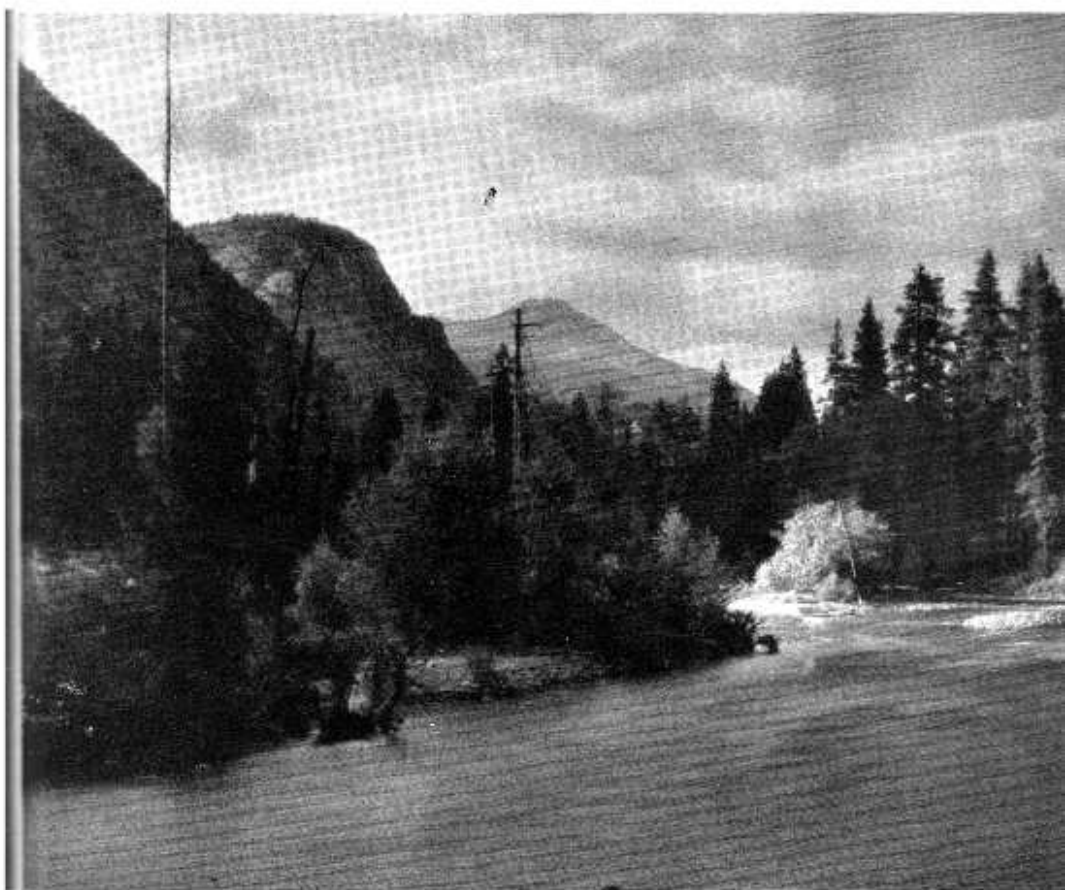


# YOSEMITE NATURE NOTES

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VOLUME XXXIV, NUMBER 9

SEPTEMBER 1955



*Along a mountain stream*

—Fiske

## YOSEMITE

By Clifford H. Nowlin

The Lord of All was carving out this valley  
For age on age before the dawn of man,  
And lifting up the granite walls and summits  
Of Glacier, Half Dome, and El Capitan,  
Upon the heights and streams of liquid crystal  
Leap down and dash themselves to silver spray;  
Their plaintive voices echo and re-echo  
Like elfin music thin and far away.  
Each night, like old Prometheus, the Titan,  
Men pour oblations in a fall of fire  
The embers, flowing like a golden river,  
Enchant us for a moment, then expire.  
Here, to this marvel of the High Sierra  
The beauty-loving spirits such as we,  
Come, and see, and evermore remember  
The grandeur that is called Yosemite.

THE BEAUTIFUL PHOTOGRAPH ON THIS MONTH'S COVER IS ONE OF A GROUP GIVEN TO THE HISTORIC PHOTO COLLECTION OF YOSEMITE NATIONAL PARK BY MR. "CAP" WILLIAMS OF TWENTYNINE PALMS. ALTHOUGH IT BEARS NO SIGNATURE IT WAS WITH OTHERS TAKEN BY GEORGE FISKE, PIONEER YOSEMITE PHOTOGRAPHER, AND WE ASSUME THAT IT WAS HIS. IT PROBABLY IS A SCENE ON THE MERCED RIVER, BELOW YOSEMITE VALLEY.

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THE NATIONAL PARK SERVICE IS INTERESTED IN BUILDING UP THE YOSEMITE MUSEUM COLLECTIONS OF HISTORIC PHOTOGRAPHS, DIARIES, AND OTHER OBJECTS PERTINENT TO YOSEMITE. ANY CORRESPONDENCE REGARDING DONATIONS SHOULD BE ADDRESSED TO THE PARK NATURALIST, YOSEMITE NATIONAL PARK, CALIFORNIA. THE YOSEMITE NATURAL HISTORY ASSOCIATION HAS FREQUENT CALLS FOR BACK ISSUES OF YOSEMITE NATURE NOTES FROM LIBRARIES AND OTHERS INTERESTED IN COMPLETE SETS. ANY ISSUES FROM 1922 TO 1950 WILL BE GRATEFULLY RECEIVED.

# Yosemite Nature Notes

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

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## CHIPMUNK FEEDING ON GOOSEBERRIES

By Ernest L. Karlstrom, Ranger Naturalist

Many plants are equipped with armor—thick bark, spines or prickles—which may be expected to discourage the hungry advances of animals. Among these is the wild gooseberry *Ribes roezlii*, a shrub common in the middle elevations of the Sierra Nevada. Unique among the six species of *Ribes* in Yosemite in having a prickly berry, the wild gooseberry attains a height from two to five feet. Located at each node on the short rigid branchlets are one to three stiff spines. The oval berry measures approximately one-half inch in length and is armored with dozens of sharp, erect spines about a quarter-inch long.

unexpected in nature. Late in July while conducting the all day hike into the Little Yosemite Valley my attention was drawn to a chipmunk (probably *Eutamias quadrimaculatus*, the long-eared chipmunk) busily working in a bush along the trail. This was along one of the switchbacks winding up the rocky slope north of Nevada Fall. Closer inspection revealed that the animal was reaching up from its perch on a granite boulder and biting off the green, spiny berries of the wild gooseberry. With deft movements it rolled the fruit between its front feet as its sharp incisors ripped off the spiny covering exposing the small seeds within. These were quickly packed into the chipmunk's cheek pouches. A half dozen small kitchen middens of gooseberry hulls indicated that the animal had been busy for some time.

Grinnell and Storer in "Animal Life in the Yosemite" list many kinds of seeds and nuts eaten by chipmunks, but no mention is made of these animals feeding on gooseberries. The berries were green when eaten, and the spines, although sharp pointed, were somewhat flexible. Possibly later in the season the drier, stiffer spines of this shrub would still be an effective deterrent to the chipmunk.



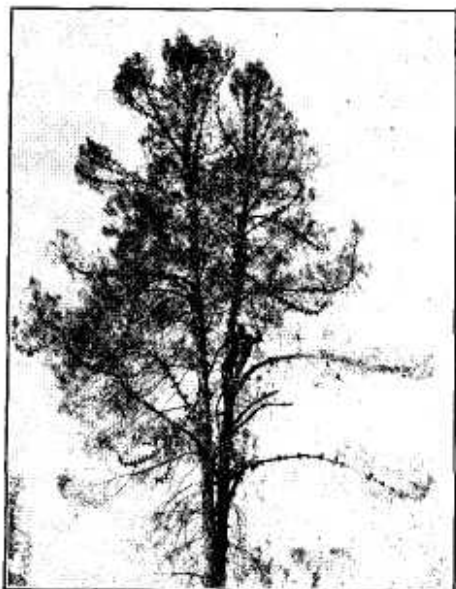
Judging by its appearance one might expect this plant to be effectively protected by such a defensive array. Such is not the case. The naturalist soon learns to expect the

## THAT QUEER LITTLE PINE-TREE COVERED ALL OVER WITH BURS

By Henry G. Weston, Jr., Ranger Naturalist

Of all of the nine species of pines growing today within the boundaries of Yosemite National Park, the Knobcone Pine (*Pinus attenuata*)<sup>1</sup> is probably the most sparsely represented. As far as is known at the present time there are about a dozen individual specimens growing at five different locations in the area. This little known species of pine is seldom seen since it is restricted to local, frequently inaccessible areas in California and Oregon, usually between the 2000 and 3000 foot elevations.

Previous issues of the *Yosemite Nature Notes*, particularly two (Sharsmith, Sept. 1935, and Cole, May 1939), have carried articles about this unusual pine. These articles discussed a number of facts, a few of which should be repeated here.



Crown of knobcone pine

The cones, clusters of them, which are rigidly attached and bent down, are borne in whorls around the trunk and branches. There they remain for years, often becoming embedded in the bark, or sometimes even becoming embedded in the trunk so that when the trunks are sawed open they may disclose deeply buried cones in the wood.

The cones seldom open until the tree dies or is killed. As far as is known the seeds remain viable for many years. Heat seems to cause the cones to open and discharge their seeds. With this in mind we may note that a fire may destroy the tree but at the same time be responsible for the new ones that follow. Fire seems to govern, at least partly, the growth and reproduction of this tree.

With these facts in mind it is of some interest to note the following account of the Knobcone Pine written by John Muir and published in 1894 in his first book, *The Mountains of California*.

"At the age of seven or eight years it begins to bear cones, not on branches, but on the main axis, and, as they never fall off, the trunk is soon picturesquely dotted with them. The branches also become fruitful after they attain sufficient size. The average size of the older trees is about thirty or forty feet in height, and twelve to fourteen inches in diameter. The cones are about four inches long, exceedingly hard, and covered with a sort of silicious varnish and gum, rendering them impervious to moisture, evidently with a view to the careful preservation of the seeds."

"No other conifer in the range is so closely restricted to special localities. It is usually found apart, standing deep in chaparral on sunny hill and canyon-sides where there is but little depth of soil, and, where found at all, it is quite plentiful; but the ordinary traveler, following carriage-roads and trails, may ascend the range many times without meeting it."

"While exploring the lower portion of the Merced Canyon I found a lonely miner seeking his fortune in a quartz vein on a wild mountain-side planted with this singular tree. He told me that he called it the Hickory Pine, because of the whiteness and toughness of the wood. It is so little known, however, that it can hardly be said to have a common name. Most mountaineers refer to it as 'that queer little pine-tree covered all over with burs.' In my studies of this species I found a very interesting and significant group of facts, whose relations will be seen almost as soon as stated:

1st. All the trees in the groves I examined, however unequal in size, are of the same age.

2d. Those groves are all planted on dry hillsides covered with chaparral, and therefore are liable to be swept by fire.

3d. There are no seedlings or saplings in or about the living groves, but there is always a fine, hopeful crop springing up on the ground once occupied by any grove that has been destroyed by the burning of the chaparral.

4th. The cones never fall off and never discharge their seeds until the tree or branch to which they belong dies.'



*Knobcone with ingrown cone*

"A full discussion of the bearing of these facts upon one another would perhaps be out of place here, but I may at least call attention to the admirable adaptation of the tree to the fire-swept regions where alone it is found. After a grove has been destroyed, the ground is at once sown lavishly with all the seeds ripened during its whole life, which seem to have been carefully held in store with reference to such a calamity. Then a young grove immediately springs up, giving beauty for ashes."

Here then we have another example of Muir's highly developed powers of observation on matters pertaining to natural history.

1 In the latter part of the last century the scientific name of the Knobcone Pine was *Pinus tuberculata*, meaning "knobby pine". Since that time the name has been changed to *Pinus attenuata* which may be translated as meaning "weakened pine".

## MORE EARLY THEORIES OF YOSEMITE'S FORMATION

By Richard J. Hartesveldt, Ranger Naturalist

In the October 1954 issue of Yosemite Nature Notes, it was stated that Clarence King stood alone in his theory that Yosemite Valley was the result of a tremendous splitting apart of the Sierra Nevada. Recently two newspaper articles have come to light telling of similar theories at a much earlier date.

Five years after the discovery of Yosemite Valley, and fifteen years prior to Clarence King's theory of cataclysmic occurrences, an unknown writer in the *Mariposa Democrat* of August 5, 1856, wrote briefly of his conception of Yosemite Valley's origin. Although this is the earliest written account known of its origin, the nature of the wording indicates that earlier theories had been voiced.

This writer seemed to feel that the theory of water wearing away the "softer strata" in its channel was in error. He expressed a belief that the opposing faces of the Valley walls had once been continuous (as the matching pieces of a jig-saw puzzle) and that the Merced River and its many tributaries were united into one river which plunged over a tremendous cliff or ridge at or near the top of El Capitan!

Although Clarence King is given credit for the discovery of unmistakable glacial evidences in the Valley, our writer in 1856 talked of the Ice Age glacier and of other theories that were not to make geological history for many more years. He assumed that the "contracting influences" during the Ice Age, or "some other stage of global refrigeration," that the mountain was split apart to form the Valley. If this was true, he continued, a lake was formed at the bottom of the resulting chasm,

and that it filled in with boulders from the valley wall and with stream-carried sediments.

A similar theory was advanced in the Nov. 18, 1865 issue of the *Mariposa Gazette* by a Gov. (?) Bross, who, in a letter to the editor, stated the following theory "which each reader is desired to take only for what it is worth."

He conceived that early in the earth's history, but after the rise of the Sierra Nevada, there occurred a deep-seated upheaval which "broke the mountain assunder." He theorized that the slightest elevation of a depth of 20 miles would be sufficient to make a fissure a mile wide at the surface. The chasm was then partly filled with the debris that fell from the valley walls during the splitting and was completed by stream and glaciers which later flowed through the valley.

He supported this theory by citing "large white seams" in the Valley walls which he claimed showed a "general, if not exact correspondence in rise and general direction" to those on the opposite wall. He also cited the fact that opposite sides of the Valley corresponded in height at many places.

In the light of geological knowledge available at the time these articles were written, the authors may be credited with some unusual observations, despite the fact that their major theories were incorrect. Today, we know that the carving of great canyons is a slow, well-ordered process on the part of water and ice, that cataclysms seldom occur. But think of the fascination of believing in mountains being rent apart in one tremendous ear-splitting tear!

## DEER BARK

By Gale S. Alden, Ranger Naturalist

While I was meandering through the upper portion of the Mariposa Grove during a Saturday afternoon in July, a crunching sound caught my ear. Upon carefully looking through the young white fir in the direction of the sound, I saw a two point buck mule-deer. He was 30 or 40 yards away and was standing beside a mature Giant Sequoia.

The first observation lead me to think he was eating the bark from one of the buttresses at the base of the tree. This aroused my curiosity and desire for "proof positive". Moving as quietly as possible, I ventured closer and arrived at a point about 10 yards from the buck. Still, to all indication, he was eating bark from the Giant Sequoia.

In a desire to try to photograph his activity I moved closer and startled him into movement away from the tree. I immediately inspected the tree. In the area of his activity were fresh signs of bark having been removed. There was also moisture in the area presumably

left from his nose touching the bark as he nibbled.

Why a deer would eat bark from a Giant Sequoia is not understood. It is the first time this phenomenon has been observed by the present naturalists at the Mariposa Grove. The buck looked to be in good health and may have eaten the bark as roughage. If this is true, we might assume that other deer at times also will eat the bark from a Giant Sequoia.

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## A WINTER MEAL

By Larry Mowinckel (Age 12)

While visiting Yosemite in January, I had the extreme pleasure of witnessing the following event I hope you enjoy it as much as I did.

On the highway that passes Camp 14 we stopped to look at the snow-covered tables (they are covered with 2 feet of snow in January), when suddenly a California Gray Squirrel darted out on the snow, and headed for a table. We watched his actions with great interest. The squirrel jumped up on the table and began digging in the snow upon it. A few seconds later he emerged from the hole with a nut in his forepaws, whereupon he climbed up on the top of the mound and ate the nut. He repeated this procedure once more, then jumped down and ran under the half-buried table. Just then another squirrel ran down a tree, and over to the table. The first squirrel ran out with the second squirrel right after. The snow mound was obviously the squirrel's nut-storehouse! It was nice to see the squirrels, for although the Steller's Jay welcomed us to the valley, it was lonely without our animal friends of the summer.



## A HISTORICAL REVIEW OF THE EXCLUSION OF

### SHEEPHERDERS FROM YOSEMITE

By Sam W. Elkins, Ranger Naturalist

The early days of Yosemite as a National Park shows a long struggle between those individuals who wanted to establish this as a natural preserve, and those who would have liked to use this territory for other purposes.

Among the foremost of the groups who resisted the establishment of this as a national park were the rather large number of roving stockmen who used the high mountain areas for grazing thousands of head of sheep and cattle. Practically none of these men owned the land their stock used, they paid no grazing fees, and responded to no regulations or limitations, other than those they imposed on themselves.

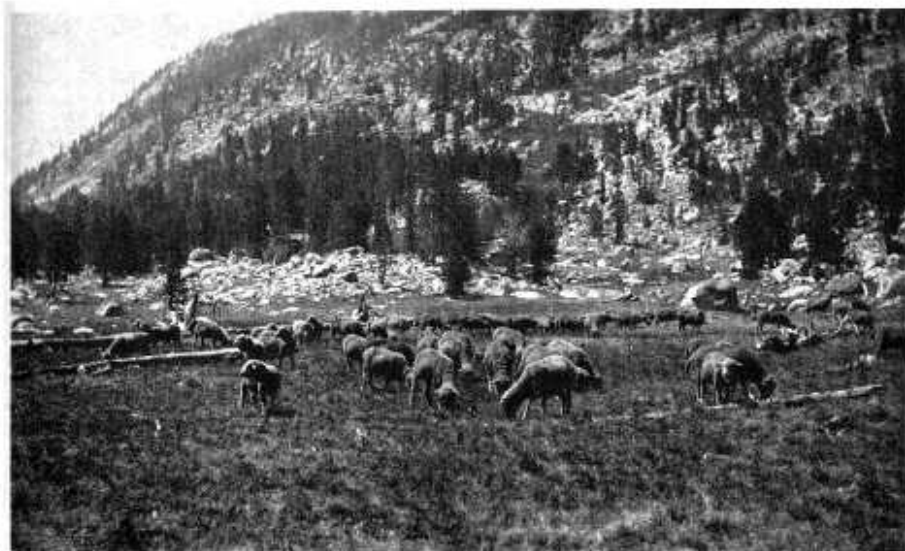
It is probable that some of these men were responsible stockmen who were aware of the fact that mountain grazing lands were fragile, and easily damaged by the repeated use by large numbers of sharp hooved cattle and sheep. On the other hand, perhaps the majority of these men who had no permanent interest in the lands they were using, were interested more in getting as much as they could from this free range in as short a time as possible, and then move on to some other likely looking spot. Thousands of sheep and cattle were taken through areas that could barely support hundreds. After the sheep had eaten almost down to the bare soil were driven on to other places where the process could be repeated. Herders had the habit of burning off lowland slopes to eliminate

forests and brush, in the hope that these natural vegetation types would be replaced by grass. The results of the activities of this type of stockmen was permanent destruction of valuable forests and watersheds. It was this type of stockmen that Muir was talking about when he spoke of sheep as "hooved locusts", and went on to say:

"The slant digging and down raking action of hooves on the steeper slopes of moraines has uprooted and buried many of the tender plants from year to year, without allowing them to mature their seeds. The shrubs too, are badly bitten, especially the various kinds of ceanothus. Fortunately, neither sheep nor cattle feed on the manzanita, spiraea, or adenostoma. But on the other hand a great portion of the woody plants that escape the feet and teeth of the sheep are destroyed by the shepherds by means of running fires, which are set everywhere during the dry autumn for the purpose of burning off the old fallen trunks and underbrush, with a view to improving pastures, and making more open ways for the flocks."

This type of activity continued on in what was to be Yosemite National Park until 1890. At that time the park was created by an act of Congress. This act set aside approximately 1512 square miles of territory that was about 36 miles wide and 40 miles long, as a national preserve. This preserve surrounded the Yosemite Valley and the Mariposa Grove, which had been a state park since





1864.

The administration of the park was directed to "Preserve from any interference whatever the flora, trees, animals, birds, fishes, and wonders of nature . . ." All homesteaded and patented lands were recognized as belonging to the owner of record. These owners could continue to use their lands in any way they saw fit. They were given privileges of ingress and egress for their stock if their lands were surrounded by park lands, and were of course allowed to graze stock on their own lands. Thus the formation of a national park worked no hardship on the legitimate land owners in this area, but it struck directly at the itinerant operator who had been reaping a free bonanza off the public lands.

The administration of the park was turned over to the War Dept. and for a period of 24 years, from 1890-1914 the rules and regulations

of Yosemite were enforced by the U. S. Army.

During the first few years of park administration from 1890 - 1895 no serious attempt was made to control the activities of these vagrant stockmen. In 1895, however, the superintendency passed to a Capt. Alex Rodgers, who had under his command a Lt. H. C. Benson, and things took on a different aspect. These men began a long struggle that was not to end for about 12 years, and which finally established the fact that federal national park lands could not be used at will by migratory stockmen.

In enforcing these rules against grazing the army was in a peculiar position, for even though it was instructed to protect the park against trespassers, they had no authority to arrest, fine, or in any way penalize these people by any other method than merely expelling them from the park. This gloved-hand treatment of course did not disturb

Though the law prevented the army from fining or jailing these early poachers, they soon developed other techniques for discouraging trespassing.

"On my first trip in 1895 I left camp July 17th and went via Target Range, Sunrise Meadows, and Alkali Creek to Return Canyon, where I picked up the trail of sheepherders, which I followed through Matterhorn Canyon to Rodgers Canyon where I ran on to several flocks of sheep. This entire day, I spent rounding up sheep and sheepherders. I captured about 40 sheepherders. I also gathered about 40,000 sheep and drove them all in together, mixing the brands, much to the horror of the sheepherders. I also caught among this number, a number of rams, which I also turned into the general flock of sheep, one month ahead of time. Then, leaving the sheep under the charge of three of the soldiers, I made these sheepmen lead me out via Pleasant Valley, Rancheria, and Hetch Hetchy, to Ackerson's Meadows, and soon to camp in Wawona, which I reached on the 27th with my army of sheepherders. I stayed over

one day and left on the 29th for Rodgers's Meadow where I had left the sheep in charge of the rest of the detachment with orders to scatter them toward the Park line. I had with me a large detachment, but could find but little trace of these thousands of sheep which had been scattered by bears, and mountain lions, and by sheepherders who had come in from Bridgeport . . ."

"A few trips such as the one described above led the sheepherders to fear the presence of Troop K, 4th Cavalry in the Park. Bob Prouty, Bullard, the Frenchman and John Prue, all threatened my life, and had it given out in Merced that they would kill me on sight. They however, always took care not to be seen by me."

After about three years of this kind of activity Lt. Benson was called into the Spanish-American War, but in 1905 he returned again, this time as superintendent of the Park, and ". . . as soon as the sheepmen were informed that Troop K, 4th Cavalry, under my command, was again on duty in the Park, trespassing on their part ceased."





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Dan Anderson