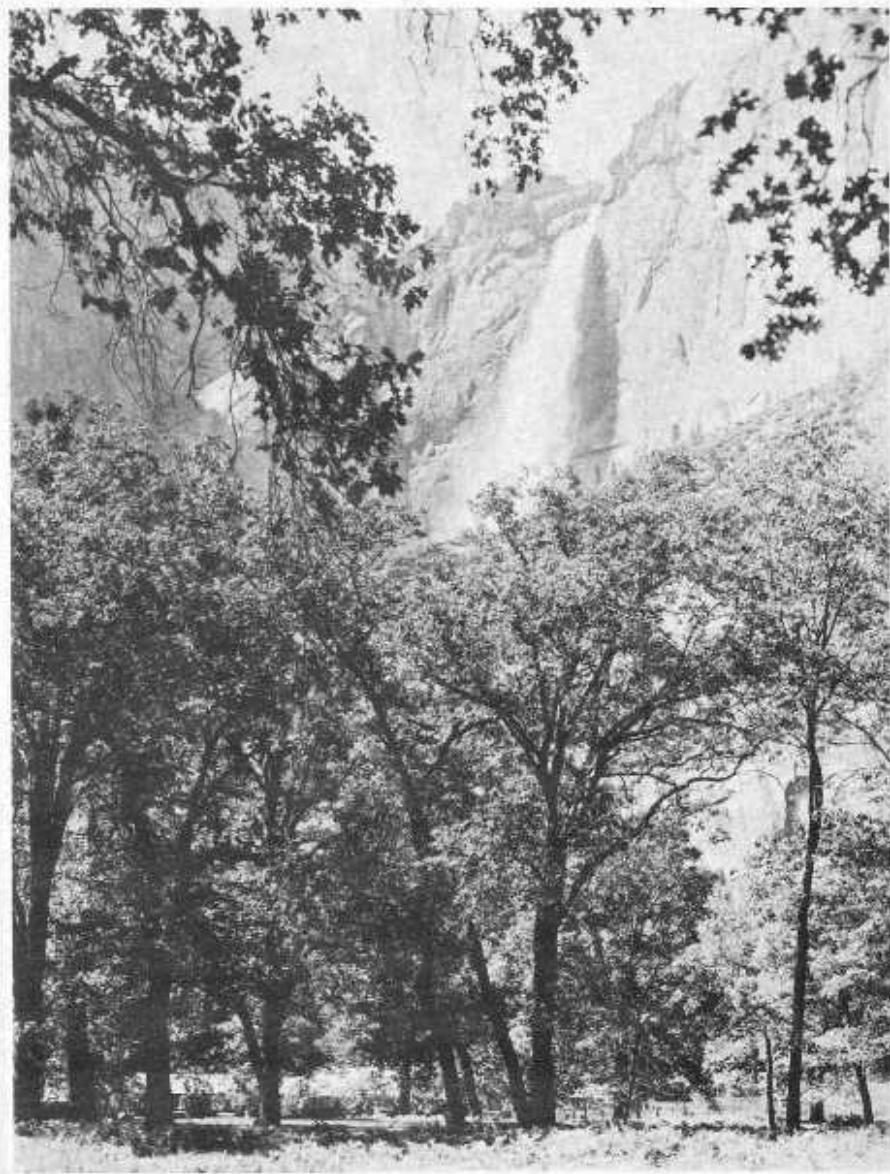


YOSEMITE

NATURE NOTES

VOLUME XXXVII · NUMBER 4

APRIL 1958



Upper Yosemite Fall through Black Oaks.

—Ralph Anderson



IN COOPERATION WITH THE NATIONAL PARK SERVICE.

OUT OF YOSEMITE'S PAST A One Picture Story



An early-day picture of Mt. Watkins reflected upon Mirror Lake.

—Watkins

YOSEMITE

Nature Notes

in its 37th year of public service. The monthly publication of Yosemite's park naturalists and the Yosemite Natural History Association.

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THE GREAT GRAY OWL

By Howard H. Cofer, Ranger Naturalist

Although the great gray owl (*Strix nebulosa*) is the largest owl in Yosemite, it was rarely observed here until recent years. It is more typically a forest dweller of the northern part of the Northern Hemisphere. The great gray owl as described in *Birds of Yosemite* (a special issue of the *Yosemite Nature Notes* published in August 1954) is from 24-33 inches. Large, light gray facial discs marked faintly with dusky concentric rings; eyes yellow; no "ear" tufts; above dark brown with light grayish mottling; under parts light gray streaked lengthwise with dark brown. Voice a deep reverberating whoo given at irregular intervals . . ." one synonym for the Great Gray Owl is *Scotiaptex nebulosa nebulosa*. *Scotiaptex* is from two Greek words which mean "the Eagle-Owl of darkness"; *nebulosa* is Latin and means "cloudy" or "gray".

Much of the size of this "Great Gray Ghost" is due to his fluffy feathers for when he is denuded he neither looks as large or weighs as much as the great horned owl. In-

deed, some weigh less than barred owls (Forbush). When it is perched on a high exposed snag, it appears huge. Its head and face seem immense and its rather small feet are heavily feathered. Its long wings and tail increase its apparent size. Forbush has said, "Its covering of thick down and long fluffy feathers (particularly on breast) which make it seem so large and powerful, are grown as a protection from the cold." Most owls sit rather erect but the great gray often sits with its body inclined sharply forward, especially when watching some object below. The lack of "horns" and the round head also gives him a more gentle appearance than the great horned owl, and several accounts indicate he is milder in manner. Some observers regard him as stupid. Dr. Dall claimed that he caught them by hand during the daytime, while up in the Yukon region. The Ed Cordners were able to approach within twelve feet of one in Peregoy Meadow in Yosemite; close enough to obtain a

good photograph while it was perched on a dead snag. According to Mr. Robert McIntyre, Mr. Jupe obtained 450 feet of colored movies at ranges down to thirty feet while observing him for a period of three days in the vicinity of Crane Flat in Yosemite. The owl was never frightened and did not leave the area, but was curious and rather nervous.

It was during 1915 while Grinnell and Storer were making their classic survey of *The Animal Life in the Yosemite* that the Great Gray Owl was first identified in the Yosemite Sierra. They claimed ". . . the bird was apparently quite at home, and nesting." They further stated ". . . a large nest of sticks, one hundred feet above the ground on the close-set branches of a fir next to the trunk, was found, which, it is thought, belonged to the owls." A male and female were taken and, ". . . as an indubitable indication of her breeding during the current nesting season, the female was found to have a large bare tract on the lower surface of her body, including the belly and insides of the thighs, from which the larger feathers had all been removed. Associated with this condition, directly beneath the bare skin, were layers of fat, though the bird was otherwise lean. As is well known, many birds show, during the nesting season, the same or similar adaptations for the better performance of the functions of incubation. The male great gray owl lacked any such modifications, and we may infer that in this species the female alone performs the duty of incubation. The reproductive organs of both the birds indicated that the time of egg-laying was long past. It seems more than likely that a brood of young had been reared in the vicinity and, approaching matur-

ity, had scattered out through the adjacent woods."

Mr. Charles Michael, who served many years in the Yosemite Post Office, and who was a very capable ornithologist, never had a chance to see the great gray owl. Mr. Fitzpatrick, present Yosemite Postmaster, who made his start with birds under Mr. Michael, went without finding this owl for fifteen years. His first observation was in 1945. Since then he has seen the great gray many times but has never found them nesting. However, the parent birds have been observed feeding their noisy young in August. The youngsters had reached the stage where they could fly. Mr. Fitzpatrick believes they are permanent residents of the Yosemite Sierra even though no mid-winter records have been made or nests sighted. The latest date recorded was November 28 and the earliest March 31. There are not many opportunities to make observations in mid-winter due to the snow.

The most common areas where the great gray owls are seen in Yosemite are along the Crane Flat and Glacier Point roads. This is deep red fir forest country, typical of the Canadian life zone, with elevations of 6000 to 7000 feet. One was observed in late October sitting on a tree stump beside the road near Crane Flat, watching the cars pass by (McIntyre). The writer's contact with the great gray owl occurred the evening of July 11 about 7 p.m., while driving on the Tioga Road, just a short distance above Crane Flat. He appeared suddenly from a small opening in the forest and nearly flew into the open window of the car. At least it appeared that way to the four of us in the car. I swerved the car and Mr. Owl swerved to the extent that we did not

collide, however. With a slow, heavy flight he circled back into the opening from which he had emerged. This was the extent of our encounter at this time but it started me checking on him.

The Yosemite Museum has two specimens of young owls in their study collection. These were found by Ranger Evans in Ackerson Meadow which is just outside the park boundary. They had been killed by hunters and, as is often the fate of predatory birds, they had been hung on a fence. This was October 19, 1955. The elevation of this area is around 4500 feet, which is below the usual zone where they have been found in Yosemite.

Although the sexes are alike in plumage, the female great gray is larger than the male, as is usual with owls. From two to five (the average seems to be three) white eggs are produced which average about $2 \times 1 \frac{3}{4}$ in. in size. The nesting season in Yosemite is probably in April or early May with only one brood being produced. Immature birds begin molting in June or July and apparently acquire adult-like plumage by October or November. According to Bent, adults apparently have a complete annual molt ending in November and December.

The great gray seems to be active more in daylight hours than is true of most owls. This may have come about as a necessity since in its typical range of the Far North the sun never passes below the horizon in the summer.

The food of the great gray owl in its more common northern territory, seems to consist primarily of small mammals as well as small birds. "Dr. W. H. Dal took no less than thirteen skulls and other remains of red-poll linnets from the crop of a single bird" (Fisher). Mr. Fitzpatrick thinks the chief food during the summer in Yosemite is the pocket gopher. On one occasion he observed an owl catch and devour two gophers in a matter of a few minutes.

A closely related species, the Lapp owl, which occurs in Northern Europe and Asia, has been reported to wander over into Western Alaska. According to Bent, however, this is probably an error and is instead the Siberian gray owl.

On your next visit to Yosemite, it may be possible that you will see the great gray owl. Maybe you will be the first to find its nest and in that way help complete the picture of evidence about him. He is really quite an unusual bird.



SPRING CHORUS

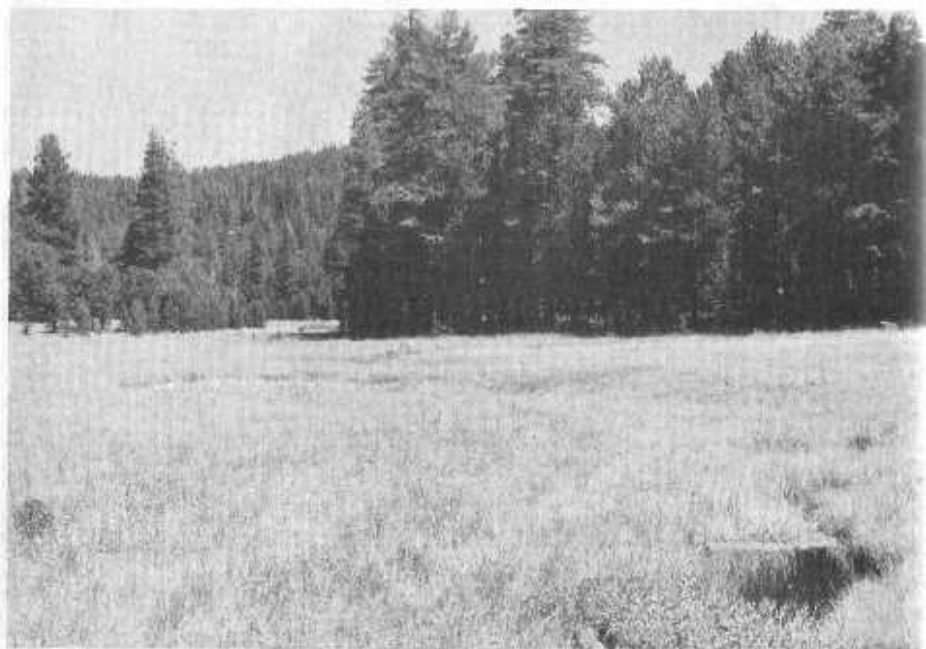
By Robert W. Carpenter, Junior Park Naturalist

While riding my bicycle near Camp 9 in Yosemite Valley one warm sunny day toward the end of February I heard a chorus of what must have been hundreds of frogs. Spring is my favorite time of year. It is the time of awakening for flowers, trees, insects, and animals, large and small. Although February is not exactly spring, a few warm days will bring some of these creatures out of hibernation and dormancy.

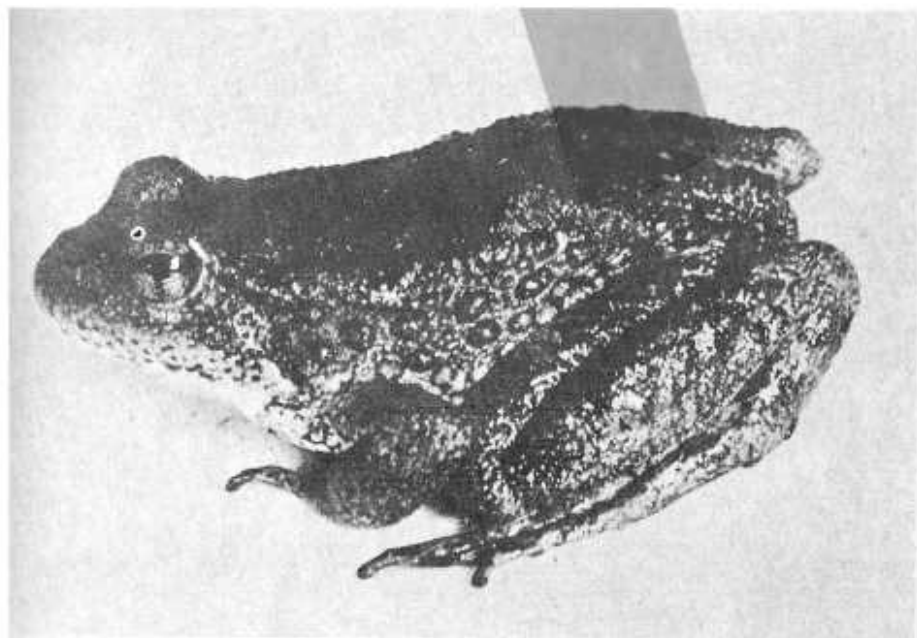
The closer I approached the marshy area near Camp 9 the louder the chorus became. Deciding to stop and investigate, I walked from the road, the noise increasing with every step.

When I arrived at the edge of the marsh the chorus stopped abruptly as though a signal had been given by an invisible conductor. Nothing to do but wait! Picking a dry grassy spot a few feet from the water I sat down in the warm sunshine and watched some spiders scurrying over the pine needles in search of food.

In a few minutes the croaking was as loud as before. Slight movements could be seen on the surface of the water. Looking closely I could see the forms of the frogs, one here, one there, scattered all across the open water. Moving slowly to the edge of the marsh I got within about four



Meadows like these support great numbers of frogs.



California yellow-legged frog (*Rana boylei boylei*).

—N.P.S.

feet of the closest frog. Its throat was expanded to a bubble almost the size of its body. For each croak there was a contraction of the body. This caused the movements that I had first seen on the water. The throat remained expanded between croaks.

Singing is produced as the air from the inflated throat pouch is forced out over vocal cords in the larynx of the throat. The expanded sacs in the throat act as resonators increasing the volume of the sound. The chorus may be continued by the male frogs, sometimes for several

weeks, until the females finally come to the water for mating and laying eggs.

Although I was familiar with the mechanics of frog voices, this was the first time that I had actually witnessed the action. To me this new experience was just as though I had discovered the singing of frogs. It was the same feeling I had when I first heard the scolding of a chickadee, the raucous call of the Clark's nutcracker, the chattering of the acorn woodpecker and the melodious song of the water ouzel.

WEATHERING ALONG JOINTS

By Franklin Potter, Ranger Naturalist

Along the Big Oak Flat Road 7.6 miles from the Merced Highway is the Big Meadow overlook. On the opposite side of the road is located an unusually good example of concentric weathering in the granitic rocks.

Most rock masses are traversed by a series of cracks which are known to geologists as "joints". Joints in sedimentary rocks such as sandstone, shale, and limestone may be due to compacting and drying either in the sediments or in the rocks formed from the sediments, from strains induced during changes in elevation, or other causes. In granite and other igneous rocks the joints are often formed by contraction during cooling of the formerly-molten mass and during changes in elevation of that part of the earth's surface.

Weathering is a common geologic process affecting rock at and near the earth's surface. A homogenous rock with no joints or pores can weather only on the surface or from the surface inward, but in jointed rocks weathering processes can penetrate the rock along the joints. In many rocks such as the granitic rock in the exposure described above, the joints form a roughly rectangular pattern. Along each joint chemical and especially mechanical weathering penetrates the rock and slowly loosens it so that the mineral grains can fall from the weathered zones along the joints, thus the fractured areas slowly become more recessed. Areas surrounding the centers of rectangular blocks which are weathered only on the outer surface weather more slowly

ly and the grains tend to protrude farther from the rock mass. The disintegrated rock which may be called "granite sand" accumulates at the base of the slope or other exposure.

We have referred to the roughly rectangular pattern of the joints and the resulting blocks composing this granitic rock. Any angular boulder or cobble at the earth's surface tends to become rounded as it weathers and is reduced in size. This change in form is due to greater weathering at the corners and edges where the several zones of weathering along the surface overlap and penetrate deeper into the rock. Similarly the unaltered granite or granitic rock on a cliff face tends to be converted from rectangular to rounded masses and a series of concentric shells or rounded weathered zones develop from the joints into the previously unaltered rock. As weathering continues, more and more disintegration (physical alteration) and decomposition (chemical alteration) occurs along the joints so that such areas extend farther into the rock mass. The centers of the blocks that are bounded by joints project as rounded, convex "bosses" from the rock mass. In homogeneous, dense rocks this process is most pronounced.

At several places in this exposure on the Big Oak Flat Road a series of concentric shells or layers resemble the surface exfoliation or "peeling off" of layers of granite from the domes in the Sierra. Exfoliation at the surface has not as yet been satisfactorily explained. One suggestion attributes the formation of such rock

layers to alternate expansion and contraction occasioned by diurnal heating and cooling. Over long periods of time alternate expansion and contraction could cause layers of rock to become separated from the main mass. Another explanation attributes the formation of such layers to expansion of the granitic rock as the weight of overlying rock is reduced by long continued erosion. Granite is an intrusive igneous rock produced by slow cooling of a previously molten mass at a depth of a

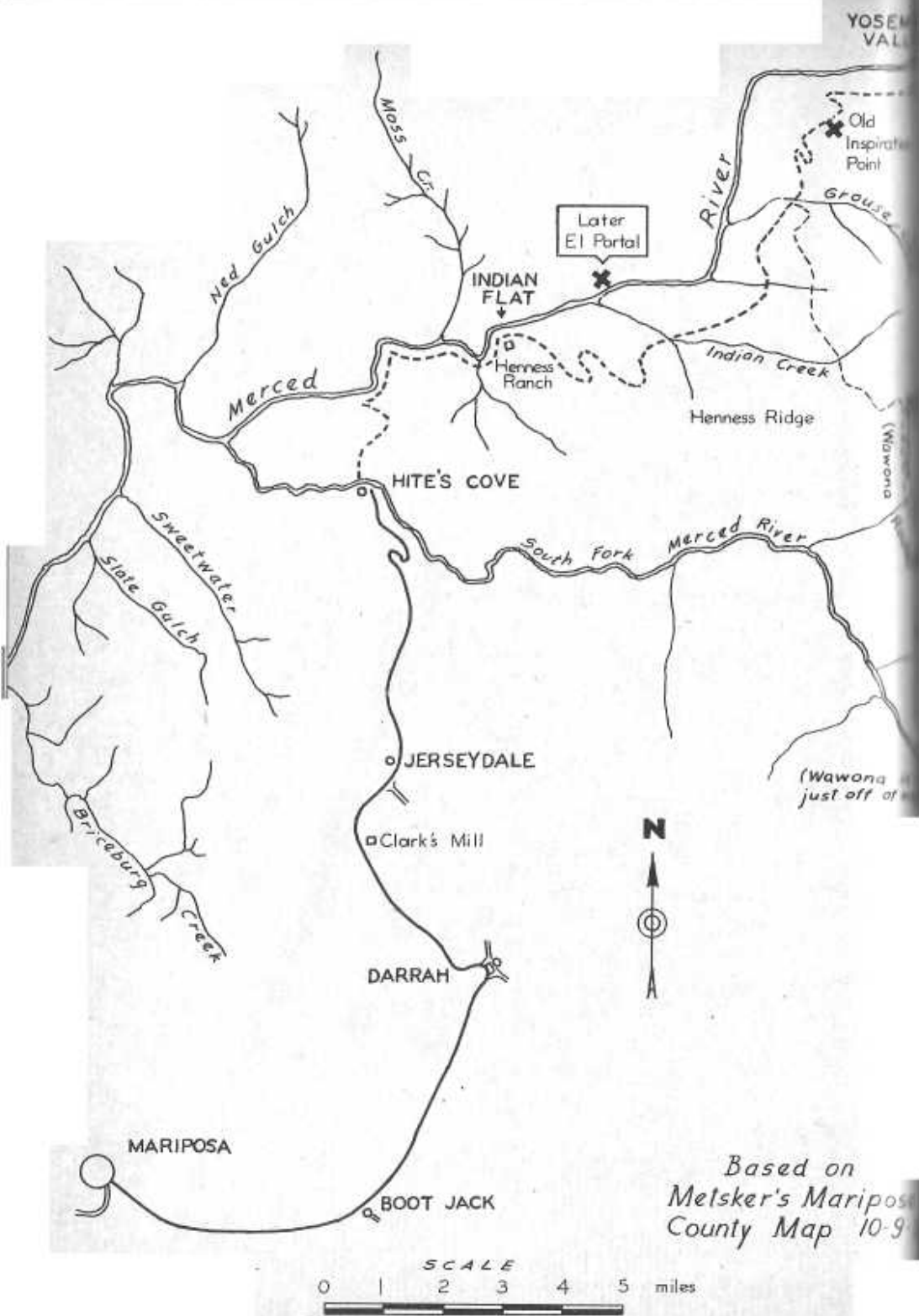
mile or more below the earth's surface. Thus the exposure of granite at the earth's surface occurs only after a considerable thickness of overlying rock has been removed by erosion. According to this concept the resulting reduction of pressure causes sufficient expansion in the granite to produce the exfoliated layers. Undoubtedly a number of factors are necessary to produce exfoliation and some time in the future a satisfactory explanation may be available.



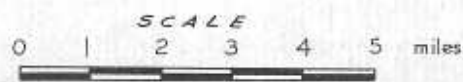
Exfoliation and fracturing along joints at Royal Arch Lake.

—Ralph Anderson

HITE'S COVE - HENNESSY - OLD INSPIR. PT. TRAIL



Based on
Melsker's Mariposa
County Map 10-9



THE HENNESSY TRAIL TO YOSEMITE VALLEY

Carl P. Russell

Yosemite mail carriers of the 1870s, '80s and '90s have left a few vague references to a winter route from Mariposa which gave access to Yosemite Valley on those occasions when snow blocked the usual routes. Rarely, a reference is encountered which indicates that a few sightseers also followed the now-forgotten trail. (See Homer W. Wood's "Gay Nineties" article, *YOSEMITE NATURAL NOTES*, January, 1951, pp. 2-5). Present-day maps may show parts of the route, but, of course, they reveal none of its history. As a matter of fact, very little of its history is known. The following news item from *THE MARIPOSA FREE PRESS*, March 24, 1871, may possibly stir some interest and encourage investigation.

NEW ROUTE TO YOSEMITE. — A subscription has been started for the purpose of raising funds to construct a good trail from Hites Cove to the Yosemite Valley. There is already a wagon road nearly to the Cove from Mariposa, by way of Clark and Cook's sawmill. It will be completed this summer. From Hites Cove the trail will cross the dividing ridge to the main

[Merced] river, thence up the river to Hennessy's [has deteriorated to "Henness" in present usage] Ranch, six miles from Hites, then will follow the river for a mile or so, and diverge from the stream [ascend into the mountains] and intersect the Mariposa Trail at the "Hermitage" [Grouse Creek]. The entire distance from Mariposa, by this route is given as thirty-nine miles, eighteen of which is by a wagon road. Aside from the distance saved, the advantage is that it avoids the heavy snow region of the ridges and hence can be traveled earlier than any other route.

This item was abstracted by the Mariposa historian, May Corcoran, while she was employed in the Bancroft Library by the Western Educational Headquarters, National Park Service, during the 1930s. Unfortunately, she did not comment upon the effects of the trail on travel trends. Wagon roads reached the Valley a few years after the Hites Cove Route was opened; nevertheless, the "snow-free" route found some use for thirty years. Some details of that use must have been recorded somewhere.

Map drawn by Dorothy Rice Armato from sketch by Dr. Carl P. Russell.



McGurk astride his Pinto.

CAPTAIN JOHN J. MCGURK

By Lloyd W. Brubaker, Ranger-Naturalist

About a mile off the Glacier Point Road, to the left as you approach Bridalveil Creek from Badger Pass, is a tumbledown cabin on the edge of a meadow. The meadow is called McGurk Meadow, and the cabin must have been John J. McGurk's, although no absolute proof of this can be found.

John, or Jack as he is often called, must have been quite a man in his day. He purchased the land from Hugh Davanay in 1895. Two years later U. S. troops took over the administration of the area. They found his title clouded and he was removed from the land. It seems that a Mr. Thomas M. Again wrongly described the land when he filed for 160 acres for a homestead. The land that Again filed for was on Illilouette Creek, one township east. The Illilouette land was all straight up and down and worthless. Again, presumably not knowing of his mistake, sold the land to Davanay, who in turn sold it to McGurk. When McGurk was so rudely made aware of the mistake, he forced Davanay to reimburse him for the erroneous title. Davanay could not induce the Land Office to trade titles; so he was unable to dispose of the cliffs of Illilouette. The end result was that the land called McGurk Meadow, on which the cabin stands, never did leave public ownership.

McGurk led an interesting and busy life in this area. He was born May 1, 1856, on the right bank of San Antonio Creek, Calaveras County, California. He ran away from home about 1868 and went to

work as a farm hand and cowboy. The hills called him back, however, and he became a "hog-man", which the *Mariposa Miner* said was several degrees higher in the social scale than a sheep man. For several years McGurk raised hogs and a general commotion in and about Oakdale, then called Fresno Flats. There he graduated to raising cattle. In 1896 McGurk moved to Nipinnawasse in Madera County, got married, and settled down. His wife, it is said, civilized him considerably. He served as a deputy sheriff under Sheriffs J. F. Clarke and J. J. Mullery of Mariposa County and John Barnett of Madera County. It appears that he was quick with his trigger finger, which was probably a valuable asset to such a position in those days. He earned the title of "Captain" when he commanded the Antirustler Company of Mariposa. He was just plain hemp poison to cattle thieves.

In 1941 an item in a Madera paper says that Jack McGurk was the Honorary Grand Marshal of an Old Timers Day parade. The ribbon he received for this honor is in the Yosemite Museum. No further information on McGurk's life has been unearthed by this writer.

The Yosemite Museum contains several other items of interest of McGurk's. These have been donated by Mrs. E. T. Schaller of Ahwahnee, Madera County, California. They include a pair of leather leggings, a deputy's badge, boots, and a very fine pistol of .44 caliber that is on display. Mr. M. B. Evans (*Yosemite*

Nature Notes, April 1951) describes the gun and notes that it did not have much in the way of holster wear. Evidently McGurk did not carry a gun except when exercising authority as deputy sheriff. The accompanying photograph of McGurk astride a pinto pony shows him to be of rug-

ged appearance, a man among men, an old timer whose brief stay in Yosemite left both landmarks and legends of interest to the visitor-historian. His old cabin will be repaired this summer, that it may help tell the story of this colorful character.

JERSEYDALE BALD EAGLE

By Allan E. Shields, Ranger Naturalist

The Golden Eagle (*Aquila chrysaetos canadensis*) is observed in Yosemite fairly frequently. During this past summer, I saw them on four different occasions while conducting hikes near Tuolumne Meadows. The Bald Eagle is only rarely reported. Thus the following incidents may be of especial interest.

On June 22, 1957, my eldest son Oakley was hunting for butterflies in the vicinity of Jerseydale, an area just southwest of Yosemite National Park near the South Fork of the Merced River, but considerably above the river (elevation 3800-4000 ft.) While sauntering through the forest, he was alerted by a giant shadow and had only time to duck to one side when the great bird flew close above him, screaming. Oakley studied the area and located a nest.

A few days later, several of us found the spot again (1½ miles down the Hites Cove Road from Jerseydale Road, then South 200 yards). Seventy-five feet above the ground this

pair of Bald Eagles (*Haliaeetus leucocephalus*) had built a crude nest of limbs, sticks and twigs on a foundation of large Ponderosa Pine limbs which formed a whorl at the spot where the trees had been broken off. Thus the nest rested on the platform as though it had been built on the top of a tall pine post.

As we watched through binoculars, we saw the female calmly viewing the small throng of human distractors, but only her top half was visible. Then we saw the male in the top of a Ponderosa Pine tree some 175 feet tall. We found him only because he screamed at us. He screamed once more, then soared off.

On Friday, August 2, we again visited the place. Of course the nest was empty. We felt privileged to have seen the national bird in an unusual habitat. But Oakley was most honored. Imagine being attacked by the national symbol!

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All mail orders should be addressed to, and remittances made payable to, YOSEMITE NATURAL HISTORY ASSOCIATION, YOSEMITE NATIONAL PARK, CALIFORNIA. Prices include postage, insurance, and on proper items, California State Sales Tax 3%, plus 1% County Tax.

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