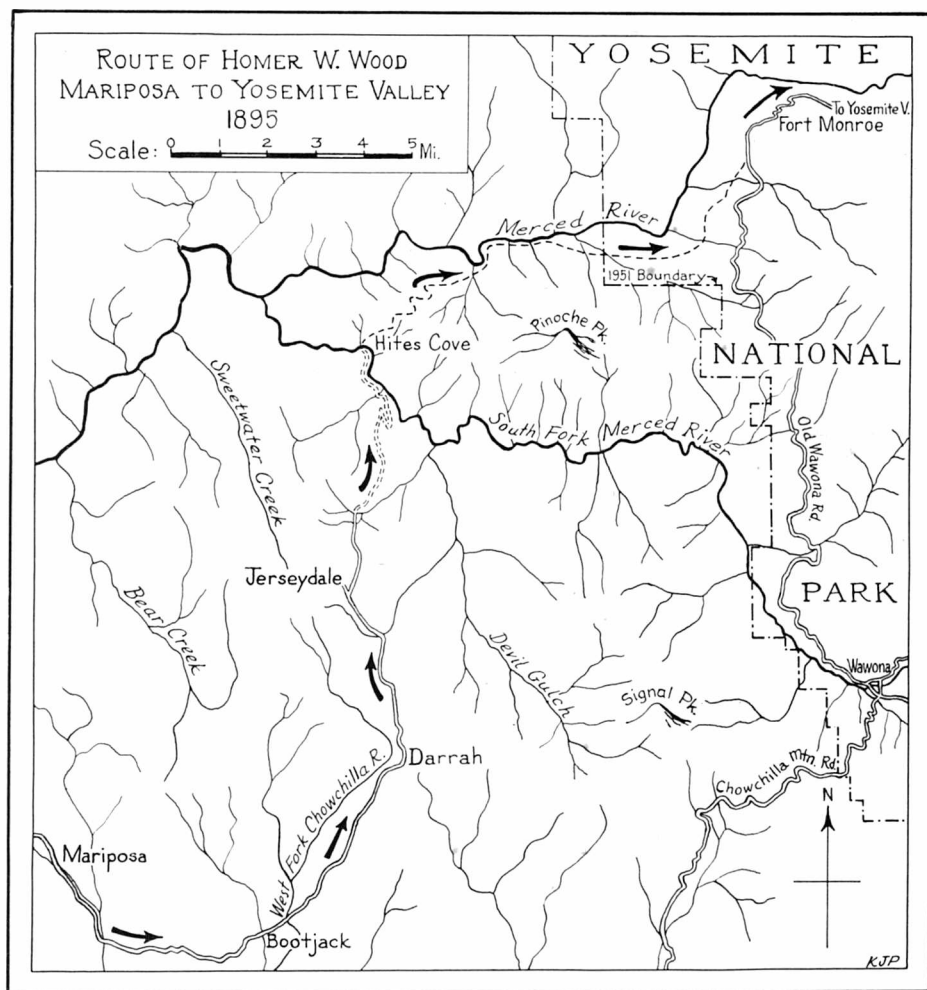


# ***Yosemite Nature Notes***





This map accompanies the article appearing opposite.

**Cover Photo: Snow-covered trees, near Badger Pass, Yosemite National Park.** By Ansel Adams from "Yosemite and the Sierra Nevada," text by John Muir, 64 photographs by Ansel Adams. Reproduction by kind permission of Houghton Mifflin Company.

# Yosemite Nature Notes

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## YOSEMITE TRAVEL AND TRANSPORTATION IN THE GAY NINETIES

**By Homer W. Wood, Publisher  
Porterville Evening Recorder  
Porterville, California**

"Get there or bust" was the popular expression of people going to Yosemite Valley in the gay nineties, whether by horseback, "footback," buggy, wagon, or stagecoach. Merced was the starting point for nearly everyone and the road then through Mariposa and Wawona was a distance of 125 miles. By stagecoach it was 2½ days, Wawona being the principal overnight stopping point and stage station where stages were kept in repair and horses well fed. By horse and buggy or wagon the time was about the same or a little more with different parties. By horseback or foot it depended on the amount of reduction of mileage by the use of trails.

No obnoxious automobile horns were heard in those days. Freight was hauled by four-, six-, eight-, or ten-horse teams or mule teams, with plenty of dust. The lead horses wore bells to warn travelers coming the other way of the danger of passing at different points. The bells were music for all.

While "Yosemite or bust" was frequently heard among travelers, there was also a popular song of the gay nineties applicable to those who traveled on foot, some of the words of which were:

"He hasn't a wing  
And he can't even sing  
But he gets there  
Just the same."

Yes, the going on foot was tough but highly enjoyable just the same. It was my pleasure when quite young to walk from Merced to Yosemite and back in August and September 1895. With me was a young man in his early twenties who had been raised in Mariposa County, Ed H. Green. Accompanying us and doing the work of carrying the camp equipage was a donkey, the same noble type which helped the early-day miners find the gold that made many rich. We walked it from Merced in 4½ days by reducing the mileage to perhaps 100 miles by the use of trails, or just shortcutting through the mountains. Signal Peak was used to good advantage in keeping our bearings. From Mariposa we went to the old famous gold mine known as Hite's Cove, on the South Fork of the Merced River. From there it was by trail or no trail over the high dividing ridge to the main fork of the Merced River. Following up the river as far as we could we found it impossible to continue by that route into the valley, so we climbed the mountains where there

was no trail, in a southeasterly direction, coming into the old Wawona road near Fort Monroe.

There were no national park superintendents, naturalists, or rangers in Yosemite in 1895. They came later. In the meantime, one or more companies of cavalry soldiers guarded the national park since 1891, the year following its establishment. They came from the Presidio at San Francisco and made headquarters at Wawona, then not a part of the park.

Since the "days of gold," the people of Mariposa County and others had made Yosemite Valley and the surrounding mountains their summer playground. When in 1890 the park was created by act of Congress and after the soldiers came, there was strong resentment. People felt as though liberties were lost, since hunting grounds were taken away, fishing restricted, and dogs not allowed. While it did not seem right to the people who made their homes in Mariposa and adjacent counties, they gradually became used to it, later realizing that the park meant conservation and playgrounds for all, resulting in an asset to the nearby counties and allowing millions of people under proper rules and regulations to see the gorgeous, beautiful handiwork of God.

The "roaring camps" of the placer gold mines made famous by Mark Twain, Bret Harte and others, gradually disappeared in the eighties and nineties, while quartz mining declined to a large extent as some mines "petered out." Others are still running, however, and it looks as though deep mining of gold-bearing quartz rock always will continue. Ghost towns are lasting monuments to the gold rush days.

It was still the old West in the gay nineties, but the new West was



ushered in with the turn of the century and during the "naughty naughts." With the new West came oiled roads, cement highways, automobiles, auto stages, and trucks as we see them today.

While horses were preferred, walking with a donkey was not uncommon during the first few years of the existence of Yosemite National Park. Then came bicycles in increasing numbers. When money was scarce it was easy to borrow a donkey. These animals had many friends. They were even honored by Mark Twain. He named a hill near his cabin not far from Sonora "Jack-ass Hill."

A donkey can carry camp equipment for two in the mountains. He is easier cared for than horse or mule and is not so particular about his diet.

Indians were more numerous in Yosemite Valley in the nineties than now. We were reminded of it when they stole our bacon and flour from our camp near Bridalveil Fall on the day we went to Glacier Point.

With a little money to buy more bacon we continued travel to points of interest in the park and back to Wawona. We had to travel on short rations because hunting was not allowed in the park, the same then as now. From Glacier Point we went to Crescent Lake where fishing was

good. From the rim of the valley at or near Glacier Point there was at that time a trail south for a few miles only. From there we had to pick our way through the wilds. From different high points we could see Signal Peak. As long as this was possible there was no danger of being lost, though it took us 4½ days to get to this small lake. From Crescent Lake it is 13 miles almost entirely down-

hill to Wawona.

To have had a trip to Yosemite Valley or Lake Tahoe in the nineties was a mark of distinction in those days. At least it was something to talk about. And now, thanks to great progress in transportation and roads, we are thankful that so many hundreds of thousands of people can enjoy these beauty spots each year.



## YOSEMITE BEAVERS AS OF TODAY

By Orthello L. Wallis, Park Ranger

As the rays of the setting sun glowed on the beaver's back, I realized how appropriately it had been named "golden beaver." The animal's fur shone with brilliant golden brown—a contrast to the bright summer green of streamside vegetation and the sky-reflected blue of pond waters.

A medium-sized beaver had just emerged from its bank burrow and, silently, was swimming back and forth when I approached its pond on Big Creek, near the park's southern boundary, during the summer of 1950. Climbing up onto the bank, it snipped off a green sprig and noisily began to eat an evening meal. A sudden movement on my part caused the beaver to slide into the water, slap its tail on the surface with a resounding "pop," and disappear beneath the surface.

This experience was the beginning

of an association with these Yosemite mammals that was to continue throughout the summer and fall months. I had an opportunity to study the beavers in their early evening activities, to map their workings and to record results of the damaging November floods which swept away all of their dams and covered other workings deep in sand and debris.

Beaver activity along Big Creek within Yosemite National Park was first reported to the naturalist staff on February 3, 1948, by a former park ranger—Carrie Jackson—of Fish Camp. On February 20 Ralph Anderson, administrative assistant, and Robert McIntyre, then acting assistant park naturalist, investigated and found one large and two smaller dams within the park. They were located between the boundary fence and the confluence of the first tribu-

tary, Big Tree Creek. The beaver population was estimated to consist of one pair of adults and young of the 1947 season.

Park Forester Emil Ernst discovered beaver workings in the Wawona Meadow on March 11, 1948. Upon looking over this area McIntyre located two small dams just above the culvert on the Chowchilla Mountain Road directly across the Wawona highway from the Wawona Hotel (McIntyre, 1948).

The beavers present in Yosemite are the golden beaver (*Castor canadensis subauratus* Taylor), which is typically a bank dweller at elevations below 1,000 feet in the San Joaquin Valley. These rodents are not members of the native fauna of Yosemite National Park but have moved into the area from plantings made outside the boundary. According to Grinnell, Dixon, and Linsdale (1937:635) and Tappe (1942:13) there appear to be no records of beavers occurring on the western slopes of the Sierra Nevada except where introduced by man.

Nine beavers were planted in Big Creek near Fish Camp in 1944 by the California Division of Fish and Game (McIntyre). The natural increase of these individuals resulted in their spread into the park where they appear to be firmly established.

The source of the Wawona Meadow beavers is unknown. They may have migrated down Big Creek to the South Fork of the Merced River and thence upstream to the Wawona Meadow. They may have crossed over the hill from Big Creek to their present location. Beavers have not been discovered elsewhere in Yosemite National Park.

Having received reports and rumors that the beavers along Big Creek had greatly increased their activity and extended their range still further down the stream, I initiated an investigation in July 1950. The purposes of this study were to determine the number and location of dams and colonies, the approximate number of beavers, and to make observations of them and their activities. I went also to the Wawona



Courtesy California Division of Fish and Game

Golden beaver photographed immediately after release in Higgins Creek, Los Padres Forest, May 9, 1947.

Meadow to study the beavers' activity of that area.

### Big Creek Beavers

Big Creek enters the park at the south boundary at an elevation of approximately 4,500 feet. It flows through a level meadow for the first half mile before entering a rocky canyon. The rest of its course follows through steep granite-bound gorges or boulder-strewn canyons except for several small meadows where the stream has leveled off for short stretches. Eventually it joins the South Fork of the Merced River near Wawona, across from the A. E. Wood campground. Prior to the November flood I plotted the locations of 11 dams in the first meadow area. Eight additional dams and intermittent workings were located in the scattered smaller meadow areas. No beaver signs were noted beyond a point about a mile and a half within the park. A total of approximately 22 beavers appeared to be living in five centers of activity along Big Creek.

Just upstream from the confluence of Big Tree Creek, a 5-foot dam created an "L" shaped pond 115 yards long. At this location I was able to observe the beavers on several occasions. Here amid an abundant food supply the animals had dug their homes—burrows in the stream-bank.

The activity usually began about 7:00 p.m. (daylight-saving time) when a medium-sized individual would emerge quietly from the burrow and glide back and forth in the area. I compared this beaver to a military advance scout, looking over the situation before informing the others that "all is well." On occasions when we were quiet, it would submerge shortly after appearing. Within a few moments other beavers would appear

from the burrow entrance or from a nearby canal. Some animals would swim downstream, others went upstream, and a few would stay in the immediate vicinity, but none left the region of this pond.

The number of beavers observed on each occasion varied slightly. By careful watching I was able to keep track of the individuals most of the time. Seven was the largest number I counted at any one time. Composition of this group consisted of three large, one small, and three medium beavers.

On August 17 two medium-sized beavers spent considerable time apparently licking the fur of each other's back. I was not close enough to determine if they were merely cleaning the other's fur or if they were searching for parasites.

On the same evening the kit beaver, followed by a medium-sized individual, came out of the burrow and began to swim upstream. The larger beaver swam up alongside the kit. Immediately the baby grabbed hold of the adult's tail. It appeared to be riding on the tail holding on close to the base.

The most conspicuous products of beaver activity are the dams. Along Big Creek these had been increased in number from the 3 observed in 1948 (McIntyre) to 19.

Although it was evident that the current had affected the shape of some dams, the presence of large boulders or islands in the creek appeared to be an even greater determining factor. The beavers are quick to utilize natural anchor points.

The longest dam, located 165 yards within the park, was 171 feet long. It consisted of three sections—30, 39, and 102 feet long. The first two sections were 5 feet high and 6 feet thick. This dam was the largest observed by McIntyre, also. Wil-



*Photo by Ralph Anderson*

Beaver dam on Big Creek, approximately 1,000 feet inside park boundary, February 20, 1948.

low 3 feet high, *Mimulus*, mint, and goldenrod were among the plants growing out of the top of this dam. The third section was a low, shallow extension of the other portions.

The presence of submerged burrow entrances was discovered by evidence of fan-shaped dirt mounds which spread out under the water from the bank into the stream. These piles consisted of materials dumped out during the excavation of the burrows. After extending below the water level for a short distance, the burrows curved upward under the bank and branched into dry living quarters and connecting subterranean passageways. These burrow systems usually had several entrances. Golden beavers rarely build lodges of rocks, sticks, and mud which are so characteristic of their northern relatives. When burrows cave in, the openings are covered with quantities of twigs and sticks, giving the superficial appearance of a beaver lodge. Examples of this adaptation were present along Big Creek.

Although it was impossible to trace the course of the burrows, the surface runways were readily followed. The beavers consistently used runways through the high herbaceous vegetation as well as the underground passages. These runs led from one pond to another or from a feeding area to the next. Those that were constructed at a low level served as water-filled canals during portions of the year. Runways often terminated at the water's edge as a "slide," down which the beavers could escape quickly into the water.

#### **Wawona Meadow Beaver Activity**

Six dams were found in the Wawona Meadow during the summer. Two small ones were located below the Chowchilla Mountain Road culvert, and two other small ones were situated between the culvert and the footbridge, directly across from the Wawona Hotel. The largest dam was 25 feet up from the footbridge. The structure was 15 feet wide and 3 feet high. All of this activity was found just a few feet off

the Wawona Road, between the highway and the golf course. As one drives by, he can see the largest dam at the base of two young pine trees. Further up the watercourse another small dam was discovered. The minimum amount of activity in the vicinity indicated that probably not more than three beavers occupied the area.

### **Flood Damage to Yosemite Beaver Activity**

First damage of the season to the beaver dams came as a result of the 3.38 inches of rain which fell on the night of October 27. Several of the dams had breaks created in them by the resultant high water. For the most part the damage was of small extent. The beavers did not attempt to mend the holes in the dams.

A trace of snow fell on November 13, followed by 8 inches on November 14, 1.5 inches on November 15, and 1 inch on November 16, totaling 4.06 inches of equivalent liquid precipitation up to the afternoon of November 17. During the next 36 hours until 4:00 a.m. on November 19, 11.34 inches of rain fell! These figures were recorded at the official weather observation post at the South Entrance Ranger Station. This rain in varying amounts extended upward to approximately 10,000 feet elevation in some portions of the park, causing much of the earlier snow pack to melt and add to the volume of run-off. The flow of Big Creek increased approximately 6 feet, allowing the stream to carve new channels and overflow the streamside meadows.

Shortly after the crest had passed, I went down along Big Creek and discovered that all of the dams had been washed out completely. Little new sign of beavers was apparent along the streambanks. A few tracks were observed within the park, although no new cuttings were seen. In the Summerdale campground, just outside the boundary, a large cottonwood had fallen during the storm. Beavers had already cut branches from it and had dragged them to the streamside. On November 23 little recent sign appeared in the park. However, on November 29 some new cuttings were found near one of the dams. Fresh drag marks in the sand indicated that branches had been cut at some distance from the stream. A beaver slide showed current use. There was no evidence of repair or replacement of the dams. In the Summerdale area, several cottonwoods exhibited fresh gnawings and at least two smaller ones had been felled during the preceding few days.

In the Wawona Meadow, also, the November deluge took out all of the dams. Shortly after the waters had receded, the rebuilding of the largest dam was commenced. Fresh stick cuttings were found at and above this section. Other dams showed no sign of repair.

The flood phase of the beaver investigations will be continued for several months to determine the amount of rehabilitation by the Yosemite beavers, which had become established within the park boundaries.

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### A PORCUPINE EATS GREENS

By Richard G. Lillard, Ranger Naturalist

Porcupines do not always eat only the inner bark of trees. At noon on July 16, 1950, when I was on Lehamite Creek above the Valley rim at about 6,900 feet, I observed an adult yellow-haired porcupine (*Erethizon dorsatum epixanthum*) as it browsed to supplement its diet.

Waddling bear-like, its feet flat and straddled far apart, it went along the streambank. It sniffed at azalea leaves (*Rhododendron occidentale*) and passed them by, but stopped to eat the leaves and petioles of a Sierra gooseberry (*Ribes roezli*). It nibbled off fronds of bracken fern (*Pteridium aquilinum*). On a damp sod-bank of yellow monkey flower and other low herbs it foraged about, browsing on a semi-prostrate legume—whitetip clover (*Trifolium variegatum* var. *pauciflorum*). Once it sagged to a lying-down position

while it continued to browse the trilobed leaves.

In general its route was a straight line, without regard for terrain, down timber, or azalea thickets. Its tail arched toward the ground. It used a forepaw to bend stems into its mouth. When the ground sloped to the left, it used its right forepaw to feed in the plants, and vice versa.

Though Grinnell and Storer in *Animal Life in the Yosemite* (1924) describe only the eating of bark by yellow-haired porcupines, Lloyd Ingles notes in *Mammals of California* (1947) that "the rodents feed on herbaceous food in the spring or summer." In *Animal Life of Yellowstone National Park* (1930) Vernon Bailey mentions that toward evening individuals of this species nibble green plants in open meadows.

### 1950 CHRISTMAS BIRD COUNT IN YOSEMITE VALLEY

By W. J. and Erma Fitzpatrick

The annual Christmas bird count taken in Yosemite Valley between Mirror Lake, elevation 4,000 feet, and El Portal, elevation 2,000 feet, was conducted on December 27 under the most auspicious circumstances. The day was clear, windless, and relatively mild, with temperatures ranging from 33° to 56°; nor was there snow on the ground to impede the counters in their work. As a result the thirteen participants, working in four parties, recorded 44 species and 1,050 individuals, the most successful count taken since the work was resumed following the last war.

The detailed count follows: California heron, 1; western red-tailed hawk, 6; eastern sparrow hawk, 1; California Pygmy owl, 1; western belted kingfisher, 7; red-shafted flicker, 11; western pileated woodpecker, 2; California woodpecker, 57; southern red-breasted sapsucker, 1; Modoc woodpecker, 3; willow woodpecker, 1; Nuttall's woodpecker, 2; northern white-headed woodpecker, 7; black phoebe, 1; Say's phoebe, 1; blue-fronted jay, 209; long-tailed jay, 26; short-tailed chickadee, 142; plain titmouse, 84; California bush-tit, 50; slender-billed nuthatch, 2; red-

breasted nuthatch, 20; Sierra creeper, 49; pallid wren-tit, 1; dipper, 5; western house wren, 1; dotted wren, 2; western robin, 3; northern varied thrush, 7; western golden-crowned kinglet, 42; western ruby-crowned kinglet, 9; Audubon's warbler, 1; English sparrow, 2; Cassin's purple finch, 10; common house finch, 28;

northern pine siskin, 25; green-backed goldfinch, 11; Sacramento towhee, 16; Sacramento brown towhee, 77; slate-colored junco, 1; Thurber's junco, 86; golden-crowned sparrow, 25; fox sparrow, 6; Modoc song sparrow, 8.

In 1949, 37 species and 552 individuals were counted.



*From drawing by R. Bruce Horsfall*

**Arctic Threestoed Woodpeckers.**

DIGEST OF THE PURPOSES OF THE  
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NATURAL HISTORY  
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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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