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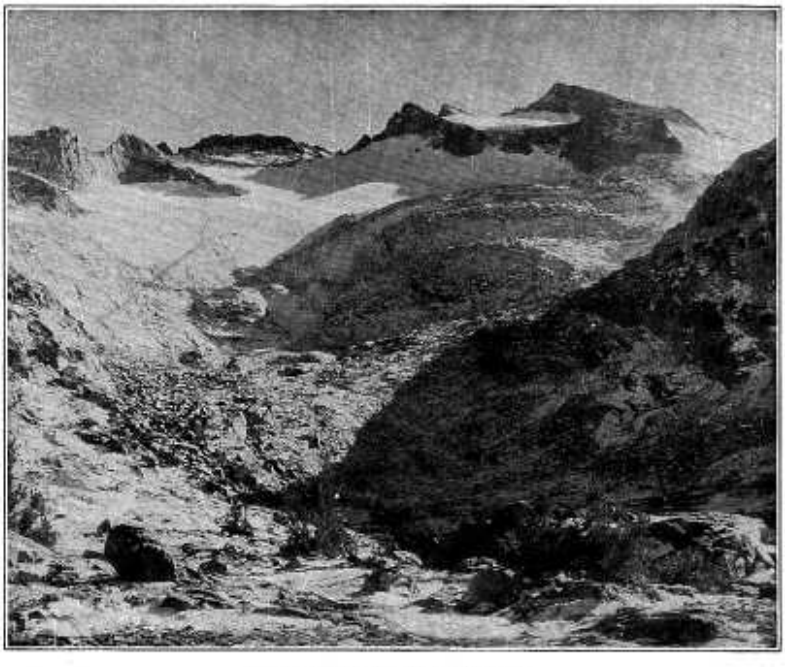

Lyell Glacier in late fall.

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UNPOPULAR RIM TRIPS

By Ranger-Naturalist Harold E. Perry

Frequently one hears the complaint that it is impossible to get away from the crowds in Yosemite and it is true that during the summer vacation months the campgrounds and hotel areas in the valley are quite crowded. The bathing beaches along the Merced River are well patronized, certain trails extending to the valley rim—such as the ones leading to Vernal and Nevada Falls, to Glacier Point and to Yosemite Falls—are also popular, and attendance at the evening campfire programs might well reinforce one's impression that it is difficult to get away from people in the valley.

May it be suggested, however, that the crowds are confined largely to the hotel and camp areas and to the highways and popular trails. All one needs to do if he is desirous of escaping the multitude is to step off the highway a few feet or select some of the more unpopular trails along which to hike. By "unpopular" is meant not that the trail is uninteresting, for the opposite is true. Some of the unpopular trails are by far the most interesting. Rather, this word is used to carry the idea of the trail being unfrequented. Three such trails rim Yosemite Valley and the purpose of this article is to direct the reader's attention to them. To be sure, they are rather strenuous all-day hikes, but they are the more valuable for a person who likes to get away from crowds, for the chances are favorable that a hiker could travel all three of these trails without meeting more than three persons, possibly not even one.

The first of the hikes to be considered is the Pohono Trail rimming the south wall of the valley from Glacier Point to the mouth of the Wawona Tunnel. This trail is particularly attractive because of the delightful high mountain meadows through which it passes. Throughout July and usually part of August, a variety of flowers blooms in these meadows with all the profusion of spring. It is an especially alluring trail, keeping one's interest whetted from the beginning of the first mile to the end of the last. For the person who likes to be alone with Nature in some of her more intimate moods, the Pohono Trail offers unusual possibilities.

The second of the hikes to which reference has already been made is

one of a slightly more strenuous nature. The climb out of the valley is made thorugh Indian Canyon, care being taken to follow Indian Creek rather closely. There is no trail except such as wild animals make and follow and because of that fact a new element of interest is afforded. Eventually the top of the Canyon is reached and one encounters the trail which leads from Yosemite Falls to North Dome. Keeping to the right

on this trail, North Dome becomes the next objective. This can be attained by the noon hour and offers a splendid panorama of High Sierra peaks as well as a breath-taking view of the valley. From North Dome, a side trip to Basket Dome is possible although rather unfruitful from the standpoint of anything new in the way of scenic grandeur.

Cutting back to the main trail from Basket Dome, one next travels a considerable distance to the north, past Indian Rock, and finally joins Snow Creek from whence the trail descends by the Snow Creek zigzags into Tenaya Canyon a short distance east of Mirror Lake. It is a fairly strenuous one-day hike, but for the person who desires solitude in his hiking, it has its rewards.

The last of the trails being considered in this article is the one from the Big Oak Flat Road, three-tenths of a mile beyond Gentry to the top of El Capitan. One of the features of this trip is the magnificent red fir forest through which the trail passes. At one place, an island of Hudsonian Life Zone is found in the midst of the predominating Canadian Zone. Mountain Hemlock (Tsuga mertensiana), Red Heather (Phyllodoce breweri), Labrador Tea (Ledum glandulosum), and Kalmia (Kalmia polifolia) bespeak of life on a higher elevation and bring thrills to the observer. At Ribbon Meadows, a luxuriant array of flowers awaits the infrequent visitor and pools of water are gaily bedecked with Water Lilies (Nymphaea polysepalum).

The trail at last finds its way to the top of El Capitan where one is impressed with a new perspective of the valley and the High Sierra and with the storm-swept appearance of the Jeffrey Pines found on El Capitan, for in many instances their branches all point in one direction.

The hike from Gentry to El Capitan can be taken in a somewhat leisurely manner for the distance is not great. The variety of floral and scenic offerings is unusually rich along the trail and this trip too can be taken with little or no chance of meeting a fellow traveler.

So it is possible to get away from the crowds in Yosemite Valley, and those more venturesome individuals who are willing to travel beyond the rim on some of the more unpopular trails are rewarded with the fruits of solitude.

ECOLOGIC RELATIONSHIP OF THE LARGE TERMITE

By Ranger-Naturalist Lowell Adams

In Yosemite Nature Notes for December, 1937, my account of "unidentified insects" being eaten by woodpeckers and bats was published. Just one year after those observations were made the same species of insect was again observed under almost the same conditions. This time they were flying out of a rotted tree stump that had been left by insect control operations at the El Capitan-South Road intersection in Yosemite Valley. Attention was called to the insects, as I drove along, by the presence of several different species of birds that were congregated to feed on them. A male Western Tanager, a Western Robin, a male Black-headed Grosbeak and two Blue-fronted Jays were perched in nearby trees. From time to time one or the other of these birds flew out from its perch, flying almost straight up for two or three yards, then, with folded wings and outstretched bill the bird "stalled" in mid-air. Although the insect could not always be seen it was evident that one was taken each time such a vertical sally was made. After the stall, the bird (especially the jay) often seemed to fall back tail first making a backward loop till its head was directed downward, then it spread its wings and soared back to its perch. When I stopped and got out to investigate the scene I found the insects emerging in great numbers from many holes in the stump. During the maximum flight 100 individuals were counted emerging from one of the holes in three minutes. My presence seemed to frighten away all the birds but the jays. They, too, soon left and were replaced by a number of bats. At first there were two bats but within a minute or two there were about 100 individuals darting about. By their size as seen silhouetted against the evening sky I could see that there were at least two species represented. Before the arrival of the bats many of the insects were seen to get away without being detected by the birds, but after the bats had congregated and the flight had somewhat abated not a single insect was seen to escape.

Specimens of the insects were later identified by Dr. Stanley F. Bailey and Mr. R. M. Bohart of the University of California, Department of Entomology, as The Large Termite (Termopsis angusticollis Hagen). As their colony in the stump becomes overcrowded or other adverse conditions arise, sexual forms, distinct from the workers and soldiers are developed. These sexual forms are provided with wings so they can fly out to other localities to establish new colonies. They usually swarm in the manner described above during the cool evening or after a cooling rain.

Apparently this habit of crepuscular flocking has disadvantages for the termites. The number of predators is greatly increased at this crit-

ical time of day because of the fact that the birds are still engaged in their diurnal foraging at a time when the bats have already begun their nocturnal quests for food. Thus the termites are victims of a multiple dose of predation. Possibly the great abundance of the winged forms constitutes an adaptation to such adverse ecologic relationships.

WILSON PHALAROPE, NEW BIRD FOR YOSEMITE

By Park Naturalist C. A. Harwell

On June 21, 1938 I took the twenty students of the Yosemite School of Field Natural History on their first field trip of the season, to study birds. We were able to identify more than thirty species that day, one of which becomes number two hundred three on the check-list of birds of Yosemite National Park. It was a Wilson Phalarope (Steganopus tricolor), a new record for the park. We flushed it from the lily pond in the Sentinel Meadow at nine o'clock in the morning. It flew in wide circles over the meadow alighting several times in the tall grass. Before we could make determination sure it flew down river and disappeared. In the afternoon we discovered the bird in Leidig Meadow. It was walking on the muddy margin of the pool, making sudden dabs for food, and allowed us to approach to within sixty feet. We could plainly see a broad bluish gray band extending from the top of the head down the back of the neck, bordered by deep chestnut, and a broad black stripe from the eye down the sides of the neck. It was unmistakably a female Wilson Phalarope, a species we should expect to find occasionally in Yosemite since they nest in the San Joaquin Valley and east of the Sierra Nevada.

NESTING OF THE AMERICAN MERGANSER IN YOSEMITE NATIONAL PARK

By Bert F. Jones, Oakland, Calif.

Nesting records of the American Merganser (Mergus merganser americanus, are rare in the Sierra Nevada. No reports, to my knowledge, have been published concerning the nesting of this bird in Yosemite National Park.

At eleven o'clock on July 28, 1938, Mr. Jack Garrison, a resident of Mather, handed me a fledgling American Merganser, caught three hours previously. The birds was captured on top of the O'Shaughnessy Dam one hundred feet from the south end. The dam forms the Hetch Hetchy Reservoir lying in the northern part of the park at an elevation of 3812 feet.

No additional young or parent mergansers were noted in the immediate vicinity of the dam at the time of capture or on a trip taken by me on the following day.

The active young bird died approximately twenty-four hours after the time of its capture. It is now a specimen, No. 487, in the Yosemite Museum. From comparisons with mergansers in the Museum of Verte-

State Zoology, University of California, I believe the bird was between six and ten days old when caught. The identification was verified by Dr. E. Raymond Hall of the University.

In view of the circumstances under which the bird was found it is improbable that this fledgling was left on the dam by human beings. And yet finding a single young bird waddling on the structure which would be exceedingly difficult for it to mount, is baffling. Dawson, in "Birds of California" states: "Like the golden-eye, this shelldrake (American Merganser) usually occupies a hollow tree or stub for a nesting site. The young, when hatched, require to be transported to the water in the maternal beak."

Everything considered, it appears probable that in 1938, young mergansers were raised on or in the vicinity of the Hetch Hetchy Reservoir establishing a new park record.

PIGMY OWL PREYING ON BIRDS

By George Osborn Hale, Field School '38

Twice within a week a Pigmy Owl was seen at Camp 19 in Yosemite Valley in the act of killing a bird. The first killing occurred at dusk on June 21, 1938 at about 7:30 P.M. The prey species was not actually determined, but it appeared to be a Thurber's Junco. In any event it was a bird well feathered and not a nestling. Rising from low bush the owl flew with its victim to a limb of an Incense Cedar where it finished the killing. All efforts to make the owl drop its prey were futile.

About seven o'clock one evening the loud scolding of Black-headed Grosbeaks was heard on the talus slope in back of Camp 19. Investigation showed that a Pigmy Owl had captured a young grosbeak and had just killed it. The owl heavy laden flew off across the talus slope into a grove of trees. It was probably feeding young as after the kill it went toward the wooded region southeast of the Old Village in much the same direction as it had gone after the first killing.

It is the general belief that Pigmy Owls do not prey on birds to any great extent, but for the most part confine their attention to small rodents and lizards. Perhaps the explanation for the killings observed at Camp 19 lies in the fact that during the nesting season the owls are so pressed for food for their young that they are driven to prey upon birds as well as their usual prey species.

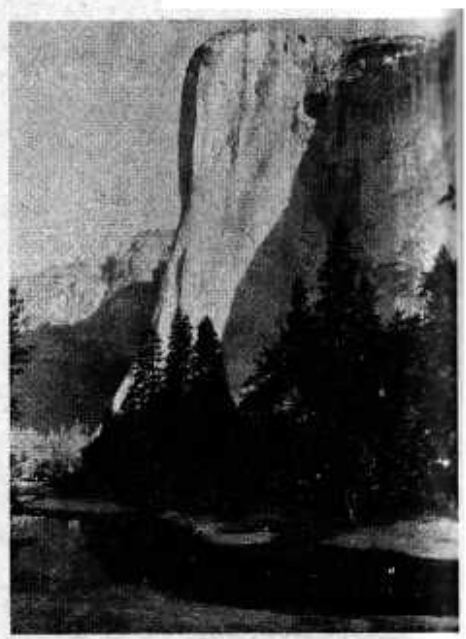
Observers: Holdenreid, Hale, Leraas.

THE YELLOW PINE GROWING IN THE FACE OF EL CAPITAN

By E. C. Smith, Engineering Department

In April, 1936, the engineering department of Yosemite took measurements of the pine tree growing in the face of El Capitan and found it to be 80.5 feet high and that the distance from the top of the tree to the overhanging ledge just above it was 8.35 feet. This settles quite a long-time argument.

The location of this tree is so unique that it has proved of great interest to park visitors. It is visible from the highway and is pointed out daily by bus drivers and by ranger-naturalists while personally conducting their auto caravans. The determination to measure the tree came especially as a result of a conversation carried on between Park Naturalist Harwell and Major Bowes during a transcontinental broadcast from New York the month before. In this broadcast Major Bowes stated he had heard the tree was seventy-five feet tall upon his last visit to the park some thirty or so years previous. The Park Naturalist replied that he understood the tree was eighty-seven feet tall. Letters began coming at once and newspaper stories appeared so the argument needed to be settled. A base line was set up in the meadow near the Merced River and by a triangulation survey the height of 80.5 feet was obtained. The tree is growing almost perpendicular and is a healthy specimen though apparently growing very slowly. It is a Yellow Pine more than likely of the Jeffrey variety. The seed was perhaps planted on this inaccessible ledge 1156 feet above the valley floor by the wind or water carrying it down from the crest of the El Capitan cliff nearly 2000 feet above.



This tree is an especially fine index to the great height and size of El Capitan because it is located by the naked eye only with some difficulty and its 80.5 feet height looks so insignificant in relation to the great expanse of granite exposed. Dr. F. E. Matthes of the United States Geological Survey has declared El Capitan to be the largest monolith of granite exposed anywhere in the world. The following data taken from the United States Geological Survey Map of Yosemite Valley are pertinent.

Length of El Capitan, 8850 feet or 1.66 miles.

Average height between top of talus slope and top of cliff 1730 feet.

Greatest height between top of talus and top of cliff 3000 feet.

Height of summit from Valley floor 3604 feet.

Area of vertical faces of El Capitan (between top talus slope and top of cliff) 350 acres.

GOLDEN EAGLE CONTROLS GROUND SQUIRRELS IN YOSEMITE VALLEY

By Wildlife Ranger Otto Brown

Some help for the wildlife division in their ground squirrel control program is developing from above. October 21, about 5 p.m., while driving through the Curry apple orchard, we saw a young Golden Eagle on the ground working on the carcass of a California Ground Squirrel. The eagle was so busy that our car was driven within fifteen feet of it before it flew away, alighting in a nearby yellow pine to await a time it was safe to return. An inspection of the ground squirrel revealed that a small hole had been torn in the neck and through this hole the visceral organs removed.

The eagle had a wing spread estimated to be between three and one-half and four feet. The occurrence was witnessed by myself, and Rangers McKim and Garrison. On Wednesday, October 26, I again saw an eagle in about the same place with another ground squirrel. It is unlikely that these squirrels were carrion from automobiles running over them and it is reasonable to assume that the eagle had caught them itself.

SUDDEN DEATH

By Ranger Naturalist Arthur Carthew

During late summer Sierra Chickarees were very busy harvesting maturing cones of the sugar pine. The cones were nibbled around the base until they dropped to the ground where the squirrels proceeded to obtain the nuts by stripping off the scales. In order to save time and energy the little animals cut down a number of cones at a time. Unfortunately they could not direct the cones in their fall and some lit on the highways. As a consequence many squirrels died sudden deaths from automobiles while harvesting cones on the roads. Far more would undoubtedly have been killed if it were not for the popularity of the cones, which do not remain on the roads long before some park visitor stops a car to gather them in. Though the squirrels chattered out quite a scolding to each tourist who thus cut in on the harvest they perhaps inwardly were thankful to the drivers who slowed down or stopped because their very lives were saved.

LEWISIA KELLOGGI

By Ranger-Naturalist Enid Michael

I first saw Kellogg's Bitter-root on July 4, 1909. That year all the level gravel-flats on the top of El Capitan were starred with the beautiful

white flowers. The plants fairly hugged the ground and the large white blossoms looked like water lilies afloat on a sea of sand.

Eleven years later a trip was made to the top of El Capitan in hope of again seeing this rare and lovely Lewisia. We found the flowers, but only as scattered individuals. Across the granite flats where they had been so numerous were many pits and around these pits were the remains of a few dried leaves. It was quite evident that some sort of small animal had systematically dug up and consumed the fleshy roots. During the years that followed the plants were consistently harvested until they had become practically exterminated from the flats.

Seemingly the Lewisia kelloggi is very selective in its choice of habitat and the ideal situation is found on the granite pavements where basins have become filled with coarse sand at elevations of from six to eight thousand feet.

For ten years Mr. Michael and I have been watching the struggle for existence of a small colony of Lewisia that is located on a granite flat just off from the Big Oak Flat Road. There were several years when we thought the last member of the colony had been destroyed, but when spring came again we would manage to find a plant or two. This year (1938) we visited the flat on June 17 and we were thrilled to count 57 healthy looking plants. We looked forward to the day when the little gravel-flat would float the dainty blossoms. This Lewisia usually blooms during the first week of July, but this being a late season we did not again visit the Lewisia colony until July 10. We found the little flat pitted with holes and of the 57 plants that had been seen only one remained. This plant had three lovely blossoms.

Strange to say, the low-growing, gray onions that are always companions of the Lewisia are never molested by the rodents that are doing their best to wipe the Lewisia out of existence.

"And Then it Began to Rain Toads and . . ."

By Ranger-Naturalist C. Ahrens

On July 26, 1938, the day of our mid-summer flood, those auto caravaners who had braved the showers were standing beneath the trees in the meadow below the Old Village. The facts about Yosemite Falls, that are usually discussed at this point, were ignored for a while until everyone had exclaimed over the myriads of tiny tree toads that were clinging to every grass blade. The region was alive with them; they reminded one of the swarms of lady-bird beetles we had seen earlier in the summer. Someone remembered the plague the Lord had "visited" upon the wicked King Pharaoh. When the question of a natural enemy of the Hyla arose, three robins hopped in and greedily answered it.