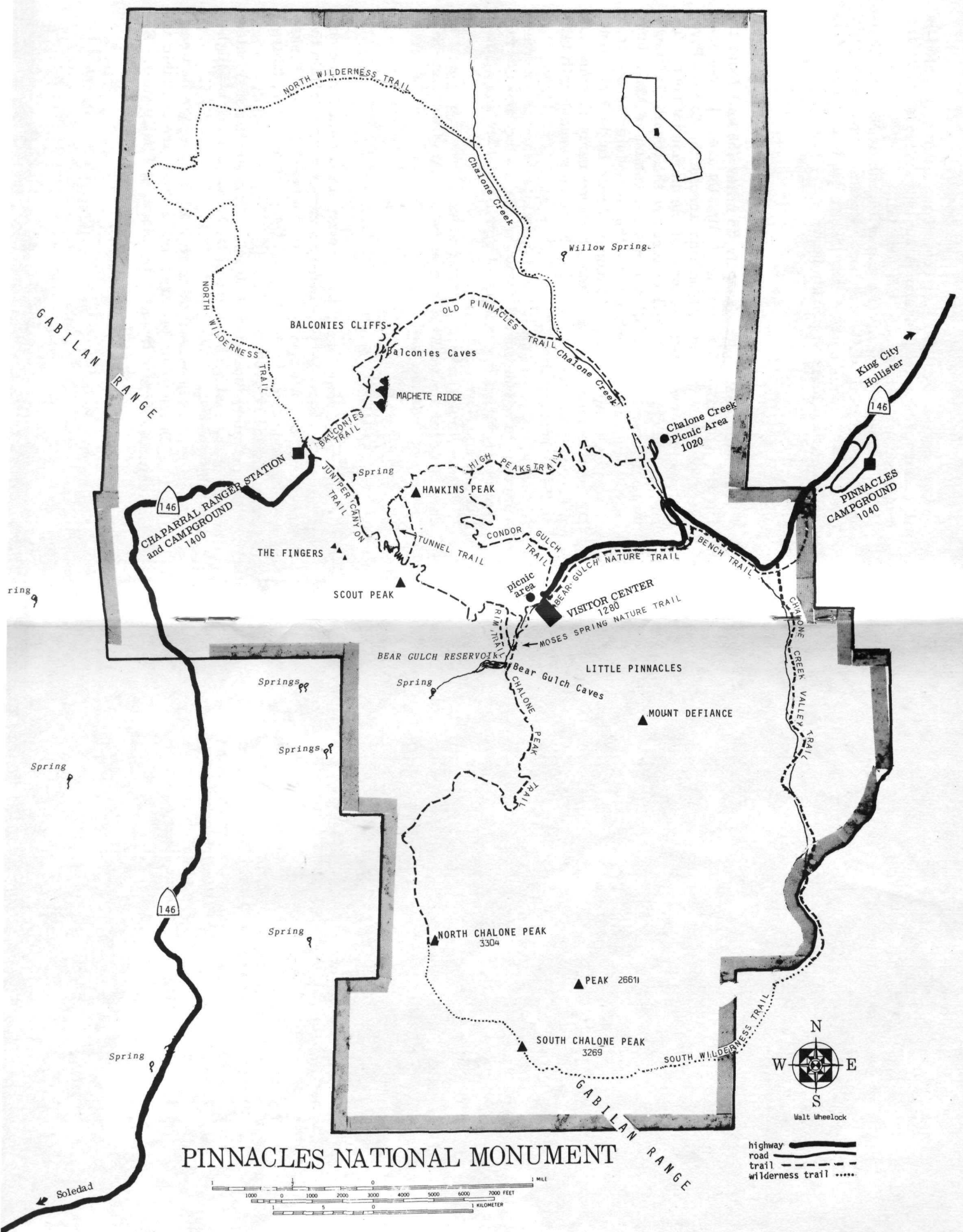
PINNACLES NATIONAL MONUMENT



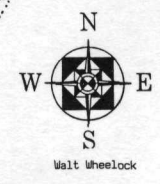
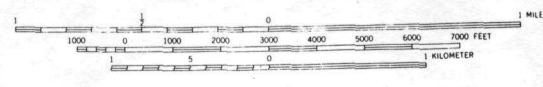
- highway
- road
- trail
- wilderness trail



GABILAN RANGE



PINNACLES NATIONAL MONUMENT



- highway
- road
- trail
- wilderness trail

GABILAN RANGE

GABILAN RANGE

ring

Spring

Spring

Soledad

146
 CHAPARRAL RANGER STATION
 and CAMPGROUND
 1400

King City
 Hollister
 146

PINNACLES
 CAMPGROUND
 1040

picnic area
 VISITOR CENTER
 1280

BALCONIES CLIFFS
 Balconies Caves
 MACHETE RIDGE

Chalone Creek
 Picnic Area
 1020

Spring
 JUNIPER CANYON
 TRAIL
 THE FINGERS
 SCOUT PEAK

HAWKINS PEAK
 TUNNEL TRAIL
 CONDOR GULCH TRAIL

BEAR GULCH RESERVOIR
 Spring
 Bear Gulch Caves

LITTLE PINNACLES
 MOUNT DEFIANCE

NORTH CHALONE PEAK
 3304

PEAK 26611

SOUTH CHALONE PEAK
 3269

Springs

Springs

Spring

SOUTH WILDERNESS TRAIL

CHALONE CREEK VALLEY TRAIL

Chalone Creek

Chalone Creek

NORTH WILDERNESS TRAIL

NORTH WILDERNESS TRAIL

OLD PINNACLES TRAIL

HIGH PEAKS TRAIL

TUNNEL TRAIL

CONDOR GULCH TRAIL

BEAR GULCH NATURE TRAIL

BENCH TRAIL

picnic area

MOSES SPRING NATURE TRAIL

CHALONE PEAK TRAIL

CHALONE CREEK VALLEY TRAIL

SOUTH WILDERNESS TRAIL

Chalone Creek

Chalone Creek

NORTH WILDERNESS TRAIL

NORTH WILDERNESS TRAIL

OLD PINNACLES TRAIL

HIGH PEAKS TRAIL

TUNNEL TRAIL

CONDOR GULCH TRAIL

BEAR GULCH NATURE TRAIL

BENCH TRAIL

picnic area

MOSES SPRING NATURE TRAIL

CHALONE PEAK TRAIL

CHALONE CREEK VALLEY TRAIL

SOUTH WILDERNESS TRAIL

Chalone Creek

Chalone Creek

NORTH WILDERNESS TRAIL

NORTH WILDERNESS TRAIL

OLD PINNACLES TRAIL

HIGH PEAKS TRAIL

TUNNEL TRAIL

CONDOR GULCH TRAIL

BEAR GULCH NATURE TRAIL

BENCH TRAIL

picnic area

MOSES SPRING NATURE TRAIL

CHALONE PEAK TRAIL

CHALONE CREEK VALLEY TRAIL

SOUTH WILDERNESS TRAIL



lectrical hookups are available; water and restrooms are conveniently located. A store with limited supplies, a pool and showers are to be found at the entrance to the campground.

The campground is a vast improvement over the small and crowded one that served campers at Chalone Creek for many years. That old site is now a picnic area.

Rock Climbing

Trail hikers in the rocky and pinnacled areas of the Monument will often hear voices echoing among the rocks. With careful observation, one can usually discern people clinging to a wall of rock or perched on a ledge high above the trail while seemingly entwined in a maze of ropes and slings of colorful hues.

These people are engaging in one of the Monument's most popular and certainly the most spectacular activity, rock climbing. There are hundreds of charted 'routes' of varying difficulty, ranging from 'bouldering' of twenty vertical feet to high spectacular 'face' climbs of several hundred feet. The latter are only for experienced, expert rock climbers.

Nothing daunts the climbing rangers more than to see a car full of obviously inexperienced people arrive armed with their 'clothesline' ropes, each determined to find out what this madness of rockclimbing is all about.

In the Pinnacles National Monument and elsewhere, rock-climbing (a rather specialized phase of mountaineering) can be an exhilarating adventure, but only for those who have the basic qualifications. Rock climbing techniques and skills are taught by many outdoor clubs and schools.

Where any outdoor activity is engaged in and becomes popular, in time someone will write a guide. Rock climbing in the Pinnacles is no exception. A recently published book, Paul Gagner's *A CLIMBERS GUIDE TO PINNACLES NATIONAL MONUMENT* now fulfills this need, superceding a previous guide and several Sierra Club papers from the early 1950's.

Almost every conceivable route is now charted and the standard classification of each climb is used. These range from Class 1, which is only off-the-trail hiking, to the Class 5 group which contains the extremely difficult climbs for the expert only.

The majority of climbs in the Monument are found in one of three areas: the Reservoir, the High Peaks and the Soledad

(west) side, where the Balconies and Machete Ridge climbs are the most accessible. Every climb is descriptively named and they range from the Toilet Seat to the Spasm Block. Climbers near the Reservoir and above Moses Spring and Bear Gulch Caves are probably the most observable to an interested visitor.

The rock of the Monument is not considered 'good' rock for climbing as is the tough, glaciated granite of the Yosemite Valley, for example. It is mostly volcanic breccia (see geology section) which consists of angular fragments of rock imbedded in a matrix of hardened ash and other volcanic material. As a result, the hand and foot holds for the climber consist of protruding nubbins which are sometimes not too solid and often rounded. Because of the jointing of the rock, the ledges are often downsloping. For climbing security, bolts or pins are a 'must' on difficult climbs on the relatively unstable volcanic rock of the Pinnacles.

Trail System

The Pinnacles National Monument is a trail park. A trail system is the backbone of the Monument. If the visitor is coming to view spectacular scenery from a parking lot, he can do much better by driving to Yosemite or taking a longer trip to the south rim of Grand Canyon. But, it is not to be implied that everyone coming to the Pinnacles should be prepared to engage in the ordeal of a long, steep trail hike. Several of the more arduous hikes, however, can be just that.

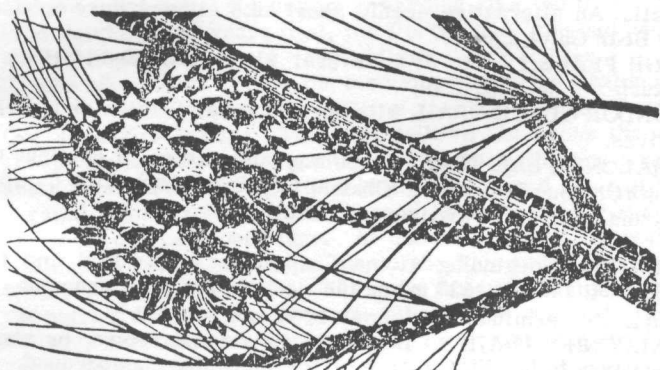
The trail system contains many shorter and more pleasant hikes that will still take the visitor into the quiet intimacy of a wilderness-like experience. These may range from the lovely April flower fields of Chalone Creek south of the campground to the spectacular spires and walls of Machete Ridge and the Balconies via the Balconies and Old Pinnacle trails at any season of the year.

Regardless of which type of trail you choose, go prepared with good and preferably cleated hiking shoes, adequate and comfortable loose clothing plus a sun-shade hat. Take a good supply of water and a lunch. If not in shape, set a slow but steady, rhythmic pace; it is always surprising how far one can go without any discomfort other than a bit of sweating — **ALLOW PLENTY OF TIME FOR THE RETURN TRIP.** Use common sense, enjoy, but do not overdo!

Most of the trails can be hiked as loops, but to complete most loops or to start at one point and go to another and return to the starting point can be a strenuous day. Car pickups between the east and west centers should not be attempted as no roads traverse the park and those around it are long. If a party leaves its center, be it the Chaparral Campground or the Chalone Creek Picnic Area, for a day's hike, they should plan to return to the starting point or plan other alternatives carefully. Check distance and elevation gain. Conservatively calculate your speed at one and a half to two miles per hour. The authors recognize that most of the trails can be hiked in either direction. However, for the sake of brevity, the description of a trail will be in the direction most hikers take. But where possible the trail features will be described in a manner that we hope can be easily recognized in reverse.

The trail descriptions are divided into three areas corresponding to the location of the trailhead. At the beginning of each trail description are three bits of information: TRAIL DIFFICULTY, DISTANCE in miles and kilometers and ASCENT (elevation gain in feet and meters).

Follow the National Park Service safety precautions. Stay on the trail. Leave the rock climbing to the experienced. Follow simple rules! Hike to your heart's content, observe carefully and enjoy the many vistas and the natural history of Pinnacles National Monument. That, we believe, is what you came for.



Digger Pine

The Trails

AREA I — Hikes beginning at or close to the Pinnacles Campground (1040 ft., 317 m) or at Chalone Creek Picnic Area (1020 ft., 311 m) on the east side of the Monument.

- A. BENCH TRAIL. From the Pinnacles Campground to the junction with the Bear Gulch Trail to the Visitor Center or to the trailhead adjacent to the Chalone Picnic Area.
- B. OLD PINNACLES TRAIL to the Balconies Caves and the Chaparral Campground via the caves or above them on the Balconies trail.
- C. BEAR GULCH TRAIL to the Visitor Center.
- D. HIGH PEAKS TRAIL to several possible destinations and return.
- E. NORTH WILDERNESS TRAIL to Chaparral Campground or part way on the loop.
- F. SOUTH WILDERNESS TRAIL. Either as an alternate return route from North Chalone Peak via Chalone Creek, or as an easy stroll down Chalone Creek from the highway.

→ note cautions in text below —

AREA II — Hikes beginning at or close to the Visitor Center and Park Headquarters (1280 ft., 390 m) on the east side of the Monument.

- A. MOSES SPRING NATURE TRAIL to the Bear Gulch Caves and the Reservoir.
- B. RIM TRAIL from the Reservoir to junction with the High Peaks Trail. An alternative scenic short hike either before or after the Bear Gulch Caves.
- C. HIGH PEAKS TRAIL with several alternative destinations or return (see Area I-D).
- D. CONDOR GULCH TRAIL with several possible loops and alternatives.
- E. CHALONE PEAK TRAIL — one way and return or continue to South Chalone Peak and to Chalone Creek and Pinnacles Campground on the South Wilderness Trail.

AREA III — Hikes beginning at the Chaparral Campground and the Ranger Station (1400 ft., 427 m) on the west side of the Monument.

Trailhead at the terminus of Highway 146 from Soledad.

- A. BALCONIES TRAIL to Balconies Caves and return, or above the caves to the Picnic Area or the Pinnacles Campground.
- B. JUNIPER CANYON TRAIL to the High Peaks and return or with several loops and possible alternatives.
- C. TUNNEL TRAIL, a short but steep section which is an alternative to the upper portion of the High Peaks Trail.

- D. NORTH FORK CHALONE CREEK WILDERNESS TRAIL part way and return, or loop to junction with Old Pinnacles Trail (description Area I).

AREA I— PINNACLES CAMPGROUND OR CHALONE CREEK PICNIC AREA.

- A. BENCH TRAIL— Difficulty: Easy. Distance. 1.2 mi. (1.9 km) from Pinnacles Campground to junction with the Bear Creek Trail. Ascent: not over 59 ft. (18 m.)

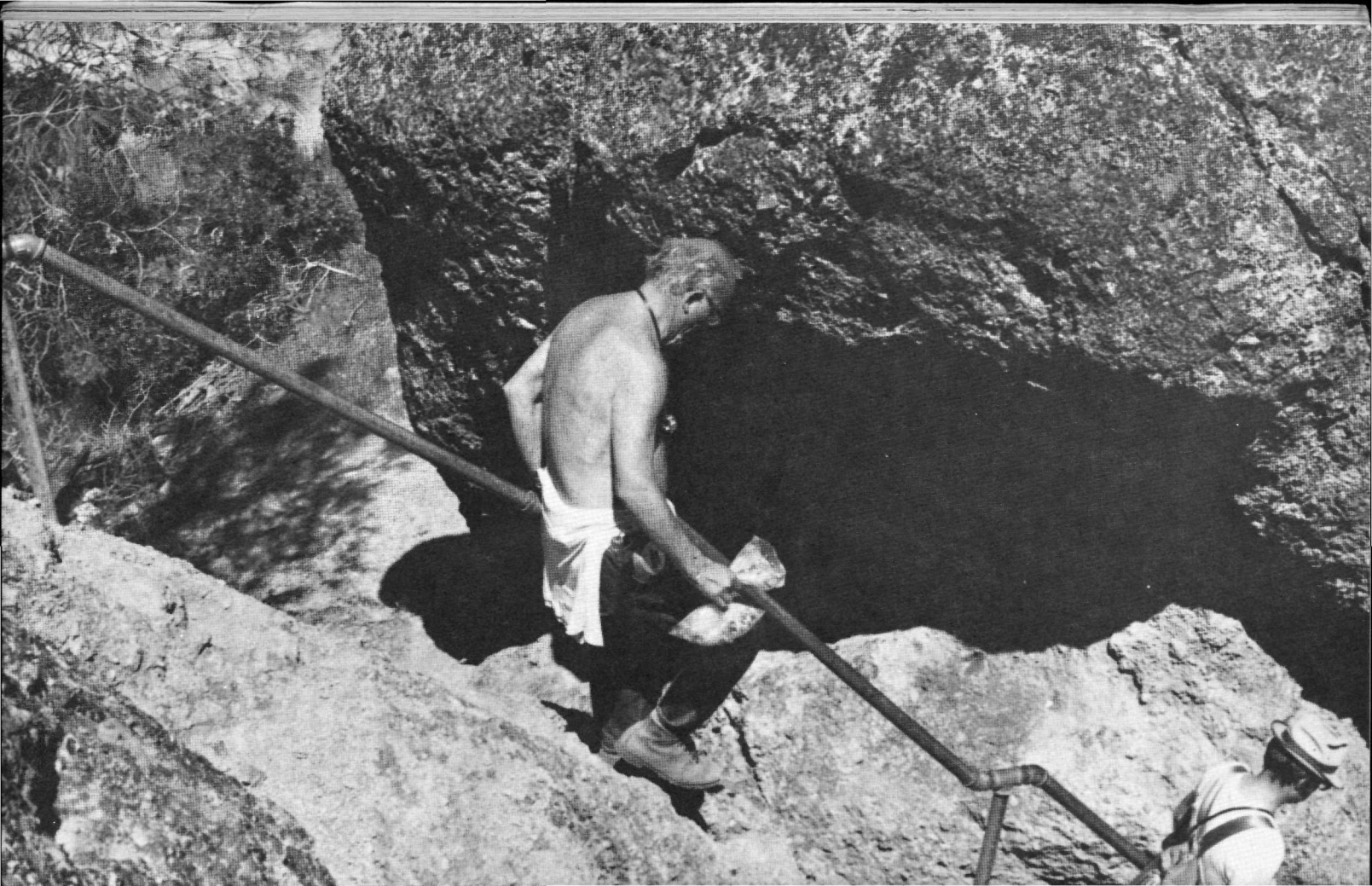
For those who desire to leave the vehicle in the campground, the Bench Trail is one of convenience to reach other trails. The Bench Trail leaves the campground near Site #79 and enters the Monument shortly afterwards. Follow it beneath valley and coast live oaks and Digger pines. It drops to Chalone Creek, where at 0.6 mile (1 km) it passes the junction with the South Wilderness Trail. Here it turns northwest and follows the creek to a footbridge and its junction with Bear Gulch Nature Trail. If your destination is the signed trailhead adjacent to Chalone Creek Picnic Area, continue about another half-mile on the Bear Gulch Trail along the west bank of Chalone Creek. If going to the Visitor Center, turn west up the moderate, scenic and shaded climb on the Bear Gulch Trail.

- B. OLD PINNACLES TRAIL — Difficulty. Easy, but scenic and highly recommended for people with small children and for poorly-conditioned hikers. Distance: 2.3 miles (3.7 km) to the north entrance of the Balconies Caves. If continuing to Chaparral Campground or on alternate loops, check appropriate trail distances and ascents. Ascent: 360 feet (110 m) to and through the caves.

Physically, this is the least demanding longer trail hike in the Park, but it leads to the base of some of the most spectacular rocky spires. Here are intimate views of the pinnacles and walls of Machete Ridge and the Balconies. It can be a rewarding hike for those interested in bird watching. In years past, the Peregrine falcon had been observed nesting high on the sheer rock walls of the Balconies.

The hike begins across the footbridge from the Chalone Creek Picnic area at the signed junction of the High Peaks, Bear Gulch and Old Pinnacles trails. The trail follows the creek through the old group campground as it gently climbs through open areas and beneath an occasional Digger pine with willows and other stream valley vegetation in evidence. Just beyond the old campground, cross the creek on another footbridge. At about one mile, the main valley of Chalone Creek leads away to the north. This is the scenic wilderness trail described elsewhere. The main valley is, in part, the trace of the ancient Chalone Creek Fault. The rocky rubble in the creek bed includes granite which surrounds and underlies the rhyolite volcanic rocks of the Monument.

During the long dry seasons both branches of the creek will be dry appearing, with only occasional pretty pools of water which reflect the overhead scenery.



Beyond the main valley junction, the first of several unbridged creek crossings will be encountered. During much of the year, only small amounts of water will be in the channels, but during the wet seasons, hikers may get their feet wet while fording the creek. As the gentle climb continues, several coast live oaks reach over the trail, and on the left a lone California juniper appears. During the spring, the wildflower display is lovely both near the creek and also on the adjacent hillside slopes.

In a short distance, the junction of the Balconies Trail is reached. It switchbacks up over the rocks at the base of the spectacular walls of the Balconies and finally descends toward Chaparral Campground. Ahead, the trail leads through a shaded, rocky canyon to the caves. This is a cool and delightful haven on a hot summer day. Above the caves' entrance tower the lofty 400 ft. spires of Machete Ridge.

The caves will probably prove to be the main objective of most parties, and after the trip through the caves to the main junction beyond, the return can be made back through the caves or 'over the top' on the Balconies Trail. This is the recommended return route because of the rewarding views of the imposing rocks of Machete Ridge and the Balconies, which are often termed 'Little Yosemite'. Rock climbers are often heard and occasionally seen in this jumbled region.

C. BEAR GULCH NATURE TRAIL. Difficulty: Moderate — has numbered stakes for identification and interpretation of the natural history. A very worthwhile hour for the visitor who desires to know more about the natural scene. Can be hiked either way with an easy car pick-up at the other end. Distance: 1.7 miles (2.7 km) to the Visitor Center from the start of the trail across from the Chalone Creek Picnic Area. Ascent: 240 ft. (73 m). A well-graded trail, mostly in the shade. Recommended for a warm day.

Pick up self-guided leaflet in box at trail beginning. Trail undulates along southwest bank of creek for a half mile (0.8 km) through vegetation that is partly stream valley and partly chaparral. Walk near or under willows, cottonwoods and coast live oaks. Look ahead to the steep chaparral-covered hills and ridges that rise abruptly above and beyond Chalone Creek. A lone Digger pine is silhouetted against a skyline ridge. Not a beautiful expanse of country by most standards, it is traversed at best by narrow steep trails of half-wild range cattle. Viewed, however, with the shadows of early morning or late evening, this rugged chaparral country can exude an aura and personality all its own and is not always unpleasant.

Junction with the Bench Trail to Pinnacles Campground. Turn west and follow Bear Gulch Creek as it climbs into the pretty and mostly shaded little valley of Bear Gulch. The water-requiring trees are here: the sycamores, cottonwoods and willows. The gray-green foliage of the Digger pine is seen on the steep slopes above the trail.

The trail crosses the small tumbling creek several times on attractive foot bridges. Watch for the display of ferns, with the gold-back, delicate maidenhair and large fronds of the chain fern enjoyed in damp, shaded habitats along the creek bed. Even in the summer when the stream is seemingly dry, water is not far under the surface.

In less than a mile (1.6 km) the attractive stone and wood resi-

dence of the Park Superintendent is seen to the left as the trail crosses the road. The permanent buildings of the administration area are passed shortly thereafter, and the Visitor Center is soon at hand. Be sure to visit it. Publications and exhibits are available, and friendly knowledgeable park people are usually on duty to answer questions.

D. HIGH PEAKS TRAIL. Difficulty: Strenuous — extremely scenic, but only recommended for hikers in reasonably good condition. Avoid in the middle of a hot summer day. Distance: 5.4 miles (8.7 km) from Chalone Creek Picnic Area to Bear Gulch Visitor Center. Several alternate loops are possible. Check map and plan carefully. Ascent: 1580 ft. (482 m) with up-and-down stretches. Physically, this can be a strenuous climb, but its higher reaches are very scenic and exciting and lead the hiker into a close intimacy with the imposing rock spires of the High Peaks.

Take water and leave the trailhead adjacent to the Chalone Creek Picnic Area on a climb that starts immediately. The trail, steep and well-graded, at first climbs monotonously through typical chaparral cover consisting principally of chamise, manzanita and buckbrush (ceanothus). Instead of watching your boots move one by one, turn and catch a few glimpses down into Chalone Creek Valley, and the ancient trace of Chalone Creek Fault. Look beyond to the northeast and east at the broadening blue-gray mountainous horizon. A few miles away across the San Andreas Fault valley and the San Benito river, the high hills fade in the hazy distance.

At switchbacks, note outcrops of hardened volcanic ash (tuffaceous andesitic material). Some have a dull, glassy appearance and is called perlite. Within the first mile, watch for the coarse blue-green foliage of a Calif juniper.

Above the third major switchback, the trail levels out a bit and climbs south and west through a stretch of Foothill-Woodland Community of pretty grasslands dotted with small blue oaks. Many deer may be seen here in early morning and late evening.

Now, glimpses of the High Peaks are becoming more frequent and closer as the trail tops a small rise with a fine rocky view ahead. At 2.1 miles (3.4 km) is the junction with the Condor Gulch Trail to the Visitor Center, 1.7 miles (2.7 km), a route down for those not wishing to climb higher. The fun, however, still lies ahead.

In less than a half-mile the trail enters the rocky and fascinating maze of the pinnacles. Continuing its climb, it now undulates over many minor rocky crests to the first junction, which is with the Tunnel Trail, leading down to Juniper Canyon Trail and the Chaparral Campground, 1.8 miles (2.9 km) away. A few minutes later on a ridgecrest, look down to Chaparral Campground and beyond to the Gabilan Range. Continue to the base of steep rock which is climbed safely up a staircase hewn into the rock by CCC workers before World War II. A hand cable is provided to safeguard the short climb. Watch your step as the trail winds through the rock over another spectacular section again safeguarded by cables attached to iron pipes drilled into the stone. The trail goes over another sharp ridgecrest at about 2600 ft (793 m) and now winds down to meet another junction with the Tunnel

Trail. Here is a rock restroom and a bench where you may sit and enjoy the extensive views in all directions.

Now the High Peaks Trail drops rapidly down the steep, rocky hillside toward the Visitor Center less than two miles away. It switchbacks and passes through a tunnel a half-mile from the crest as it continues down a long ridge through chaparral vegetation with fine views of the North Chalone Peak lookout and the spires surrounding the reservoir. About one-half mile below the tunnel, watch for the rock spire on the right which resembles a howling wolf with its nose in the sky. A junction a few minutes later joins the Rim Trail to the reservoir. Now, green vegetation is starting to appear, with coast live oaks.

In another few minutes, a short spur trail will lead down to the right. Now the trail winds down a series of short, steep switchbacks amongst large rocks. Several months of the year, the sound of running water from Moses Creek gurgles from deep within the rocks. A few feet beyond, the trail passes coast live oaks, toyon and a California buckeye, until the junction with the Moses Spring Trail.

The final 0.1 mile leads to the trailhead at the picnic area. Less than five minutes later, the trail through the picnic area terminates at the Visitor Center and administration area. Adjacent are restrooms and cold drinking water.

E. NORTH WILDERNESS TRAIL. Difficulty: Strenuous -- very scenic, but only recommended for hikers with off-trail experience. No major trail construction, bridges or elaborate signs will be found. This way, the trail is meant to lead the hiker into a wilderness experience. A topographic map and compass should be a part of the day's equipment. Distance: about 12.2 miles (19.6 km) as a complete loop to Chaparral Campground and return via the Balconies and Old Pinnacles trails to the starting point at the Chalone Creek Picnic Area. The Wilderness Trail itself embraces about 7.5 miles (12.1 km). Ascent: 1120 ft. (341 m) from the Picnic Area as the trail climbs and undulates over steep chaparral-covered ridges after leaving the North Fork of Chalone Creek.

Leave the popular trailhead serving the High Peaks, Bear Gulch and Old Pinnacles trails. Take the Old Pinnacles route along Chalone Creek about one mile (1.6 km) to a point opposite the North Fork Chalone Creek Valley. From here, the unimproved Wilderness Trail leads north and west in a gentle climb up the creek valley. The route features typical stream valley plants with cottonwoods, willows, California live and valley oaks and sycamores predominating.

Several stream crossings are made but only in the late winter and early spring can these present any difficulties and then only at the expense of wet feet.



This is a pretty valley with the gentle chaparral-covered ridges above contrasting with the trees and small grassy meadows in the creek bottom. The only real evidence that man has been here is the remains of some old homesteads near Willow Spring, about 0.7 miles from the junction with Old Pinnacles Trail. All distances on the Wilderness Trail will be given from this point. Calif junipers contrast with the other plants and miner's lettuce is prominent as a distinctive (and edible) ground cover.

Beyond Willow Spring, the valley widens and flattens. At 1.3 miles (2.1 km) a steep stream valley enters on the left. Up this canyon, note the striking mass of gray rhyolite rock that resembles an huge elephant with its right side toward the viewer. At 1.6 miles (2.6 km), another intermittent tributary stream enters directly from the north.

It is relatively easy traveling up the pretty valley as the trail now swings in a westerly direction. At about 1400 ft. (427 m) almost four miles (6.4 m) from the Old Pinnacle junction, the trail, now abruptly leaves the main creek which continues up a rocky valley to the west and beyond to the Monument boundary.

Turning directly south, the trail now follows a steeper and narrow stream course to about 5.5 miles (8.7 km) at about 1640 ft. (500 m) in elevation.

At this point, the trail leaves the small valley and climbs steeply one-half mile (0.8 km) up a chaparral-covered hillside to its highest point at the top of a prominent ridge at about 2160 ft. (659 m). Fine views of the rugged mountainous terrain may be seen to the south and and to the east. The serrated rocky mass of the High Peaks presents quite an awesome view, while beyond may be seen North Chalone Peak and summit lookout. Closer and below but still over two miles away is the Chaparral Campground area. The trail now alternately ascends and descends some minor steep ridges crisscrossed with range cattle trails until it finally drops at about seven miles (11.3 km) into the water course that leads to Chaparral Campground. On a warm day, the cold drinking water at the campground does taste particularly good.

The Wilderness Trail is at its best in the spring when vegetation is green and the wildflowers are on display. As there will probably be water in Chalone Creek, wet feet may result.

AREA II — VISITOR CENTER AND PARK HEADQUARTERS.

A. MOSES SPRING TRAIL AND CAVE TRAIL. — Difficulty: Easy. Destinations are the Bear Gulch Caves and/or the reservoir. The Chalone Peak Trail also starts at the reservoir. Pick up a leaflet for this always popular self-guiding nature trail at the trailhead before leaving the picnic area. Distance. 1.0 mile (1.6 km) from the Visitor Center to the upper end of the Caves Trail and reservoir. This trail appears to be longer because of the many interesting attractions, from the plant life to the caves and the scenic reservoir. Ascent. 360 ft. (110 m) from the Visitor Center. It is not only easy but shady.

This is the most popular short hike in the Park. The first stops on the trail describe the interesting plant life. The blue oak, California

buckeye and chaparral plants are noted. The trail climbs moderately through Coast live oak and past blue oak, toyon (Christmas berry) and California buckeye. At 4.4 mile the junction to the High Peaks Trail is passed. It is recommended that the hike follow the Moses Spring Trail and then down through the caves on the Caves Trail which starts adjacent to the reservoir.

Note the long root of a Digger pine to the left of the trail. In their life-long quest for water, some of these roots have been measured up to 150 feet in length. The trail passes through a man-made tunnel. At 0.6 mile is a junction with the Caves Trail to the left. In about 200 feet our trail bears to the left at the junction with a spur trail to the High Peaks Trail. In a few minutes, on the right is the lovely opening in the rocks so appropriately named Fern Chamber. Enough water collects here the year-round to nurture a lush group of the long-fronded chainfern. If photographs are in order, allow plenty of light for your camera. Continue right on the self-guiding trail toward the upper end of the Cave Trail and the reservoir.

A short way beyond, pass Moses Spring. Consult the leaflet for the origin of the spring as it is seen here. As the trail continues, some imposing walls and monoliths of rock now tower up to 100 feet above. Rock climbers are often seen and heard amidst their colorful ropes and slings. The trail drops slightly and enters a large rocky alcove where the large trunk of a Coast live oak grows across the trail.

Where the trail passes above the upper Cave Trail, several openings could allow loose rocks to be dislodged and endanger people below. Please be careful and follow the safety precautions outlined in the self-guiding leaflet.

Above, several other plants are seen including the elderberry, gooseberry and the Calif juniper with its very distinctive blue-gray foliage. Also, in many places note the lichens on the otherwise bare rock. During wet periods, they can often be very colorful with green, orange and red hues.

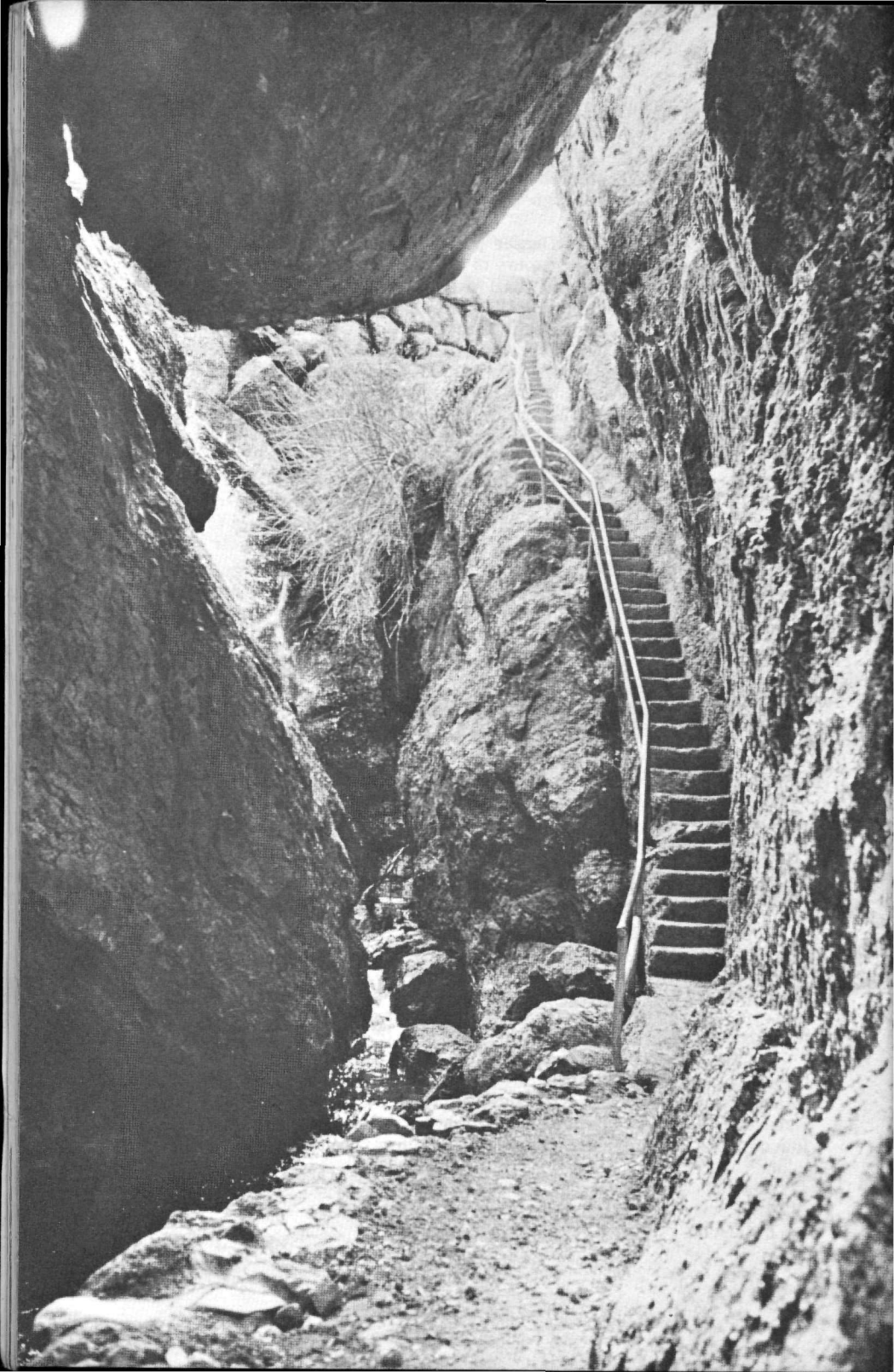
The trail now nears its end with the left route ascending a flight of stairs hewn into the rock and leading to the rim of the reservoir, a most attractive body of water, and to the start of the Chalone Peak Trail. To the right, the Caves Trail leads down into the subterranean passages of the Bear Gulch Caves. Have a good flashlight for every two hikers.

Enjoy this trip. It is unique!

The caves are divided into two sections, with a total distance of about 0.2 mile. Enter the upper tunnel where a subdued light filters in from the openings in the rock ceiling several feet above. The flashlight is not really needed here, but watch the footing, if wet.

In a few minutes, emerge from the first section into the open before plunging almost immediately into the longer, steeper and almost totally dark section. Use the flashlight and be careful of your footing. Even though dark, the route is straight forward. Be aware of several low ceilings. Headaches can strike the unwary or careless.





Short side passages exist, but if a mistaken deviation occurs it is nothing serious and the main passage can soon be regained. Parties do travel both ways in this narrow cavern, so use courtesy in passing.

Before it is realized, the adventure is almost over and the brilliant light outside is almost blinding.

The Caves Trail rejoins the Moses Spring Trail and the hiker now retraces his steps for the 0.6 mile back to the Visitor Center.

B. RIM TRAIL — Difficulty: Easy. Distance: Only 0.4 mile (0.6 km). Connects the High Peaks Trail above Bear Gulch Picnic Area with the reservoir and the Bear Gulch Caves and Moses Spring trails. Ascent: 80 ft. (24 m).

This short but scenic route passes along the steep rocky hillside that overlooks Bear Gulch and its caves and the Moses Spring Trail.

From the reservoir at about 1640 feet, the Rim Trail leads directly north. It climbs slightly to 1690 feet as it passes above some of the short but steep rocks that are frequented by rockclimbers. Some paths do lead onto the tops and shoulders of these rocks. Use caution, watch the footing and do not venture too close to the edge of any of these steep rock walls. The trail undulates downward the final 0.2 mile to its junction with the High Peaks Trail. Continue down it to the Bear Gulch Picnic Area.

C. HIGH PEAKS TRAIL — see Area I-D.

D. CONDOR GULCH TRAIL — Difficulty: Moderate — a steep and steady climb but very interesting in geology, plants and scenery. Distance: 1.7 miles (2.7 km). Ascent: 1040 ft. (317 m).

The trail is also a portion of the Pinnacles Geological Trail with a well-written illustrated guidebook to accompany the hiker. The geology hike climbs the Condor Gulch Trail to its junction with the High Peaks Trail and then continues down it to the Chalone Creek Picnic Area, with a total distance of 3.8 miles. Ten of the illustrated stations are on the Condor Gulch Trail.

With the geology guidebook in hand, start up the trail from the parking area. Before leaving, note the large map carved on a wooden slab that orients one to the trail system that lies ahead. Geology stop #1 is adjacent.

A few feet up the trail, a blue oak is seen and just before it is geology illustration #2. A Park Service weather station is passed.

The trail passes through typical chaparral vegetation with chamise, buckbrush and manzanita dominating. A large digger pine looms above the trail.

Watch for the rock outcrops #3 and #4 in the guidebook and follow a sharp left bend in the trail at about 0.3 mile, note the rocks at #5. In places, look back down to the Park Headquarters.

The trail follows a steep hillside just above the bottom of the canyon. A large toyon or Christmas berry is seen on the left. A huge eroded boulder of rhyolite makes its appearance on the left. More toyon, chamise and a small Coast live oak are passed. The way continues climbing up into a rocky gorge.

In less than 0.7 mile, the first switchback is passed and ahead are large rugged rocks of the dominant volcanic material called rhyolitic breccia which covers about 60% of the Monument. Here is geology station #6. A Digger pine is to the right. Here, at the rocks the trail turns up and sharply to the left. Nearby are several large red-barked manzanitas. In another few hundred feet an overlook with some erosional 'potholes' in the underlying rock will be reached. In season a small but spectacular waterfall will be seen and heard. This is geology station #7.

Above the potholes the trail doubles back again as it continues to climb. Across the valley to the southeast, note the banded appearance of a large mass of rhyolite. This is the subject of geology station #8. The trail here swings to the northwest as it climbs close to a barren ridgecrest at about one mile. Beyond are views to the east and geology stop #9 will concentrate on the area of the San Andreas Fault near the valley of the San Benito River.

The trail climbs steadily through dry appearing chaparral to its junction with the High Peaks Trail. From this junction on the ridge crest at 2320 feet (707 m) are fine views of the surrounding country.

Geology stop #10 explains sights northward of the Chalone Creek Fault, and its probable relationship with the more distant San Andreas Fault. This is the end of the Condor Gulch Trail. To the left, the High Peaks Trail enters the exciting rocky maze and the jagged spires of the High Peaks, and to the right it drops down another 2.1 miles (3.4 km) to the trailhead at the Chalone Creek Picnic Area. The geology trail continues down this portion of the High Peaks Trail.

If the hiker is well-equipped; feeling fit, a recommended continuation is to turn left through the rocks of the High Peaks and back down to the Headquarters area on the High Peaks Trail (see Area I-D).

E. CHALONE PEAK TRAIL — Difficulty: Strenuous. For sweeping views of the Monument and the surrounding regions, this trail is one of the best. Distance: 4.2 miles (6.7 km) to the fire lookout tower from the Visitor Center. Ascent: 2025 ft. (617m).

After leaving the trailhead, bear left at the first trail junction. At 0.6 mile, the trail enters a tunnel blasted through solid rock. Just beyond is the Caves Trail (flashlight needed). Our route now bears to right and after a couple of hundred feet, to the left.

Continue beneath huge boulders past the junction to the upper end of the caves before reaching the steps up to Bear Gulch Dam. This dam was constructed by the CCC during the mid-1930's.

The trail continues to the left around the shore of the reservoir passing holly-leaf cherry and coast live oak as it begins to climb. Visible ahead are five-needle-like pinnacles called the Five Sisters.

The trail crosses a rivulet (running in winter and early spring) and enters the Garden of Giants, an area noted for its flowering shrubs and wildflower displays in the spring. Continue to climb through a chaparral cover of buckbrush, holly-leaf cherry, chamise, manzanita and toyon. Pause a moment and enjoy the fine view of the High peaks.

At 1.5 miles (2.4 km) beware of the three-leaved poison oak on both sides of the trail. As the trail levels there are good views to the east of the Little Pinnacles, Mt. Defiance, Frog Canyon and the Diablo Range in the distance and to the west of the High Peaks.

Continue up past an impressive rock outcrop. As the ascent steepens the chaparral-covered North and South Chalone peaks come into view. With each step upward, the views become more impressive.

Continuing, note the Calif juniper on the right. To the east can be seen the San Andreas Fault zone that runs near the San Benito River Valley a few miles from the Monument's eastern boundary.

Views to the west of the Salinas Valley and the Santa Lucia Range open up near a large blue oak that reaches over the trail.

At 3.4 miles (5.5 km) the trail widens as it bears left uphill at the signed junction. In a short distance the trail joins with the fire road that climbs steeply to the fire lookout tower.

North Chalone Peak at 3304 ft. (1007 m) is the highest point in the the Monument. From the summit is a 360° panorama that rivals any in the Park. It includes the Salinas Valley and the meandering Salinas River, virtually all of the Monument, the distant mountain ranges to the east and west, and on a clear day, the Pacific Ocean.

(A restroom is located just below the summit on the east side of the peak.)

After enjoying the view, you may retrace your steps, or if one is experienced in cross-country travel, descend via South Chalone Peak and the South Wilderness Trail.

AREA III - CHAPARRAL CAMPGROUND AND RANGER STATION.

A. BALCONIES TRAIL - Difficulty: Easy - short but extremely scenic. This is a self-guiding nature trail. Pick up the descriptive leaflet in the box at the trailhead. Distance: 1.4 miles (2.3 km) 'over the top' above the caves along the base of the Balconies Cliffs to the junction of the Old Pinnacles Trail. Slightly over one mile through the caves. Ascent: 280 ft. (85 m) along the Balconies Cliffs. About 200 ft. (61 m) through the caves. Low point 1200 ft. (366 m) at the end of the Balconies Trail at its junction with Old Pinnacles Trail.

For those who may wish to experience an intimacy with as much of the Pinnacles scenery with as little hiking as possible, the Balconies Trail has no peer in the Monument. From the rocky, rugged little gorge to the soaring, near-vertical walls of the Balconies cliffs and Machete Ridge, the scenery is impressive and exciting. The trip through the caves is an adventure for young and old. Rock climbers sporting their colorful gear are often to be seen and heard only a short distance above the trail. This small area is often referred to as 'Little Yosemite'.

From the trailhead at Chaparral Campground and Ranger Station, follow the well-traveled broad trail northeast toward the Machete Ridge rocks looming in the near distance. A sign will inform you that a continuation of this trail will lead an easy 3.5 miles to the east-side trailhead at the Chalone Creek Picnic Area.

For the first half mile, the trail is broad and easy and actually drops slightly. Large Digger pines frame the rocks ahead. Passing

amongst some huge boulders, the trail drops into the cool, shaded, creek bottom. A trail junction is reached after the fifth footbridge is crossed. The longer trail climbs along the Balconies Cliffs while the trail to the caves bears to the right. A 2.5 mile (4 km) loop that can go either way and return to the campground is recommended. Do not attempt to enter the caves during periods of high water in the winter and early spring and be sure to have one adequate flashlight for every two people at all times.

This is a lovely little canyon, shaded by a variety of large water-loving trees and by high rocks above. Savor this short hike on a hot summers day.

Whichever trail is followed, the last portion through the caves or 'over the top' will be downhill to the Old Pinnacles Trail junction at about 1200 feet (366 m) elevation. The return to the campground has some climbing but nothing excessive.

This is a short but memorable hike for family groups, and no special equipment is needed save a light or two.

B. JUNIPER CANYON TRAIL — Difficulty: Strenuous — perhaps the most scenic trail trip when combined with a loop on a portion of the High Peaks and Tunnel trails. Distance. 1.5 miles (2.4 km) from the Chaparral Campground to the ridgcrest at the junction with the High Peaks Trail. Ascent. 1080 ft. (329 m) to a junction with the High Peaks Trail at the ridgcrest (restroom at junction).

Leave the Chaparral Campground trailhead for an exciting hike among the jagged and imposing rock spires that tower over 1000 feet (300 m) above. This view of the High Peaks is the best obtainable from any accessible roadhead within the Monument.

A large Calif juniper rears its gray-green foliage to the right as the trail very gradually climbs along the intermittent stream which appears to be dry for most of the year.

Some small blue oaks, coast live oaks and more junipers are passed as they appear to thrive in this rocky and dry appearing habitat. In the spring, with more water present, the wildflower display can be gorgeous as it is highlighted by the golden-orange of the California poppies.

At about 0.3 mile (0.5 km) the trail ascent steepens as it enters Juniper Canyon just above the creek. Some toyon, holly-leaved cherry and poison oak dot the hillsides above and below the trail. Now as the trail winds closer to the high rocks, some sheer walls tower not far above the trail. Take note of the obvious banded appearance of the rocks with these bands dipping steeply toward the west. These bands in part represent different lava flows, one on top of another, over a period of probably millions of years. Many years of physical erosion by running water and wind-driven sand occurred between flows. Each band, therefore, represents an unconformable contact in geological terms.

At about 0.7 mile (1.1 km) the trail enters an upper portion of the canyon where it is quite shaded by very abundant and pleasant vegetation including the blue oak, coast live oak, holly-leaved cherry and Digger pine. Even in the fall, pools of water usually are to be found in portions of the creek bed. This is Oak Tree Spring.

The imposing walls of rhyolitic breccia now loom close above the trail which switchbacks up a broad, relatively treeless ridgecrest. The campground and ranger station are in view below, and to the west beyond the Salinas Valley, the distant hazy blue range of the Santa Lucia uplift is looming on the horizon. Several bigberry manzanitas grow above the trail. Deer trails crisscross the slopes below while some Digger pines are growing out of cracks in the rocks at crazily tilted angles. As they grow larger, the growth will seek the vertical.

At one mile (1.6 km) the junction with the Tunnel Trail is reached (see Area III-C). This is the end of the Juniper Canyon Trail. Five-tenths of a mile and 200 vertical feet later the ridgecrest is topped at 1.5 miles (2.4 km) and 2480 feet. Directly below to the southeast, the High Peaks Trail can be seen as it meanders down through chaparral and along steep rocky ridgecrests as it drops to the Bear Gulch Visitor Center and the trailhead is less than two steep miles away.

To the west across a near broad valley, the lower chaparral covered peaks of the Gabilan Range form the horizon.

A stone restroom and a bench offer the hiker some of the amenities of home. If the return is to be made to the Chaparral Campground and if time and energy permit, the recommendation is to turn north on the High Peaks Trail as it twists and turns in a spectacular fashion through the rocky maze of spires and walls, including Hawkins Peak (see Area I-D — High Peaks Trail).

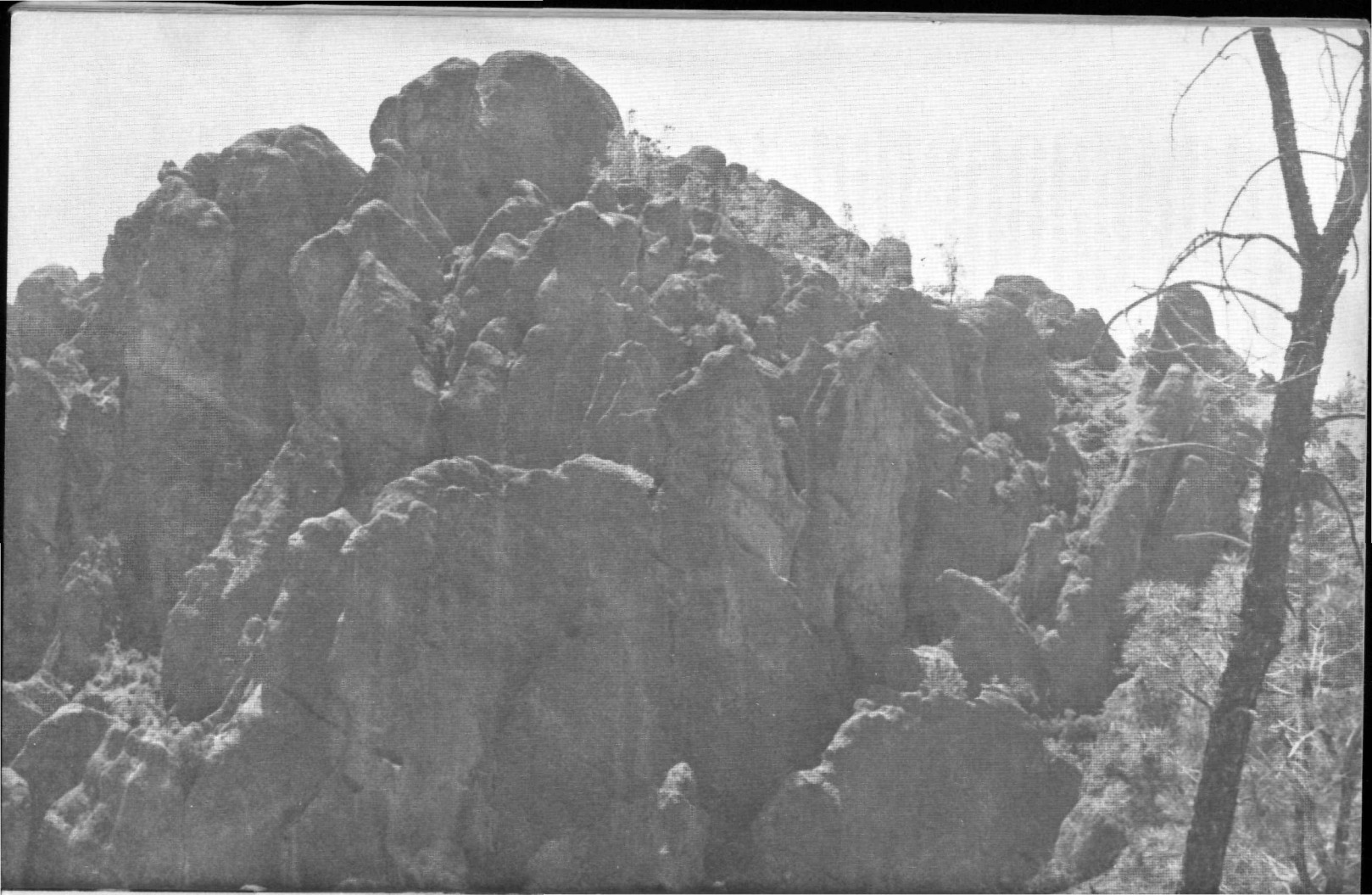
Enjoy the exciting half mile or so to the next junction which is the Tunnel Trail running down to rejoin the Juniper Canyon Trail. Turn left (southwest) through the rocks down a series of steep switchbacks, then through the long cool tunnel and across a steep rocky gorge on a high concrete bridge of the Civilian Conservation Corps days before World War II. Rejoin the Juniper Canyon Trail down to Chaparral Camp and look back on a memorable day and a great hike.

C. TUNNEL TRAIL — Difficulty. Easy if hiked downhill from either junction with the High Peaks Trail. Moderate if hiked uphill from the junction with the Juniper Canyon Trail. Distance. 1.1 miles (1.7 km). Ascent. 280 ft. (85 m) from Juniper Canyon junction to junction with High Peaks Trail near Hawkins Peak. 200 ft. (67 m) Juniper Canyon junction with the High Peaks Trail near Scout Peak.

This trail makes a convenient loop for those hiking the High Peaks Trail from Chaparral Campground. The tunnel bored through solid rock is very interesting and the attractive concrete bridge high above a steep rocky gorge is well worth a short detour from the Juniper Canyon Trail.

D. NORTH WILDERNESS TRAIL (see Area I-E for a description)





SOUTH WILDERNESS TRAIL — Difficulty: Strenuous — very scenic. Recommended only for those with cross-country experience. No standard trail signs, major trail construction or bridges will be found. Carry a topographic map and compass in your pack. Distance: 10.8 miles (17.3 km) from the Visitor Center, or 12.7 miles (20.4 km) as a complete loop back to the Center via Bench and Bear Gulch trails — most of you will probably want to do this as a loop. The Wilderness Trail section is about 3.6 miles (10.6 km). Ascent: 2695 feet (822 m) from the Visitor Center to South Chalone Peak. Descent from North Chalone Peak to highway 146 is 2995 feet (913 m).

The South Wilderness Trail may be combined with the Chalone Peak Trail to form a full day trip over the high points of the Monument. However only a 'tiger' would start up the rugged eastern ridge of South Chalone Peak and return down the Chalone Peak Trail. Hence the route is described via the good trail to North Chalone and then on over to South Chalone and down to Chalone Creek Valley on the 'interesting' Wilderness Trail.

For those wishing only the relatively undeveloped lands of Chalone Creek Valley, a more detailed discussion of that trip follows.

The CCC laid out a trail from North to South Chalone Peak and had started construction when the project was cancelled by World War II in 1942. Some work had been done, even some stone work had been completed, and it is still possible to find a stray survey stake on the route to South Chalone Peak.

The route leaves the Chalone Peak Trail about 300 yards below the Lookout and drops moderately for 0.6 mile (1.0 km) through areas of dense chaparral to the saddle between North and South Chalone peaks. It is easy to see how the heavy chaparral cover kept this trail 'undiscovered' for many years. From the saddle one has good views of the exposed slabs of fine-textured rhyolite near the head of the Frog Canyon drainage, and of the Salinas Valley. Frog Canyon was the original route proposed for the South Wilderness Trail. That route was abandoned because it would have required extensive trail work.

The trail climbs from the saddle through chaparral for another 0.6 mile to South Chalone Peak at 1.2 miles (1.9 km). Calif juniper and Digger pine begin to appear near the top of this peak. The view from South Chalone's rocky summit more than makes up for the climb from the saddle. The view of North Chalone Peak from the east is perhaps the most spectacular. After savoring this panorama, begin the steep, rugged descent. The Chaparral-covered Mount Defiance may be seen to the north. Digger pines cover the hillside slopes to the northeast.

The route now heads east down the open ridge, traversing grassy knolls and passing rock outcrops. At about 1800 feet (549 m) the trail bears to the northeast and drops about 1000 feet (305 m) cutting through the chaparral. Two intermittent side streams are crossed before the trail meets Chalone Creek at 3.6 miles (5.7 km).

It is now an easy three miles up the pretty valley to the junction with the Bench Trail adjacent to Highway 146. Then another half mile east on the Bench Trail is Pinnacles Campground.

CHALONE CREEK VALLEY

This pleasant six-mile (9.6 km) round trip journey south through Chalone Creek Valley is recommended for those not wishing to make the arduous climb up the chaparral-covered ridge to the summit of South Chalone and then on to Visitor Center via the Chalone Peak trail. Except during the flood-stage of the creek, this 'trace' hike of about three miles (4.8 km) downstream to the start of the South Chalone Peak climb can be taken at any time of the year. Recommended are the spring months of April and May when the valley floor and the adjacent hillsides are ablaze with the color of wildflowers and new vegetation. The autumn colors of October and November, after the summer heat, are also worthy of a lowland valley hike.

Leave the Bench Trail where a narrow dirt road heads south. Huge valley and coast live oaks shade the hiker for the first quarter mile. The creek, usually waterless during the summer, can become a small river in winter and spring. As no bridges exist, soaked boots and delays reward the hiker who crosses to what seems to be easier going.

The high chaparral-covered peak to the west is Mount Defiance at 2657 feet (810 m).

Large Fremont cottonwoods and sycamores mark the meandering course of Chalone Creek, while riotous spring colors including lupine and California poppies are a delight as you round each bend.

Watch for poison oak which thrives in the valley in its three forms — as a prostrate three-leaved plant, as a tall shrub or a creeping vine. Its reddish fall show is magnificent, but refrain from bouqueting.

Rough, narrow trails of range cattle criss-cross the valley and up onto the chaparral hillsides. Cattle are frequent, but usually depart as a visitor approaches.

The Russian wild boar, often termed the feral pig, may be encountered, but he is shy and elusive and will run when people approach. Deer are frequently seen and birdlife is prolific, and the large soaring form of the turkey vulture may often be seen gliding above nearby ridgecrests.

Jeep trails, occasionally used by local ranchers, are to be seen here and there on the bordering hillsides, just outside of the Monument boundary.

At about 2.5 miles (4.0 km), the creek takes several large bends. The traveling is now easier along the west side of the creek channel, if you can get across the creek without getting too wet.

At about three miles, the 'trace' will leave the creek and begin the climb up to South Chalone Peak via a brushed-out way trail. For those 'tigers' who left the campground on the Bench Trail prepared for a full day on the strenuous South Wilderness Trail over the two Chalone peaks, the hike has only begun. For the less ambitious hiker who had only desired the pleasant Chalone Creek Valley Walk, it is now time to turn around and admire the new vistas that will appear as he returns up the gentle valley route.



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Our two authors each had been working on a possible guide to this national monument, but on meeting, decided to pool their efforts.

Bob Johnson, the senior of the two, is a recently retired professor from San Francisco State U. He has served as a park ranger and also as a park naturalist. His many other credits include service in the Tenth Mountain Infantry Division in World War II. and as a world-class ski coach.

Youthful Dick Cordone, a resident of San Rafael, has hiked and climbed extensively in our western mountains from the Canadian Rockies to the sierras of Baja California. 'Discovering' the Pinnacles in 1974, he has devoted countless hours to research in this charming enclave.

The PINNACLES GUIDE covers such fields as history, geology, natural history, camping and climbing. But the major part of this work is devoted to the trail system and the trails themselves, which are covered in exacting detail. Photographs and maps aid in the study of these.

We feel that visitors — present and potential — will find this work both useful and enjoyable.

May you too enjoy visiting and hiking in the Pinnacles National Monument.



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