

DEPARTMENT OF THE INTERIOR  
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NATIONAL PARK SERVICE  
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GENERAL INFORMATION  
REGARDING

SEQUOIA  
AND  
GENERAL GRANT  
NATIONAL PARKS

Season of 1917

The Big Tree Park—Greatest Forest of the Greatest Trees in the World—Twelve Thousand Are Over Ten Feet in Diameter—One More than Thirty-six Feet in Diameter—One of the Earth's Spots of Greatest Beauty—Kings Canyon—The Kern Region and Highest Mountain in the United States Proper—Capital Trout Fishing—Accessible Camping Sites—How to Get There.



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1917

## THE NATIONAL PARKS AT A GLANCE.

[Number, 17; total area, 9,774 square miles.]

National parks in order of creation.	Location.	Area in square miles.	Distinctive characteristics.
Hot Springs..... 1882	Middle Arkansas.....	1½	46 hot springs possessing curative properties—Many hotels and boarding houses—20 bath-houses under public control.
Yellowstone..... 1872	Northwestern Wyo- ming.	3,348	More geysers than in all rest of world together—Boiling springs—Mud volcanoes—Petrified forests—Grand Canyon of the Yellowstone, remarkable for gorgeous coloring—Large lakes—Many large streams and waterfalls—Vast wilderness, constituting greatest wild bird and animal preserve in world—Exceptional trout fishing.
Casa Grande Ruin... 1889	Arizona.....	¾	Noteworthy relics of a prehistoric age; discovered in ruinous condition in 1694.
Sequoia..... 1890	Middle eastern Cali- fornia.	252	The Big Tree National Park—12,000 sequoia trees over 10 feet in diameter, some 25 to 36 feet in diameter—Towering mountain ranges—Startling precipices—Fine trout fishing.
Yosemite..... 1890	Middle eastern Cali- fornia.	1,125	Valley of world-famed beauty—Lofty cliffs—Romantic vistas—Many waterfalls of extraordinary height—3 groves of big trees—High Sierra—Waterwheel falls—Good trout fishing.
General Grant..... 1890	Middle eastern Cali- fornia.	4	Created to preserve the celebrated General Grant Tree, 35 feet in diameter—6 miles from Sequoia National Park.
Mount Rainier..... 1899	West central Wash- ington.	324	Largest accessible single peak glacier system—28 glaciers, some of large size—48 square miles of glacier, 50 to 500 feet thick—Wonderful sub-alpine wild flower fields.
Crater Lake..... 1902	Southwestern Oregon.	249	Lake of extraordinary blue in crater of extinct volcano—Sides 1,000 feet high—Interesting lava formations—Fine fishing.
Wind Cave..... 1903	South Dakota.....	16	Cavern having many miles of galleries and numerous chambers containing many peculiar formations.
Platt..... 1904	Southern Oklahoma...	1½	Many sulphur and other springs possessing medicinal value.
Sullys Hill..... 1904	North Dakota.....	1½	Small rugged hill containing prehistoric ruins—Practically a local park.
Mesa Verde..... 1906	Southwestern Colo- rado.	77	Most notable and best preserved prehistoric cliff dwellings in United States, if not in the world.
Glacier..... 1910	Northwestern Mon- tana.	1,534	Rugged mountain region of unsurpassed Alpine character—250 glacier-fed lakes of romantic beauty—60 small glaciers—Precipices thousands of feet deep—Almost sensational scenery of marked individuality—Fine trout fishing.
Rocky Mountain... 1915	North middle Colo- rado.	398	Heart of the Rockies—Snowy range, peaks 11,000 to 14,250 feet altitude—Remarkable records of glacial period.
Hawaii..... 1916	Hawaii.....	118	Three separate areas—Kilauea and Mauna Loa on Hawaii; Haleakala on Maui.
Lassen Volcanic.... 1916	Northern California...	124	Only active volcano in United States proper—Lassen Peak 10,465 feet—Cinder Cone 6,879 feet—Hot springs—Mud geysers.
Mount McKinley... 1917	South central Alaska..	2,200	Highest mountain in North America—Rises higher above surrounding country than any other mountain in world.

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# GENERAL INFORMATION REGARDING SEQUOIA AND GENERAL GRANT NATIONAL PARKS.

## GENERAL DESCRIPTION.

THE Sequoia National Park was created by act of Congress of September 25, 1890 (26 Stat., 478), to preserve, for the benefit and enjoyment of the people, the greatest groves of the oldest, the biggest, and the most remarkable trees living in this world. They number 1,156,000. Of these, 12,000 exceed 10 feet in diameter. The General Sherman Tree, most celebrated of all, is 279.9 feet high with a diameter of 36.5 feet. The Abraham Lincoln Tree is 270 feet high with a diameter of 31 feet. The William McKinley Tree is 291 feet high with a diameter of 28 feet.

The General Grant National Park is usually mentioned with Sequoia because, though separated by 6 miles of mountain and forest, the two are practically the same national park. It was established by act of Congress of October 1, 1890 (26 Stat., 650). It contains only 2,536 acres and was created only for the protection of the General Grant Tree, a monster sequoia 264 feet high and 35 feet in diameter. But General Grant shares his domain with distinguished neighbors, notably the George Washington Tree, which is only 9 feet less in height and 6 feet less in diameter.

The sequoias are found scattered all over the park, which has an area of 161,597 acres, but the greater trees are gathered in 13 groups of many acres each, where they grow close together. The country is one of the most beautiful in America, abounding in splendid streams, noble valleys, striking ridges, and towering mountains. Some of the best trout fishing in the world is found here. The park is the home of the celebrated golden trout, which is found nowhere else in such perfection of color.

Owing to the high elevation of the parks where the main tourist camps are situated, it is advised that tourists come between June 15 and October 1, as there is seldom rain or snow during that period and the atmosphere is usually cool and clear.

The address of the supervisor is Three Rivers, Cal.; complaints should be addressed to that officer. These parks are under the control and supervision of the Secretary of the Interior.

Tourists should have strong and warm clothing of woolen, corduroy, or khaki, leggings, and heavy shoes. For permanent camping plenty of bedding should be provided. For hiking trips, the sleeping bag will give better service on account of its compactness. For carrying luggage, a dunnage bag made of heavy canvas is all that is necessary. For camping out, a mess kit, frying pan, coffee-pot, dutch oven, or baking reflector is absolutely necessary.

Utensils and equipment can be procured along the route of travel at the following towns: Visalia, Exeter, Lemon Cove, or Three Rivers,

the latter being nearest the Sequoia National Park, and Sanger, Dinuba, Hume, or Orosi in reaching General Grant National Park.

There are several hotels, camps, and transportation lines operated under concessions from the Department of the Interior, but every person is at liberty to provide his own means of transportation and to provide his own camp, subject to regulations on pages 28 to 33.

#### JOHN MUIR'S DESCRIPTION OF THE GIANT SEQUOIA.

From John Muir's "Our National Parks"<sup>1</sup> is taken the following description of the celebrated sequoia trees:

"The big tree (*Sequoia gigantea*) is nature's forest masterpiece, and, so far as I know, the greatest of living things. It belongs to an ancient stock, as its remains in old rocks show, and has a strange air of other days about it, a thoroughbred look inherited from the long ago—the auld lang syne of trees. Once the genus was common, and with many species flourished in the now desolate Arctic regions, in the interior of North America, and in Europe; but in long, eventful wanderings from climate to climate only two species have survived the hardships they had to encounter, the *gigantea* and *sempervirens*, the former now restricted to the western slopes of the Sierra, the other to the Coast Mountains, and both to California, excepting a few groves of redwood which extend into Oregon.

"The Pacific coast in general is the paradise of conifers. Here nearly all of them are giants, and display a beauty and magnificence unknown elsewhere. The climate is mild, the ground never freezes, and moisture and sunshine abound all the year.

"Nevertheless it is not easy to account for the colossal size of the sequoias. The largest are about 300 feet high and 30 feet in diameter. Who of all the dwellers of the plains and prairies and fertile home forests of round-headed oak and maple, hickory and elm, ever dreamed that earth could bear such growths—trees that the familiar pines and firs seem to know nothing about—lonely, silent, serene, with a physiognomy almost godlike; and so old, thousands of them still living had already counted their years by tens of centuries when Columbus set sail from Spain and were in the vigor of youth or middle age when the star led the Chaldean sages to the infant Saviour's cradle? As far as man is concerned they are the same yesterday, to-day, and forever emblems of permanence.

"No description can give any adequate idea of their singular majesty, much less of their beauty. Excepting the sugar pine, most of their neighbors with pointed tops seem to be forever shouting 'Excelsior,' while the big tree, though soaring above them all, seems satisfied, its rounded head, poised lightly as a cloud, giving no impression of trying to go higher. Only in youth does it show like other conifers a heavenward yearning, keenly aspiring with a long, quick-growing top. Indeed the whole tree for the first century or two, or until a hundred to a hundred and fifty feet high, is arrowhead in form, and, compared with the solemn rigidity of age, is as sensitive to the wind as a squirrel tail. The lower branches are gradually dropped as it grows older, and the upper ones thinned out until comparatively few are left. These, however, are developed to great

size, divide again and again, and terminate in bossy rounded masses of leafy branchlets, while the head becomes dome-shaped.

"Then poised in fullness of strength and beauty, stern and solemn in mien, it glows with eager, enthusiastic life, quivering to the tip of every leaf and branch and far-reaching root, calm as a granite dome, the first to feel the touch of the rosy beams of the morning, the last to bid the sun good-night.

#### ITS STATELINESS AND DENSELY MASSES FOLIAGE.

"Perfect specimens, unhurt by running fires or lightning, are singularly regular and symmetrical in general form, though not at all conventional, showing infinite variety in sure unity and harmony of plan. The immensely strong, stately shafts, with rich purplish brown bark, are free of limbs for a hundred and fifty feet or so, though dense tufts of sprays occur here and there, producing an ornamental effect, while long, parallel furrows give a fluted columnar appearance. It shoots forth its limbs with equal boldness in every direction, showing no weather side. On the old trees the main branches are crooked and rugged, and strike rigidly outward mostly at right angles from the trunk, but there is always a certain measured restraint in their reach which keeps them within bounds.

"No other Sierra tree has foliage so densely massed or outline so finely, firmly drawn and so obediently subordinate to an ideal type. A particularly knotty, angular, ungovernable-looking branch, 5 to 8 feet in diameter and perhaps a thousand years old, may occasionally be seen pushing out from the trunk as if determined to break across the bounds of the regular curve, but like all the others, as soon as the general outline is approached the huge limb dissolves into massy bosses of branchlets and sprays, as if the tree were growing beneath an invisible bell glass against the sides of which the branches were molded, while many small, varied departures from the ideal form give the impression of freedom to grow as they like.

"Except in picturesque old age, after being struck by lightning and broken by a thousand snowstorms, this regularity of form is one of the big tree's most distinguishing characteristics. Another is the simple sculptural beauty of the trunk and its great thickness as compared with its height and the width of the branches, many of them being from 8 to 10 feet in diameter at a height of 200 feet from the ground, and seeming more like finely modeled and sculptured architectural columns than the stems of trees, while the great strong limbs are like rafters supporting the magnificent dome head.

#### "THE MAGNITUDE OF ITS ROOT SYSTEM.

"The root system corresponds in magnitude with the other dimensions of the tree, forming a flat far-reaching spongy network 200 feet or more in width without any taproot, and the instep is so grand and fine, so suggestive of endless strength, it is long ere the eye is released to look above it. The natural swell of the roots, though at first sight excessive, gives rise to buttresses no greater than are required for beauty as well as strength, as at once appears when you stand back far enough to see the whole tree in its true proportions. The fineness of the taper of the trunk is shown by its thickness at great

<sup>1</sup> Used by permission of the Houghton Mifflin Company, authorized publishers.

heights—a diameter of 10 feet at a height of 200 being, as we have seen, not uncommon. In deed the boles of but few trees hold their thickness as well as sequoia,

“Resolute, consummate, determined in form, always beheld with wondering admiration, the big tree always seems unfamiliar, standing alone, unrelated, with peculiar physiognomy, awfully solemn and earnest. Nevertheless, there is nothing alien in its looks. The Madrona, clad in thin, smooth, red and yellow bark and big glossy leaves, seems, in the dark coniferous forests of Washington and Vancouver Island, like some lost wanderer from the magnolia groves of the South, while the sequoia, with all its strangeness, seems more at home than any of its neighbors, holding the best right to the ground as the oldest, strongest inhabitant.

“One soon becomes acquainted with new species of pine and fir and spruce as with friendly people, shaking their outstretched branches like shaking hands, and fondling their beautiful little ones; while the venerable aboriginal sequoia, ancient of other days, keeps you at a distance, taking no notice of you, speaking only to the winds, thinking only of the sky, looking as strange in aspect and behavior among the neighboring trees as would the mastodon or hairy elephant among the homely bears and deer. Only the Sierra juniper is at all like it, standing rigid and unconquerable on glacial pavements for thousands of years, grim, rusty, silent, uncommunicative, with an air of antiquity about as pronounced as that so characteristic of sequoia.

“The bark of full-grown trees is from 1 to 2 feet thick, rich cinnamon brown, purplish on young trees and shady parts of the old, forming magnificent masses of color with the underbrush and beds of flowers. Toward the end of winter the trees themselves bloom while the snow is still 8 or 10 feet deep. The pistillate flowers are about three-eighths of an inch long, pale green, and grown in countless thousands on the ends of the sprays. The staminate are still more abundant, pale yellow, a fourth of an inch long, and when the golden pollen is ripe they color the whole tree and dust the air and the ground far and near.

“The cones are bright, grass-green in color, about  $2\frac{1}{2}$  inches long  $1\frac{1}{2}$  wide, and are made up of 30 or 40 strong, closely packed, rhomboidal scales with four to eight seeds at the base of each. The seeds are extremely small and light, being only from an eighth to a fourth of an inch long and wide, including a filmy surrounding wing, which causes them to glint and waver in falling and enables the wind to carry them considerable distances from the tree.

“The faint lisp of snowflakes as they light is one of the smallest sounds mortal can hear. The sound of falling sequoia seeds even when they happen to strike on flat leaves or flakes of bark, is about as faint. Very different is the bumping and thudding of the falling cones. Most of them are cut off by the Douglas squirrel and stored for the sake of the seeds, small as they are. In the calm Indian summer these busy harvesters with ivory sickles go to work early in the morning, as soon as breakfast is over, and nearly all day the ripe cones fall in a steady pattering, bumping shower. Unless harvested in this way they discharge their seeds and remain on the trees for many years. In fruitful seasons the trees are fairly laden. On two small specimen branches  $1\frac{1}{2}$  and 2 inches in diameter I counted

480 cones. No other California conifer produces nearly so many seeds, excepting perhaps its relative, the redwood of the coast mountains. Millions are ripened annually by a single tree, and the product of one of the main groves in a fruitful year would suffice to plant all the mountain ranges of the world.

#### NATURE'S GIANT BIRDHOUSES.

“The dense tufted sprays make snug nesting places for birds, and in some of the loftiest, leafiest towers of verdure thousands of generations have been reared, the great solemn trees shedding off flocks of merry singers every year from nests, like the flocks of winged seeds from the cones.

“The big tree keeps its youth far longer than any of its neighbors. Most silver firs are old in their second or third century, pines in their fourth or fifth, while the big tree growing beside them is still in the bloom of its youth, juvenile in every feature at the age of old pines, and can not be said to attain anything like prime size and beauty before its fifteen hundredth year, or under favorable circumstances become old before its three thousandth.

“Many, no doubt, are much older than this. On one of the Kings River giants, 35 feet 8 inches in diameter exclusive of bark, I counted upward of four thousand annual wood rings, in which there was no trace of decay after all these centuries of mountain weather.

#### THE OLDEST LIVING THING.

“There is no absolute limit to the existence of any tree. Their death is due to accidents, not, as of animals, to the wearing out of organs. Only the leaves die of old age, their fall is foretold in their structure; but the leaves are renewed every year and so also are the other essential organs—wood, roots, bark, buds. Most of the Sierra trees die of disease. Thus, the magnificent silver firs are devoured by fungi, and comparatively few of them live to see their three hundredth birth year. But nothing hurts the big tree. I never saw one that was sick or showed the slightest sign of decay. It lives on through indefinite thousands of years until burned, blown down, undermined, or shattered by some tremendous lightning stroke.

“No ordinarily bolt ever seriously hurts sequoia. In all my walks I have seen only one that was thus killed outright. Lightning, though rare in the California lowlands, is common on the Sierra. Almost every day in June and July small thunderstorms refresh the main forest belt. Clouds like snowy mountains of marvelous beauty grow rapidly in the calm sky about midday and cast cooling shadows and showers that seldom last more than an hour. Nevertheless these brief kind storms wound or kill a good many trees. I have seen silver firs 200 feet high split into long peeled rails and slivers down to the roots, leaving not even a stump, the rails radiating like the spokes of a wheel from a hole in the ground where the tree stood. But the sequoia, instead of being split and slivered, usually has 40 or 50 feet of its brash knotty top smashed off in short chunks about the size of cord-wood, the beautiful rosy red ruins covering the ground in a circle a hundred feet wide or more. I never saw any that had been

cut down to the ground or even to below the branches except one in the Stanislaus Grove, about 12 feet in diameter, the greater part of which was smashed to fragments, leaving only a leafless stump about 75 feet high. It is a curious fact that all the very old sequoias have lost their heads by lightning. 'All things come to him who waits.'

"But of all living things sequoia is perhaps the only one able to wait long enough to make sure of being struck by lightning. Thousands of years it stands ready and waiting, offering its head to every passing cloud as if inviting its fate, praying for heaven's fire as a blessing; and when at last the old head is off, another of the same shape immediately begins to grow on."

#### A LAND OF MARVELOUS BEAUTY.

But, when all is said, the Sequoia groves form but a small proportion of the delights of the Sequoia National Park. Though one of the oldest national parks, it is comparatively little visited. The great fame of the Yosemite Valley, which lies less than a hundred miles north of Sequoia and much nearer San Francisco, has drawn there the greater throngs of summer visitors, most of whom, having seen the lesser Yosemite groves, have returned to their homes ignorant of the very existence of the supreme exhibit so near by.

With less demand upon its resources, therefore, Sequoia remains comparatively undeveloped in road and hotel and public camp facilities, though there are sufficient of all comforts for the needs of the moment. But its day is coming. When the supreme fitness of this region for the highest enjoyment of mountain sojourning becomes realized by the people the Sequoia National Park will become one of the most popular of all.

#### MOUNT WHITNEY AND ADJACENT CANYONS.

These mountains and valleys form literally one of the most available pleasure spots on the continent. It is easily traveled and abounds in fine camping grounds. The water is potable in all the streams. Aside from the sequoias the largest, oldest, tallest, and most valuable forest trees are found here. There are forests of pine, fir, cedar, and many deciduous trees that are fairly royal. There are many shrubs, wild flowers, ferns, and mosses of wonderful luxuriance and beauty. It is a park of birds.

In laying out the boundaries of Sequoia National Park some of the most superb of American scenic country was unaccountably omitted. Just to the north lies the wonderful valley of the Kings River with its spectacular canyon and picturesque mountains, while directly on the east, over the Great Western Divide, lies the valley of the Kern River, widely celebrated for its beauty. Mount Whitney, on its east bank, is the loftiest mountain in the United States proper. These two districts are easily reached from the national park, of which they are in effect, though not in administration and protection, a natural part.

#### THE FORESTS.

The streams and lakes in these parks afford splendid trout fishing, boating, and bathing. The waters are all pure and fit to drink. The forests contain the largest, oldest, tallest, and most valuable trees in

the world. Aside from the giant sequoia, there are other forests of pine, fir, cedar, and many deciduous trees that are truly royal. There are many shrubs, wild flowers, ferns, and mosses of superb beauty, while frolicking wild animals and beautiful song birds are another enjoyable and attractive feature of the parks.

Within the forests of the parks are 13 different groves of sequoia timber. The following table gives the names of the groves, the approximate area, number of trees exceeding 10 feet in diameter, and the total number of trees of all sizes:

*Sequoia groves of the parks.*

Names.	Area.	Trees exceeding 10 feet in diameter.	Total number trees of all sizes.
Sequoia National Park:	<i>Acres.</i>		
Giant Forest Grove.....	3,200	5,000	500,000
Muir Grove.....	2,240	3,000	350,100
Garfield Grove.....	1,820	2,500	300,400
Atwell Grove.....	850	590	2,000
Dennison Grove.....	480	500	1,175
Suwanee River Grove.....	320	129	1,000
Squirrel Creek Grove.....	90	91	200
Redwood Creek Grove.....	70	70	500
Salt Creek Grove.....	60	10	50
Homer Nose Grove.....	25	5	25
Lost Grove.....	10	9	500
Eden Grove.....	10	6	50
General Grant National Park:			
General Grant Grove.....	235	190	10,000
Total.....	9,410	12,100	1,166,000

In four of the groves above mentioned certain trees have been named, while in all other groves they have not. The following is a list of a few of the principal trees, with their names, height, and diameter:

#### *Height and diameter of principal trees.*

##### GIANT FOREST GROVE.

General Sherman, height, 279.9 feet; diameter, 36.5 feet.  
Abraham Lincoln, height, 270 feet; diameter, 31 feet.  
William McKinley, height, 291 feet; diameter, 28 feet.

##### MUIR GROVE.

Dalton, height, 292 feet; diameter, 27 feet.

##### GARFIELD GROVE.

California, height, 260 feet; diameter, 30 feet.

##### GENERAL GRANT GROVE.

General Grant, height, 264 feet; diameter, 35 feet.  
George Washington, height, 255 feet; diameter, 29 feet.

The General Sherman tree was discovered by James Wolverton, a hunter and trapper, on August 7, 1879, at which time he named the

tree in honor of Gen. Sherman, under whom he had served during the Civil War. The dimensions of this tree are as follows:

*Dimensions of General Sherman tree.*

	Feet.
Height.....	279.9
Base circumference.....	102.8
Base diameter.....	32.7
Greatest diameter at base.....	36.5
Circumference 6 feet above ground.....	86
Diameter 6 feet above ground.....	27.4
Diameter 100 feet above ground.....	17.7

The General Grant tree was named by Mrs. Lucretia P. Baker, who was a member of a party which camped near the tree in August, 1867. This tree has a height of 264 feet and a base diameter of 35 feet.

There are many trees in some of the groves and, in fact, some in each of the groves that compare favorably in size to those herein given. It is to be understood that the sequoias in these groups do not grow to the exclusion of other kinds of trees but are interspersed with other growths of coniferous species.

#### HOW TO REACH THE PARKS.

Sequoia National Park may be reached from Visalia or Exeter, on the Southern Pacific and the Atchison, Topeka & Santa Fe Railroads, thence by way of Visalia Electric Railway to Lemon Cove, thence 40 miles by stage or private conveyance to Giant Forest in the park. Automobile stages operated by the Sequoia National Park Transportation Co. leave Lemon Cove Mondays, Wednesdays, and Fridays at 10 a. m.; arrive Giant Forest, Sequoia National Park (40 miles), 3 p. m. Stages leave Giant Forest Tuesdays, Thursdays, and Saturdays, 7 a. m.; arrive Lemon Cove, 1 p. m.

Special trips to be made on alternate days under the same time schedule when two or more passengers are available.

*Stage fares to Sequoia National Park.*

Between Lemon Cove and Giant Forest, one way, \$6.50; round trip, \$12.  
Between Three Rivers and Giant Forest, one way, \$5; round trip, \$10.  
Children under 12 years of age, one-half fare.  
Baggage allowance, 40 pounds; excess baggage, 2 cents per pound.  
Express, 2 cents per pound; minimum charge, 25 cents.

General Grant National Park can be reached from Sanger, on the Southern Pacific Railway, thence by automobile stage or private conveyance, a distance of 46 miles to the park.

*Stage fares to General Grant National Park.*

From Sanger to General Grant National Park, \$5.50.  
From General Grant National Park to Sanger, \$4.  
Round trip, \$8.  
Baggage allowance, 50 pounds; excess baggage, \$1.25 per 100 pounds.

Touring cars, operated by the Kings River-Hume Auto Service Co. (address, Sanger, Cal.), will leave Sanger each morning (except Sunday) at 9 a. m. and arrive at General Grant National Park at 2.30 p. m., leaving General Grant National Park at 9 a. m. and arriving in Sanger at 2 p. m.

An automobile, operated by Calvin Marple (address, Sanger, Cal.), will leave Sanger for Hume via General Grant National Park, Monday, Wednesday, and Friday of each week at 9 a. m. Leave Sanger for Hume Tuesday, Thursday, and Saturday of each week at 7 a. m. Leave Hume for Sanger via General Grant National Park daily at 7 a. m.

General Grant National Park may also be reached from Dinuba and Reedley on the Southern Pacific and Atchison, Topeka & Santa Fe Railways. The department has no knowledge of any regular stage lines running from these places.

The stage schedules and rates given above are not under the control of the department, as the stage lines operate outside the park. The schedules and rates are those that will prevail according to information furnished to the department; they are given for the information of the public but are not to be considered official.

#### CAMPS AND TRANSPORTATION WITHIN THE PARKS.

##### SEQUOIA NATIONAL PARK.

At the Giant Forest there is a general store, telephone station, feed yard, photograph gallery, and post office; the name of the post office is Giant Forest, Cal.

Walter E. Kenney, Madera, Cal., has a license to maintain a camp and to furnish meals and lodging. The authorized rates are as follows:

*Authorized rates at camp of Walter E. Kenney.*

Board and lodging in camp:	
One person, per day.....	\$3.25
One person, per week.....	18.00
One person, four weeks.....	68.00
Two persons, per day, each.....	3.00
Two persons, per week, each.....	16.50
Two persons, four weeks, each.....	60.00
Meals without lodging:	
Breakfast and lunch, each.....	.75
Dinner.....	1.00
Lodging without meals.....	1.00
Baths.....	.35

Guests desiring extra tent room will be charged as follows:

Tent capacity of four people occupied by two, 50 cents each per day extra.  
Tent capacity of two people occupied by one, 50 cents per day extra.

The Sequoia National Park Transportation Co. operates an auto stage service from Giant Forest to points of interest in the park at the following rates:

*Authorized rates of Sequoia National Park Transportation Co.*

Parker Group, Moro Rock, and return—	
One person.....	\$1.00
Four or more, each.....	.75
Admiration Point and return—	
One person.....	3.00
Four or more, each.....	1.50
General Sherman Tree and return—	
One person.....	1.00
Four or more, each.....	.50
General Sherman Tree and Wolverton—	
One person.....	2.00
Four or more, each.....	.75

Chester Wright, Giant Forest, Cal., has a license to conduct a saddle and pack animal transportation service in the Sequoia National Park. The authorized rates are as follows:

*Authorized rates of Chester Wright for guides and horses.*

Parties can hire saddle horses and pack mules at \$1.50 per day each, but in all cases guide must accompany same, at \$3 per day, the guide taking charge of packing and relieving tourists of responsibility for animals. All animals will be equipped with riding or pack saddles.

TRIPS IN THE PARK AND VICINITY.

To Sherman Tree and return.....	\$2.00
To Sherman tree, Wolverton, and return by Circle Meadow.....	3.00
To Moro Rock and return.....	2.00
To Moro Rock and return by Crescent Log and Huckleberry Meadows.....	2.50
To Alta and return.....	3.00
To Twin Lakes and return.....	3.50
To Admiration Point and return.....	3.50
To Moro Rock, Crescent Log, Huckleberry Meadows, and Wolverton, and Sherman Tree.....	3.50

Parties wishing to make long trips will be furnished with special rates.

FEEDING ANIMALS.

Feeding animals, hay, each, per night.....	\$0.75
Feeding animals, hay and barley, each, per night.....	1.50

GENERAL GRANT NATIONAL PARK.

Mrs. Mattie Decker maintains a camp in the General Grant Park under annual license from the Interior Department. The authorized rates are as follows:

*Rates for camp accommodations in General Grant National Park.*

Board and lodging:	
Per day.....	\$2.00
Per week.....	14.00
Per month.....	50.00
Lodging, 1 night.....	.75
Single meal.....	.50
Feeding animals, hay, each, per night.....	.75
Feeding animals, hay and barley, each, per night.....	1.50

At this camp there are also telephone station, general store, feed yard, photograph gallery, and post office; the name of the post office is General Grant National Park, Cal.

Peter Haux, whose address is Traver, Cal., is authorized to operate a saddle, pack, and wagon transportation service in the General Grant National Park over roads and trails not suitable for automobile transportation, and his rates for such service are as follows:

*Authorized rates of Peter Haux for guides and horses.*

	Per day.
Two horses and wagon, including driver.....	\$5.00
Saddle horse, fully equipped.....	1.50
Pack horse, fully equipped.....	1.50
Pack burro, fully equipped.....	1.00
Guide, fully equipped.....	3.50

Packs on horses and mules limited to 175 pounds; on burros to 140 pounds.

In cases where guides do not accompany pack or transportation service, the parties hiring the animals will be held accountable for any loss or damage sustained by the animals or their equipment.

## PRINCIPAL POINTS OF INTEREST.

*Points of interest in and adjacent to the Sequoia National Park.*

[All distances are from Giant Forest post office.]

### IN THE PARK.

Name.	Dis- tance.	Direc- tion.	Eleva- tion above sea level.	Best means of reaching.	Remarks.
	<i>Miles.</i>		<i>Feet.</i>		
Parker Group Big Trees.....	1½	SE.	6,214	Horse or wagon..	Magnificent grove sequoia timber; good place to camp.
Moro Rock.....	2	SE.	6,719	do.....	Magnificent scenery.
Crescent Meadow.....	1½	SE.	6,420	Horse.....	Pretty mountain meadow; good camping place.
Log Meadow.....	1¾	SE.	6,900	do.....	Pretty mountain meadow; chimney tree; huge hollow log, once used as hunter's cabin
Circle Meadow.....	1	E.	6,550	do.....	Huge fallen sequoia tree, hollow, 174 feet of which can be walked through; also Wolverton house tree; good camping place.
Wolverton Reservoir.....	4	NE.	8,250	Wagon.....	Reservoir under construction.
General Sherman Tree.....	2	NE.	7,210	do.....	Largest tree in the world; height, 279.9 feet; base circumference, 102.8 feet.
Admiral Point.....	8	W.	4,750	Horse.....	Beautiful scenery; precipitous cliff (2,029 feet) can be looked over.
Marble Fork Bridge (on Giant Forest Road).	4	W.	5,100	Wagon.....	Beautiful mountain stream and bridge; good fishing; good bathing; and a splendid place to camp.
Marble Fork Bridge (on Power Co. Road).	12	SW.	2,000	Horse.....	Good fishing; plenty of forage for stock; good camping and bathing; beautiful scenery of two mountain rivers.
Marble Fork (Twin Lakes Trail Crossing)	6	NE.	6,719	do.....	Beautiful scenery; good fishing; good camping.
Cahoon Meadow.....	10	NE.	8,246	do.....	Beautiful mountain meadow; good camping.
Twin Lakes.....	12½	NE.	10,238	do.....	Two beautiful mountain lakes; one of the most interesting and beautiful sights in the park; good fishing and good camping.
Mount Silliman.....	9½	NE.	11,188	Horse and foot...	Gorgeous scenery; good view of Mount Whitney.
Alta Peak.....	10	E.	11,211	do.....	A point from which the best panoramic view of the terrain of the park may be obtained.
Alta Meadow.....	9	E.	9,000	Horse.....	Fine scenery and good camping place.
Halstead Meadow.....	10	NW.	8,400	do.....	Beautiful mountain meadow; good fishing and good camping.
Dorst Creek.....	12	NW.	6,500	do.....	Fine mountain stream near Muir Grove Big Trees; good camping.
General Grant National Park.....	33	NW.	6,675	do.....	General tourist camp where both tourist accommodations and mail facilities can be procured; magnificent sequoia grove big trees.
Paradise Cave.....	25	S.	5,700	Horse or wagon..	Large cave not fully explored; very beautiful and attractive.
Oriole Lodge.....	25	S.	5,500	Wagon.....	Tourist camp and sawmill on private holdings, near Oriole Lake; one of the attractions of the vicinity.
Clough Cave.....	32	S.	4,050	Horse.....	A beautiful and interesting cave; fair fishing; good camping.
Vanderver Mountain.....	40	SE.	11,900	do.....	The highest elevation in the park; a point from which may best be seen the Whitney Range of mountains, Kern River Canyon, and the Great Western Divide.
Hockett Meadow.....	4	SE.	8,500	do.....	Large mountain meadow; headquarters of park ranger; Hockett Lake, Sand and Mitchell Meadows in vicinity; good fishing; good camping.
Lake Evelyn.....	46	SE.	8,000	do.....	Deep mountain lake near Hockett Meadow; fair fishing; good place to camp.
Cabin Meadow.....	48	SE.	8,800	do.....	Beautiful meadow; excellent fishing; good camping place.

Points of interest in and adjacent the Sequoia National Park—Continued.

IN THE PARK—Continued.

Name.	Distance.	Direction.	Elevation above sea level.	Best means of reaching.	Remarks.
	<i>Miles.</i>		<i>Feet.</i>		
Quinn Horse Camp.....	54	SE.	8,500	Horse.....	Headquarters of park ranger; large soda spring near cabin; fair fishing; good place to camp.
Elk Park.....	8	S.	3,000	Horse or wagon..	Section of Sequoia Park set aside for herd of elk, where these animals are now kept; excellent fishing; good camping.
Hospital Rock.....	8	S.	3,000	Horse.....	Huge rock, supposed to have been occupied by a prehistoric race; numerous hieroglyphics painted on it; good fishing; good camping.
Belville Lake.....	15	NE.	10,300	Horse and foot..	The most beautiful lake in the park; fine place for an outing.
Little Kern River.....	50	SE.	8,600	Horse.....	Gorgeous scenery; a botanist's paradise; good fishing; good camping.
Summit Lake.....	44	SE.	9,100	.....do.....	Beautiful mountain lake; good place for an outing.
Willow Meadow.....	8	NE.	7,000	.....do.....	Good place to spend a season; good fishing; good camping.

OUTSIDE THE PARK.

Mineral King.....	30	SE.	7,830	Horse or wagon..	Village containing many summer inhabitants; once a mining town; a post office and store; good place to camp; fair fishing.
Grand Canyon of Kern River.....	55	SE.	6,600	Horse.....	Box canyon on river some 20 miles in length and over 2,000 feet in depth; one of the best trout streams in the world.
Kern Lakes.....	53	SE.	6,250	.....do.....	Two beautiful lakes on river; magnificent scenery; excellent fishing; good boating and bathing; good camping.
Mount Whitney.....	80	E.	14,502	.....do.....	The highest mountain in the United States proper; from the top of this mountain the landscape scenery can not be excelled elsewhere.
Golden Trout Creek.....	55	SE.	6,550	.....do.....	The home of the noted golden trout fish, and where first discovered; excellent fishing; good camping; magnificent scenery.
Kern Hot Springs.....	60	SE.	7,200	.....do.....	Large hot spring; fine bathing; fine camping; excellent fishing; beautiful scenery.
Grand Canyon of Kings River.....	35	NE.	4,631	.....do.....	Box canyon, some 15 miles in length and over 2,000 feet in depth, river passing through; excellent fishing.
Stony Creek.....	16	NW.	6,500	.....do.....	Pretty mountain stream and meadow; good fishing; good camping.
Redwood Meadow.....	19	SE.	6,300	.....do.....	Beautiful young grove sequoia timber; good camping.
Bear Trap Meadow.....	19	NW.	7,000	.....do.....	Fine meadow; good fishing; good place to camp.
Hume.....	31	NW.	5,300	.....do.....	Lumbering town; huge sawmill; beautiful lake; campers' supplies; good boating and bathing; good place to camp.
Sequoia Lake.....	34	NW.	5,300	Horse or wagon..	Beautiful mountain lake; good fishing, boating, and bathing; good place to camp.
Kanawyer.....	35	NE.	4,631	Horse.....	Summer tourist camp conducted by the Kanawyer Transportation Co.; good place to camp.

Distance from entrance of General Grant National Park to points in and near Sequoia National Park.

[For altitude of each locality and remarks see pages 17 and 18.]

Names.	Distance.	Direction.	Best means of reaching.
<b>In the park:</b>			
	<i>Miles.</i>		
Giant Forest.....	31	SE.	Horse.
Parker Group Big Trees.....	32½	SE.	Do.
Crescent Meadow.....	32½	SE.	Do.
Log Meadow.....	32½	SE.	Do.
Moro Rock.....	33	SE.	Do.
Circle Meadow.....	32	SE.	Do.
Wolverton Reservoir.....	32½	SE.	Do.
General Sherman Tree.....	33	SE.	Do.
Admiration Point.....	32	SE.	Do.
Marble Fork Bridge (on Giant Forest Road).....	29	SE.	Do.
Marble Fork Bridge (on Power Co. Road).....	43	SE.	Do.
Marble Fork (Twin Lakes Trail Crossing).....	37	SE.	Do.
Cahoon Meadow.....	29	SE.	Do.
Twin Lakes.....	32	SE.	Do.
Mount Silliman.....	30	SE.	Horse and foot.
Alta Peak.....	41	SE.	Do.
Alta Meadow.....	40	SE.	Horse.
Halstead Meadow.....	21	SE.	Do.
Dorst Creek.....	19	SE.	Do.
Paradise Cave.....	56	SE.	Do.
Oriole Lodge.....	56	SE.	Do.
Clough Cave.....	63	SE.	Do.
Hockett Meadow.....	77	SE.	Do.
Lake Evelyn.....	77	SE.	Do.
Cabin Meadow.....	79	SE.	Do.
Quinn Horse Camp.....	85	SE.	Do.
Elk Park.....	39	SE.	Do.
Hospital Rock.....	39	SE.	Do.
Belville Lake.....	34	SE.	Horse and foot.
Little Kern River.....	81	SE.	Horse.
Summit Lake.....	75	SE.	Do.
Willow Meadow.....	28	SE.	Do.
<b>Near the park:</b>			
Vanderver Mountain.....	66	SE.	Do.
Mineral King.....	61	SE.	Do.
Grand Canyon of Kern River.....	86	SE.	Do.
Kern Lakes.....	84	SE.	Do.
Mount Whitney.....	111	E.	Do.
Golden Trout Creek.....	86	SE.	Do.
Kern Hot Springs.....	91	SE.	Do.
Grand Canyon of Kings River.....	28	NE.	Do.
Stony Creek.....	15	SE.	Do.
Redwood Meadow.....	50	SE.	Do.
Bear Trap Meadow.....	12	SE.	Do.
Hume.....	8	NE.	Wagon or automobile.
Cedar Grove.....	28	NE.	Horse.

**CHECK LIST OF BIRDS.**

[All species indicated with \* inhabit both parks, otherwise Sequoia Park only.]

Compiled and identified by WALTER FRY, supervisor.

**KEY TO HABITATION.**

- Resident=Permanent resident.
- Winter visitant=Winter resident.
- Summer visitant=Breeding bird not occurring in winter.
- Migrant=Birds that appear for short periods only.

**ORDER PYGOPODES: DIVING BIRDS.**

Family GAVIIDÆ: LOONS.

- Loon. *Gavia immer* (Brünn.).—Rare winter visitant.
- Red-throated loon. *Gavia stellata* (Pontop.).—Rare winter visitant.

## ORDER STEGANOPODES: TOTIPALMATE SWIMMERS.

## Family PHALACROCORACIDÆ: Cormorants.

Parallone cormorant. *Phalacrocorax auritus albociliatus* (Ridgw.).—Rare winter visitant.

## ORDER ANSERES: LAMELLIROSTRAL SWIMMERS.

## Family ANATIDÆ: Ducks, geese, and swans.

American merganser. *Mergus americanus* Cass.—Winter migrant.  
 Red-breasted merganser. *Mergus serrator* Linn.—Fall migrant.  
 Hooded merganser. *Lophodytes cucullatus*.—Summer resident.  
 Mallard. *Anas platyrhynchos* Linn.—Common winter visitant.  
 Green-winged teal. *Nettion carolinense* (Gmel.).—Winter visitant.  
 Blue-winged teal. *Querquedula discors* (Linn.).—Rare winter visitant.  
 Cinnamon teal. *Querquedula cyanoptera* (Vieill.).—Winter migrant.  
 Shoveler. *Spatula clypeata* (Linn.).—Common winter visitant.  
 Pintail. *Dafila acuta* (Linn.).—Fall migrant.  
 Wood duck. *Aix sponsa* (Linn.).—Rare winter resident.  
 Canvasback. *Marila valisineria* (Wils.).—Winter visitant.  
 Ring-necked duck. *Nyroca collaris* (Donov.).—Rare winter visitant.  
 Buffle-head. *Charitonetta albeola* (Linn.).—Rare winter visitant.  
 Snow goose. *Chen hyperborea hyperborea* (Pall.).—Very rare winter visitant.  
 Ross snow goose. *Exanthemops rossii* (Cassin.).—Very rare winter migrant.  
 Canada goose. *Branta canadensis canadensis* (Linn.).—Rare winter migrant.  
 White-cheeked goose. *Branta canadensis occidentalis* (Baird).—Very rare winter migrant.  
 Whistling swan. *Olor columbianus* (Ord.).—Very rare winter migrant.

## ORDER HERODIONES: HERONS, IBISES, ETC.

## Family ARDEIDÆ: Herons, egrets, bitterns.

American bittern. *Botaurus lentiginosus* (Montag.). Summer resident.  
 Least bittern. *Ixobrychus exilis* (Gmel.).—Rare summer resident.  
 Court-Treganza blue heron. *Ardea herodias treganzai*.—Summer resident.  
 Anthony green heron. *Butorides virescens anthonyi* (Mearns).—Rare summer resident.  
 Black-crowned night heron. *Nycticorax nycticorax naevius* (Bodd.).—Rare spring visitant.

## ORDER PALUDICOLAE: CRANES, RAILS, ETC.

## Family RALLIDÆ: Rails, gallinules, and coots.

Coot. *Fulica americana* Gmel.—Summer resident.

## ORDER LIMICOLAE: SHORE BIRDS.

## Family RECURVIROSTRIDÆ: Avocets and stilts.

Black-necked stilt. *Himantopus mexicanus* (Müll.).—Spring migrant.

## Family SCOLOPACIDÆ: Snipes and sandpipers.

Wilson snipe. *Gallinago delicata* (Ord.).—Common winter visitant.  
 Least sandpiper. *Pisobia minutilla* (Vieill.).—Winter visitant.  
 Red-backed sandpiper. *Pelidna alpina sakhalina* (Vieill.).—Migrant.

## Family CHARADRIIDÆ: Plovers.

Killdeer. *Oxyechus vociferus vociferus* (Linn.).—Resident.  
 Mountain plover. *Podasocys montanus* (Townsend).—Winter visitant.

## ORDER GALLINAE: GROUSE, TURKEYS, PHEASANTS, QUAIL, ETC.

## Family TETRAONIDÆ: Grouse.

Plumed partridge (commonly called mountain quail.) \**Oreortyx picta plumifera* (Gould).—Resident; quite abundant in high elevations.  
 Valley partridge (commonly called valley quail.) *Lophortyx californica vallicola* (Ridgw.).—Abundant resident of the foothills.  
 Sierra grouse. \**Dendragapus obscurus sierræ* (Chapman).—Resident. Plentiful in all high elevations.

## Family PHASIANIDÆ: Pheasants.

Ring-necked pheasant. *Phasianus torquatus* Gmel.—Very rare; recently propagated.  
 Resident.  
 Merriam wild turkey. *Meleagris gallopavo merriami* (Nelson).—Resident. Recently propagated. Very scarce.

## ORDER COLUMBAE: PIGEONS.

## Family COLUMBIDÆ: Pigeons.

Band-tailed pigeon. \**Columba fasciata fasciata* Say.—Summer visitant; fall and winter migrant.  
 Mourning dove. \**Zenaidura macroura carolinensis* (Linnaeus).—Resident everywhere.

## ORDER RAPTORES: VULTURES, EAGLES, HAWKS, OWLS, ETC.

## Family CATHARTIDÆ: American vultures.

California vulture; condor. *Gymnogyps californianus* (Shaw).—Resident; very rare.  
 Turkey vulture. \**Cathartes aura septentrionalis* Wied.—Common resident.

## Family FALCONIDÆ: Hawks and eagles.

White-tailed kite. *Elanus leucurus* (Vieill.).—Resident in low elevations.  
 Sharp-shinned hawk. *Accipiter velox* (Wilson).—Winter visitant.  
 Cooper hawk. \**Accipiter cooperii* (Bonap.).—Resident.  
 Western red-tail. *Buteo borealis calurus* Cass.—Resident.  
 Red-bellied hawk. *Buteo lineatus elegans* Cass.—Rare resident.  
 Swainson hawk. *Bueto swainsoni* Bonap.—Rare spring visitant.  
 Rough-legged hawk. *Archibuteo lagopus sanctijohannis* (Gmel.).—Rare winter visitant.  
 Ferruginous rough-legged squirrel hawk. *Archibuteo ferrugineus* (Licht.).—Rare migrant.  
 Golden eagle. \**Aquila chrysaetos* (Linn.).—Common resident.  
 Bald eagle. \**Haliaeetus leucocephalus* (Linn.).—Common resident.  
 Western sparrow hawk. *Falco sparverius phalaena* (Lesson).—Common resident.  
 Prairie falcon. *Falco mexicanus* Schlegel.—Rare winter visitant.  
 Pigeon hawk. \**Falco columbarius columbarius* Linn.—Common winter visitant.

## Family TYTIDÆ: Barn owls.

Barn owl. *Tyto pratincola* (Bonap.).—Common resident of the foothills.

## Family STRIGIDÆ: Horned owls, etc.

Long-eared owl. *Asio wilsonianus* (Less.).—Rare resident.  
 Short-eared owl. *Asio flammeus* (Pontop.).—Rare winter visitant.  
 Spotted owl. *Strix occidentalis* (Xantus).—Rare resident.  
 Saw-whet owl. *Cryptoglaux acadica acadica* (Gmel.).—Resident in winter.  
 California screech owl. \**Otus asio bendirei* (Brewst.).—Very common resident.  
 Pacific horned owl. *Bubo virginianus pacificus* Cassin.—Resident.  
 Pygmy owl. \**Glucidium gnoma pinicola* Wagler.—Very common resident.



**ORDER COCCYGES: CUCKOOS, ETC.**

## Family CUCULIDÆ: Cuckoos.

Road-runner. *Geococcyx californianus* (Less.).—Common resident.  
California cuckoo. *Coccyzus americanus occidentalis* Ridgw.—Rare summer resident.

## Family ALCEDINIDÆ: Kingfishers.

Belted kingfisher. *Ceryle alcyon alcyon* (Linn.).—Occasional summer resident.

**ORDER PICI: WOODPECKERS, ETC.**

## Family PICIDÆ: Woodpeckers.

Cabanis woodpecker. *Dryobates villosus hyloscopus* Cabanis and Heine.—Common resident.  
Willow woodpecker. *Dryobates pubescens turati* (Malh.).—Occasional summer resident.  
Nuttall woodpecker. *Dryobates nuttallii* (Gamb.).—Common resident.  
Red-breasted sapsucker. *\*Sphyrapicus ruber ruber* (Gmel.).—Winter visitant.  
California woodpecker. *\*Melanerpes formicivorus bairdi* (Ridgw.).—Common resident.  
Lewis woodpecker. *\*Asyndesmus lewisi* Riley.—Winter visitant.  
Red-naped sapsucker. *Syphrapicus varuis nuchalis* Baird.—Rare resident in winter.  
Red-shafted flicker. *Colaptes cafer collaris* Vigors.—Common resident.  
Flicker. *\*Colaptes auratus luteus* Bangs.—Winter visitant.

**ORDER MACROCHIRES: GOATSUCKERS, SWIFTS, AND HUMMINGBIRDS.**

## Family CAPRIMULGIDÆ: Goatsuckers.

Dusky poor-will. *\*Phalaenoptilus nuttalli californicus* Ridgw.—Common resident.  
Western nighthawk. *\*Chordeiles virginianus hesperis* Grinnell.—Autumn visitant and occasional summer resident.

## Family MICROPODIDÆ: Swifts.

Black swift. *Cypseloides niger borealis* (Kenn.).—Summer resident.  
Vaux swift. *Chaetura vauxi* (Townsend).—Migrant.  
White-throated swift. *Aeronautes melanoleucus* (Baird).—Summer visitant.

## Family TROCHILIDÆ: Hummingbirds.

Black-chinned hummingbird. *Archilochus alexandri* (Bourc. and Muls.).—Common summer visitant, lower elevations.  
Anna hummingbird. *Calypte anna* (Less.).—Summer visitant.  
Rufous hummingbird. *\*Selasphorus rufus* (Gmel.).—Plentiful spring migrant and abundant summer visitant.  
Calliope hummingbird. *Stellula calliope* (Gould).—Summer visitant.

**ORDER PASSERES: PERCHING BIRDS.**

## Family TYRANNIDÆ: Tyrant flycatcher.

Arkansas kingbird. *Tyrannus verticalis* Say.—Summer resident.  
Cassin kingbird. *Tyrannus vociferans* Swains.—Summer resident.  
Ash-throated flycatcher. *Myiarchus cinerascens cinerascens* (Lawr.).—Summer visitant.  
Say phoebe. *\*Sayornis sayus* (Bonap.).—Resident.  
Black phoebe. *Sayornis nigricans* (Swains.).—Resident.  
Olive-sided flycatcher. *\*Nuttalornis borealis* (Swains.).—Summer visitant.

Western wood pewee. *\*Myiochanes richardsonii richardsonii* (Swains.).—Resident in summer.  
Little flycatcher. *Empidonax pusillus pusillus* (Swains.).—Summer resident.  
Western flycatcher. *\*Empidonax difficilis difficilis* Baird.—Summer visitant.

## Family ALAUDIDÆ: Larks.

California horned lark. *Otocoris alpestris actia* Oberh.—Resident at Barnafé Flats.

## Family CORVIDÆ: Crows, jays, magpies, etc.

Yellow-billed magpie. *Pica nuttallii* (Aud.).—Summer visitant.  
California jay. *Aphelocoma californica californica* (Vig.).—Common resident.  
American raven. *Corvus corax sinuatus* (Wagl.).—Common resident.  
Western crow. *Corvus brachyrhynchos hesperis* Ridgw.—Common resident.  
Clark nutcracker. *\*Nucifraga columbiana* (Wils.).—Common resident.  
Blue-fronted jay. *\*Cyanocitta stelleri frontalis* (Ridgw.).—Abundant resident of the higher elevations.

## Family ICTERIDÆ: Blackbirds, orioles, etc.

Yellow-headed blackbird. *Xanthocephalus xanthocephalus* (Bonap.).—Summer visitant.  
San Diego red-wing. *Agelaius phoeniceus neutralis* Ridgw.—Fall migrant.  
Bicolored blackbird. *Agelaius gubernator californicus* Nelson.—Resident.  
Tricolored blackbird. *Agelaius tricolor* (Aud.).—Common resident.  
Bullock oriole. *\*Icterus bullockii* (Swains.).—Resident nesting season only.  
Brewer blackbird. *\*Euphagus cyanocephalus* (Wagl.).—Resident.

## Family FRINGILLIDÆ: Finches, sparrows, etc.

Western evening grosbeak. *\*Hesperiphona vespertina montana* Ridgw.—Rare summer visitant.  
California pine grosbeak. *Pinicola enucleator californica* Price.—Resident.  
California purple finch. *Carpodacus purpureus californicus* Baird.—Common resident.  
Cassin purple finch. *\*Carpodacus cassinii* Baird.—Resident.  
House finch. *\*Carpodacus maxicanus frontalis* (Say.).—Resident, very plentiful.  
Willow goldfinch. *Astragalinus tristis salicamans* (Grinn.).—Rare resident in lower elevations.  
Green-backed goldfinch. *\*Astragalinus psaltria hesperophilus* Oberh.—Abundant resident.  
Lawrence goldfinch. *Astragalinus lawrencii* (Cass.).—Summer visitant.  
Pine siskin. *\*Spinus pinus pinus* (Wils.).—Resident.  
English sparrow. *Passer domesticus* (Linn.).—Resident.  
Western vesper sparrow. *Pooecetes gramineus confinis* Baird.—Fall migrant and summer resident.  
Western savannah sparrow. *Passerculus sandwichensis alaudinus* Bonap.—Fall visitant.  
Western lark sparrow. *Chondestes grammacus strigatus* Swains.—Resident, very rare.  
Gambel sparrow. *Zonotrichia leucophrys gambelii* (Nutt.).—Winter visitant.  
Western chipping sparrow. *\*Spizella passerina arizonæ* Coues.—Rare resident.  
Brewer sparrow. *Spizella breweri* Cass.—Rare resident of foothills.  
Thurber junco. *Junco oreganus thurberi* Anthony.—Summer resident.  
Bell sparrow. *Amphispiza belli belli* (Cass.).—Summer resident in foothills.  
Rufous-crowned sparrow. *Aimophila ruficeps* (Cass.).—Winter visitant.  
Heermann song sparrow. *Melospiza melodia heermanni* Baird.—Resident.  
Rusty song sparrow. *Melospiza melodia morphna* Oberh.—Winter visitant.  
Lincoln sparrow. *\*Melospiza lincolni lincolni* (Aud.).—Summer resident in high elevations.  
Thick-billed sparrow. *Passerella iliaca megarhyncha* Baird.—Summer resident.  
Yakutat fox sparrow. *Passerella iliaca meruloides* (Vig.).—Fall and winter visitant.  
San Diego towhee. *Pipilo maculatus megalonyx* Baird.—Winter visitant.  
California towhee. *\*Pipilo fuscus crissalis* (Vig.).—Common resident.  
Green-tailed towhee. *Oreospiza chlorura* (Aud.).—Winter migrant.

Black-headed grosbeak. *Zamelodia melanocephala* (Swains.).—Summer resident.  
 Lazuli bunting. \**Passerina amoena* (Say.).—Common summer resident.  
 Lark bunting. *Calamospiza melanocorys* Stejn.—Fall migrant.  
 Mountain song sparrow. \**Melospiza melodia montana* (Hensh.).—Common summer visitant.

#### Family TANAGRIDÆ: Tanagers.

Louisiana tanager: Western tanager. \**Piranga ludoviciana* (Wils.).—Summer visitant; leaves immediately after nesting period.

#### Family HIRUNDINIDÆ: Swallows.

Western martin. *Progne subis hesperia* Brewst.—Summer visitant.  
 Cliff swallow. \**Petrochelidon lunifrons lunifrons* (Say.).—Common summer visitant.  
 Barn swallow. *Hirundo erythrogastra* Bodd.—Summer resident at the Marble Fork Bridge.  
 Tree swallow. *Iridoprocne bicolor* (Vieill.).—Abundant spring and summer resident.  
 Violet-green swallow. *Tachycineta thalassina lepida* Mearns.—Common summer resident.  
 Bank swallow. *Riparia riparia* (Linn.).—Summer resident in Elk Park.  
 Rough-winged swallow. *Stelgidopteryx serripennis serripennis* (Aud.).—Rare summer resident.

#### Family BOMBYCILLIDÆ: Waxwings and phainopeplas.

Cedar waxwing. \**Bombcilla cedrorum* Vieill. Common in summer and occasional winter visitant.  
 Phainopepla. *Phainopepla nitens* (Swains.).—Summer resident.

#### Family LANIDÆ: Shrikes.

California shrike. *Lanius ludovicianus gambeli* Ridgw.—Summer resident.

#### Family VIREONIDÆ: Vireos.

Western warbling vireo. *Vireosylva gilva swainsonii* (Baird.).—Common summer visitant.  
 Hutton vireo. *Vireo huttoni* Cass.—Abundant resident.

#### Family MNIOTILTIDÆ: Wood warblers.

Lutescent warbler. *Vermivora celata lutescens* (Ridgw.).—Summer visitant in low elevations.  
 Brewster yellow warbler. \**Dendroica æstiva brewsteri* Grinnell.—Abundant summer resident.  
 Audubon warbler. \**Dendroica auduboni* (Town.).—Winter visitant; occasional summer resident.  
 Black-throated gray warbler. *Dendroica nigrescens* (Town.).—Summer resident.  
 Townsend warbler. \**Dendroica townsendii* (Town.).—Common winter visitant.  
 Hermit warbler. *Dendroica occidentalis* (Town.).—Migrant.  
 Macgillivray warbler. \**Oporornis tolmiei* (Town.).—Summer resident.  
 Pacific yellow-throat. *Geothlypis trichas arizela* Oberh.—Rare resident in Elk Park.  
 Long-tailed chat. *Icteria virens longicauda* (Lawr.).—Summer visitant along the streams.  
 Pileolated warbler. *Wilsonia pusilla pileolata* (Pall.).—Rare summer visitant along the streams of the foothills.

#### Family MOTACILLIDÆ: Wagtails.

Pipit. *Anthus rubescens* (Tunst.).—Common winter migrant.

#### Family CINCLIDÆ: Dippers.

Dipper. Northern water ouzel. \**Cinclus mexicanus unicolor* Bonap.—Common resident along the streams.

#### Family MIMIDÆ: Thrashers, etc.

Western mocking bird. *Mimus polyglottos leucopterus* (Vigors).—Very rare summer visitant in low elevations.  
 California thrasher. *Toxostoma revidivum* (Gamb.).—Common resident.

#### Family TROGLODYTIDÆ: Wrens.

Rock wren. \**Salpinctes obsoletus obsoletus* (Say.).—Resident in low elevations.  
 Dotted canyon wren. *Catherpes mexicanus punctulatus* Ridgw.—Common resident.  
 Parkman wren. *Troglodytes ædon parkmani* Aud.—Resident in foothills.

#### Family CETHIDÆ: Creepers.

Sierra creeper. \**Certhia familiaris zelotes* Osgood.—Resident in high elevations.

#### Family SITTIDÆ: Nuthatches.

Slender-billed nuthatch. \**Sitta carolinensis aculeata* Cass.—Common resident.

#### Family PARIDÆ: Titmice.

Plain titmouse. \**Baeolophus inornatus inornatus* Gambel.—Common resident.  
 Bailey chickadee. \**Penthestes gambeli baileyae* Grinnell.—Resident.  
 Pallid wren-tit. *Chamaea fasciata henshawi* Ridgway.—Occasional winter visitant.  
 California bush-tit. *Psaltriparus minimus californicus* Ridgw.—Common resident.

#### Family SYLVIDÆ: Kinglets, gnat catchers, etc.

Western golden-crowned kinglet. \**Regulus satrapa olivaceus* Baird.—Winter visitant.  
 Western ruby-crowned kinglet. *Regulus calendula cineraceus* Grinnell.—Winter visitant.  
 Western gnat catcher. *Poliopitila cærulea obscura* Ridgw.—Rare resident.

#### Family TURDIDÆ: Thrushes, solitaires, bluebirds, etc.

Townsend solitaire. \**Myadestes townsendii* (Aud.).—Winter visitant and occasional summer resident.  
 Russet-backed thrush. *Hylocichla ustulata ustulata* (Nutt.).—Spring and summer visitant.  
 Sierra hermit thrush. *Hylocichla guttata sequoiensis* (Belding). Occasional summer resident.  
 Western robin. \**Planesticus migratorius propinquus* (Ridgw.).—Resident; very plentiful everywhere.  
 San Pedro bluebird. *Sialia mexicana anabelæ* Anthony.—Very rare summer resident.  
 Mountain bluebird. \**Sialia currucoides* (Bechst.).—Summer resident in high elevations.

#### CHECK LIST OF MAMMALS.

#### ORDER UNGULATA: DEER, ANTELOPE, CATTLE, SHEEP, AND GOATS.

[All species indicated with \* inhabit both parks, otherwise Sequoia Park only.]

#### Family CERVIDÆ: Deer.

California wapiti. *Cervus nannodes* Merriam.—Twenty elk were transferred from Kern County, Cal., to the park in 1905, four of which died soon after arrival from their injuries sustained while in captivity. The elk were at first kept within fenced inclosure in a section of the park on the Middle Fork of the Kaweah River, but now roam in many other parts of the park and adjacent territory. Young have been born, and it is now estimated that there are from 40 to 50 head in the herd. The first calf elk was born in the park on March 9, 1906.

California mule deer. \**Odocoileus hemionus californicus* (Caton).—Deer are very abundant in the parks; a conservative estimate of their number has been set at 2,500 within the Sequoia Park. They may be seen in all portions of the parks during summer season.

#### Family BOVIDÆ: Sheep.

Sierra mountain sheep. *Ovis canadensis sierræ* (Grinnell).—These sheep from the eastern slope of Mount Baxter have recently been described as a distinct species, and there are still a number of them on the east slope of the Sierra. They are of unusual occurrence in the park, and were last seen August 19, 1910, on north spur of Mount Silliman at an elevation of 10,600 feet.

### ORDER RODENTIA: RODENTS OR GNAWERS.

#### Family SCIURIDÆ: Squirrels.

Yellow-bellied Marmot. \**Marmota flaviventer flaviventer* (Audubon and Bachman).—Very abundant throughout their range, and may be seen at all times during summer and autumn seasons. They live principally in crevices of rocks near glade or stream, and are most plentiful at Hockett and Sand Meadows. They are often called ground hog and woodchuck. They furnish much of the food for the lion, wolf, and lynx, and are often used as food by man.

Fisher's ground squirrel. \**Citellus beecheyi fisheri* (Merriam).—Not plentiful throughout their range; principally along road and trail thoroughfares near water. They are a serious pest to agriculture, and spread contagion; and the State of California has enacted a law compelling their destruction, which is expected to lead to their final extermination.

Alpine chipmunk. *Eutamias alpinus* (Merriam).—Fairly abundant in the park and found most plentiful in the vicinity of Mount Silliman and Alta along the upper edge of timber line.

Sierra Nevada chipmunk. \**Eutamias frater* (Allen).—Very abundant in the parks.

Columbia gray squirrel. \**Sciurus griseus griseus* Ord.—Very abundant.

California chickaree. \**Sciurus douglasii albolimbatus* Allen.—Very abundant.

#### Family PETAURISTIDÆ: Flying squirrel.

San Bernardino flying squirrel. \**Sciuropterus alpinus californicus* Rhoads.—Not abundant in the parks, and owing to their nocturnal habit are seldom seen by park visitors.

#### Family MURIDÆ: Rats and mice.

Common mouse. *Mus musculus* Linn.—This mouse introduced from Europe inhabits greater portion of the settlement in the valley west of the park, and has drifted into the park to a point at Rocky Gulch station, which is the only place at which it has been seen in the park.

California mouse. *Peromyscus californicus californicus* (Gambel).—Not abundant in the park; they inhabit principally the chemisal thickets of the foothills near the western park boundary.

Gambel mouse. \**Peromyscus maniculatus gambelli* (Baird).—Gambel mice are more plentiful than all other species.

Big-eared mouse. \**Peromyscus truei gilberti* (Allen).—Live principally in the brush thickets near the open forests.—Not abundant.

Streator brush rat. \**Neotoma fuscipes streatori* Merriam.—Very abundant throughout their range and menace to campers, as they will carry away foodstuff and small camp articles if given the opportunity.

California meadow mouse. *Microtus californicus californicus* (Peale).—Inhabits principally grassy localities, both wet and dry.—Fairly abundant.

Cantankerous meadow mouse. \**Microtus mordax mordax* (Merriam).—These mice are to be found about all the meadows throughout their range and are fairly abundant.

#### Family GEOMYIDÆ: Pocket gophers.

Alpine pocket gopher. \**Thomomys alpinus alpinus* Merriam.—Fairly abundant throughout their zones, but most plentiful near the streams and marsh places.

Fresno pocket gopher. \**Thomomys angularis pascalis* Merriam.—Found in most places throughout their range, appearing most abundant where there is rich, loose soil, other than in marsh places.

#### Family HETEROMYDÆ: Pocket rats and pocket mice.

Allen pocket mouse. *Perognathus californicus dispar* Osgood.—The only place in the park that the Allen pocket mouse has been seen is at Salt Spring on the Middle Fork of the Kaweah River, where it inhabits a grass meadow of wild oats.

Tulare pocket rat. *Dipodomys merriami nitratoides* Merriam.—Of rare occurrence in the park, having been seen only in the vicinity just below the junction of the Middle and Marble Forks of the Kaweah River, where they inhabit the open grass ridges.

#### Family ZAPODIDÆ: Jumping mice.

Allen jumping mouse. \**Zapus trinotatus alleni* (Elliot).—Fairly abundant throughout their range, inhabiting principally the grassy meadows bordering the open forests.

#### Family ERETHIZONTIDÆ: American porcupine.

Western porcupine. *Erethizon epixanthum epixanthum* Brandt.—Porcupines inhabit but few localities of the park, and have only been seen at Alta and Willow Meadows, where they are found living in the cliff crevices. Their workings are also visible at Putnam Canyon, where they have done harm to small coniferous timber by gnawing away the bark, the innermost portion of which is consumed as food.

### ORDER LAGOMORPHA: PIKAS, HARES, AND RABBITS.

#### Family OCHOTONIDÆ: Pikas.

Sierra Nevada pika. *Ochotona albatrus* Grinnell.—Found in various places throughout their range, living principally in the "rock slides" along the steep slopes, where they live in family groups. They are found most abundant in the vicinity of Mount Vanderver, Alta, Silliman, Twin, and Evelyn Lakes, the latter mentioned being the lowest place of their occurrence in the park, at the elevation of 8,600 feet. They are often called little chief hares, conies, and straved rats.

#### Family LEPORIDÆ: Hares and rabbits.

Sierra prairie hare. *Lepus campestris sierræ* Merriam.—Not plentiful in the park, but may be seen during summer season in the vicinity of Alta Meadow, Granite Basin near the summit of Mount Vanderver, and at Twin Peaks. They are commonly called "snowshoe rabbits."

California hare, jack rabbit. *Lepus californicus richardsonii* (Bachman).—This species of hare is abundant in the territory adjacent to the park to the west, in both foothill and valley, but is found within the park to the extent of about 2 miles along the Middle Fork of the Kaweah River where they may be seen at all seasons during the year.

Bachman brush hare, "cottontail." *Sylvilagus bachmani bachmani* (Waterhouse).—Brush hare are very common in the park, and may be seen at all times during the year throughout their range.

Ashy brush hare, "blue rabbit." *Sylvilagus bachmani cinerascens* (Allen).—Fairly abundant throughout their range, living principally in the chemisal thickets, at which place they may be seen throughout the year.

### ORDER CARNIVORA: FLESH-EATING MAMMALS.

#### Family URSIDÆ: Bears.

Black and brown bear. \**Ursus americanus americanus* Pallas.—Found in all portions of the parks where food is plentiful. They are not ferocious, and under all ordinary circumstances will run away from presence of man. Their hibernating period usually dates from December to March, during which time young are born. The young are commonly two, occasionally four in number. Young of the same litter often vary in color from cinnamon brown, black, black with white breast. Their number is estimated at 600 in the Sequoia Park.

## Family CANIDÆ: Dogs, wolves, foxes.

Mountain coyote. \**Canis lestes* Merriam.—Not abundant, and are seldom seen. They are found most plentifully during summer in the vicinity of Hockett and Alta Meadows and Little Kern River. They come lower into the heavy forest belt during winter.

Valley coyote. \**Canis ochropus* Eschscholtz.—Inhabit principally the valley and foothill region west of the parks, but during the summer season they frequent the higher elevations, going well into the transition zone, returning again in the autumn. They seem less plentiful from year to year. They are a serious pest to game, killing all kinds of small game and often the deer.

High Sierra fox. \**Vulpes necator* Merriam.—Not abundant in the parks, but are occasionally seen in the vicinity of Cahoon, Alta, and Willow Meadows. Several specimens have been trapped in the vicinity of Atwell Mill and Mineral King, east of the park.

California gray fox. \**Urocyon californicus californicus* (Mearns).—Very abundant in the parks, but are most plentiful in the more brushy country below the coniferous belt, where they live near the openings.

## Family FELIDÆ: Cats.

Pacific coast cougar. \**Felis oregonensis oregonensis* Rafinesque.—Not abundant in the parks, perhaps not exceeding half dozen individual animals at any one time. They are very wary and greatly avoid presence of man. They inhabit principally rough, broken country, raising their young (commonly two, sometimes three or four) in dense brush thickets or rock crevices. Their food is flesh exclusively, which they prefer to kill themselves. Being strong and powerful they prefer large game, such as deer, colts, hogs, etc. They were once abundant throughout the Sierra, but are rapidly being diminished by extermination and civilization. Their indiscriminate slaughter at all seasons and the steady encroachment of settlement, together with the State bounty that is offered for their destruction, make possible their final extermination within a few years. They are known by many common names, but for this locality that of "mountain lion."

California lynx. \**Lynx rufus californicus* Mearns.—Fairly abundant throughout the parks and may be expected in any portion thereof during summer season; but owing to deep snow in the higher elevations in winter they are forced down below the coniferous forest in the more brushy country. They prey on all the small animals and birds and frequently kill small fawns. They are not courageous and under ordinary circumstances flee from presence of man, but will fight when crowded.

## Family PROCYONIDÆ: Raccoons, etc.

California ring-tailed cat. \**Bassariscus astutus raptor* (Baird).—Fairly abundant throughout their range in the parks, but most plentiful in the territory below the coniferous forests. Their presence is often noted at Colony Mill, Rocky Gulch, and Clough Cave, where no doubt they seek mice that inhabit the place, of which they are very fond as food. They are easily tamed, often becoming pets. The animal is often called "civet cat," but the name is erroneous.

California raccoon. *Procyon psora psora* (Gray).—Not abundant throughout their range in the park, only appearing along branches of the Kaweah river, where they pass the day in hollow trees or crevices of rocks, doing most of their hunting for food at nighttime.

## Family MUSTELIDÆ: Weasels, etc.

Western badger. \**Taxidea taxus neglecta* (Mearns).—Not common in the parks, and owing to their nocturnal habits are seldom seen. They are found in most localities along open ridges in the lower and around the meadows in the higher elevations, and seem most plentiful at Hockett and Sand Meadows. They live in burrows dug by themselves.

Wolverine. \**Gulo luteus* Elliott.—Rare and seldom seen in the parks. They are most numerous in the vicinity of Mount Vanderver, Silliman, and Alta. They are very voracious and eat anything in way of flesh that they can capture or find dead. They can not run fast enough to catch many animals, and obtain most of their food by opening the burrows of other animals, their long claws and great strength enabling them to dig rapidly. Under ordinary circumstances they will not attack man, neither do they seem to fear him, and will fight viciously when captured.

Western spotted skunk. \**Spilogale phenax phenax* Merriam.—Very abundant in the parks and may be seen during all seasons of the year. They live about the ledges, dense brush thickets, and in burrows dug by themselves. They are principally crepuscular and nocturnal in habit. They are bold, and have so much confidence in their means of offense and defense that they seldom run from anything.

California skunk. \**Mephitis occidentalis occidentalis* Baird.—Abundant in the parks, and may be seen at all seasons of the year. They seem to have little choice of locality, and may be found any place where they can obtain food and shelter. They usually occupy hollow logs, piles of brush, or dig burrows for themselves. They are self-reliant, bold, and inquisitive. They do not fear man or beast. They are chiefly crepuscular and nocturnal in habit.

Pacific pine marten. \**Martes caurina caurina* (Merriam).—Abundant in the parks throughout the coniferous forest belts. They roam about at all seasons and are often seen in immediate vicinity of tourist camps during the summer.

Pacific fisher. \**Martes pennanti pacifica* (Rhoads).—Fairly abundant in the parks. They live principally near wet meadows and streams. Owing to their nocturnal habit they are seldom seen.

California weasel. *Mustela xanthogenys xanthogenys* Gray.—The only known place that California weasels inhabit in the park is at the junction of the Middle and Marble Forks of the Kaweah River. They are sometimes killed west of the park, but are not plentiful.

Mountain weasel. \**Mustela arizonensis* (Mearns).—Generally distributed throughout the parks, but common in few localities. They are most plentiful in the heavy forest belt in the vicinity of Giant Forest.

## ORDER INSECTIVORA: MOLES AND SHREWS.

## Family TALPIDÆ: Moles.

California mole. \**Scapanus latimanus latimanus* (Bachman).—Not abundant in the parks, but found in most places where the soil is loose and of good depth. They are entirely subterranean in habit. They eat no vegetable food. Their principal food is grubs and other larvæ, insects, and earthworms.

## Family SORICIDÆ: Shrews.

Sierra Nevada shrew. *Sorex amonenus* Merriam.—Not abundant in the park. They are found most plentifully in the vicinity of Little Kern River, Hockett, and San Meadows, where they inhabit wet meadows and places along the grassy banks of streams.

Monterey shrew. \**Sorex montereyensis* Merriam.—Not abundant in the parks. They inhabit principally the heavy forest belt, and have been seen no farther south than at Giant Forest.

## ORDER CHIROPTERA: BATS.

## Family VESPERTILONIDÆ: Bats.

Little California bat. *Myotis californicus californicus* (Audubon and Bachman). Not abundant in the park, but appear most plentiful during autumnal migration. They may be seen at twilight coming from crevices in rocks along the banks of the Middle Fork of the Kaweah River.

Western red bat. *Myotis borealis teliotis* (H. Allen). Have been seen only at Clough Cave and Marble Fork Bridge in Elk Park.

Hoary bat. \**Nycteris cinerea* (Beauvois). Inhabit the more dense forests of the parks. They migrate from the parks during winter. They are not plentiful.

## NOTES ON FISH.

Mountain trout only inhabit the waters of the parks, and but very few are found in General Grant National Park, due to insufficient water. The trout are numerous of species, natural and imported. The native trout has several distinct species closely blending, and is native to all the sea-reaching streams and rivers to the

barrier cascades and has been largely introduced above in mountain streams and lakes within the parks. Imported species have been artificially propagated and show remarkable adaptability to the waters where planted. But very few waters of the parks remain yet unstocked.

The different trout species of the parks are as follows:

Kern River Rainbow trout, *Salmo Gilberti* (Jordan). Native; transplanted to many of the park waters.

Golden trout of Volcano Creek, *Salmo Roosevelti* Evermann. Native; transplanted to a few of the park waters.

Golden trout of Soda Creek, *Salmo Whitei* Evermann. Native; transplanted to many of the park waters.

Cut-throat trout, *Salmo Mykiss* Walbaum. Native; planted to many of the park waters.

Eastern brook trout, *Salvelinus fontinalis* (Mitchell). Imported; planted to many of the park waters.

Rainbow trout, *Salmo irideus* Gibbons. Native; planted to many of the park waters.

Loch Leven trout, *Salmo Trutti Levensis* (Walker). Imported; planted to many of the park waters.

Persons desiring to fish in the waters of the Sequoia and General Grant National Parks must secure a sporting fishing license, as required by the laws of California. These laws provide that every person over the age of 18 years who obtains fish without obtaining a license is guilty of a misdemeanor. The license fees are as follows:

To citizens of the United States who are bona fide residents of the State of California, \$1.

To citizens of the United States not bona fide residents of the State of California, and to persons not citizens of the United States, \$3.

These licenses may be obtained from any county clerk or from the State board of fish and game commissioners. The main office of the State board of fish and game commissioners is located in the Mills Building, San Francisco, and branch offices are located as follows: Forum Building, Sacramento; Consolidated Realty Building, Los Angeles; Forsyth Building, Fresno. Every person applying for a license must give his residence, age, height, nationality, color of eyes, and color of hair. All fishing must be done in conformity with the State laws regarding open season, size of fish, and limit of catch.

## RULES AND REGULATIONS.

(In effect May 1, 1917.)

### GENERAL REGULATIONS.

The following rules and regulations for the government of the Sequoia and General Grant National Parks are hereby established and made public pursuant to authority conferred by the acts of Congress approved September 25, 1890 (26 Stat., 478), and October 1, 1890 (26 Stat., 650), and August 25, 1916 (39 Stat., 535):

1. *Preservation of natural curiosities.*—The destruction, injury, or defacement in any way of the public property or the trees, vegetation, rocks, minerals, animal and bird, or other life, or other natural conditions and curiosities in the parks is prohibited.

2. *Camping.*—No camp will be made along roads except at designated localities. Blankets, clothing, hammocks, or any other article liable to frighten teams must not be hung near the road.

Many successive parties camp on the same sites during the season, and camp grounds must be thoroughly cleaned before they are abandoned. Tin cans, bottles, cast-off clothing, and all other débris must be placed in garbage cans or pits provided for the purpose. When camps are made in unfrequented localities where pits or garbage cans may not be provided, all refuse must be burned or hidden where it will not be offensive to the eye.

Campers may use dead or fallen timber only, for fuel.

3. *Fires.*—Fires constitute one of the greatest perils to the parks; they must not be kindled near trees, dead wood, moss, dry leaves, forest mold, or other vegetable refuse, but in some open space on rocks or earth. Should camp be made in a locality where no such open space exists nor is provided, dead wood, moss, dry leaves, etc., must be scraped away to the rock or earth over an area considerably larger than required for the fire.

When fires are no longer necessary they must be completely extinguished, and all embers and bed smothered with earth or water so that there remains no possibility of reignition.

Especial care must be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or tree mold.

4. *Hunting.*—The park is a sanctuary for wild life of every sort and no one should frighten, hunt, or kill, wound or capture any bird or wild animal in the parks, except dangerous animals when it is necessary to prevent them from destroying life or inflicting injury.

The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed on the park lands under other circumstances than prescribed above, must be taken up by the supervisor and held subject to the order of the Secretary of the Interior, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation and the actual owner was not a party to such violation. Firearms will be permitted in the parks only on written permission of the supervisor. Visitors entering or traveling through the parks to places beyond should, at entrance, report and surrender all firearms, traps, nets, seines, or explosives in their possession to the first park officer, and in proper cases, may obtain his written leave to carry them through the park sealed.

5. *Fishing.*—Fishing is permitted with hook and line only, and never for profit or merchandise. Fishing in particular water may be suspended, or the number of fish that may be taken by one person in any one day from the various streams or lakes may be regulated by the supervisor. All fish hooked less than 8 inches long shall be carefully handled with moist hands and returned at once to the water if not seriously injured. Fish retained should be killed. Twenty fish shall constitute the limit for a day's catch.

6. *Private operations.*—No person will be permitted to reside permanently, engage in any business, operate a moving-picture camera, or erect buildings upon the Government lands in the parks without permission in writing from the Director of the National Park Service. Application for such permission may be addressed to the supervisor of the parks or to the National Park Service, Washington, D. C.

7. *Patented lands.*—Owners of patented lands within the park limits are entitled to the full use and enjoyment thereof; the boundaries of

such lands, however, must be determined, and marked and defined, so that they may be readily distinguished from the park lands. While no limitations or conditions are imposed upon the use of such private lands so long as such use does not interfere with or injure the parks, private owners must provide against trespass by their stock or cattle, or otherwise, upon the park lands, and all trespasses committed will be punished to the full extent of the law. Stock may be taken over the park lands to patented private lands with the written permission and under the supervision of the supervisor, but such permission and supervision are not required when access to such private lands is had wholly over roads or lands not owned or controlled by the United States.

8. *Grazing*.—Allowing the running at large, herding, or grazing of cattle or stock of any kind on the Government lands in the parks, as well as the driving of such stock or cattle over same, must be avoided, except where authority therefor has been granted by the supervisor. Cattle or stock found improperly on the park lands may be impounded and held until claimed by the owner and the trespass adjusted, in accordance with regulations of March 30, 1912.

9. *Saloons and bars*.—No drinking saloon or barroom will be permitted upon Government lands in the parks.

10. *Advertisements*.—Private notices or advertisements shall not be posted or displayed on Government lands within the parks except such as may be necessary for the convenience and guidance of the public, and then only by permission from the supervisor.

11. *Travel on trails*.—Pedestrians on trails, when animals are passing them, must remain quiet until animals have passed.

Persons traveling on the trails of the parks, either on foot or saddle animals, must not make short cuts, but must confine themselves to the main trail.

12. *Horse-drawn vehicles*.—Saddle horses, pack trains, and horse-drawn vehicles have right of way over motor-propelled vehicles at all times.

13. *Concessioners*.—All persons, firms, or corporations holding concessions in the parks must keep the grounds used by them properly policed and maintain the premises in a sanitary condition to the satisfaction of the supervisor. No lessee or licensee shall retain in his employment a person whose presence in the parks may be deemed by the supervisor subversive of good order and management of the parks.

14. *Employees of the concessioners*.—Transportation, camp, and hotel concessioners will require each of their employees to wear a metal badge with a number thereon, the name and the number corresponding therewith being registered in the supervisor's office. These badges must be worn in plain sight on the hat or cap. Concessioners must also report the fact of discharge of employees; if for cause, such cause must be stated.

15. *Mining claims*.—The location of mining claims is prohibited within the parks.

16. *Dead animals*.—All domestic animals that may die on the Government lands in the parks at any tourist camp, or along any of the public thoroughfares, must be immediately removed to a point not nearer than one-fourth mile from such camp or thoroughfare, and there be buried at least 2 feet beneath the ground by the owner or person having charge of such animal.

17. *Miscellaneous — Travel*.—(a) Freight, baggage, and heavy camping outfits on sidehill grades throughout the parks must take the outer side of the road while being passed by passenger vehicles in either direction.

(b) Wagons used in hauling heavy freight over the park roads must have tires not less than 4 inches in width.

(c) All vehicles must be equipped with lights for night travel. At least one light must be carried by horse-drawn vehicles, and it must be carried on the left front side of the vehicles in a position such as to be visible from both front and rear.

18. *Miscellaneous—General*.—(a) Campers or others must not wash clothing or cooking utensils in, or otherwise pollute, the waters of the rivers and creeks of the parks, or bathe in any of the streams near the regularly traveled thoroughfares in the parks without suitable bathing clothes.

(b) Stock must not be tied so as to permit their entering any of the streams of the parks. All animals should be kept a sufficient distance from camping grounds not to litter the ground and make unfit for use the area which may be used later as tent sites.

(c) Campers and all others, save those holding licenses from the Secretary of the Interior, are prohibited from hiring their horses, trappings, or vehicles to tourists or visitors in the parks. No pack trains will be allowed in the parks unless in charge of a duly registered guide.

(d) All complaints by tourists and others as to service, etc., rendered in the parks should be made to the supervisor, in writing, before the complainant leaves the park. Oral complaints will be heard daily during office hours.

19. *Dogs and cats*.—Cats are not permitted on the Government lands in the parks, and dogs only to those persons passing through the parks to the territory beyond, in which instance they must be kept tied while crossing the parks. This rule does not apply to trained dogs used by Government employees in extermination of predatory wild animals.

20. *Fines and penalties*.—The supervisor is hereby authorized and directed to remove from the park lands all trespassers and all persons who render themselves obnoxious by disorderly conduct or bad behavior, and to enforce these rules and regulations and the provisions of the acts of Congress, the penalty for violation of which is summary ejection from the parks, or a fine not to exceed \$500, or both. Persons ejected from the park will not be permitted to return without permission, in writing, from the Secretary of the Interior or the supervisor of the park.

#### AUTOMOBILE AND MOTORCYCLE REGULATIONS.

Pursuant to authority conferred by the acts of Congress of September 25, 1890 (26 Stat., 478), October 1, 1890 (26 Stat., 650), August 25, 1916 (39 Stat., 535), the following regulations governing the admission of automobiles and motorcycles into the Sequoia and General Grant National Parks are hereby established and made public:

1. *Entrances*.—Automobiles may enter and leave the Sequoia National Park on the west from Visalia and Lemon Cove by any of the three entrances from Three Rivers, i. e., the Giant Forest Road, the Middle Fork Road to near Moro Rock, and the Mineral King Road.

Automobiles may enter and leave the General Grant National Park on the Millwood Road, the North Road, and the Stephens Grade Road.

2. *Automobiles.*—The parks are open to automobiles operated for pleasure, but not to those carrying passengers who are paying, either directly or indirectly, for the use of machines (excepting, however, automobiles used by concessioners under permit from the department). Careful driving is demanded of all persons using the roads. The Government is in no way responsible for any kind of accident.

3. *Roads—Hours.*—The use of automobiles and motorcycles will be permitted on the Giant Forest Road, from the western boundary of the Sequoia National Park to Giant Forest tourists' camp grounds and return at all hours.

The use of automobiles and motorcycles will be permitted only on the Millwood Road, the North Road, and the Stephens Grade Road in the General Grant National Park between the hours of 6 a. m. and 7 p. m.

4. *Motorcycles.*—Motorcycles are admitted to the parks under the same conditions as automobiles, and are subject to the same regulations as far as applicable.

5. *Permits.*—Permits for the Sequoia National Park may be obtained from the supervisor at Three Rivers, Cal., or his authorized representative at Cedar Creek station on the Giant Forest Road in the park, and must be presented to the supervisor or his authorized representative at the Cedar Creek station on exit from the park.

Permits for the General Grant National Park may be obtained from the supervisor at Three Rivers, Cal., or his authorized representative at the rangers' headquarters on the Government road in the park, and must be presented to the supervisor or his authorized representative at the rangers' headquarters on exit from the park.

Permits will show (a) name of station where permit is issued, (b) name of owner or driver, (c) State and license number of automobile.

6. *Fee.*—The fee for an automobile or motorcycle permit in the Sequoia National Park is \$2.50, and in the General Grant National Park is 50 cents: These fees are payable in cash only. Permits are good for the entire season, expiring on December 31 of the year of issue.

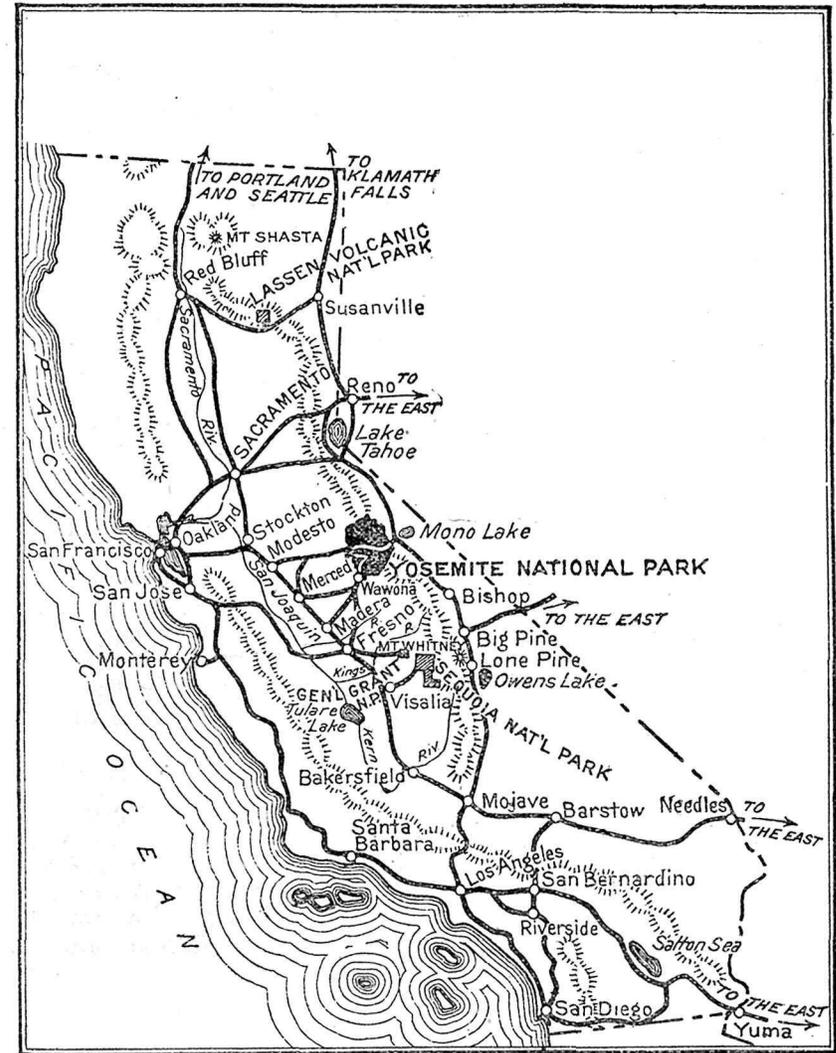
7. *Distance apart—Gears and brakes.*—Automobiles while in motion must not be less than 50 yards apart, except for purpose of passing, which is permissible only on comparatively level or slight grades. All automobiles, except while shifting gears, must retain their gears constantly enmeshed. Persons desiring to enter the park in an automobile will be required to satisfy the ranger issuing the automobile permit that all parts of machine, particularly the brakes and tires, are in first-class working order and capable of making the trip, and that there is sufficient gasoline in the tank to reach the next place where it may be obtained. The automobile must carry at least one extra tire.

8. *Speeds.*—Speed is limited to 8 miles per hour except that on good roads with straight stretches and when no team is nearer than 200 yards, the speed may be increased to 15 miles per hour. Speed indicated on sign boards along the road will control in all cases.

9. *Horns.*—The horn will be sounded on approaching curves or stretches of road concealed for any considerable distance by slopes,

overhanging trees, or other obstacles, and before meeting or passing other machines, riding or driving animals, or pedestrians.

10. *Lights.*—All automobiles must be equipped with head and tail lights, the headlights to be of sufficient brilliancy to insure safety in driving at night, and all lights must be kept lighted after dark when



PRINCIPAL AUTOMOBILE ROADS IN CALIFORNIA.

automobile is on the roads. Headlights must be dimmed when passing other automobiles or horse-drawn vehicles.

11. *Muffler cut-outs.*—Muffler cut-outs must be closed while approaching or passing riding horses, horse-drawn vehicles, hotels, camps, or checking stations.

12. *Teams*.—When teams, saddle horses, or pack trains approach, automobiles will take the outer edge of the roadway, regardless of the direction in which they are going, taking care that sufficient room is left on the inside for the passage of vehicles and animals. Teams have the right of way, and automobiles will be backed or otherwise handled as may be necessary so as to enable teams to pass with safety. In no case must automobiles pass animals on the road at a speed greater than 8 miles per hour.

13. *Accidents*.—When, due to breakdowns or accidents of any other nature, automobiles are unable to keep going, they must be immediately parked off the road, or where this is impossible, on the outer edge of the road.

14. *Stopovers*.—Automobiles stopping over at points inside the parks must be parked off the road, or where this is impossible, on the outer edge of the road.

15. *Reduced engine power, gasoline, etc.*—Due to the high altitude of the park roads, ranging as high as 8,000 feet, the power of all automobiles is much reduced, so that about 50 per cent more gasoline will be required than for the same distance at lower altitudes. Likewise, one gear lower will generally have to be used on grades than would have to be used in other places. A further effect that must be watched is the heating of the engine on long grades, which may become serious unless care is used. Gasoline can be purchased at regular supply stations as per posted notices.

16. *Exceptions*.—Paragraphs 2, 3, 5, 6, and 7 hereof are not applicable to motor traffic on the Middle Fork and Mineral King Roads in Sequoia National Park.

17. *Fines and penalties*.—Violation of any of the foregoing regulations for government of the park shall be punishable by revocation of automobile permit, by immediate ejection from the parks, or by a fine of not to exceed \$500, or by any combination of the three, and be cause for refusal to issue new automobile permit to the owner without prior sanction in writing from the Secretary of the Interior.

#### MAPS.

The Sequoia and General Grant National Parks are mapped on the scale of 2 miles to the inch on the Tehipite and Kaweah atlas sheets of the United States Geological Survey. These atlas sheets may be obtained from the Director of the Geological Survey, Washington, D. C., for 10 cents each. They may be purchased also from the supervisor of the park, but the supervisor can not fill mail orders.

#### LITERATURE.

##### GOVERNMENT PUBLICATIONS.

##### DEPARTMENT OF THE INTERIOR.

The following publications may be obtained from the National Park Service, Washington, D. C., or by personal application to the supervisor of the park.

General information regarding Sequoia and General Grant National Parks.

Glimpses of our National Parks. 48 pages.

Contains descriptions of the most important features of the principal national parks and the Grand Canyon of the Colorado.

#### SUPERINTENDENT OF DOCUMENTS.

The publications listed below may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C.

"The Secret of the Big Trees," by Ellsworth Huntington. 24 pp., including 14 illustrations. 5 cents.<sup>1</sup>

Contains an account of the climatic changes indicated by the growth rings and compares the climatic conditions in California with those of Asia.

Forests of Yosemite, Sequoia, and General Grant National Parks, by C. L. Hill. 1916. 40 pages, including 23 illustrations. 20 cents.<sup>1</sup>

Contains descriptions of the forest cover and of the principal species.

#### BOOKS.

ALLEN, E. F. A guide to the national parks of America. 1915. 286 pages.

BRUCE, JAMES. University and historical addresses. 1913. 433 pp.

"National Parks, the need of the future," pp. 389-406.

CLARK, GALEN. "The big trees of California." 1907. 104 pp.

JEPSON, W. L. "The silva of California." *Memoirs of the University of California*, vol. 2, 1910. 480 pp. Illustrated.

———. "The trees of California." 1909. 228 pp. Illustrated.

#### MAGAZINE ARTICLES.

All the Year Round, n. s., vol. 32 (Sept. 22, 1883), pp. 341-347. "The lords of the forest."

——— n. s., vol. 32 (Oct. 13, 1883), pp. 413-419. "Life in the forest."

American Architect, vol. 83 (Mar. 19, 1904), p. 94. "The life of a big tree."

Contains the history of a California big tree over 2,000 years old.

American Civic Association (Washington, D. C.). National Parks. 32 pp.

Contains "National Parks, the need of the future," by James Bryce; Address on "A bureau of national parks," by W. H. Taft; Address on "A bureau of national parks," by Walter L. Fisher; "Are national parks worth while?" by J. H. McFarland.

American Naturalist, vol. 6 (October, 1872), pp. 577-596. "Sequoia and its history," by Asa Gray.

Annals of the American Academy of Political and Social Science, vol. 35 (March, 1910), pp. 1-12. "The parks and recreation facilities in the United States," by John Nolen.

———, vol. 35 (March, 1910), pp. 15-24. "Our national parks and reservations," by W. E. Curtis.

Atlantic Monthly, vol. 81 (January, 1883), pp. 15-28. "The wild parks and reservations of the West," by John Muir.

———, vol. 88 (September, 1901), pp. 304-320. "Hunting big redwoods," by John Muir.

Blackwood's Magazine, vol. 99 (February, 1866), pp. 196-199. "A visit to the big trees."

Chamber's Journal, 3d s., vol. 6 (Dec. 20, 1856), pp. 398-399. "California giants."

———, 3d s., vol. 18 (November, 1862), pp. 346-347. "The mammoth trees of California."

Chautauquan, vol. 33 (July, 1901), pp. 362-366. "How the sequoias grow," by H. W. Warren.

Country Life, vol. 23 (January, 1913), pp. 33-36. "Touring in our national parks," by E. A. Mills.

Edinburgh New-Philosophical Journal, n. s., vol. 11 (April, 1860), pp. 205-227. "Notes on Californian trees."

Gentleman's Magazine, n. s., vol. 29 (October, 1882), pp. 463-479. "A Californian forest," by C. F. Gordon.

Journal of Geography, vol. 9 (June, 1911), pp. 268-270. "The sequoias," by T. P. Lukens.

<sup>1</sup> May be purchased from the supervisor of the park, but the supervisor can not fill mail orders.

- Harper's Magazine, vol. 57 (November, 1878), pp. 813-827. "The new sequoia forests of California," by John Muir.
- , vol. 125 (July, 1912), pp. 292-302. "The secret of the big trees," by Ellsworth Huntington.
- Harper's Weekly, vol. 41 (May 15, 1897), p. 495. "Some of California's big trees and their guardians," by J. F. Bell.
- Literary Digest, vol. 46 (June 7, 1913), p. 1303. "Western mountains and national parks."
- , vol. 25 (Apr. 9, 1914), pp. 1-10. "Uncle Sam—His Parks," by C. G. Sinsabaugh.
- Motor Age, vol. 25 (Apr. 9, 1914), pp. 10-12. "How to get to the national parks," by John P. Dods.
- Nation, vol. 45 (Dec. 22, 1887), p. 504. "The age of the sequoias," by C. B. Bradley.
- , vol. 41 (June 5, 1897), pp. 563-567. "The national parks and forest reservations," by John Muir.
- National Geographic Magazine, vol. 23 (June, 1912), pp. 531-579. "Our national parks," by L. F. Schmeckebier.
- Outdoor World and Recreation, vol. 49 (July, 1913), pp. 22-26. "Vacation jaunts to Uncle Sam's playgrounds," by Arthur Chapman.
- Outlook, vol. 95 (May 28, 1910), pp. 157-169. "Scenery as a national asset," by Allen Chamberlain.
- , vol. 100 (Feb. 3, 1912), p. 246. "A national park service."
- , vol. 102 (Dec. 14, 1912), pp. 811-815. "National parks the need of the future," by James Bryce.
- Overland Monthly, 2d s., vol. 7 (March, 1886), pp. 305-316. "A new study of some problems relating to the giant trees," by C. B. Bradley.
- , 2d s., vol. 33 (March, 1889), pp. 356-368. "Uncle Sam's troopers in the national parks of California," by Capt. J. A. Lockwood.
- Popular Science Monthly, vol. 67 (September, 1905), pp. 465-474. "The ancestors of the big trees," by E. W. Berry.

An account of the occurrence of the sequoia in previous geologic epochs, with a short statement regarding the age of the present tree.

- , vol. 80 (June, 1912), pp. 551-547. "The national parks from the scientific and educational side," by L. F. Schmeckebier.
- Public Opinion, vol. 29 (Oct. 25, 1900), p. 528. "The age of the big trees of California."
- Review of Reviews, vol. 40 (July, 1909), pp. 44-48. "The nation's playgrounds," by G. O. Smith.
- Scientific American, vol. 83 (Nov. 17, 1900), p. 306. "California's big trees."
- Sierra Club Bulletin, vol. 5 (January, 1904), pp. 50-65. "On the trail with the Sierra Club," by William Frederic Badè.
- , vol. 7 (June, 1909), pp. 99-104. "From Kern Canyon to Giant Forest: The chronicle of a knapsack trip," by W. C. Morgan.
- , vol. 8 (January, 1912), pp. 236-239. "Are national parks worth while?" by J. Horace McFarland.
- , vol. 9 (January, 1913), pp. 28-32. "National parks the need of the future," by James Bryce.
- Strand Magazine, vol. 14 (July, 1897), pp. 82-90. "Timber titans," by George Dollar.
- Sunset, vol. 16 (January, 1906), pp. 280-283. "Helping the Sierra sequoias," by A. J. Wells.
- World's Work, vol. 3 (February, 1902), pp. 1714-1723. "Big trees of California," by R. T. Fisher.
- , vol. 18 (June, 1909), pp. 11697-11706. "Saving the big trees," by F. Strother.

### PROPOSED GREATER SEQUOIA PARK.

Senate bill 2021, providing for enlarging Sequoia National Park, to include the Kings and Kern Canyons and several miles of the crest of the Sierra Nevada, including Mount Whitney, is now pending in Congress.

The public land proposed to be added to Sequoia National Park by these measures will never be valuable for any other than park purposes. Cattle are grazed on the mountain meadows during part of the year, but the administration of these meadows as part of the park will not interfere with the exercise of grazing privileges for

many years to come. Small tracts of land here and there will be fenced for pasturage of live stock used by tourists.

Sequoia Park now has the giant sequoia trees as its one attraction, but if enlarged as proposed it will become a scenic park of as much distinction as that possessed by any other park in the system. Furthermore, it will become a game sanctuary of as much importance as the Yellowstone National Park.

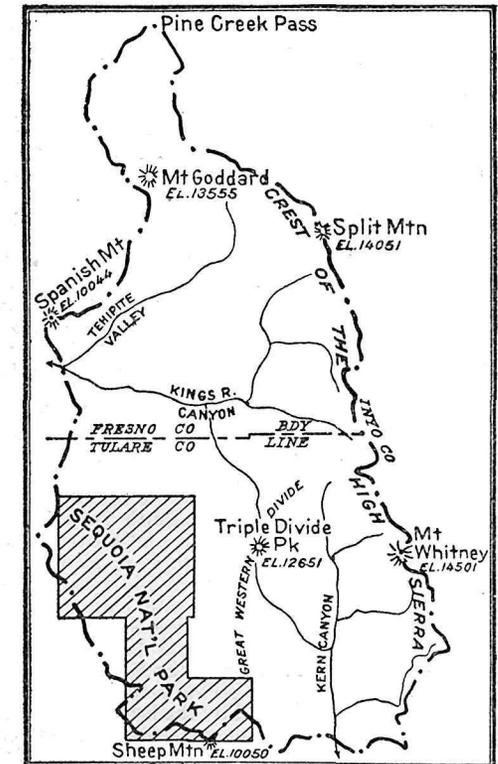
The proposed boundaries of the park are shown on the accompanying map, and the text of Senate bill 2021 is as follows:

A BILL To add certain lands to the Sequoia National Park, California.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the boundaries of the Sequoia National Park, California, are hereby changed as follows:

#### EAST AND NORTH BOUNDARY LINES.

Beginning at a point on the present east boundary line, which is on the range line between ranges thirty-one and thirty-two east of the Mount Diablo meridian, in township eighteen south of the Mount Diablo base, California, where said range line inter-



MAP SHOWING BOUNDARIES OF PROPOSED GREATER SEQUOIA NATIONAL PARK.

sects the hydrographic divide between Little Kern River and Soda Creek; then southeasterly along the hydrographic divide between Little Kern River and Quail Creek; thence easterly along the hydrographic divide between Quail Creek and Lion Creek to the summit of the Great Western Divide; thence southeasterly along the Great Western Divide to Coyote Peak (United States Geological Survey bench mark ten thousand nine hundred and nineteen feet); thence easterly along the hydrographic divide through sections thirty-one and thirty-two, township eighteen south, range thirty-three east, and section four, township nineteen south, range thirty-three east, and the junction of Kern River and Little Creek, about one-quarter mile south of Kern Lake and between that lake and Little Lake; thence easterly along the main divide south of Little Creek and between Golden Trout Creek and Cold Creek (tributaries of Kern River) to the summit of Kern Peak (United States Geological Survey bench mark eleven thousand four hundred and ninety-three feet, triangulation station); thence northerly and easterly along the hydrographic divide between the South Fork of Kern River and Golden Trout Creek to the summit of the Sierra Nevada Mountains; thence northerly and westerly along the main crest of the Sierra Nevada Mountains to Pine Creek Pass, at the head of a tributary of Piute Creek, which flows southwesterly through French Canyon; thence following southwesterly down west bank of said creek through French Canyon and continuing along west bank of Piute

Creek to the junction of the South Fork of San Joaquin River and Piute Creek; thence southerly along the main hydrographic divide to the summit of Mount Henry (twelve thousand one hundred and ninety-seven feet); thence southeasterly along the hydrographic divide between the drainage of the South Fork of San Joaquin River and the drainage of the North Fork of Kings River to the junction with Goddard Divide; thence southerly and westerly along the hydrographic divide between Goddard Creek and the drainage of the North Fork of Kings River, and along the divide between Crown Creek and Blue Canyon Creek, along Kettle Ridge to Kettle Dome; thence southwesterly along the hydrographic divide to the junction of Crown and Fawn Creeks; thence westerly along the hydrographic divide between Fawn Creek and Rodgers Creek to Obelisk Peak; thence westerly along the main hydrographic divide south of Rodgers Creek to Spanish Mountain (triangulation station, United States Geological Survey, bench mark ten thousand and forty-four feet); thence southerly along the hydrographic divide (Deer Ridge) to the junction of the South and Middle Forks of Kings River; thence southerly along the hydrographic divide between Tenmile Creek and Lockwood Creek and along the Sequoia and Big Baldy Ridges to Big Baldy (triangulation station, United States Geological Survey, bench mark eight thousand two hundred and eleven feet); thence continuing southerly along the said hydrographic divide (Big Baldy Ridge) to the northwest corner of the present Sequoia National Park, which is approximately on or near said hydrographic divide, between townships fourteen and fifteen south, ranges twenty-eight and twenty-nine east; and all of those lands lying between the boundary line last above described and the present east and north boundary lines of said national park are hereby included in and made a part of the Sequoia National Park.

#### WEST BOUNDARY LINE.

Beginning at the present northwest corner of the Sequoia National Park, which is approximately on or near the hydrographic divide (Big Baldy Ridge), between townships fourteen and fifteen south, ranges twenty-eight and twenty-nine east; thence southerly along the said hydrographic divide now between Redwood Creek and North Fork Kaweah River to where it intersects the present west boundary of said national park in township fifteen south, range twenty-eight east; and all those lands lying between the boundary line last above described and the present west boundary line of the said national park are hereby excluded from the Sequoia National Park.

Beginning at that point on the present west boundary line of the Sequoia National Park where it is intersected by the hydrographic divide between Redwood Creek and North Fork Kaweah River in township fifteen south, range twenty-eight east; thence southerly along the said hydrographic divide to the junction of Redwood Creek and the North Fork Kaweah River; thence following down the west bank of the North Fork Kaweah River to the junction with Cactus Creek; thence southeasterly along the first main hydrographic divide south of Cactus Creek to where it intersects the present west boundary line of the said national park, township sixteen south, range twenty-eight east; and all those lands lying between the boundary line last above described and the present west boundary line of said national park are hereby included in and made a part of the Sequoia National Park.

Beginning at that point on the present west boundary line of the Sequoia National Park, where it is intersected by the first main hydrographic divide south of Cactus Creek, between that creek and North Fork Kaweah River, township sixteen south, range twenty-eight east; thence southeasterly along said hydrographic divide now between Maple Creek and North Fork Kaweah River to Ash Peaks; thence southeasterly along the hydrographic divide west of Alder Creek to where it intersects the present west boundary line of said national park, between townships sixteen and seventeen south, range twenty-nine east; and all those lands lying between the boundary line last above described and the present west boundary line of said national park are hereby excluded from the Sequoia National Park.

Beginning at that point on the present west boundary line of the Sequoia National Park where it is intersected by the hydrographic divide west of Alder Creek, between townships sixteen and seventeen south, range twenty-nine east; thence southeasterly along said hydrographic divide to the junction of the Middle and East Forks Kaweah River; thence south and easterly along the hydrographic divide between the East Fork Kaweah River and Salt Creek, over Red Hill, to Case Mountain; thence southerly and easterly along the hydrographic divide (Salt Creek Ridge) between the South and East Forks Kaweah River to where it intersects the present west boundary line of said national park, township eighteen south, ranges twenty-nine and thirty east. And all those lands lying between the boundary line last above described and the

present west boundary line of said national park are hereby included in and made a part of the Sequoia National Park.

Beginning at that point on the present west boundary line of the Sequoia National Park where it is intersected by the hydrographic divide (Salt Creek Ridge) between the South and East Forks Kaweah River, township eighteen south, ranges twenty-nine and thirty east; thence easterly along said hydrographic divide to Homers Nose (triangulation station, nine thousand and five feet); thence southwesterly along the hydrographic divide east of Bennett and Burnt Camp Creek to where it intersects the present west boundary line of said national park, township eighteen south, ranges twenty-nine and thirty east. And all those lands lying between the last above-described boundary line and the present west boundary line of said national park are hereby excluded from the Sequoia National Park.

Beginning at that point on the present west boundary line of the Sequoia National Park, where it is intersected by the hydrographic divide east of Burnt Camp Creek, township eighteen south, ranges twenty-nine and thirty east; thence westerly along said hydrographic divide to the junction of Burnt Camp Creek and the South Fork Kaweah River; thence southeasterly along the hydrographic divide toward Dennison Mountain, to where it intersects the present west boundary of said national park, township eighteen south, ranges twenty-nine and thirty east. And all those lands lying between the last above-described boundary line and the present west boundary line of said national park are hereby included in and made a part of the Sequoia National Park.

#### WEST, SOUTH, AND EAST BOUNDARY LINES.

Beginning at that point on the present west boundary of the Sequoia National Park where it is intersected by the hydrographic divide running from the junction of Burnt Camp Creek and South Fork Kaweah River to Dennison Mountain, township eighteen south, ranges twenty-nine and thirty east; thence southeasterly along the said hydrographic divide to Dennison Mountain; thence easterly along the hydrographic divide (Dennison Ridge) between the South Fork Kaweah River, the North Fork of Tule River, and the North Fork of the Middle Fork of Tule River and continuing along said hydrographic divide now between the South Fork Kaweah River and Pecks Canyon, Soda Creek, and Little Kern River to its intersection with the present east boundary line of said national park, which is on the range line between ranges thirty-one and thirty-two east, in township eighteen south, Mount Diablo base, California. And all those lands lying between the last above-described boundary line and the present west, south, and east boundary lines of said national park are hereby excluded from the Sequoia National Park.

All lands hereby excluded from Sequoia National Park are included in and made a part of the national forests adjacent thereto.

SEC. 2. That the provisions of the act of September twenty-fifth, eighteen hundred and ninety, entitled "An act to set apart a certain tract of land as a public park"; the act of October first, eighteen hundred and ninety, entitled "An act to set apart certain tracts of land in the State of California as forest reservations"; and the act of August twenty-fifth, nineteen hundred and sixteen, entitled "An act to establish the National Park Service, and for other purposes"; and all acts supplementary to and amendatory of said acts, are made applicable to and extended over the lands hereby added to the park.

SEC. 3. That the mineral-land laws of the United States are hereby extended to the lands included within said park.

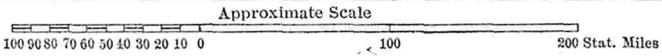
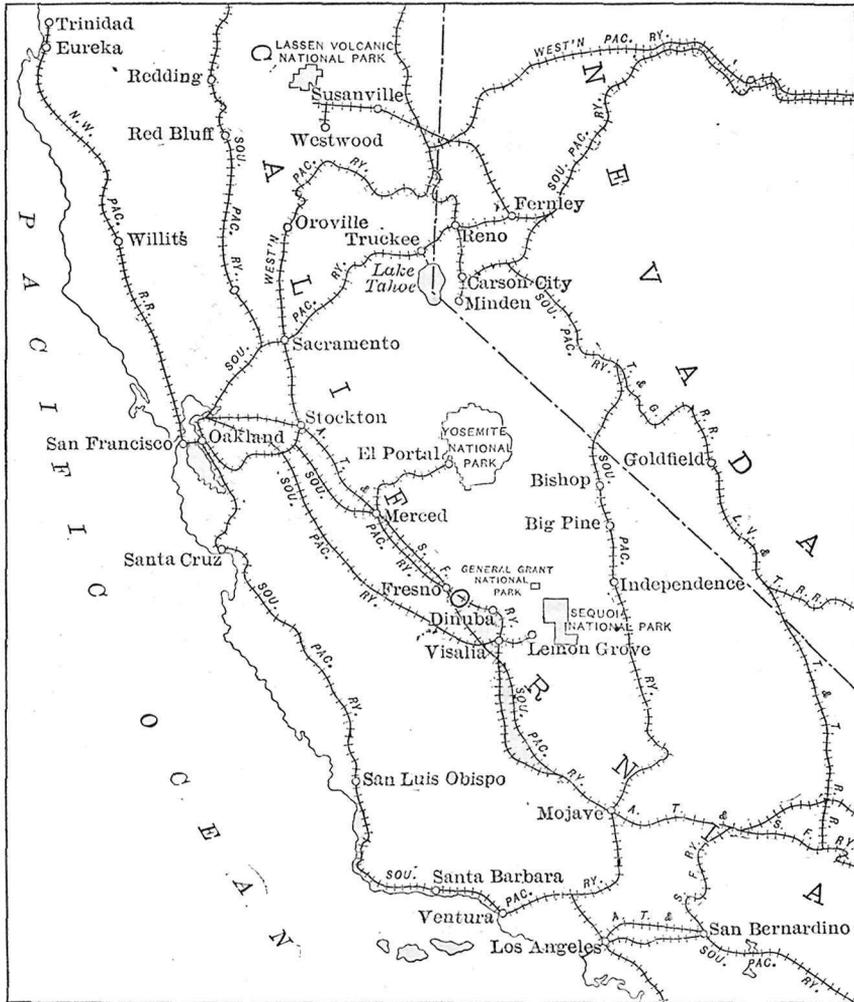
SEC. 4. That nothing herein contained shall affect any valid existing claim, location, or entry under the land laws of the United States, whether for homestead, mineral, right of way, or any other purpose whatsoever, or shall affect the rights of any such claimant, locator, or entryman to the full use and enjoyment of his land.

#### OTHER NATIONAL PARKS.

The circulars containing information about national parks listed below may be obtained free of charge by writing to the Secretary of the Interior, Washington, D. C.:

Yellowstone National Park.  
Mount Rainier National Park.  
Crater Lake National Park.  
Mesa Verde National Park.  
Casa Grande Ruin.

Yosemite National Park.  
The Hot Springs of Arkansas.  
Glacier National Park.  
Rocky Mountain National Park.  
Wind Cave National Park.



RAILROADS TRIBUTARY TO NATIONAL PARKS IN CALIFORNIA.