

# YOSEMITE

NATIONAL PARK, CALIFORNIA



**P**resident Abraham Lincoln in 1864 signed an Act of Congress granting the Yosemite Valley and the Mariposa Grove of Giant Sequoias to the State of California to "be held for public use, resort, and recreation . . . inalienable for all time." Thus was created the first "state park" in America and the initial step in the development of national parks. This farsighted action of a century ago makes it possible for you to enjoy this magnificent area today.

CENTENNIAL EDITION 1864-1964

# YOSEMITE

Centennial Year • June 30, 1964 • June 30, 1965

Yosemite National Park encompasses an array of natural wonders that includes lofty waterfalls, giant sequoias, high wilderness country, and the concentrated marvels of Yosemite Valley.

The National Park Service, U.S. Department of the Interior, which administers the park for you, welcomes you here. We hope that your stay will be an experience you will remember with deep pleasure and satisfaction. We are eager to do all we can to make it enjoyable. Please help us to protect this park and all that it contains, so that those who visit it in the years to come will find it no less beautiful than it is today.

Mere words can hardly do justice to the beauties of Yosemite. John Muir, the Scottish-born naturalist who was among the first to recognize the need for conservation of wilderness areas, saw it as "a place of such stature that the people should care for it." He found here "the most songful streams in the world \* \* \* the noblest forests, the loftiest granite domes, the deepest ice-sculptured canyons \* \* \*." All of the things that so impressed Muir are encompassed in the nearly 1,200 square miles of the Sierra Nevada that make up the park.

More than a million people every year, from every corner of the world, visit Yosemite. Many come back again and again, drawn by the beauty and the grandeur of the natural features and the striking changes that each new season brings. The roaring waterfalls and the colorful wildflowers in spring and early summer, the sun-drenched and shadow-softened granite spires rising from the valley floor, the highly polished domes and sparkling glacial lakes of the high country, the brown and gold colors of autumn, and the snow-capped slopes of Badger Pass in winter all have their special appeal.

The enjoyment of Yosemite is not alone in the seeing. There are solitude and refreshment of mind and spirit, for those who will seek them, along the hundreds of miles of trails that lead out from busy Yosemite Valley, from Tuolumne Meadows, from Wawona, and from convenient trail junctions along the roads. You can hike for an hour through cool and fragrant woods and meadows or pack in to high mountain lakes and passes for days of restful relaxation. You can camp in the valley or at one of many outlying campgrounds at elevations up to 8,500 feet. If your preference is for less rugged living, any one of several hotels and lodges in the valley and

elsewhere in the park can be your base for trips by automobile, on horseback, or on foot to points of interest.

It will take many visits for you to know Yosemite, but whatever the mood or the season, it will not disappoint you.

## YOU WILL WANT TO SEE—

### *Yosemite Valley*

Natural wonders abound in this 7-square-mile valley. Perhaps it would be better measured in cubic miles, for its highest point, the summit of Half Dome, is more than 4,800 feet above the valley floor; furthermore, the largest share of phenomena associated with the valley—sheer walls, waterfalls, and towering domes and peaks—are above its floor. At 4,000 feet elevation, this small part of the park is fortunately situated for year-round visiting. Rock walls protect it in winter storms; giant trees shield it from the summer sun.

Your first impression of the valley will depend partly on the time of year and your approach. From the west, you get a preview of steep mountainside and overhanging cliff as you follow the rugged canyon of the Merced River to the Arch Rock entrance of the park. Inside, after a few miles, the narrow roadway widens suddenly into the meadow at Valley View, and you first see majestic El Capitan, rising 3,604 feet above the valley floor. This massive granite buttress, considered to be the greatest geological wonder in all Yosemite, has scarcely a crack or fracture in its entire perpendicular wall.

Other imposing formations which you will see from various points along the valley road are Sentinel Rock, Cathedral Spires, and the Three Brothers, named for sons of Chief Tenaya, whose tribe lived in the mountains surrounding the valley.

If you come from the north and west on Big Oak Flat Road, or from the east over Tioga Pass Road, which joins it above the valley, the impact of the valley's splendor will be more gradual as you descend the mountainside. Coming down, you may glimpse Pulpit and Elephant Rocks and the Cathedral group of rocks and spires, preparing you somewhat for the magnificence of the inner valley view.

Coming from Wawona, you will see the spectacular vista that greeted the men of the Mariposa Battalion, who entered Yosemite Valley more than 100 years ago. Here, from Tunnel View, you look all the way up the valley to Cloud's Rest, with El Capitan on your left, and Bridalveil Fall on your right.

### *The Waterfalls*

The Upper Yosemite Fall drops 1,430 feet, and the Lower, 320 feet. With the cascades between, the total drop from the crest of the Upper Fall to the base of the Lower Fall is 2,425 feet, a breathtaking sight when the water is pouring over the top of the cliff at full volume.

See these others, too: Ribbon Fall, 1,612 feet; Vernal Fall, 317 feet; Bridalveil Fall, 620 feet; Nevada Fall, 594 feet; and Illilouette Fall, 370 feet.

The falls reach their maximum flow in May and June. A few run all year. In dry years, however, some have no visible water for a period beginning in mid-August.

### *The Giant Sequoias*

Yosemite National Park has three important groves of giant sequoias (*Sequoia gigantea*): the Mariposa Grove near the south entrance to the park (part of the Yosemite Grant that became the Nation's first State park in 1864); and the Merced and Tuolumne Groves near Crane Flat on the Big Oak Flat Road.

The giant sequoias belong to the redwood family, a group of trees that once was common over much of the Northern Hemisphere. Many of these forms have become extinct, and now the family is represented in this country only by the giant sequoias of the Sierra Nevada and the redwoods along the Pacific Coast. The present range of the giant sequoias is a narrow, 250-mile strip of scattered groves from Placer County to Tulare County in California. Their great resistance to fungi, fire, and insects contributes to their survival.

Indestructible as they seem, these trees can be injured. Their roots, extending over a wide area, are extremely shallow and lie exposed in many spots where the footsteps of sightseers have worn away the soil for nearly 100 years.

When you visit the groves, take care to stay on the pathway to avoid further damage to these majestic trees.

Be sure your visit includes the Grizzly Giant in Mariposa Grove. Although no completely dependable method of computing the ages of these enormous standing trees has been found, this giant is estimated to be well over 3,000 years old, and it is perhaps the oldest in the park. Its height is 209 feet; its base diameter is 34.7 feet.

Mariposa Grove is about 35 miles from the valley by way of the Wawona Road. You pass through magnificent open forests of pine (including the majestic sugar pine) and fir en route to the historic settlement of Wawona, a few miles from the grove. You should stop at Wawona to see the Pioneer Yosemite History Center, where old buildings, wagons, and other exhibits tell the story of Yosemite's human history.

### *Glacier Point (closed in winter)*

Perhaps the most breath-taking bird's-eye view in Yosemite is from Glacier Point. None of the few remaining glaciers in the park is visible from here today, but you can look far across the crest of the lofty Sierra Nevada or down into Yosemite Valley. From this vantage point the valley community,

with its familiar buildings and landscape in reduced scale, gives the impression of a miniature village.

Across Yosemite Valley you look down upon Yosemite Falls; across the Merced Canyon upon Vernal and Nevada Falls. Half Dome, North Dome, the Royal Arches, and Washington Column are especially prominent from this 7,254-foot elevation.

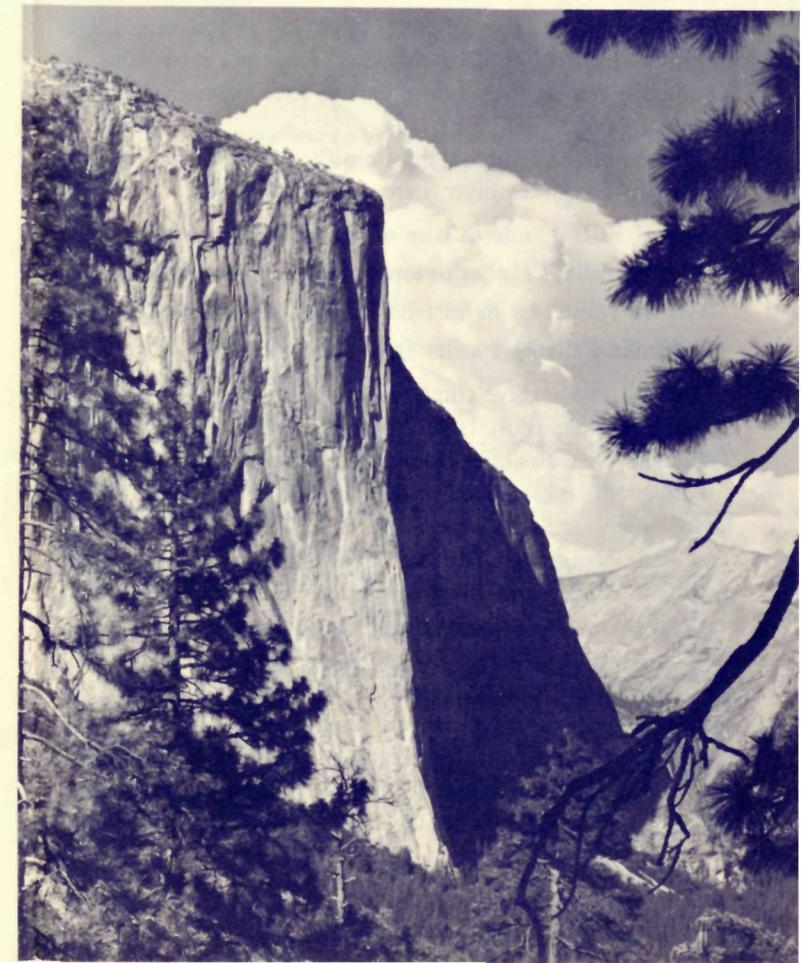
Nor is Glacier Point without its historic interest. Quaint Mountain House, perched on solid rock, is the oldest building in the park. It was built in 1872 by pioneer James McCauley.

### *The High Country (closed in winter)*

There are those who come to Yosemite without spending a day in the high country, thereby missing one of the choicest experiences the park has to offer. There are others who head immediately for its peaks and lakes and meadows, there to camp and fish and hike and ride in the heady air.

Center of activity in the high country is beautiful Tuolumne Meadows (8,600 feet), one of the largest of the subalpine meadows in the High Sierra. It is 55 miles from Yosemite

*El Capitan, rising about 3,600 feet above Yosemite Valley, as seen from Wawona Road near Tunnel View.*



Valley by way of the Big Oak Flat and Tioga Roads. In summer at Tuolumne, the Service operates a large campground, and conducts a full-scale naturalist program.

Scheduled saddle or hiking trips, operated by the Yosemite Park and Curry Company, follow the High Sierra Loop and radiate to mountain lakes and passes as high as 10,000 feet. Each night's stop is marked by a High Sierra Camp. These trips are so scheduled that there is time at each camp to fish and explore.

But it is possible to see a great deal of the high country without "packing in." From Tuolumne Meadows, you can drive to Tioga Pass or Tenaya Lake, and go adventuring among the little lakes nearby or hike through the fields of glacial boulders in and about the granite domes.

#### HOW YOU CAN SEE THE PARK

*(Before you start your tour of Yosemite, we urge that you visit the museum at park headquarters. Maps and booklets are obtainable there, and exhibits will help you to understand what you will see. Road and trail information is also available at the ranger office in the headquarters building.)*

#### By Trail

More than 700 miles of trails await you if you would like to know the park intimately. Many things not seen from an automobile can be a rewarding part of your experience in this National Park.

Try one of the shorter trails from the valley for your orientation trip (distances given here are one way):

Vernal Fall: 1 mile to base of fall from Happy Isles.

Nevada Fall: 3.2 miles to top of fall from Happy Isles.

Glacier Point: 4.8 miles from base of Sentinel Rock.

Yosemite Falls: 3.4 miles from Camp 4 to top of falls.

The last two involve climbs from valley floor to valley rim. Dozens of other trails from Yosemite Valley, Wawona, and Tuolumne Meadows offer from a day to several weeks of travel.

Perhaps the most famous Yosemite Trail is the High Sierra Loop—a distance of 53 miles round trip from the valley, via Tuolumne Meadows. You can pack your own gear and camp overnight at one of the trail campsites, replenishing your food stock, if necessary, at one of the six High Sierra Camps. These are about 10 miles apart, on the Loop Trail. You can also spend the night in a real bed, and eat a hearty breakfast or supper in the dining tent, at any one of these camps.

The John Muir Trail, traversing 212 miles of high-country wilderness, starts in Yosemite Valley, climbs to Tuolumne Meadows, and ends at Whitney Portal in Inyo National Forest.

U.S. Geological Survey topographic maps are standard equipment for hikers. You can purchase them at the Yosemite Museum any time of the year and at Tuolumne Meadows and Wawona during the summer.

Be sure to check trail conditions and obtain a fire permit and camping information at a ranger station before starting any overnight trips.

#### By Horseback

In summer, saddle horses and pack animals are available at Yosemite Valley stables, Tuolumne Meadows, and Wawona. Guides are required on saddle trips off the valley floor.

#### By Automobile

There are 216 miles of roads in Yosemite National Park open to public travel. Do not be tempted to take any motor vehicle onto a trail or any other thoroughfare not intended for public vehicular travel. Park regulations strictly forbid this—for your own safety.

#### PHOTOGRAPHY

Look for such familiar landmarks as El Capitan, Bridalveil Fall, the Three Brothers, Cathedral Rocks, Sentinel Rock, Yosemite Falls, North Dome, and Half Dome, and set up your tripod.

Remember that clouds and cloudy skies, or the subdued light of early morning and late afternoon, often give more striking effects than full sunlight—even with color film. And do not forget that the rocks of Yosemite lend themselves especially well to black-and-white photography. You may also have to make adjustments to compensate for the intense blue of the sky and brighter sunlight.

#### TIPS FOR A CAREFREE VISIT

*Wild mammals roam this park. Some are dangerous. Watch them from a distance. Do not alarm them, or attract them with food. Stay in your car when you see them along the roads. Regulations, which we enforce for your safety, prohibit feeding or molesting the deer and bears. Ask a park ranger how to protect food from bears.*

Certain other hazards are inherent in this park. Falling rocks, trees, and branches rarely cause accidents, but watch for them. Streams and lakes may be treacherous for wading and swimming. The following briefed regulations are intended not only for protection and preservation of the park but also for your personal safety.

**MOTOR VEHICLES.** The speed limit is 35 miles an hour unless otherwise posted.

All park roads are safe if you drive carefully; however, they are not built for speed. Use lower gear on downgrades to save your brakes; on upgrades, use lower gear to avoid vapor lock or overheating your engine.

You may need tire chains at times during the winter, and it is advisable to carry them for use during sudden storms in late autumn or early spring.

Commercial trucking is not allowed in the park except on park business; commercial buses may enter only by special arrangement. All vehicles must stay on public roads.

**CAMPING** is limited to 14 days in any calendar year. During the heavy-use months of June, July, and August, however, camping in Yosemite Valley is limited to 10 days. Purchase of an additional 15-day or an annual vehicle permit does not entitle you to camp for a longer period.

**FISHING.** California fishing licenses are required for fishing in the park. The season conforms to State regulations. Limit: 10 fish, but not more than 10 pounds and 1 fish. (Write to superintendent or see posted bulletins for full fishing regulations, including information on closed waters.)

**BOATING AND SWIMMING.** Boating is permitted in the park only on these lakes: Benson, Kibbie, Many Islands, May, Merced, Tenaya, Tilden, and Twin. Motors are not permitted. Streams used to supply local drinking water are posted; swimming in them is prohibited. Concessioner-operated swimming pools are at Camp Curry, Yosemite Lodge, and Wawona.

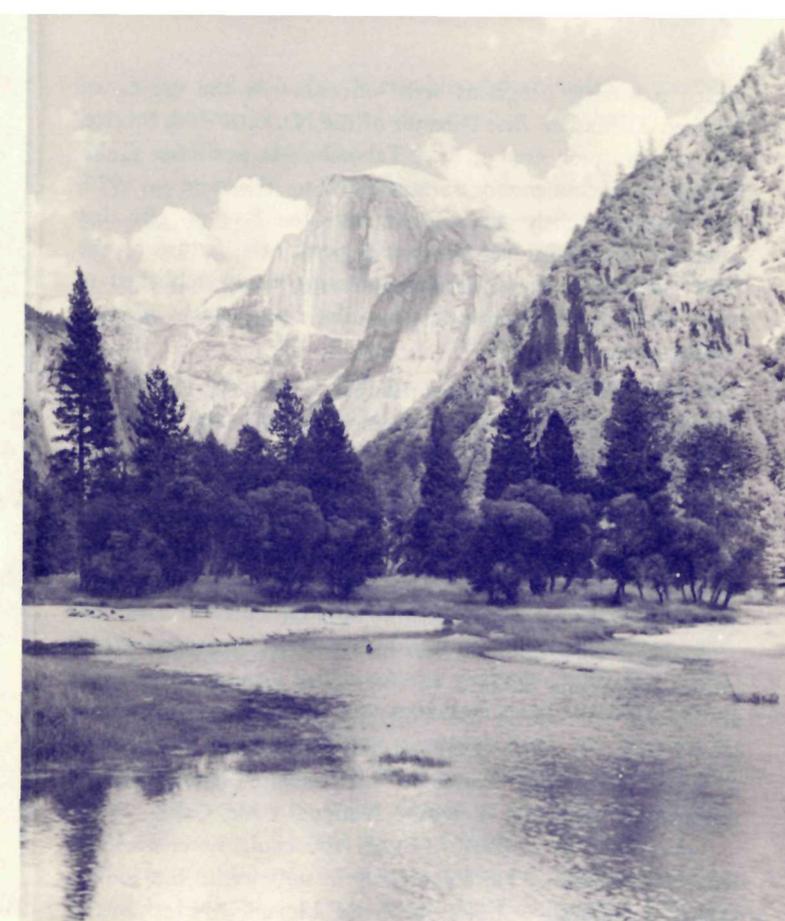
**PRESERVING NATURAL FEATURES.** Destruction, defacement, or removal of trees or rocks is prohibited, as are the picking or carrying away of wildflowers or other plants, and killing, injuring, or capturing of wildlife.

**PETS.** You may bring your dog or cat to Yosemite, but only on condition that it be on a leash or otherwise under full physical control at all times; it may not be taken on trails or beaches or into public buildings. Dogs may be boarded in kennels; campers with pets are restricted to certain campgrounds.

**FIRES.** Report fires immediately to nearest ranger station! Campfire permits are required except in public automobile campgrounds. Never leave a fire unattended. Be sure your fire is out before you leave. Extinguish it with water.

You may not smoke while hiking or riding horseback, nor throw cigarettes, cigars, or matches from your automobile.

**FIREARMS.** Possession of firearms must be declared at entrance stations. Hunting with any kind of weapon is not per-



*Half Dome rises about 4,850 feet above the Merced River in Yosemite Valley.*

mitted. Firearms must be sealed, cased, broken down, or otherwise packed to prevent their use while in the park.

**TRAILS.** You should stay on designated trails while hiking. Do not shortcut between zigzags or switchbacks, for this is dangerous to you and to any persons below you, and it can cause destructive erosion. You should never hike alone, and you should tell someone where you are going and when you will return. Vehicles are not permitted on trails or bridle paths.

Horses have the right-of-way on roads, trails, and bridges.

#### THE NATURALIST PROGRAM

From the museum at park headquarters in Yosemite Village, there is conducted a summer program of naturalist activities for every age and interest. Even if you are in the park for only a limited time, by all means make at least one visit to the museum, and take part in its programs if you can.

Yosemite was the first area of the National Park System in

which naturalist programs were offered. At the urging of Stephen T. Mather, first Director of the National Park Service, the program pioneered at Lake Tahoe by Mr. and Mrs. C. M. Goethe of Sacramento was transferred to Yosemite in 1920, and they generously supported it here for 2 years. By that time, its popularity had made it a permanent fixture of the park. In a few years, similar programs were established in every National Park; the idea has also been widely adopted in State and other parks.

#### *The Museum and Its Surroundings*

Morning and, in summer, afternoon talks in the museum's geology room tell how the valley was formed. The geologic story is enlivened by relief maps and models, photomurals, and a pushbutton shadow panorama which realistically depicts the uplifting of the Sierra Nevada and the sculpturing action of the glaciers. Exhibits also treat such subjects as trees, birds and other animals, Indians, history, and art.

Books by outstanding writers on the Sierra and other publications on specific subjects of interest to visitors to the park are offered for sale at the Yosemite Museum and elsewhere in the park. A list of available publications can be obtained at the museum, or by writing to the Yosemite Natural History Association, Box 545, Yosemite National Park, Calif.

Take time for a stroll through the cool, sweet-smelling wildflower garden. Here every day in summer, in the Indian Circle, a naturalist shows how the Indians lived, hunted, cooked, and dressed. Be sure to visit the Happy Isles Nature Center at the upper end of Yosemite Valley, where exhibits tell the story of Yosemite through the seasons, ways of enjoying the park, fishing, and interesting facts about wild animals. Here, too, is the meeting place for the popular Junior Ranger Program.

Do not miss the log-cabin museum in Mariposa Grove, the overlook at Glacier Point, the exhibit at Tuolumne Meadows Campground Ranger Station, the Sentinel Dome mountain spotter, and the Pioneer Yosemite History Center at Wawona. Activities at all but the Yosemite Museum are suspended in winter.

#### *Walks and Hikes*

There are easy, guided walks through the valley and at Wawona, Glacier Point, and Tuolumne Meadows. More vigorous all-day hikes leave almost daily from Tuolumne Meadows. Schedules for these activities are posted on bulletin boards.

#### *Campfire Programs (summer only)*

Informal outdoor programs are held nightly except Sunday in Yosemite Valley at Camps 7 and 14 and at Yosemite Lodge, and several nights a week at Glacier Point, Wawona, Bridalveil



*A park ranger-naturalist shows a bat to one of the Junior Ranger Program's nature classes.*

Creek Campground, White Wolf Campground, and Tuolumne Meadows. At these programs, naturalists interpret the wonders of the park—plants and animals, mountains and valleys, lakes and streams. They suggest the trail trips that will lead you to places of unusual beauty or interest; they tell you where and how to get the photographs you will want to take; and they relate the history of man in the area. For detailed information about the campfire programs, telephone 372-4611, or 372-4466.

#### *Junior Rangers (summer only)*

Children 8 to 12 years old are invited to join this program, which is given from Monday through Friday. They will become acquainted with animals, trees, and wildflowers, and will make a nature notebook. Campfire programs, with such themes as Indians and the rocks of Yosemite, are held twice a week. Schedules are posted on bulletin boards.

## PLANTS AND ANIMALS

### *Life Zones*

Few places in the United States have a wider variety of native plants and animals than the Sierran slopes. Within Yosemite National Park, from the warm foothills below Arch Rock, at 2,000 feet above sea level, to the windy summits of peaks such as 13,114-foot Mount Lyell, there are five assemblages of plants and animals. These are roughly arranged in belts called life zones. As you ascend the slopes, you go from one such life zone to another. At first the change is hardly noticeable; then, the altered scenery makes you realize you are surrounded by a different community of plants and animals.

The story of life zones in relation to animals in the park is a fascinating one and is best understood by studying the exhibits in the Yosemite Museum. Here, a series of dioramas shows you birds and mammals in their characteristic habitats.

The lowest elevations in the park are at about 2,000 feet. These elevations, encountered if you enter by way of the Arch Rock Entrance Station, are in the Upper Sonoran life zone. In this zone trees begin to crowd brush-covered areas, and there are scattered stands of redbud and Digger pine. Living in this zone are the California jay and the thrasher, the shy ring-tail, and the gray fox.

Higher in the park, you enter the Transition life zone. Yosemite Valley, at 4,000 feet, is in this zone. Much of it is more rugged country of great beauty, with its stands of black and canyon live oaks, yellow pine, incense-cedar, and white fir. You will note the increase of coniferous trees as you ascend. Typical animals you can see here are the band-tailed pigeon, pygmy owl, and Steller's jay; the gray squirrel, chipmunk, and Douglas squirrel (chickaree).

Beginning at about 6,000 feet is the delightful Canadian life zone of cool evergreen forests of red fir and lodgepole, western white, sugar, and Jeffrey pines. The blue grouse, fox sparrow, and Townsend's solitaire are seen here, as are the porcupine and the golden-mantled ground squirrel.

In traveling the road through Tuolumne Meadows and over the crest of the Sierra Nevada, by way of Tioga Pass, you traverse a region ranging between 8,000 and 10,000 feet elevation. Here lies the Hudsonian life zone, with plants and animals similar to those found near sea level in the Hudson Bay area of Canada, far to the north. Mountain hemlock and lodgepole pine are the prominent trees; Clark's nutcracker and the white-crowned sparrow are typical of the area, as are the Belding's ground squirrel and the marmot.

Above all this, along the higher crest of the Sierra, a climate similar to that of the Arctic produces the Arctic-Alpine life zone. There, above treeline, grow stunted willows not more

than a few inches high. Warm-blooded animals are scarce—the gray-crowned rosy finch being most in evidence.

### *About the Park Animals*

Of the 220 bird and 75 mammal species known to live in Yosemite, many stay within their accustomed life zones, but others, such as the California mule deer, migrate between high and low elevations with the seasons. Some of the deer, however, do spend the entire year in Yosemite Valley, where their presence is a delight to visitors. Park regulations prohibit your feeding the deer. It is false kindness to break this rule, because if you feed them they become dependent on man. Also, unnatural foods soon reduce their vigor as wild animals and contribute to their untimely death. Remember that all deer are in some degree dangerous to those who approach them closely.

Birds most frequently seen in the park include Steller's jay and black-headed grosbeak, or "butter bird" (particularly in the campgrounds); western bluebird, western tanager, and acorn woodpecker (in the country between Yosemite Valley and the high meadows); and mountain quail and blue grouse (particularly at Glacier Point). Many birds can be seen in the high country; you will find the mountain bluebird and Clark's nutcracker, the water dipper in the streams, and the gray-crowned rosy finch in the snowfields.

Yosemite's squirrel family is a large one, composed of the California ground squirrel, golden-mantled ground squirrel, Belding's (or picket-pin) ground squirrel, and their relatives, the chipmunks. In addition, there are these tree dwellers: Douglas squirrel (chickaree), western gray squirrel (large, with bushy tail), and flying squirrel.

The park museums have for sale illustrated, pocket-size books listing and describing plants and animals of the park.

## PARK SEASONS

### *Summer*

Mid-June until early September is family vacation time, and Yosemite Valley is heavily congested. The campgrounds and other facilities, including overnight accommodations, are often crowded beyond capacity. July and August are good months to go into the high country. In the high country, the meadows are colorful with the season's first flowers, for spring is late up there. The magnificent Waterwheel Falls on the Tuolumne River are tossing their plumes of water high into the air. Days are warm; but you will find a sweater comfortable as the sun gets low. The nights are chilly.

In the valley, days are usually warm; nights are pleasantly cool. Shady trails make hiking and riding a comfortable pastime, and river beaches are fine for sunning. It seldom rains between June 1 and September 30, except for occasional afternoon thundershowers.



## Autumn

Indian summer is a lovely season in Yosemite. In September the ferns in the valley begin to turn many shades of gold and yellow; in October the trees turn tawny, and the air sparkles with the first frost. Fishing is at its best, for streams and lakes are low and the fish are near the surface.

Autumn color of oak and maple, dogwood and aspen varies from year to year, and with different elevations. By the end of October the Big Oak Flat and Wawona Roads are often in riotous display. Color along the 58-mile stretch of the Tioga Road from Crane Flat to Tioga Pass comes earlier and is an unforgettable sight. Check with the chief ranger's office (372-4466) to find out whether or not the road is blocked by snow.

## Winter

Center of winter outdoor activities at Yosemite is the Badger Pass ski area, reached by way of the south entrance from Fresno and the west entrance from Merced. It is 20 miles from Yosemite Valley on Glacier Point Road. *Have tire chains available.*

Ski season is from about mid-December to mid-April, depending on the weather. You will find slopes for every degree of skill—a gentle slope if you are a beginner, and three other more challenging slopes, all with T-bar lifts. Ski school is in session daily. Marked ski trails through the woods nearby are maintained by the National Park Service.

There are no overnight accommodations at Badger Pass, but you can find lodging at Wawona or in Yosemite Valley. The ski house at the pass has cafeteria and grill, with a sunny porch for lunching outdoors, and a ski shop where you can rent skis and boots. There are special classes for children and a reliable baby-sitting service for skiing parents. (Write to the Yosemite Park and Curry Co., Yosemite National Park, Calif., for details on all-expense ski tours.)

## Spring

The season of waterfalls! Spring in Yosemite Valley means May and June, when the waterfalls are booming all around, the leaf buds are bursting in a pattern of green, and the dogwood and azalea reveal themselves in showy white and pink along the roadside. Sometimes melting snow and spring rains bring dozens of temporary waterfalls into play and swell the waters of the major falls to many times their average volume. During these periods of extra-heavy flow, Yosemite is truly a photographer's paradise.



*Deer browse among snow-covered evergreens.*

## GEOLOGY

### *How Yosemite Valley Was Formed*

Upon first viewing the waterfalls, cliffs, and domes of Yosemite Valley, you will probably wonder about their origin. Their story is told in the daily talks presented at the museum, and in publications on sale there.

The story covers a period of many millions of years. What is now the Sierra Nevada and the Great Valley of California was once a large sea, much like the present Gulf of Mexico. The sediments deposited in that ancient sea eventually became rock. The rock layers were warped by great forces in the earth's crust and raised above the level of the sea into a mountain range. The range was eroded for a time. It then sank below sea level, so that once again deposits were laid down on the submerged area. After a second emergence, the crust

was flexed into broad folds (much as a packet of paper buckles when its edges are held and pushed together) that ran from northeast to southwest. Deep below the surface of these folded mountains, the heat of the earth was so great that the rocks were in a molten state. This molten rock gradually cooled and hardened to granite. Later, as weathering and water erosion stripped away the overlying sedimentary rocks, the granite mass became exposed. The Sierra Nevada thus rose as a block, with the eastern section rising more than the western, so that in time stream erosion developed a landscape of rolling hills and broad valleys with a gentle slope to the west and a steeper eastern front. In the Yosemite region, slow-moving streams flowed through side valleys and drained into the ancestral Merced River.

As the tilting increased, the crest of the Sierra Nevada reached an elevation of from 10,000 to 13,000 feet. The Merced River began to flow more rapidly in the direction of the tilt, and to cut a V-shaped canyon into the rolling upland surface.

With the advent of the great ice age, masses of snow and ice accumulated in the Sierra Nevada. Glaciers formed and advanced downslope from the crest area on at least three occasions, grinding, gouging, and quarrying the canyon, widening and deepening it into a U-shaped trough. The glaciers cut away the lower parts of tributary streams such as Yosemite Creek, leaving their valleys "hanging," so that the streams now plunged into the valley from the cliffs above. At its maximum, the Yosemite glacier extended down the Merced River valley as far as El Portal. When climatic changes caused the glaciers to melt, a glacial moraine—a natural dam of rock debris—was left near Bridalveil Falls. The Merced River was dammed by this moraine, and a lake was formed extending 5½ miles back into Yosemite Valley. In time, silt, sand, and rock filled the lake, producing the level valley floor of today.

### *Domes and Pinnacles*

The granite domes and pinnacles for which Yosemite is famous were formed in two ways—by exfoliation and by overriding glacial action.

*Exfoliation* (from the Latin "to strip of its leaves") is the spalling off of layers of rock, and occurs only in monoliths, either by release of internal pressure after erosion lessens the heavy weight of overlying rocks or by chemical processes, or both. The exfoliation process results in the development of a system of concentric layers much like those of an onion. These layers eventually break off by weathering, and the angular surfaces finally take on the rounded contour of a dome. Sentinel Dome, Half Dome, and the Starr King group are examples of domes resulting from exfoliation.

Liberty Cap and other domes of Little Yosemite Valley, as

well as Lumbert Dome and others in Tuolumne Meadows, are examples of domes that have been rounded and polished by the glaciers that passed over them.

You can see shiny, ice-polished rock surfaces on many of the glacially produced domes in the Tuolumne Meadows area, as well as on the adjacent rolling terrain. Watch, too, for *glacial erratics*—boulders once carried by the ice and deposited on the smooth, glaciated surfaces.

## YOSEMITE HISTORY

### *Discovery*

Though Indians lived in Yosemite Valley and other places in the park for hundreds of years before white men came to California, it seems likely that the first glimpse of the valley itself by a white man came as late as 1849. One William Penn Abrams, in his diary, tells of having become lost while tracking a bear in October of that year, and having come upon "a valley enclosed by stupendous cliffs rising perhaps 3,000 feet from their base." Not far off, "a waterfall dropped from a cliff below three jagged peaks into the valley, while farther beyond, a rounded mountain stood \* \* \* as though it had been sliced with a knife as one would slice a loaf of bread." There seems no reason to doubt that he was describing Yosemite Valley.

Sixteen years earlier, an exploring party led by Capt. Joseph Reddeford Walker had crossed the Sierra en route to the Pacific coast. They probably traversed part of today's Yosemite National Park, judging by their descriptions of waterfalls and big trees.

In 1851, members of the Mariposa Battalion entered Yosemite Valley. This fighting force, organized by the Governor of California, was under the command of Maj. James D. Savage, a veteran of the Mexican War. Its purpose was to subdue the Sierra Indian tribe, descended from the Ahwahneechee, but then called "U-zu-ma-ti" (which means grizzly bear) who lived in the mountains surrounding the valley, and whose chief, Tenaya, had failed to appear at a meeting called by the Indian Commissioners. The soldiers named the valley for the Indians. Lovely Lake Tenaya, along whose shores the Tioga Road passes en route to Tuolumne Meadows, was named for their chief. "Yosemite" has undergone many changes of spelling from that first used in attempting to reduce the name used by the Indians to writing.

### *First Tourist Parties*

James Mason Hutchings, an English adventurer, and two Indian guides brought in the first tourist party in 1855. On his return, Hutchings wrote the first published account of the wonders of the valley for the *Mariposa Gazette*. He had been accompanied by Thomas Ayres, Yosemite's first artist, whose

sketches can be seen in the park museum. When the sketches appeared with Hutchings' writings in the *California Magazine* in July 1856, they attracted hardy visitors to Yosemite from all over the United States.

### *The Yosemite Grant*

The extravagant praise of visitors convinced certain public-minded Californians that Yosemite should be protected from private exploitation and set aside for public use. They passed their ideas to Senator John Conness (for whom one of the High Sierra peaks beyond Tuolumne Meadows is named). As a result of Conness' efforts, President Lincoln, on June 30, 1864, signed an act of Congress providing that there be granted to the State of California:

"The 'cleft' or 'gorge' in the granite peak of the Sierra Nevada Mountains \* \* \* known as Yo-Semite Valley \* \* \* for public use, resort, and recreation." The act also included " \* \* \* what is known as the 'Mariposa Big Tree Grove' \* \* \*"

The new park's first guardian was Galen Clark, who in 1856 established Clark's Station in an area known today as Wawona. He served from 1866 to 1879. Hutchings, who meanwhile had become the father of the first white child to be born in the valley, was the park's next guardian (1880-84).

### *John Muir and the President*

A gentle, Scottish-born naturalist, John Muir, had much to do with molding the destiny of the Yosemite country. He came to what is now the park in 1868 to herd sheep. Appalled at the destruction caused by grazing, he began to write about the need for conservation in wilderness areas, and in the late 1880's found a sympathetic publisher in Robert Underwood Johnson of *Century Illustrated Monthly Magazine*. They influenced Congress and the American people to think about a system of National Parks.

Thus in 1890, again by act of Congress, Yosemite National Park was established around the original Yosemite Grant and was administered by the U.S. Army. The State continued its control of the original grant until 1906, when it receded its lands to the Federal Government, and the dual administration ended. By 1914, civilian supervision was in effect.

When the National Park Service was founded on August 25, 1916, by an act of Congress signed by President Woodrow Wilson, Stephen T. Mather, a Californian and a great friend of Yosemite, was named its first director.

### HOW TO REACH THE PARK

#### *By Automobile*

*From the West:* Arch Rock Entrance via Calif. 140 (open all year). Crane Flat Entrance on Big Oak Flat Road via Calif. 120 (closed in winter). *From the South:* South En-

trance via Calif. 41 (open all year). *From the East:* Tioga Pass Entrance via Calif. 120 (closed in winter). Calif. 140 and 41 are all-year surfaced roads. Big Oak Flat Road west of Crane Flat is oiled, but it is narrow, winding, and steep in places and is not suitable for buses, trucks, or house trailers. Big Oak Flat, Tioga, and Glacier Point Roads, and the section of the Mariposa Grove Road beyond Grizzly Giant, are closed in winter.

#### *By Railroad and Bus*

Southern Pacific and the Santa Fe trains and Pacific Greyhound and Continental Trailways buses operate to Merced and Fresno from the north and south.

The Yosemite Transportation System of the Yosemite Park and Curry Company carries passengers to Yosemite Valley from Fresno and Lake Tahoe in summer and from Merced all year. (Write to the Yosemite Transportation System, Yosemite National Park, Calif., for timetables, or visit your local agent.)

#### *By Air*

United Air Lines serves Merced and Fresno on Los Angeles-San Francisco flights; Trans World Airlines serves Fresno.

### WHERE TO STAY IN THE PARK

*Free campgrounds* are maintained in Yosemite Valley throughout the year; in the high country and other parts of the park only during summer.

See *Tips for a Carefree Visit*, page 7, regarding time limits on camping; a list of campground locations can be obtained from the Superintendent, Yosemite National Park, Calif.

Although Yosemite Valley has the largest number of campgrounds, there are others at Glacier Point, Bridalveil Creek, Wawona, Tuolumne Meadows, White Wolf, and Crane Flat, and in other attractive and less crowded areas where you can pitch a tent. No reservations can be made.

House trailers are accommodated in most campgrounds, but there are no electrical connections or other trailer utilities anywhere in the park. Some campsites have fireplace and table; all of them are located near water and restrooms. Showers are available near the campgrounds in Yosemite Valley and at Tuolumne Meadows.

Campers are asked to register at campground entrances; this makes it possible for park rangers to deliver emergency messages. Study the camping regulations on the bulletin boards and keep a good camp; leave it clean when you go away, and place materials that will not burn in receptacles.

Only dead and down wood may be gathered for fuel. No sequoia wood may be used.

On trail trips, camp only at the locations listed on your campfire permit—which you must have if you camp at any but

an automobile campground. You can get a fire permit any hour of the day or night at the chief ranger's office, Yosemite Village, or during the day at outlying ranger stations.

*Hotels, lodges, and cabins* in the park are operated by the Yosemite Park and Curry Company, Yosemite National Park, Calif., (offices also in Los Angeles and San Francisco), from which you can obtain information on rates. *Reservations are usually necessary; deposits are required.* Note: In the following listing, the designation "American Plan" indicates that meals are included in the rates charged. The cost of meals is a separate item when accommodations are on the "European Plan."

*Abwahnee Hotel*, Yosemite Valley. Hotel rooms and cottages; dining room. American plan. (Closed briefly for renovation in late autumn.)

*Yosemite Lodge*, Yosemite Valley (all year). Hotel-type rooms; cabins with bath; cabins without bath, toilet, or running water; canvas cabins; housekeeping cabins. Cafeteria and grill. European plan.

*Wawona Hotel Annex*, Wawona. Limited number of hotel rooms with and without bath. European plan during autumn, winter, spring. Coffee shop nearby.

The following are open only during the summer:

*Housekeeping Camp Headquarters*, Yosemite Valley. Two sections of housekeeping tent cabins. By week, with or without linens, blankets, cooking utensils.

*Camp Curry*, Yosemite Valley. Bungalows with bath, cabins without bath; tents. Dining room, cafeteria, grill. Store. American and European plans.

*Big Trees Lodge*, Mariposa Grove. Rooms with or without bath. European plan. Cafeteria.

*Wawona Hotel*, Wawona. Rooms with or without bath. Dining room. American plan.

*Glacier Point Hotel*, Glacier Point. Rooms with or without bath. Cafeteria. European plan.

*White Wolf Lodge*, 1 mile off the Tioga Road. Cabins with bath. Tents. Dining room. European plan.

*Tuolumne Meadows Lodge and High Sierra Camps*. Canvas cabins without bath. Dormitory and private tents. Hot showers. Dining tent. European plan. Advance reservations are necessary for transient meals.

*Degnan, Donohoe, Inc.*, Yosemite Valley. Meals, fountain service, bakery, and delicatessen.

*At El Portal*. Market, general store. El Portal Motor Inn, cabins with bath; coffee shop. Motor service, garage.



*Camping in Yosemite Valley.*

### SERVICES

**STORES.** At Yosemite Village in Yosemite Valley, Wawona, and El Portal, all year; at Camp 14, Housekeeping Camp in Yosemite Valley, and Tuolumne Meadows, in summer.

**EQUIPMENT RENTAL.** Camping supplies, tents, cots, blankets, and cooking utensils may be rented in summer at Housekeeping Camp headquarters; a deposit is required. In winter, skates and sleds may be rented at Camp Curry, and ski boots and equipment at Badger Pass.

**PACK AND SADDLE ANIMALS.** In summer, guided saddle trips are scheduled daily both in and out of Yosemite Valley. Saddle animals are available also in summer at Mather, White Wolf Lodge, Tuolumne Meadows Lodge, and Wawona.

**DINING ROOMS AND CAFETERIAS:** Open all year in Yosemite Village and El Portal; summer only in other parts of the park.



**PHOTOGRAPHY.** Best's Studio in Yosemite Valley, open all year, has supplies and gifts. The Yosemite Park and Curry Company has studios at the Ahwahnee Hotel and Yosemite Lodge, open all year; at Camp Curry, Yosemite Village, Glacier Point, Wawona, and Mariposa Grove in summer. These studios will accept film for processing.

**MAIL.** The main post office is in Yosemite Village. Mail should be addressed to you there, in care of general delivery, or at the lodging unit in which you will be staying. There are all-year post offices at Wawona and Yosemite Lodge; summer post offices at Camp Curry and Tuolumne Meadows.

**EMERGENCY MESSAGES** will be delivered to you in campgrounds (if you have registered) and at regular lodging units.

**TELEPHONE AND TELEGRAPH.** Long distance calls can be made from public telephones throughout the park. Telegraph is available all year in Yosemite Valley; in summer, offices are open in the Yosemite Village post office building, and at Camp Curry; in winter, there is an office in Yosemite Lodge.

**MEDICAL AID.** Doctors, nurses, and a dentist are on duty all year at the Lewis Memorial Hospital in Yosemite Village. A first-aid station is maintained at Badger Pass ski house during winter.

**CHURCH.** Protestant and Catholic services are held in winter at the Old Village chapel in Yosemite Valley. Weekly services for most denominations are held in summer; announcements are made at park campfire programs.

**FOR THE CHILDREN.** In summer the following are offered: Junior Ranger Program (see schedule at Yosemite Museum); daily burro picnic trips, 9 a.m. to 3 p.m. (Yosemite Park and Curry Co.); Kiddie Kamp and Grizzly Club at Camp Curry. Also, there are baby-sitting services at Camp Curry during summer and at Badger Pass in winter.

**MISCELLANEOUS.** Laundry (self-service in summer in Yosemite Valley) and dry cleaning are available in each area.

Filling stations that offer towing service are located throughout the park; garage and repair service is available in Yosemite Valley and El Portal.

### ADMINISTRATION

YOSEMITE NATIONAL PARK is administered by the National Park Service, U.S. Department of the Interior.

The National Park System, of which this park is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and inspiration of its people.

The development of this park is part of MISSION 66, a 10-year conservation program to unfold the full potential of the

National Park System for the use and enjoyment of both present and future generations.

A *superintendent*, whose address is Yosemite National Park, Calif., is in immediate charge of the park.

*Park rangers* are the uniformed protective force of the park. They are here to help you and to enforce park regulations.

*Park naturalists*, also uniformed, are the interpretive staff of the park. Their job is to acquaint you with the natural and human history of Yosemite.

*Park headquarters*, in Yosemite Village, is open 24 hours a day. Report fires, accidents, lost persons, injuries, or any other emergencies there. Ask the telephone operator for the rangers' office, 372-4466.

### AMERICA'S NATURAL RESOURCES

Created in 1849, the Department of the Interior—America's Department of Natural Resources—is concerned with the management, conservation, and development of the Nation's water, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.

### VISITOR-USE FEES

Vehicle permit fees are collected at entrance stations. If you arrive when an entrance station is unattended, you must obtain a permit before leaving the park. Fees are not listed herein because they are subject to change, but the information may be obtained by writing to the superintendent.

Fee revenues are deposited in the U.S. Treasury; they offset, in part, the cost of operating and maintaining the National Parks.



Revised 1964

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE



U.S. GOVERNMENT PRINTING OFFICE: 1964-O-719-306

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Washington, D.C., 20402 - Price 15 cents