

Yosemite Nature Notes



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SEPTEMBER, 1951

NO. 9

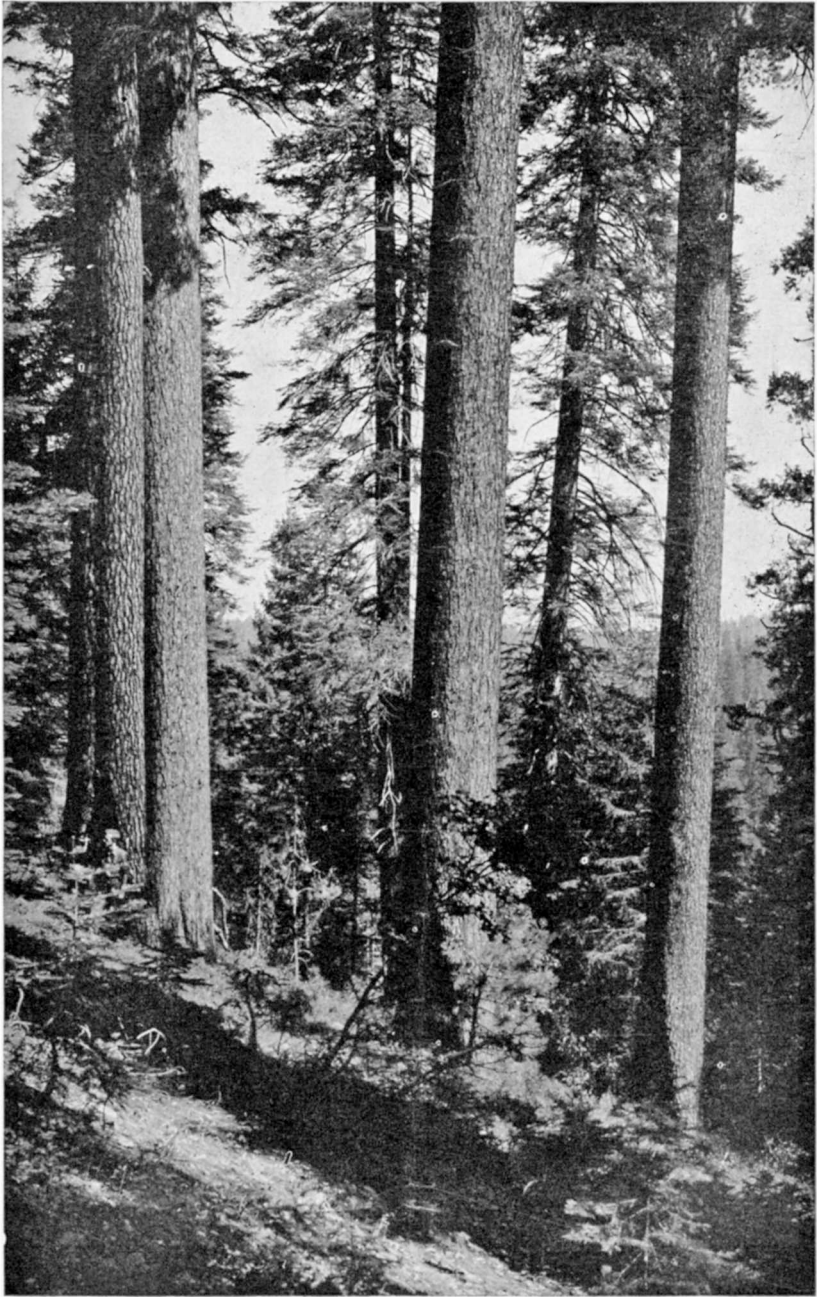


Photo by Willard G. Van Name, Courtesy of Emergency Conservation Committee

Sugar pines in Yosemite National Park

Cover Photo: Aerial view of Yosemite Valley and the Yosemite high Sierra. Made and donated to Yosemite Museum by Mr. Clarence Srock of Aptos, California. See back cover for outline index chart.

Yosemite Nature Notes

THE MONTHLY PUBLICATION OF
THE YOSEMITE NATURALIST DIVISION AND
THE YOSEMITE NATURAL HISTORY ASSOCIATION, INC.

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YOSEMITE'S PIONEER ARBORETUM

By O. L. Wallis, Park Ranger

A pioneer attempt to "interpret" the botanical features of Yosemite National Park for its visitors was the establishment of the arboretum near Wawona in 1904 by Maj. John Bigelow, Jr. This was 16 years before Dr. Harold C. Bryant initiated the nature-guiding service in Yosemite, the nucleus of the present naturalist interpretive program for the entire National Park Service.

Evidences of this arboretum and botanical garden can still be found along the banks of the South Fork of the Merced River, across from the A. E. Wood campground. Here, where paths wandered throughout the 75-acre area, 36 trees and plants were identified and labeled. Seats for the comfort and signposts for the guidance of strangers were constructed along the trails. Today, 47 years later, eight trees bearing their original signs have been relocated. The trails are faintly visible in the underbrush. Even scars remain on the "bench-trees" to show where seats were located.

In 1904 Yosemite National Park, which did not yet include Yosemite Valley and the Mariposa Grove of Giant Sequoias—these being under the State's care, was administered by the U. S. Army. The park's head-

quarters was established at Camp A. E. Wood near Wawona. Major Bigelow, Ninth Cavalry, was the acting superintendent.

It is apparent from his reports of 1904 that the major was deeply interested in all natural history, but especially did he enjoy trees. He wrote that the forest reservation of Yosemite had the following purposes:

To provide a great museum of nature for the general public free of cost. . . . To preserve not only trees, but everything that is associated with them in nature; not only the sylvia, but also the flora and fauna, the animal life, and the mineral and geological features of the country comprised in the park.

With this in mind the arboretum was founded. The project is described in detail in the 1904 report of the acting superintendent. Ten pictures showing some of the labeled trees and shrubs and two of the benches illustrate the report. Bigelow hoped the arboretum would be supplemented by a building serving the purpose of a museum and library.

The following year, however, the new acting superintendent, Capt. H. C. Benson, reported that "unfortunately the location selected for the arboretum was on patented land on the south side of the river. This land has, by the act of February 7, been thrown out of the park, and it will

soon be the site of the tracks of an electric road which is to come up the South Fork. Surveyors in passing through knocked down and destroyed some of the signs, but as many as possible have been gathered up and safely stored for future use on land within the park."

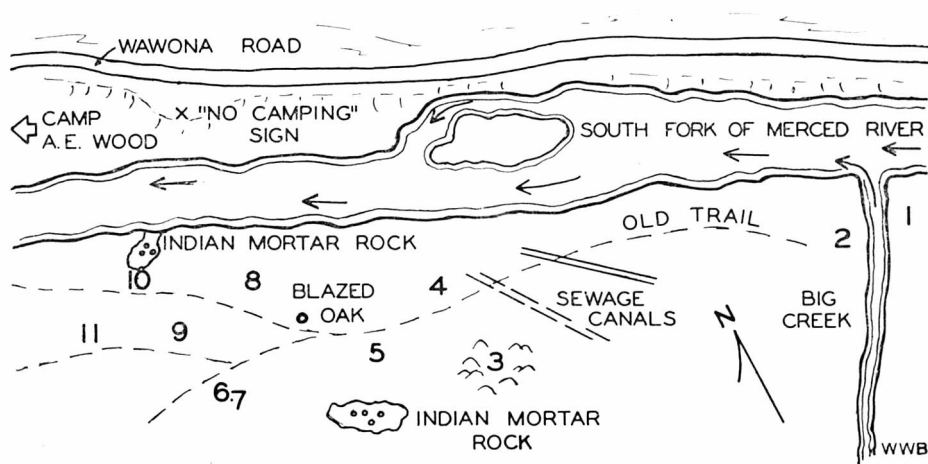
The "old nature trail near Wawona" was "rediscovered" in 1929 by Ranger J. N. Morris (*Yosemite Nature Notes*, 9(3), 1930). At that time 20 trees with labels were found as well as a sign with the inscription "Big Creek" identifying the stream which flows along the eastern edge of the area. In 1932, the area in which the arboretum is located was taken back into the park as part of the Wawona Basin addition.

Armed with this information and the 1904 pictures, I set out on December 26, 1950, and again on April 17, 1951, to discover and to photograph what remained of this pioneer arboretum. Proceeding along the bank of the South Fork for a mile or so below Wawona, I came to the mouth of Big Creek. Here, nails and scars on some alders showed where one of the seats pictured in the 1904 report had been (No. 1 in diagram).

Just across Gig Creek, the first identified tree (No. 2) was relocated. Nailed to it was a 9 x 14-inch board, painted light buff, on which was printed "Alder *Alnus rubra*." High amongst some boulders a little further on (No. 3), I found a Douglas-fir which was labeled "Douglas spruce *Pseudotsuga Douglasii*."

Along the trail at No. 4, a giant ponderosa pine (*Pinus ponderosa*) was labeled "Yellow pine" followed by the correct Latin synonym. The next tree (No. 5), from which the label was missing, was a "Douglas spruce" pictured in the 1904 report. Just beyond this Douglas-fir an oak bearing a healed-over blaze marked the point where the faint trail forked into two branches. On the uphill branch a sugar pine and a ponderosa pine, both still labeled, were growing very close together (Nos. 6, 7). Directly downhill from them, near the river (No. 8), was a white fir (*Abies concolor*) labeled "Magnificent or silver fir *Abies magnifica*." Another sugar pine (No. 9) and a "Douglas spruce" (No. 10) were also discovered.

A little beyond and uphill from this last Douglas-fir, I found the in-



LOCATION OF OLD ARBORETUM AT WAWONA

cense cedar bench group (No. 11) illustrated in the 1904 report. It was located about 100 yards up from the river and directly across from the "No Camping" sign along the Wawona Road, upstream from the A. E. Wood campground. The seat was missing, but scars and bits of wood indicated where it was once built.

On all but one of the eight signs still present the lettering, although aged by weather, was plainly visible. Of those trees pictured in the 1904 report, five have been located; three of them still bear the

original signs. Originally California black oak, cottonwood, Sierra juniper, and canyon live oak were also identified, as well as 17 species of shrubs and 2 herbs.

Unfortunately the area is accessible only by fording Big Creek or the South Fork. However it is relatively simple to do this by midsummer when the water is low. From the A. E. Wood campground one may cross the South Fork, turn left (eastward), and walk a few steps upstream to see signs of the arboretum created 47 years ago for our enjoyment.

DEATH OF A SCORPION

By Anne M. Belisle, Field School, 1951

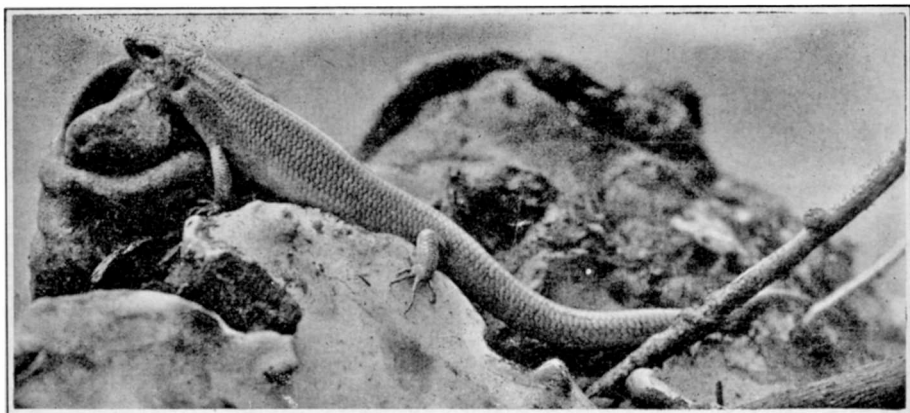
One sunny afternoon in July, I walked out on the porch of the museum in Yosemite Valley just 5 minutes too late. The ooh's and ah's were all that was left! I had just missed seeing a battle between a Yosemite skink (*Eumeces gilberti gilberti*) and a scorpion.

The ranger naturalist saw my disappointment and asked if I would like to see another scorpion which he had tucked away in a jar in the little room behind the information desk. As I had never seen a living scorpion before, I was delighted. After examining it quite closely, we decided to send this poor specimen to its doom in order to watch the battle between a reptile and a scorpion.

We first offered it to a garter snake, then to a blue racer. Since both snakes avoided and shied away from it, the scorpion, which was about 3 inches in length, was dropped from the jar into a cage with two skinks. It had not been in the cage more than a minute when the smaller (but mature) of the two lizards detected it, and registered immediate interest. The battle be-

gan: the skink using its sharp-toothed, strong jaws for attack weapons; the scorpion, its venomous tail-stinger as its sole means of defense. The skink opened its jaws wide, rushed upon the scorpion, and grasped it firmly through the center of its long abdomen. With this firm hold it bit down hard and shook the scorpion violently. The expected reaction of the latter occurred. It threw up its tail and hit at the side of the skink's head. The first time the sting of the scorpion had quite an effect upon the skink. It did not cause paralysis, but the skink dropped the scorpion and slowly rubbed its head in the gravel at the bottom of the cage. The scorpion, in the meantime, was also rather dulled in its movements. It moved off, but not with the swiftness this eight-legged relative of the spiders and ticks can usually achieve.

After rubbing its head for about one minute in the gravel, the lizard again made an offensive charge against the scorpion. This happened three times in all. Each time the stings of the scorpion were more numerous, but with less and less



Yosemite skink

Photo by Carl P. Russell

effect. The third time the repeated stings were completely ineffectual, and the skink bit and shook violently until the scorpion's body grew limp. The sting of the scorpion usually stuns its victims. Perhaps the thickness of the scales typical of all reptiles served as a protection for the lizard.

Having conquered its prey the skink put it down and bit off both of the scorpion's pedipalps (the greatly enlarged, pincher-bearing appendages at the front of the body). The scorpion's body is composed of two main sections—a compact and unsegmented fore part and a long, segmented abdomen. The fore section has four pairs of legs in addition to the pedipalps. This latter pair of appendages is used for grasping the spiders and insects which the scorpion captures, and from which it sucks the body juices. Scorpions have a specialized sucking stomach which aids them in this. The pedipalps contain very little flesh, as they are composed mainly of the shell-like covering of the body. The skink showed no interest in these hard appendages, but bit them off and laid them aside.

Not only are the pedipalps low in food content, but they would have been a hindrance to the skink in

consuming its food. Its method of consumption is similar to that of snakes. Having removed the projecting pedipalps, it bit off the fore section of the scorpion's body and swallowed it whole. Apparently approving of the taste, it continued its meal. It took the front end of the abdomen and started swallowing it whole by a series of muscular contractions which were very evident to the onlooker. The contractions in the throat were very regular. At the beginning of each contraction the skink shook its reddish head slightly from side to side. It continued the contracting, shaking, and swallowing until the entire abdominal section including the tail and stinger was consumed.

If lizards could be likened to people, I would say that this Yosemite skink's expression was one of great satisfaction and enjoyment. After the scorpion was all gone, the lizard continued to open its mouth, contract its throat for a short time, and shut its mouth again in a manner similar to smacking. The skink's diet usually consists of small insects. However, this battle shows that, should the paths of a Yosemite skink and a scorpion meet, the skink will not hesitate to take up the fight and eat its conquered victim.

THE COULTERVILLE ROAD

By Shirley Sargent

Whereas the once proud Coulterville Road exists on present park maps as an insignificant dirt road, it pioneered as the first stagecoach route into Yosemite Valley. To drive down or up it even now is a thrill for modern-day tourists who may know the romance but not the discomforts of a Concord Coach or a "mud wagon."

Increasing numbers of saddle-sore visitors, enduring the long, formidable trip into Yosemite Valley by horseback, compelled action from early-day residents of Yosemite and businessmen located in towns en route. Better transportation was needed. By the late 1860's wagon roads were being extended to meet this demand. Spearheading the expansion was the Coulterville wagon road, originating in the gold boom town of Coulterville (named for the area's first storekeeper, George W. Coulter) and reaching as far as Crane Flat. Soon the State park commissioners were presented with plans for two stagecoach routes into the valley. One was offered by the Coulterville and Yosemite Turnpike Company, founded by Dr. John T. McLean and associates in 1859; the other route was applied for by the Big Oak Flat and Yosemite Turnpike Company. However, the latter company's application to construct the final stages of its wagon road into the valley came to the commissioners *after* they had granted exclusive rights to the company headed by McLean. His toll road was to be the only one built into the valley from the north side for a period of 10 years.

Before the actual construction was begun in 1870, a survey party dis-

covered a third grove of giant sequoias within what is now the park! Compared to the magnificent Mariposa Grove, the Merced Grove—so named by McLean—was small, but the discovery was heralded and the proposed route changed so that visitors would be driven through the grove of some 50 sequoias—eloquent of history and greatness. Work was pushed forward on the road, now altered so that its route was via Coulterville, Merced Grove, Big Meadow (site of Meyers' ranch), and on to the valley floor. The realignment of the road added \$10,000 to the original construction cost, making a total of \$71,000 to be returned in tolls. Tolls, collected at the Cascades, varied from \$1.00 per passenger down to 50c for each bicycle and rider, 37½c for loose animals, and 10c for sheep and hogs. According to the July 1943 issue of *Yosemite Nature Notes*, tolls taken through 1899 amounted to only \$33,932.71—a return of about \$2,000 annually. From these figures it is apparent that the Coulterville Company did not benefit financially from the building of the road, but the indirect revenues—to businessmen in towns along the way and in the valley—were immeasurable.

On June 17, 1874, the Coulterville Road was completed and opened to stagecoaches, passenger and freight teams. Thanks to Dr. McLean and his associates, Yosemite history was made: the "era of wheels" begun. The original advertisements boasted, "36 hours from San Francisco to Yosemite . . . avoiding any horseback riding."

Just one month later, on July 17, 1874, the Big Oak Flat Road was

thrown open to horse-drawn vehicles, despite the commissioners' decision that one road entering from the north was sufficient. Blocked by the park's edict, the Big Oak Flat and Yosemite Turnpike Company had the decision reversed by the State legislature and hurriedly completed the last 3-mile section between Gentry and the valley floor. Both roads suffered in consequence of a second route dividing revenues, but the claims of the irate Coulterville Company were disallowed.

Although there was not a large enough demand to make competition healthy for either company, both remained in operation. The Coulterville Road had a slight edge in that it was able to remain open from April to November because of the warmer southern exposure, while the Big Oak Flat Road was unable to begin its season until May 15 or later, depending on the weather. Available figures, through 1899, show the Coulterville Road collecting tolls of barely \$200 more a year than its competitor.

Until some time after 1913 stagecoaches rolled over the Coulterville Road, billowing dust as hoofs and wheels cut into the finely packed roadbed. Stage passengers, intent on seeing the widely publicized glories of Yosemite, mopped their brows swallowed the dust, and looked forward to the night's stop. By 1907 the Yosemite Valley Railroad menaced the prosperity of the road, when it extended its lines as far as El Portal. From that time on, collected tolls show that both the Big Oak Flat Road and the Coulterville Road fought losing battles against the progress of modern transportation.

In 1913 the Coulterville Road pioneered as the first road into the 23-year-old national park to admit automobile traffic. Although a single

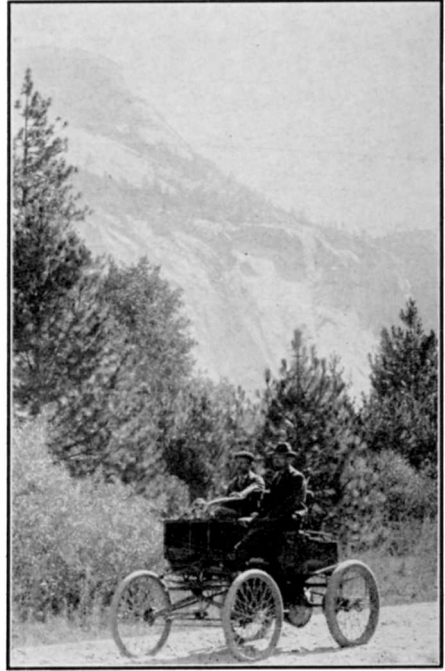


Photo by J. T. Boyesen

One of the first automobiles in Yosemite Valley, a Stanley Steamer driven by A. E. and F. H. Holmes in July 1900.

Locomobile and a Stanley Steamer had cruised around the valley as early as 1900, park regulations did not permit automobiles until 1913. During that first season 127 cars ground their way up the Coulterville grades and down the final, steep mountainside. Park regulations sanctioned speeds of "10 miles per hour on rolling mountain country," permitting a daring 12 miles per hour on the valley floor. The following year, 1914, cars were allowed on the Big Oak Flat Road as well as on the Coulterville route. The day of the stagecoach was all but over. What was considered comfort superseded romance and adventure, only to find new irritants in boiling radiators and kindred automotive ills.

Although automobiles brought more tolls, a new problem confronted the Coulterville and Yo-

semiter Turnpike Company. The National Park Service, created by Congress in 1916, wanted to abolish tolls, and subsequently did so, on the various privately constructed, owned, and maintained toll roads. The company controlling the Wawona Road turned it over to the public. The Government rewarded their precedent-setting act by maintaining the road during a period of years in which the company retained exclusive rights to the route. But the owners of the Coulterville Road refused to accept such a plan of public ownership. Inevitably their stand marked the end of the road as one of the main arteries of travel, for that part of the road within the park boundaries was no longer maintained as in previous years. Before long the roadbed evidenced marks of erosion and desertion, and the Big Oak Flat Road and newer routes absorbed its normal amount of traffic. For all practical purposes the Coulterville Road was through.

But was it? As a highway, yes; as a through road, yes; but the Coulterville Road still snakes up the north side of the Merced Canyon. In 1951 it is still open to the public, although few people know either its history or its whereabouts, and parts of it are in very poor condition.

An interested visitor with an eye for the past finds it a worthwhile if difficult experience to follow the old road by car or by foot. Before making the trip, an inquiry should be made at Government Center as to the condition of the road. For a while a voluntary control was in effect whereby cars went up on even hours and down on odd hours. There is so very little traffic on this stretch now that the practice has been discontinued.

To reach the park terminus of the

old Coulterville Road, one follows the All-Year Highway down the Merced Canyon to a point about 8 miles from Government Center. The Coulterville Road junction is just west of Cascade Falls. The 1.7-mile drive up the lower portion of the old road is easily accomplished by an experienced driver. This portion is in fairly good repair, surfaced with worn asphalt. Although the route continues past Big Meadow as a fire road, it soon deteriorates and the way to the Merced Grove is almost impassable. The return trip switchbacks down through ponderosa and Jeffrey pines, past an area burned over in 1941, then straightens out. From there on the descent is narrow, steep, and abrupt. Clumps of manzanita border the canyon edge, and rock-cuts lean over the road.

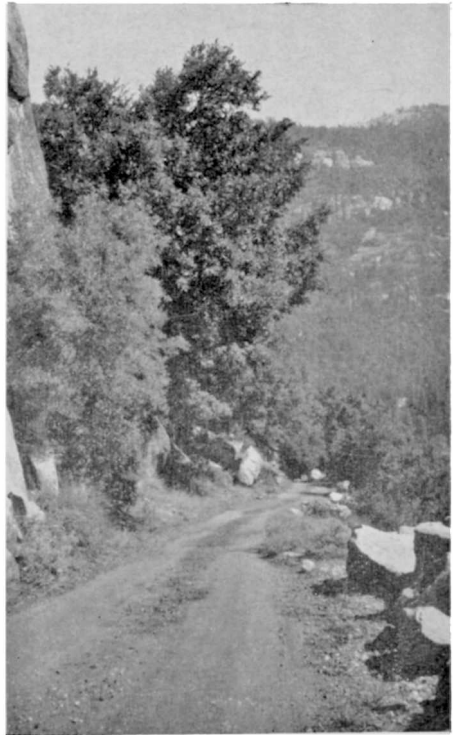


Photo by Adele Gerow

Downgrade on the old Coulterville Road

In the old days stagecoaches drawn by tired, sweating teams, thundered down this stretch, while uneasy passengers noted that they rode right on the edge of the cliff. Now, car occupants ignore the drop to comment on the view of the brawling Merced River far below and the enormous granite slabs directly across the canyon. In the time of cussing drivers, the road had a width of from 8 to 20 feet, mostly 8, with frequent turnouts to allow for passing. Now, drivers proceed at thier own risk, hugging the bank if they need to pass. Although the road is so narrow as to be almost one-way, few cars travel it and careful drivers can pass if they meet an opposing car.

Suddenly the All-Year Highway may be seen at the bottom of the descent. The Coulterville Road swings through huge, flanking boulders, and flattens out to join it. The junction is not easily seen from the busy, two-lane highway because of the hulking rocks and angle of approach. Cottonwoods, ponderosa pines, willows, and fine specimens of the California nutmeg border the river.

Glancing back, the Coulterville Road, shadowed by its granite guardians, seems dwarfed and insignificant; yet its existence is a tangible tribute and link to the men who made the stagecoach days a reality in the ever-evolving miracle of transportation.



1851-YOSEMITE-CENTENNIAL-1951

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YOSEMITE
NATURAL HISTORY
ASSOCIATION

Yosemite National Park, California

INCORPORATED for the purpose of cooperating with the National Park Service by assisting the Naturalist Department of Yosemite National Park in the development of a broad public understanding of the geology, plant and animal life, history, Indians and related interests in Yosemite National Park and nearby regions. It aids in the development of the Yosemite Museum and library, fosters scientific investigations along lines of greatest popular interest, offers books on natural history applicable to this area for sale to the public, and cooperates in the publication of

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Outline index chart accompanying photo on front cover.



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|--|------------------------------|-------------------------------|
| 1. Fireplace Creek | 13. Echo Peaks | 25. Banner Peak, 12,957 ft. |
| 2. Ribbon Creek | 14. Matthes Crest | 26. Mt. Starr King, 9,081 ft. |
| 3. El Capitan, 7,564 ft. | 15. Mt. Gibbs, 12,700 ft. | 27. Merced Lake |
| 4. Eagle Peak, 7,773 ft. | 16. Clouds Rest, 9,929 ft. | 28. Little Yosemite Valley |
| 5. Royal Arches | 17. Koip Crest | 29. Sentinel Dome, 8,117 ft. |
| 6. Washington Column | 18. Vogelsang Peak | 30. Sentinel Rock |
| 7. North Dome, 7,531 ft. | 19. Half Dome, 8,852 ft. | 31. Taft Point, 7,503 ft. |
| 8. Mt. Watkins, 8,235 ft. | 20. Simmons Peak, 12,504 ft. | 32. Cathedral Rocks |
| 9. Tuolumne Meadows | 21. Mt. Maclure, 13,000+ ft. | 33. Bridalveil Fall |
| 10. Tenaya Peak, 10,700 ft. | 22. Mt. Florence, 12,507 ft. | 34. Stanford Point, 6,659 ft. |
| 11. Tioga Pass, 9,941 ft. | 23. Mt. Lyell, 13,095 ft. | 35. Merced River, 3,950 ft. |
| 12. Mt. Dana, 13,055 ft. | 24. Rodgers Peak, 12,056 ft. | 36. Tunnel View, 4,410 ft. |
| 37. Lateral moraines left by the Yosemite Glacier during the ice age | | |