

DEPARTMENT OF THE INTERIOR

HUBERT WORK, SECRETARY

NATIONAL PARK SERVICE

STEPHEN T. MATHER, DIRECTOR



YOSEMITE NATURE NOTES

VOL. VII

JUNE, 1928

NO.6



"LEARN TO READ THE TRAIL-SIDE"

YOSEMITE NATIONAL PARK, CALIF. 1928

This is the official publication of the Educational Department of Yosemite National Park. It is published each month by the National Park Service with the co-operation of the Yosemite Natural History Association, and its purpose is to supply dependable information on the natural history and scientific features of Yosemite National Park. The articles published herein are not copyrighted as it is intended that they shall be freely used by the press. Communications should be addressed to C. P. Russell, Park Naturalist, Yosemite National Park, California.

E. P. LEAVITT

Acting Superintendent

YOSEMITE NATURE NOTES

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

Published monthly

Volume VII

June, 1928

Number 6

A LAST LINK WITH THE PAST

By C. P. Russell

When the ancient Indian squaw, Lucy, died a few years ago, Yosemite valley lost her only representative of that original band of aborigines that resided here when the white man discovered Yosemite in 1851. Information regarding another survivor from the original Yosemite tribe has reached the Yosemite Museum occasionally during the years that have elapsed since Lucy's death. Whenever opportunity presented itself, I have solicited remarks on this old Indian from those dusky-skinned natives who now make Yosemite valley their home. Gradually evidence accumulated that would show that the ancient Indian actually existed, in the person of a squaw, Maria Lebrado, whose home is on a mountain ranch near Dawson Trail resort on the new Yosemite highway.

A few days ago a number of Indians, men and women, entered the museum, and I put the question to the group, "Do you know old Yosemite woman who lives near Dawson Trail?" One of the women answered, "Yes, my mother."

I had long hoped that I might talk with this last link with the past, so, naturally, this apparent opportunity was not to be ignored. The daughter, a woman of 50 years, perhaps, agreed to journey with me to her mother's cabin in the Mariposa hills. She was to show the way persuade Maria to talk, and interpret her remarks.

An Interesting Trip

The next morning I drove my car to the door of Pete Hilliard's cabin in the Yosemite Indian village. Pete is the recognized chief

of the present-day Yosemite village. My new acquaintance was ready to travel. In fact, she was quite resplendent in neat, clean clothes and black coil of the Mexicans. Would she get into the car? Yes, and her sister and a little boy would go, also. This was rather more of a passenger list than I had planned for, but, since the trio was in earnestness and quite intent on making the trip they all piled into the rear seat of the coach, and I drove to my home, where Mrs. Russell and Miss Ruth Newborgh, Government stenographer, awaited. With three whites in the front seat and three Indians in the rear, we sped some forty miles down the canyon of the Merced and partook of lunch at Dawson Trail.

Immediately after lunch we pro-

ceeded to put the Studebaker through a series of stunts. First, we crossed a gulch on a rickety bridge of logs. Under the driving power of the rear wheels, the unspiked logs rolled apart and threatened to drop us into the stream below. In some way we made a safe crossing, and for a mile and a half made our way in 'ow gear over a tortuous road that was not built for automobiles.

Far back in Mariposa's history, one of Chief Tenaya's granddaughters married a Mexican, one Lebrado. Apparently, he acquired a tract of land in the oak-covered hills. It was upon this rancho that we now found ourselves, and in one or three cabins that stood upon the flower-grown slopes resided the "mamma" for whom our interpreter searched.

A Reluctantly Granted Interview

Apparently, the old lady was reluctant to meet her white callers, for it required a half hour of persuasion on the part of the younger Indians before she appeared on the porch of her weather-beaten cabin. Her stoop frame and deeply wrinkled face bespoke her age. She was, according to her statement, about twelve years of age when the white man first came to Yosemite valley, in which case she is now about ninety years old. In former years Maria, like most squaws, was fat. Her flesh has fallen away, and her skin, which once covered a full face, hangs in baggy wrinkles upon her withered cheeks. Her lips folded like accordions over toothless gums. Someone had cropped her white hair close to her head to make a grizzled thatch upon her rounded skull. In spite of evidences of senility, there remained a glint of fire in her somewhat dimmed eyes.

At a nod from our friendly interpreter, we approached the group on the porch. Introductions were

made in no unusual manner, and Maria invited us to "seet down." This was about as far as her English could be carried. Miss Newburgh, with notebook and pencil, took one of the proffered chairs, and I seated myself at the old woman's side.

Maria and the Mariposa Battalion

No difficulties were found in persuading Maria to talk. She was, in fact, loquacious. The difficulties came in interpreting her remarks. Her account of the arrival of the first white men in Yosemite Valley corroborates what L. H. Bunnell has written of the advance of the Mariposa Battalion. She was one of that band of seventy-two old men, women and children, who, at Tenaya's advice, plodded through four feet of snow to give themselves up to the white soldiers encamped at Wawona. Tenaya, held a hostage in the white man's camp, had assured the soldiers that his people would come out of their mountain stronghold. However, after waiting three days, the whites began to doubt the old chief. They saddled their mounts and, under guidance of the captive Tenaya and friendly Indians of other tribes, made their way along the Indian trail to Yosemite Valley. En route, the seventy-two tired Indians were met, slowly making their way to the Wawona camp. They were keeping faith with Tenaya, who had begged that they surrender.

How Yosemite Was Discovered

Since there were no braves with the party, the whites suspected that they were being duped. Tenaya maintained that this group constituted his entire tribe, but the soldiers decided to see for themselves. Before nightfall they emerged from the forest at old Inspection Point and caught their first view of the much touted Indian stronghold—the Valley Incomparable. Descending to the valley floor, they made

camp near Bridal Veil falls, and the next day explored the gorge. The only Indian found was an old squaw, too fat and feeble to travel. Great stores of acorns and other food supplies were come upon and burned. On the third day the expedition withdrew. The Indians who had given themselves up were intended to be held on a reservation on the Fresno river, but the white soldiers became lax in their march out of the mountains, and all of their captives escaped.

Maria, this decrepit old woman who sat beside me, was one of these. It was impossible to get the details of her story, but enough was understood to determine that her experience agreed with what Bunnell has written. The escaped Yosemite returned to their valley and, according to Maria, times were hard. They salvaged what they could from the charred piles of food supplies, and, no doubt, called down every imaginable curse upon the white. Not only did they lack food, but in their flight they had cast aside much of their scanty apparel. "Got no shirt—got no pontloon. Pretty near nothing on girls; pretty near men." And this in March, when Yosemite Valley may expect to experience wintry weather!

Maria's Estimate of Major Savage

J. D. Savage, a trader with the Indians, was in command of this battalion of volunteer soldiers who first entered Yosemite. I had not questioned Maria regarding him, and early in her account she asked if I knew about the "captain" of the white soldiers. She called him "Chowwis," and described him as a long-haired, long-whiskered individual, who wore a red shirt. It was her belief that he was "no good," for, as she said, he was unfair in his trade for gold mined by the Indians and, in general, abusive to her people. The fact that he had

"ketch-um young girl" seemed to have impressed her deeply. She explained that he had taken five Indian wives from as many Indian tribes, and, in her estimation, this conduct militated against him. She verified the story that Savage had maintained a trading post in the Merced canyon at the mouth of the South Fork of the Merced.

It is not surprising that Maria, who experienced these things as a child, should feel that J. D. Savage was harsh and "no good." In his pursuit of military duty he was, un-



Follower of Tenaya

This Yosemite Indian is typical of the savage characters made more savage by the early white man's cruelties, who occupied Yosemite prior to 1851. Maria Lebrado, last of the original Yosemite band, explains in the accompanying article that Chief Tenaya was not killed in Yosemite Valley. Tenaya and five of his braves met death at Mono Lake at the hands of Piutes, with whom they were gambling.

questionably, thorough. One could hardly expect the Indians to favor the man who, above all others, pressed home the fact that the white man henceforth would rule what they felt was justly theirs. It appears to be the old, familiar charge that the white man's government exacted an unfair price from the Indian. Beyond question, the Indians of the Yosemite region were robbed, but history would indicate that J. D. Savage is not to be regarded as an abuser of Indians. As a matter of fact, he was killed soon after the Yosemite troubles by an official with whom he had an altercation regarding the unfair treatment accorded the Indians by the government.

Captain Boling and the Yosemitees

After Tenaya's band escaped from their custodians, it was necessary to send another detachment of soldiers into Yosemite Valley, for the Indian commissioners then in California were determined to put an end to Indian troubles in the Sierra. A month or so after the valley was discovered, Capt. John Boling entered Yosemite Valley with his company, which had been a part of the Mariposa Battalion on its original Yosemite expedition.

I possessed a photograph of Captain Boling, which I displayed to Maria. She recalled nothing regarding this individual, but she remembered the occasion of the second visit by white men. A number of the Indians fell into the hands of the whites, but the greater number made their escape from the valley by way of Indian canyon and took refuge in the wild country above the "rim." Maria recalled that men, women and children pulled themselves up precipitous slopes by means of ropes prepared from limbs lashed end to end. She remarked that a part of the escaping band was discovered by the soldiers and that a ball from a white-

man's rifle brought a climbing Indian tumbling down from the precarious cableway they had constructed. Quite likely, she referred to the Indian shot when a small detachment of the explorers were led into an ambush above Mirror lake. In this instance the Indian met his just deserts, for he had tumbled a ton of granite boulders onto two white men while they were climbing through a narrow defile.

Maria also told of the death of one of Tenaya's sons on this occasion of the second Yosemite expedition. This son, with two of his brothers, had been taken captive. One of Maria's relatives and another Indian were under guard at the same time. While the soldiers guarding the captives had amused themselves with shooting captured bows and arrows, one of the prisoners escaped. The next day two of the remaining prisoners were deliberately permitted to untie their bonds and attempt escape. The armed guards, wickedly happy at the opportunity, opened fire on the fugitives, and one of them was killed instantly. The other made good his escape. The dead Indian proved to be Tenaya's youngest son.

Our old informant became quite excited at this point in her narration. The grief and anger that was Tenaya's when he was brought into Boling's camp after this killing was re-enacted by Maria. "O-o-o, too, too bad! Tenaya boy good! He light. Look like Mexican." She went on vociferously with details which, no doubt, were interesting but which were lost, even to our interpreter. Upon perceiving that her daughter was not gathering the significance of her story, she gave up with a disgusted "Oh, pshaw," in perfect English.

L. H. Bunnell records that soon after this cruel affair with Tenaya's son, a trail was found which evidenced that the Indians were en-

camped in the Yosemite back country. Horses and supplies were left under guard in the valley, and the company climbed the north wall just above Mirror lake. Maria, in her conversation, had referred to this route near "Ah-wi-ya," the Indian name for Mirror lake.

Fugitives Found at Tenaya Lake

Near the head of Tenaya canyon the party caught sight of smoke rising from the camp of the fugitive Indians. It was located on the shores of "Py-we-ack," now Tenaya lake. The clear air of the High Sierra deceived Captain Boling into believing that the camp was no more than a half mile distant. As later events proved, it was more than four miles away. The desire to surround the Indians before they had time to prepare for battle coupled with the sudden appearance of a scout fleeing toward camp, caused Boling to order a charge at double-quick. In a letter addressed to Colonel G. W. Barbour, and published in the San Francisco Alta California of June 14, 1851, Captain Boling has this to say of the charge: "This chase in reality was not that source of amusement which it would seem to be when anticipated. Each man in the chase was stripped to his drawers, in which situation all hands ran at full speed at least four miles, some portion of the time over and through snow ten feet deep."

Soldiers in Red-Flannel Underwear

Maria Lebrado was one of that small band of Indians who helplessly watched this surprising advance. Recalling that I had seen reference to the undressed condition in which the soldiers had charged, I took occasion to question her as to the appearance of the whites when they approached the Rancheria. She replied, "Oh, lots of red." At first this remark carried no significance, but later it occurred to me that those soldiers, stripped to the drawers, would present an appear-

ance of "lots of red," indeed, for in the fifties, and even much later, Californians of the hill country wore red flannel underwear.

The old squaw explained that she accompanied the party to Yosemite valley and thence, by way of Wawona, to the reservation on the Fresno. I failed to obtain an account of how Tenaya and his followers returned to the mountains. Likewise, no discussion was forthcoming of the murder of the white prospectors who entered Yosemite valley in May, 1852. She did explain, however, that she accompanied the Yosemite tribe to Mono lake.

How Tenaya Met His Death

At this point she revealed the most significant bit of history that was obtained in the interview. Those very few pioneers who have written of early Yosemite events all indicate that the Yosemite Indians were practically exterminated in Yosemite valley by Piutes from Mono lake. When the white prospectors were murdered in Yosemite valley in 1852, a third expedition into this Indian stronghold was made by a detachment of the 2nd U. S. Infantry from Fort Miller. Lt. T. Moore in command of this force, killed five Indians in Yosemite valley. The rest of the tribes escaped to Mono lake, to which region the soldiers followed but were unsuccessful in locating the Yosemitees. History records that the Yosemitees enjoyed the hospitality of the Monos for a year. In the summer of 1853 they are said to have returned to Yosemite valley, and with them went the horses belonging to their hosts. The Piutes, enraged at such a breach of faith, are credited with having pursued the thieves, and, coming upon them feasting on horse flesh, killed them, almost to the last man. Tenaya is supposed to have met death at this time.

Anxious to have Maria's version of this eclipsing affair in Yosemite

events, I questioned her regarding the massacre. Through her daughter she stoutly assured me that no Indians died in Yosemite valley except those killed by whites and those who were ill. Fearing that I was about to lose the most valuable information she might have to offer, I asked her how Tenaya died, and where. She explained that while the Yosemitees were at Mono lake they engaged in "hand-games" with the Monos. These games are stirring affairs among the Indians. A. L. Kroeber states, "It is impossible to have seen a California Indian warmed to his work in this game when played for stakes—provided its aim and method are understood—and any longer justly to designate him mentally sluggish and emotionally apathetic, as is the wont. It is a game in which not sticks and luck, but the tensest of wills, the keenest perceptions and the supplest of muscular responses

are matched Seen in this light, the contortions, gesticulations, noises and excitement of the native are not the mere uncontrolledness of an overgrown child, but the outward reflexes of a powerfully surcharged intensity."

According to Maria, it was in the heat of such a game that a quarrel developed between Tenaya and his Mono allies. In the fight that followed Tenaya and five of his Yosemite braves were stoned to death. At least, this stoning feature agrees with former accounts of the killing. Horse-stealing and a gluttonous feast in Yosemite valley do not figure in Maria's story. She insists that Tenaya's bones rest not in Yosemite valley but at Mono lake.

When opportunity presents itself, the Piute version of the affair will be obtained from some of the ancient natives of Mono.

THE BLACK KNOT FUNGUS OF WESTERN CHOKECHERRY

By George M. Wright

The beautiful western chokecherry (*Prunus demissa* Walp) is one more candidate for banishment from Yosemite valley. Along with a few other large shrubs it helps to form those tangled thickets essential to maintaining an illusion of pristine wildness or even some little sense of seclusion about a spot teeming with humanity as is this one in the summer time.

Each crowded tourist season finds the once luxuriant undergrowth yielding ground before the unfavorable conditions which inevitably result from men's increasing effective pre-emption of the val-

ley floor. Even such a remote factor as overbrowsing is in the last analysis attributable to human influence in causing an abnormal concentration of deer in one locality.

The chokecherry shares all these community handicaps and suffers further depredations from the fungous disease of stone-fruits known as black-knot or plum-wart. The causative organism is *Plowrightia morbosus* (Schw.) Sacc. Graceful sprays of white bloom, the green foliage and later the dark purple berries, reneer the black knots and deformed twigs inconspicuous dur-

ing most of the year, but in winter all their unsightliness stands out against the bare gray branches. Nevertheless, the destructive work of the parasite goes on continuously and is probably most effective when the external evidences are best concealed.

Disease First Noted on Atlantic Coast

The disease is believed to have been native on the Atlantic coast of the United States, where it was first reported from plum and cherry orchards in the early nineteenth century. It was described by Schweinitz in 1822, but the fundamentals of its life history were not known until a thorough account appeared in 1876. Soon after this the pathogene appeared at points further to the westward and spread rapidly toward the Pacific coast until it has become one of the most prevalent and destructive troubles to which stone-fruit trees in the United States are subject. Fortunately, it has never gained a foothold on the continent.

Considering that the fungus is believed to have been confined to the Atlantic seaboard until so recently, it is remarkable to note that in the lists of fungi given by Harkness in the bulletins of the California Academy of Sciences, he records *Plowrightia morbosa* on *Prunus demissa* in Yosemite in 1885. How this disease could have travelled so far in the six years following 1879 is something of a mystery. The question naturally arises as to just how and when black knot arrived in this region. Was the gradual spread among wild plums and cherries from one area to another adjacent responsible or did inadvertent human agency transplant the spores to Yosemite from some far distant point? Very likely all of the chronological facts

will never be known, but further investigations will probably throw some light on the problem.

Disease Firmly Entrenched

One thing certain, the disease is firmly entrenched now in all its ugliness and will effectively resist any attempts at complete eradication. Practically every chokecherry in the valley is marred by the black knots which look much as though some unseen hand from above had dropped big splashes of some black tarry substance which had stuck to the branches and dried fast there.

Though these warty excrescences are but one stage in the destructive life cycle, they are so conspicuous as to give the disease its name. The pathogene attacks only the woody parts of its host plant, more particularly the small twigs and medium-sized branches. Single knots vary in size from a fraction of an inch to a foot in length along the stem and do not commonly extend quite around the cambium. When they do, of course those portions of the branch above the knot are killed. The growths themselves result from abnormal stimulation of the living tissues of the twigs.

The life cycle may conveniently be considered to start with the wide dissemination of spores in the spring. Because of the unbelievable numbers broadcast, chance will favor a certain small percentage with a suitable resting place. A spore thus lodged on a proper host plant will send out a system of mycelia which penetrate the bark and attack the cambium layer. An irritation is set up which causes the formation of an irregular and excessive amount of plant tissue at the spot. At first a moderate swelling appears, then the bark cracks apart displaying a yellowish surface. This brief stage is soon terminated. The fungus comes to the surface and develops its summer

spores, giving the knot a peculiar velvety olivaceous appearance. The spores of this phase are released all through April, May and June.

How the Fungus Develops

Then the gall enters upon yet another period and gradually undergoes a change. Beginning in September, black dots appear over the surface until presently the whole knot is sooty black and very hard. In small elevations over its irregular surface are perithecia, the winter condition of the fungus, in which a second kind of spores develop from January to June. These are liberated from time to time as they mature, and further propagate the disease. Thus the life history is completed and a new cycle begins.

The original portion of the knot has matured though it may increase its size through successive seasons by adding new growth at either end. One of the commonest types of distortion is the bending of twig ends away from the knot at right angles.

Complete eradication is hardly to be thought of, even in orchards, if there are wild plums or cherries about. To date, the only known method of control with practical merit is the careful pruning out and destroying of the knots in fall or winter up until the first of January. If the same treatment is repeated with equal thoroughness in the succeeding winters, the pest should be eliminated by the third year. Even then it is necessary to maintain sharp vigilance against reappearance of the telltale black knots.

A Difficult Problem

In Yosemite the problem is a difficult one. Any attempt to banish the black knot fungus from the confines of the entire park would most surely be met with failure. Moreover such a project would conflict with one of the most fundamental

principles upon which the creation of National Parks is based. That is, to maintain the flora and fauna as well as everything else within their boundaries in as nearly natural a state as possible. On the floor of Yosemite valley proper the situation is entirely different. Admittedly it is no longer a natural area and never can be again. The undergrowth has already largely disappeared around the settled areas and shrubbery is at a premium. Campers need hedges for privacy, and many necessary but unsightly structures can be screened out of the landscape in this way. Besides, removal of the second story growth involves the disappearance of all those forms of life which are adapted to this type of cover or depend on it at any time in any way. Any reasonable effort that can be made to save one of the premiere brush plants should not be overlooked. In Yosemite the chokecherry takes second place to the wonderful azalea only.

Though the fungus *Plowrightia morbosa* is known to have been present here for over fifty years, not until two years ago did the infestation become so heavy as to cause serious alarm. It had become so bad by this last winter that a feeble attempt was made to prune out some of the most conspicuous patches around human habitations. But this is not enough and with so many sources of infection close at hand the beneficial results will be of fleeting duration at best.

With only a moderate expenditure a thorough clean-up could be made on the valley floor and thereafter a little vigilant attention each winter would serve to keep the black knot at a harmless minimum. The chokecherry bush has a hardy constitution. Given this much assistance it may well persist in gratifying abundance for years to come.

YOSEMITE NATURAL HISTORY ASSOCIATION

YOSEMITE NATIONAL PARK
CALIFORNIA

YOSEMITE MUSEUM

Dear Friend:

Here are three good reasons why you should become a member of the Yosemite Natural History Association:

1. It will keep you in touch with Yosemite through "Yosemite Nature Notes".
2. It offers you opportunity to secure NATURE MAGAZINE, AMERICAN FORESTS AND FOREST LIFE, or both, at an unprecedented low price.
3. You materially aid a non-profit Government educational activity (The Yosemite Museum and its attendant nature guide service) when you remit your membership fee.

Please read a sample of "Yosemite Nature Notes", consider our purposes, and don't overlook the benefits of the combination offers with the American Nature Association and the American Forestry Association. Remit by check or money order.

Cordially yours,

C. P. Russell
Park Naturalist



Digitized by
Yosemite Online Library

<http://www.yosemite.ca.us/library/>

Dan Anderson