

# YOSEMITE NATURE NOTES



The Yosemite Museum

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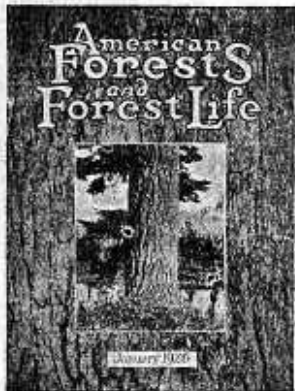
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# YOSEMITE NATURE NOTES

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# YOSEMITE NATURE NOTES

THE PUBLICATION OF  
THE YOSEMITE EDUCATIONAL DEPARTMENT  
AND THE YOSEMITE NATURAL HISTORY ASSOCIATION

*Published monthly*

Volume VIII

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## MARIA LEBRADO IS A GUEST AT MUSEUM

By Mrs. H. J. Taylor

Maria Lebrado, aged 88 or 90 years, last survivor of the Yosemite Indians driven from their Ahwahnee by the Mariposa Battalion in 1851, was a distinguished and interesting visitor at the museum on July 3, 1929. Seventy-eight years had elapsed since, as a little girl of 10 or 12 years, she went forth from this valley with her people, without food or clothing, never again to know the tie of tribe or band. Henceforth, the Yosemitees were a scattered people.

Maria is granddaughter of Chief Tenaya. Physically she is bent, but there is no trace of feebleness. She is possessed of alert, strong mental powers. Her memory is remarkably clear. Her whole being expresses vigour. In her wrinkled face the history of life-experiences is more clearly and deeply written than words can convey. The eyes, somewhat dimmed, hold a deep reflection. Her speech is laconic and powerful. Her words are Indian, Spanish and English. In the tone of her voice, in the gesture of her hand, in the lights

and shadows that play over her face, she radiates an atmosphere in which we live by gone events and feel history that cannot be written in words. Her oft repeated "Long long, long 'go" is followed by a silence more expressive than sound. Her hands relaxed upon her knees, her eyes, looking afar mirror the reflection of many years.

George Wright and his friend, Ben, endeared themselves to Maria by their kindness and their ability to speak to her in Spanish. She accompanied us to the old cemetery to visit the grave of her cousin Lucy. She consented to visit the museum. The Indian room, full of relics so familiar to her from earliest childhood quite overwhelmed her. In silence she extended her hands to the familiar objects about her. There was no sound save her own deep drawn breath as she gazed about in bewilderment. Individual objects drew her attention. The spirit of youth seemed to return to her. Her face lit up with merriment as she stooped over a

metate and with the pestle showed how the acorn meal was ground. Her interest was keen. Her sense of humor was delicious and refreshing as she laughingly took a baby carrier, "Kelley," strapped it across her forehead to show how she carried her papooses "Long, long go! long 'go all gone."

"With George Wright and Ben, we took Maria and her daughter Grace over the valley. None of us will ever forget the Indian lore and history that fell from her lips, nor can we ever forget what lay too deep for words as she stretched her arms in silence to El Capitan and again to the everlasting rock and whispered 'Loya!', a silence, then a reaching forth as if she must touch it she called aloud 'Loya! Loya!' With hands folded to her breast she again whispered 'Loya!'"

What loss to history that we are not preserving the Indian names! There are Sentinel Rocks, Bridal Veil Falls, Half Domes, and Vernal Falls in abundance all over the world. Yosemite alone has a "Loya," a "Po-ho-no," a "Tis-sack," a "Py-we-ack." Why lose these to the world?

Much as her children desired it, Maria had never allowed her picture to be taken. She had become very fond of "my boys" as she called George and Ben. I told her how much they wanted a picture, how much I wanted one, how much her daughter longed for it. I told her how much Mr. Russell hoped for one to place in the museum. We sat on the ground eating in silence the dish of acorn mush that Maria had cooked. We had nearly finished. She looked afar off and was silent. Then she looked into my face slowly she laid one hand on my shoulder, the other she laid first on her breast and then on mine and said: "You take pictures."

Joseph Dixon has produced not a picture, but a wonderful portrait of Maria Lebrado, lone survivor of the Indian band driven from the valley nearly four score years ago. This portrait is in the Indian room of the museum. History that can never be put into words is written in the lines of that face. On looking at the first picture from his negatives, Mr. Dixon remarked: "Her life history is expressed in that face. It's all there."

## THE GIFT OF MEMORY

By Floyd E. Dewhirst

When you have watched the rainbow  
In the mist of Vernal Falls,  
Have seen the glowing splendor  
Of the fire on Glacier's walls;  
When you have met the sunrise  
On the marge of Mirror Lake,  
Your memory will cherish  
These as treasures none may take.

When you have walked, enraptured,  
On a breezy upland trail,  
Have skirted granite ledges  
Far too steep for you to scale,

And seen the snow capped ridges  
Over glacial lakes of blue,  
You'll always carry visions  
Which will precious be to you

When you have seen the Valley  
From the top of Eagle Peak,  
From Half Dome, glimpsed Tenaya,  
As a slender winding streak,  
Looked down upon the cascades  
Of the Merced, flowing free,  
Your heart must thank its Maker  
For the gift of memory.

## YOSEMITE BIRD REPORT FOR JULY

By Enid Michael

In the Yosemite Valley the month of July wore away under an unbroken stretch of sun-filled days. Not once until the very last day of the month was the atmosphere washed by refreshing rains. A torrential downpour came at the upper end of the valley and waterfalls came rushing off from Half Dome and from the cliffs above the Royal Arches. During this downpour the valley proper received heavy showers which washed the trees and helped to lay the dust. Nesting birds suffered but little during the storm as robbers and wood pewees were about the only birds that still had young in the nest.

As the month came to a close the falls and streams had sadly dwindled. The Yosemite Fall was almost dry, Vernal and Nevada quite subdued, and the Bridal Veil was but a whisp to be tossed about by every breeze. The Merced river moved lazily and often paused to reflect in long silent pools, where water buttercups floated pearly rafts of blossom. The Brewer blackbirds found the broad gravel bars much to their liking, and along the margin of the stream was occasionally seen the charming little spotted sandpiper. The flood that came to the Merced and Tenaya watersheds on the last day of the month gave these streams a new lease of life and Mirror lake could once more reflect the rising sun for the edification of the few early rising tourists. And also once more did the photographers lie in wait to photograph the early tourist at the lake.

Fifty-two different species of birds were noted during the month, which number is five below the July average for the last nine years. Of the fifty-two species noted, the fox sparrow was the only unexpected visitor, this bird having not previously been noted on the floor of the valley during July. Two of the post-nesting birds arrived during the last week of the month; these were the black phoebe and the

green-backed goldfinch. Among the expected birds that failed to appear were meadow lark, white-crowned sparrow, tree swallow, golden-crowned kinglet and bushtit. Also the Lincoln sparrow, almost missed being on the report, as but a single bird was seen.

At the end of the month, all indications pointed to a bountiful autumn season for bird and beast in Yosemite Valley. A survey of the fruiting shrubs and trees made at the end of July disclosed a heavy acorn crop to come on both chrysolephis and Kellogg oaks. The rhamnus bushes were loaded with fast ripening fruit, and the few cherry bushes that still manage to maintain a toe-hold on the floor of the valley are also heavy laden. Ceonothus, manzanita and elderberry indicate a most fruitful season. Some of the rhamnus berries were ripe by the middle of the month; the evening grosbeaks were first noted feeding on these berries on July 16.

On the morning of July 26, 1929, I wandered along the trail that skirts the eastern margin of Sentinel Meadow. Many times I stopped with the early morning sun at my back to gaze westward across the meadow, and as I gazed I thought that there were sections of the meadow that approached the old-time floral glory. There was not a great variety of flowers, but certain species had massed their blossoms in a most effective manner. The Saint John's wort spread patches of solid golden bloom, and above these golden splotches of color was lifted on long, wavering stems of filmy veil of Queen Ann's Lace. Patches of red-top grass, blue-green rye grass, and stalks of plummy velvet grass fraternized, to blend their varied colors into a most bewitching color scheme. And over the meadow there came flying directly toward me a red-winged blackbird. Evidently he had begun to molt, for he was quite without a tail. However, he still presented a glorious picture as he came head-on with

fiery epaulets held high.

Evidently on the morning of July 28 there must have been swarms of some sort of winged insect leaving one of the Kellogg oaks opposite the postoffice. For days the white-throated swifts had been

missing from the lower air lanes and now they suddenly appeared in numbers, to comb the atmosphere around this certain oak. There were at least fifty birds that wildly circled and dived in a mad "May-pole dance" close about the oak that rained manna.

## SPECIAL YOSEMITE MUSEUM VISITORS

By C. A. Harwell

Dr. John C. Merriam, president of Carnegie Institute of Washington, D. C., was in the park July 16, 17 and 18. He addressed the educational staff meeting July 17, giving us the benefit of his long experience in educational work and his findings as chairman of the national committee making a study of the educational possibilities of our national parks. His discussion with our group was informal and most profitable to members of the staff. Present at the meeting was our chief naturalist, Ansel F. Hall, who happened to be in Yosemite with three Scout naturalists and Dr. Stork on a trip through several national parks. Dr. Merriam, Dr. Bryant, Ansel Hall, Mr. Perry and the park naturalist, made an extended trip down the Merced Canyon, stopping at the glacial polish near Rocky Point, at the terminal moraine, at El Capitan and at several places below El Portal where the story told by the metamorphic schists was most evident, to see in what way visitors to the park could be directed to observe these most interesting evidences of glaciation and mountain building. A trip was also made to the glacially polished granite near Mirror Lake. It seems highly desirable that trails should

be built and suitable labels installed to make these two locations of glacial polish available to those interested. Dr. Merriam took several photographs down the canyon below El Portal, which he is sending to us with suggestions for suitable signs and labels.

Dr. Ralph W. Chaney of Carnegie Institute of Washington, D. C., and the University of California was in Yosemite July 1 and 2, assisting the Yosemite School of Field Natural History in paleontology and biology.

George Root, pathologist, U. S. Department of Agriculture, in charge of blister rust control of California, was in the park at our invitation July 23 and 26, during which time he helped the school in forest diseases. He also contributed greatly by delivering lectures on tree diseases at Camp Curry, the Ahwahnee, and the public campfires.

Wallace M. Hutchinson, assistant district forester in charge of department of public relations, U. S. Forest Service District No. 5, and his assistant, Paul J. Fair, were visitors at the museum July 26. They made valuable suggestions for improving our tree room exhibits—

## AFIELD WITH RANGER NATURALISTS

### COYOTES AT GLACIER POINT

RALPH TEALL

Mountain coyotes (*Canis latrans lestes*) have been barking or singing on the slopes just below the Glacier Point Hotel for several evenings. Mr. Facio, the hotel manager, does not remember ever having heard them so close to the hotel before, but there is no reason why they should not be there.

On the first night they were heard, several of the hotel guests were certain that the sound was the scream often attributed to the mountain lion, though with insufficient evidence. The story was given wide credence because one of the ladies present had seen during the day a large animal near the hotel, but could not identify it, and supposed it to be a lion. The characteristic barking notes were sufficient to completely identify the animal and allay the lion stories.

On subsequent nights it was suggested that the animals were hot in the chase of a deer. The number of coyotes needed to make the noise heard would at first seem to have been large, but such choruses have been described as coming from only one or two animals. Moreover, it is not the custom of these animals to travel in packs, one or two being seen much more often than larger numbers. They may, however, combine and co-operate in the hunt, and they are known to take occasional deer or other large animals. It is probable that he feeds more commonly on smaller mammals, insects, and plant seeds, and that he is seen eating the carcasses of deer killed by lions. This is also true of the black bear. Carrion is not, apparently, distasteful to him.

The notes actually heard are much more suggestive of the singing fests described by many writers. Beginning with a short series of barks, the song came out as a series of high pitched musical notes which gradually faded away into a series of short barks, and then after a short silence, the notes were re-

peated from a slightly different place. It is perhaps significant that the barking was heard each evening just about the time that the moon was at its best on the slopes, and was most noticeable the night before full moon.

### COLOR IN GLACIAL LAKES

J. S. SMITH

The patron of art exhibits occasionally comes upon landscapes of snow-patched, serrated peaks and granite slopes enfolding a lake of such an unusual blue that he doubts the artist's sincerity. Although familiar with the marine blue of ocean and bay when the skies are right, he questions the degree of color and the opaque quality of the blue attributed to these mountain lakes. However, if the skeptic will "follow the trail of the open air" to Mount Dana and view there the opalescent lake at the foot of Mount Dana Glacier, his confidence in the artist will be restored, for the beauty of the coloring is not possible of exaggeration.

The explanation of the phenomenon, which is to be found in physics, is based on the same principle as that which accounts for the color of the sky. Light rays vary in length, the blue being shorter than the green, yellow and red, and therefore more easily diffused. The sky appears blue because the blue rays are interrupted and scattered by the invisible dust particles which float about in the atmosphere. The stream from the melting glacier carries down with it the powdered granite or glacial flour which is the result of the grinding force of the ice. The powder is so fine that it is held in suspension in the water of the lake, settling slowly, and the blue rays of light are refracted by it as by the dust in the air, producing the pleasing color of the lake and justifying the artist in his conception.

### Nature Guide Group Study Mountain Quail

In summer the mountain quail is largely restricted to the mountainous regions above 5000 feet in the Sierra Nevada. Parties in Yosemite who climb to the rim often find mountain quail with their broods of young at this time of year. This is a common experience in visiting Little Yosemite valley, Eagle Peak Meadows, and the meadows above Glacier Point. Adult birds are occasionally seen during periods of migration, but a mother with her brood of young is seldom observed on the floor of the valley. Not once in ten years of experience in guiding parties has the writer seen a mountain quail and her brood on the floor of the valley, yet on July 24 this unusual experience was encountered. In the meadow grass near Old Camp Ahwahnee a mother quail and her brood of at least eight young were discovered. The parent bird concealed her young in the grass and took up her position about two feet above the ground on the limb of a willow to act as guard. On close approach one young flew. This one was followed by the parent bird and then one by one the other young birds were frightened from the grass until eight in all were counted. The young birds were about half grown and were agile fliers. Every member of the party making this observation were willing to agree that the mountain quail is one of the most beautiful California game birds.—H. C. Bryant.

### DIXON PICTURE EXHIBIT

A most interesting installation of wild life photographs was placed in the club room of the museum this month by Joseph S. Dixon of the museum of vertebrate zoology, University of California, at present engaged as a special field naturalist in a study of the animal life of Yosemite National Park. A great deal of interest is manifested in this special exhibit of pictures, and also in the fact that the club room lends itself so well to special exhibit purposes.—C. A. Harwell.

### SPECIAL FIELD TRIPS FOR CHILDREN

C. H. HARWELL

Each summer a special effort is made to encourage the children who visit Yosemite to know and love the birds, flowers, trees and animals of the park and to learn to read a trail side as they would read an open book. Under the direction of a ranger-naturalist of the National Park Service a group of children is taken on a field trip starting at Camp Curry at 3 o'clock each afternoon.

The first of these trips for this summer was taken July 1. A party of twenty-six responded to the invitation, which assures the popularity of this service.

The educational department of Yosemite considers this one of its most important responsibilities and opportunities.

### VARIATION IN DEVELOPMENT OF BLACK OAKS

By Ralph Teall

The Yosemite visitor who follows a nature guide early this summer has a very difficult time trying to learn to identify the black oak (*Quercus kelloggia*). On one tree he finds complete foliage, on another only a few new yellowish green leaves, and on still another practically no leaves at all. At first there seems to be no reason for such variation. If he observes more carefully he will see that there is a definite gradation in the development stages of the oaks corresponding to their position in the valley. These trees, with the complete foliage, stand on the north side of the upper end of the valley near the hot talus slopes, while those with few or no leaves stand under the sheltering cliffs of the south wall.

Familiarity with Yosemite Valley in winter gives the clue. Throughout winter and early spring the cliffs of the south wall effectively block the rays of the sun which should reach the south side of the valley, but have no effect on those



reaching the north side. The black oaks are deciduous, dropping all their leaves in the fall, standing stark naked throughout the winter, and then in the spring clothing themselves anew with fresh green leaves. Those trees standing near the north wall receive the most sun and first feel the call of spring, hastening to clothe themselves more quickly.

### NATURE-GUIDED FIELD TRIPS

A regular schedule of field trips has been maintained by a competent staff of ranger-naturalists during the month of July as follows: From Camp Curry at 8 a. m. and 4 p. m., from the museum at 4 p. m., and from the Lodge at 9:30. These trips are offered daily except Sunday. Special children's trips for the summer were started in July, and the average attendance of eighteen shown during the month proves that this service is appreciated. The regular staff of ranger-naturalists has been used with the volunteer assistance of Mrs. H. C. Harter in conducting these trips. Seven trips to the Rim have been offered during the month with good attendance. There have been many requests for the organization of additional Rim trips, but with the present staff more trips could not be given. Four parties have made the rounds of the High Sierra camps during this month with a ranger-naturalist. The average size of group is ten for this month. These walks take in the six hikers' camps, require six or seven days and parties returning are enthusiastic in their praise of this phase of service offered. In each case the ranger-naturalist has been able to give a talk around a camp fire practically each evening during this week. The largest groups, of course, are found at Merced Lake and Tuolumne Meadows. During the month a number of special groups have been contracted by our ranger-naturalists. Several Boy Scout groups and a party from Clark University have been given

special attention. The park naturalist met the latter group at Merced and traveled with them in their special bus to Yosemite, where they were taken to all points of interest on the valley floor, including the museum. They were also conducted on a special four-hour walk from Camp Curry. This party, under the direction of Prof. Burt Hudgins, is making a regular study of geography. Their tour will include three of our national parks—Grand Canyon, Yellowstone and Yosemite. They were very appreciative of the service rendered them here in Yosemite.—C. A. Harwell.

### A Nursery Tale

Yosemite National Park being a part of the Golden West, has also its native sons and daughters. These are the elite to whom registration at the administration building is unnecessary. They may be a pair of cub bears, a yawning-mouthed brood of chipping sparrows, or a brand new family of chickarees, but whatever their family they are certain to qualify as leading attractions for the registered visitors at the park.

During the past season the arrivals to create the greatest sensation were twin fawns which the mother doe discreetly concealed in clumps of tall grass about one hundred yards distant from each other. They were male and female weighing respectively 6½ and 6¼ pounds and marked along their backs with rows of white spots characteristic of the very young deer.

The twins were the objects of much courteous attention from visitors during the few days they remained in their meadow nursery, where the mother came at approximately eight-hour intervals to feed them.

Such intimate contact with the domestic life of wild creatures is made possible for nature lovers in Yosemite through the park policy of protection. The prohibition of domestic pets within the national park limits also plays an important part.—By J. S. Smith.



## TREE GROWTH UNDER DIFFICULTIES

By Ralph Teaff

The Jeffrey pine standing outlined in a small niche of rock on the face of El Capital is a source of continual wonder to Yosemite visitors. From the valley floor it seems almost as if the tree stood on a perfectly bare granite ledge where soil must be very scarce and water at a premium. This growth of pine trees growing hardly out of the apparently bare face of the granite cliffs of the valley walls is, however, by no means rare. Nearly every cliff may be seen to have, somewhere, a few of these struggling trees, exposed freely to the elements, with little encouragement of well fertilized soil or even sufficient water. Most famous of such trees is the lone pine on the top of Sentinel Dome. Near Bridal Veil Falls a young maple, scarcely more than a foot high, although more than eight years old, stands on top of a large boulder with no more soil than may be found in a small covering of dried moss and with no visible water supply. A small crack serves as a point of anchorage for some of the roots.

Such growth is not out of keeping with the normal physiology of tree growth. The green coloring matter of the leaves is able, with the help of the sun, to form from the carbon dioxide of the air most of the complex organic foods which the tree requires. The roots are required to obtain from the soil various mineral salts and water. The granites seem to have the essential minerals in fairly good proportion and wherever it is sufficiently decomposed that they may be absorbed, with at the same time a crack in the rock where the roots

may obtain sufficient anchorage to give the tree adequate mechanical support, seeds coming down from the tops of the cliffs will germinate and develop as best they may. It would be interesting to know whether the leaves in such cases have taken over the entire function of water supply, and whether the moisture of the air is the only source of water.

## WITCHES' BROOMS

Brooms that grow on trees and witches' brooms at that! The idea is redolent with fancy but the shades of Mother Goose shall not prevail, for, to nature's story with its infinite variety of romance, of plot, characters, climax and mystery, who would seek to add a jot or tittle!

The fanciful name is a common one for abnormal bush growths on the branches of trees. It is so suggestive of folk lore that we suspect it was applied long before there was an understanding of the true nature and cause of the growths.

The bunching occurs on several varieties of trees. In Yosemite Valley it is a conspicuous feature of the incense cedar (*Libocedrus decurrens*) and on the yellow pine (*Pinus ponderosa*). Wherever found, it indicates an obstruction of the normal flow of sap, either by fungus growths or by mites or insects. In the yellow pine it is the fungus (*Peridermium elatum*) which girdles the branch and prevents the downward flow of the food manufactured in the needles above. The surplus nourishment accumulates above the point of interference and causes the development of an unusual number of twigs, resulting in the bunched appearance which gives rise to the name.—J. S. Smith.



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C. G. THOMSON

Superintendent



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Dan Anderson