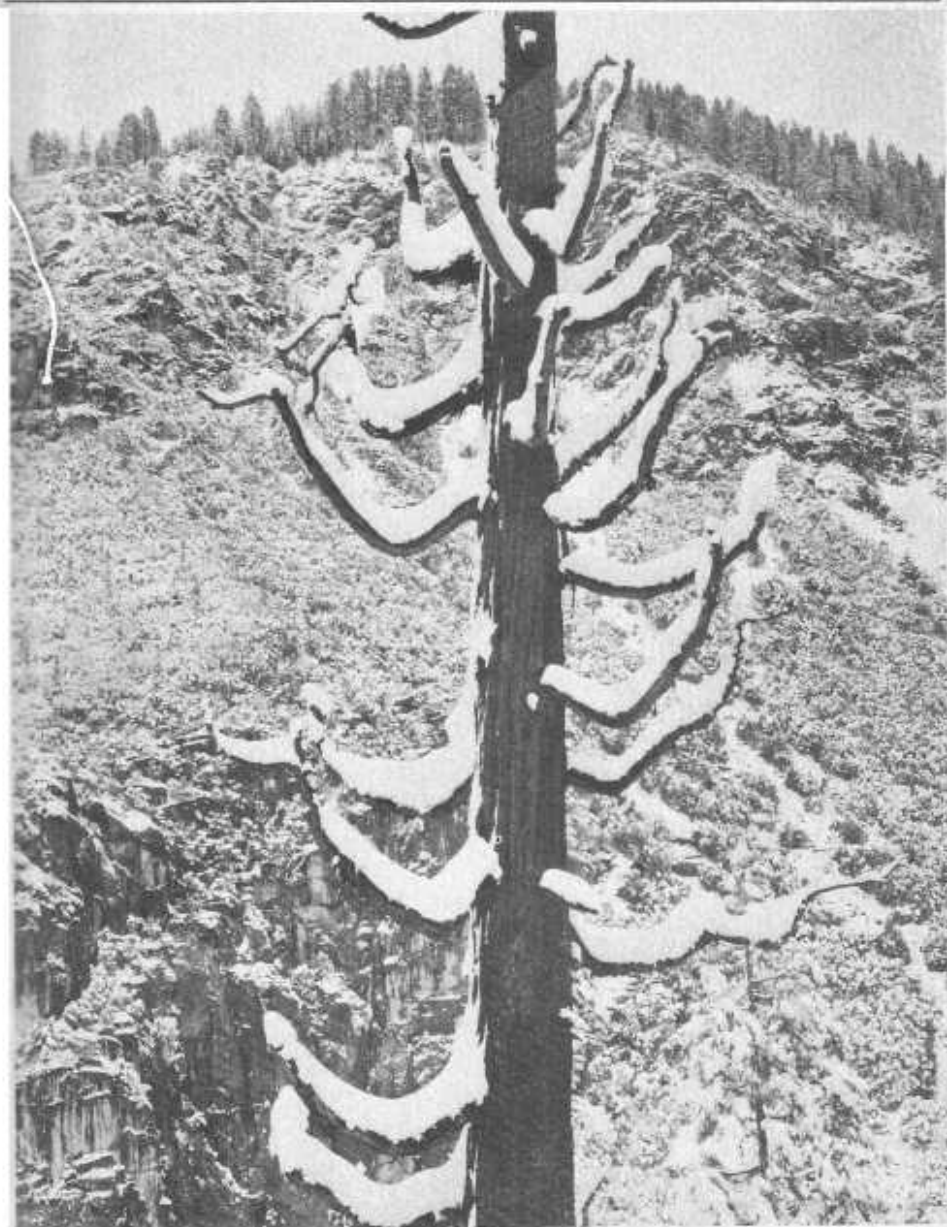


# YOSEMITE

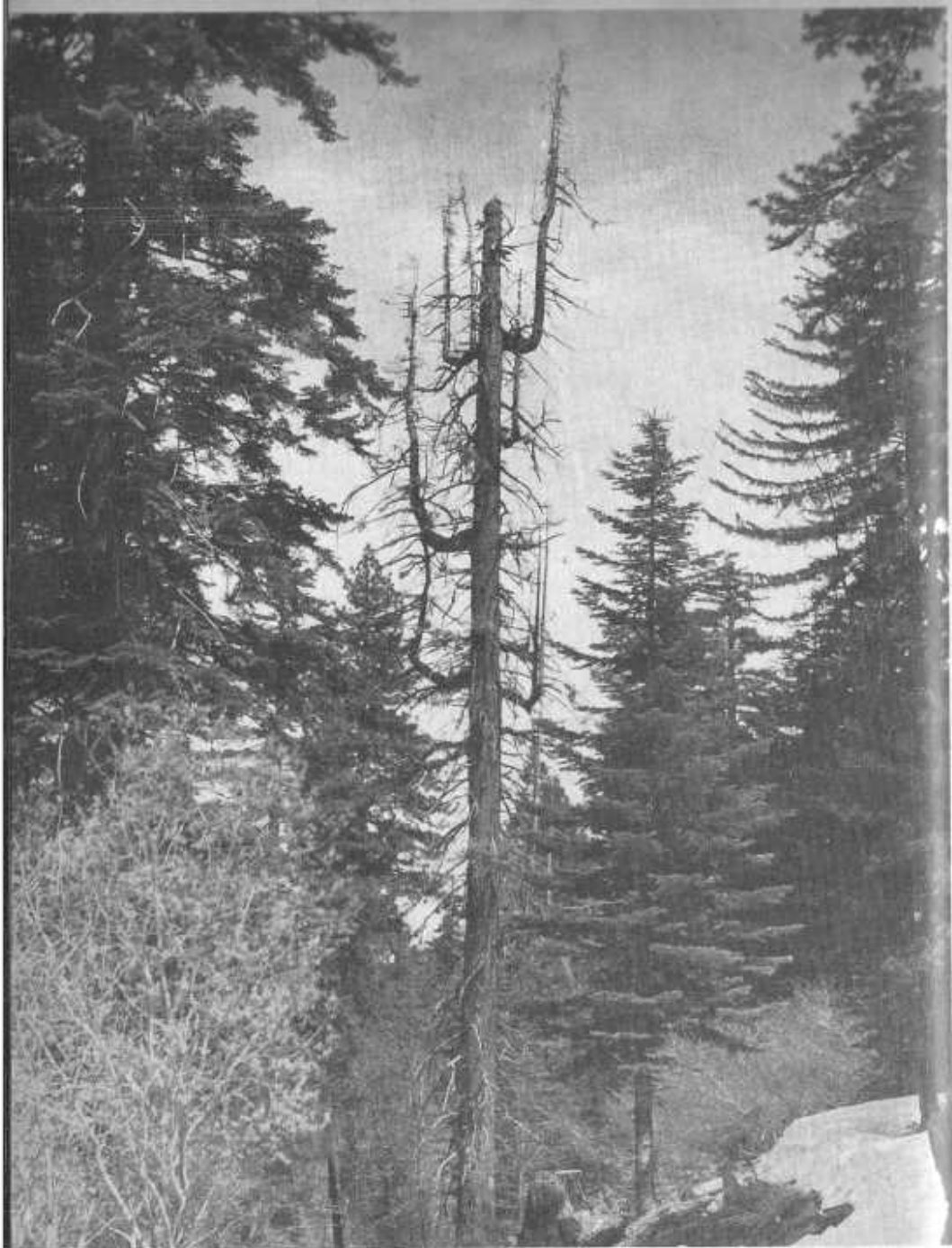
NATURE NOTES

VOLUME XXXVII - NUMBER 1

JANUARY 1958



WINTER, YOSEMITE VALLEY SNOW ON INCENSE-CEDAR  
—Ansel Adams



White fir — showing how branches replace broken top.

—Harvell

# 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 WOUNDED FIRS OF GLACIER POINT

S. A. Karlin

Time and time again park visitors ask the naturalists at Glacier Point about the dead tree tops in that vicinity. The usual question is, "Ranger, did lightning kill the tree-tops?" The fact of the matter is that lightning seldom strikes this area. Actually it is difficult to give the inquiring visitor a satisfactory answer.

"What, then, is responsible for the injured trees?"

It must be pointed out now that the trees in question are mainly two species of fir: red fir (*Abies magnifica*) and white fir (*Abies concolor*). The naturalist can only offer two reasonable explanations:

First, there are the bark-boring beetles. Many of the dead fir tops have portions of the bark weathered off. In these exposed areas beetle canals can clearly be seen. Usually these trees have a specific beetle enemy. This is not so in the white and red fir for it is attacked by the beetles called *Scolytus subscaber* and *Scolytus ventralis*. These girdle the tree from within and interfere with the movement of food and water. This eventually kills the tree-top and in many instances the entire tree.

Second, there is mistletoe. This parasite is known scientifically as *Pboradendron bolleanum*. The mistletoe apparently chokes off circulation of water past the point of its attachment. In this manner the tree-top becomes water starved and eventually dies. Multiple tops may arise when the terminal growing bud is killed. This is typical among most conifers. Multiple tops develop in a simple manner by the uppermost living whorl of branches turning its growing ends upward. Trees with such tops have but a slim chance of survival because the root systems must be able to keep up with the demands of newly-formed and vigorously growing multiple tops. Soil environment may not be favorable to such an increased demand. Even when conditions are good the old mistletoe infection may send new parasitic roots downward and deep within the sapwood. The tree reacts by putting out numerous short, twisted branches in the infected area. This growth is short-lived. The end product is a tangle of dead branches and twigs often called "witches broom."



Fir with multiple top.

It is an odd sight indeed to see an apparently healthy lower half of a fir tree with a dead top. There seems to be sufficient vigor in the lower half of the tree to keep ahead of the beetles and mistletoe. Perhaps, during the destruction of the tree's top, a large portion of the root system was affected by the diminished food supply usually manufactured in the tree top. An eventual result would be the dying back of part of the root-tips. All of these factors weaken the tree. A weakened tree falls easy victim to the enemies of the forest: fungus disease, insect invasion, and fire.

Perhaps nature has a system of checks and balances working here. This is difficult to determine. When we have a series of wet years, the trees have plenty of moisture in the sap which is used to drown out the beetles. It is during dry years that the beetles get out of hand. Perhaps human inroads in the form of too many pathways have also disturbed the accumulation of humus on the ground. This can make the soil less suited for proper root development.

The Glacier Point firs are under attack! They have been wounded by beetles and mistletoe. Will they also fall victim to other forest enemies? Time alone will tell.

Broken tops of firs are quite common.

—Bullard



## 1957 CHRISTMAS BIRD COUNT IN YOSEMITE

By W. J. and Erma Fitzpatrick

The annual Christmas bird count taken in and adjacent to Yosemite National Park between El Portal (elevation 2,000 feet) and the top of the ski lifts above Badger Pass (elevation 7,900 feet) and including Yosemite Valley, was conducted on December 28, 1957 under the same ideal conditions as last year. Clear skies, no wind, and relatively mild temperatures characterized the occasion. Temperatures ranged from 28° to 55° with snow and ice being encountered only from about 4,000 feet upwards.

Eighteen observers, working in five parties, recorded 65 species and 1,504 individuals. The species count constitutes a new record for this event; the previous high being 60 species listed in 1954. As usual, the larger numbers of both species and individuals were seen in the upper Sonoran zone in the vicinity of El Portal. Outstanding finds were that of yellow-shafted flicker (*Colaptes auratus borealis*), and a spotted sandpiper. The yellow-shafted flicker, seen at El Portal, was a new record for the Christmas Count and is, so far as we are able to ascertain, the only reported occurrence for the Yosemite area. The spotted sandpiper was a new record for the Christmas Count and constitutes a new December record for the Yosemite area.

The detailed count follows: Great-blue Heron, 1; Cooper Hawk, 2; Red-tailed Hawk, 7; Golden Eagle, 2; Sparrow Hawk, 2; California Quail, 5; Spotted Sandpiper, 1; Mourning Dove, 52; Pygmy Owl, 2; White-throated Swift, 10; Belted Kingfisher,

3; Yellow-shafted Flicker, 1; Red-shafted Flicker, 23; Pileated Woodpecker, 26; Red-breasted Sapsucker, 2; Hairy Woodpecker, 3; Downy Woodpecker, 5; Nuttall Woodpecker, 2; White-headed Woodpecker, 8; Black Phoebe, 9; Stellar Jay, 71; Scrib Jay, 27; Mt. Chickadee, 59; Plain Titmouse, 8; Common Bushtit, 17; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 6; Brown Creeper, 21; Wren-tit, 11; Water Ouzel, 13; House Wren, 1; Winter Wren, 2; Bewick Wren, 2; Canyon Wren, 5; Rock Wren, 1; California Thrasher, 2; Western Robin, 44; Varied Thrush, 26; Hermit Thrush, 6; Western Bluebird, 20; Mountain Bluebird, 15; Townsend Solitaire, 6; Golden-crowned Kinglet, 219; Ruby-crowned Kinglet, 38; Cedar Waxwing, 18; Hutton Vireo, 2; Audubon Warbler, 24; English Sparrow, 21; Brewer Blackbird, 4; Evening Grosbeak, 22; Purple Finch, 19; Linnet, 33; Pine Siskin, 69; Lesser Goldfinch, 2; Spotted Towhee, 44; Brown Towhee, 42; Lark Sparrow, 105; Rufous-crowned Sparrow, 3; Slate-colored Junco, 4; Oregon Junco, 220; Gambel Sparrow, 6; Golden-crowned Sparrow, 58; Fox Sparrow, 2; Song Sparrow, 7.

White-headed woodpecker.

—Harwell



## YOSEMITE NATURE NOTES

### RANGER, WHERE ARE THE FISH?

By Dick Jackson, Ranger Naturalist

During the many pleasant duties of the summer seasons, the ranger naturalists are often confronted with the problem of supplying an answer to the popular question of, "Where can we find some fish?"

Yosemite National Park has a fine trout planting program which supplies the fishermen with quite a variety of kinds and sizes of trout. But this is not an adequate answer for the fishermen. In order to supply myself with some of the information that the fishermen might want to know I felt it would be best to get out and try some of the lakes and streams. It was with this motive in

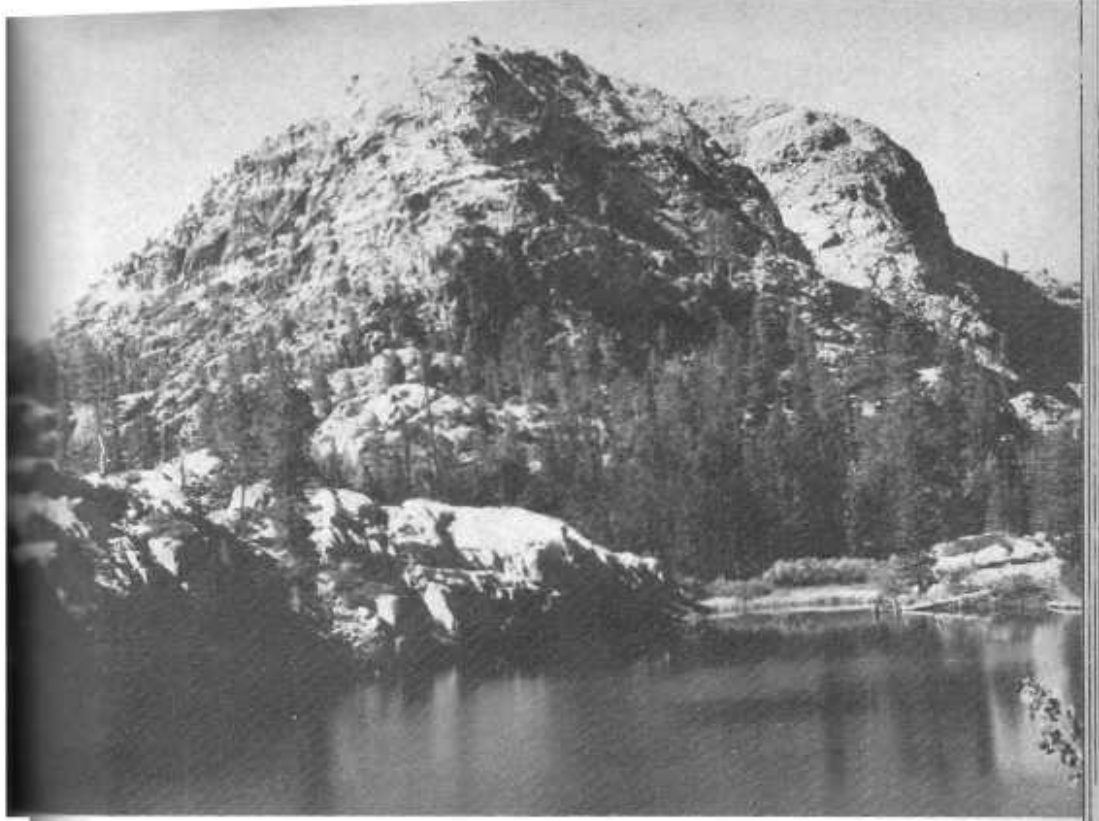
mind that John DeWitt, Yosemite museum assistant, and I planned a short trip into the "north country" of Yosemite.

Leaving Yosemite Valley one evening shortly after work we journeyed by auto to Hetch Hetchy, elevation 3660 feet, the starting point of our fishing trip. The first four miles followed the road to Lake Eleanor, climbing up above the reservoir. One cannot help but marvel at the beauty of the massive walls of rock forming the sides of the Grand Canyon of the Tuolumne, especially with the glow of the setting sun late in the evening. A fine view of Kolana

Hetch Hetchy Reservoir from the north trail.

—Anderson





Jack Main Canyon near Paradise Valley has many small unnamed lakes like this.

—Anderson

Rock is the reward of this part of the hike. Meeting a well marked trail junction we continued on up the Jack Main Canyon trail with Beehive our destination for the first evening. The still of the evening was broken by the whistle-like song of the poor-will (*Pbalaenoptilus nuttalli*). After hearing a continued series of songs, we were fortunate to spot our whistling friend along side the trail on a rocky terrain. This was my first opportunity to observe this rather unusual, whiskered bird. As darkness approached we were happy to see a friendly camp-fire in the distance as we neared the beautifully meadowed area called Beehive, elevation 5600 feet. After a warm cup of coffee and some chatting around the campfire we were ready for sleep. Seven miles of walking and 3000 feet of climbing makes one appreciate a good warm sleeping bag. Even the mountain coyote, with its weird calls

from the distant ridges, seemed to realize that the evening was coming to a close.

Our awakening in the early morning was almost as sudden. A deer made a quick trip through our camp, while at the same time mother nature was releasing some of her moisture from the clouds above. The few drops of rain were just enough to make the morning air fresh and cool. As we enjoyed our warm breakfast around the campfire our thoughts drifted back to some of the early history of the old cabin at Beehive, the wonderfully cool natural spring, and the interesting activities of the early pioneers and cattlemen. A quick re-packing of our gear and we were on our way up Moraine Ridge heading towards Paradise Valley.

The hike along Moraine Ridge, down to Paradise Valley, and up to the start of Jack Main Canyon was one which was well rewarded with

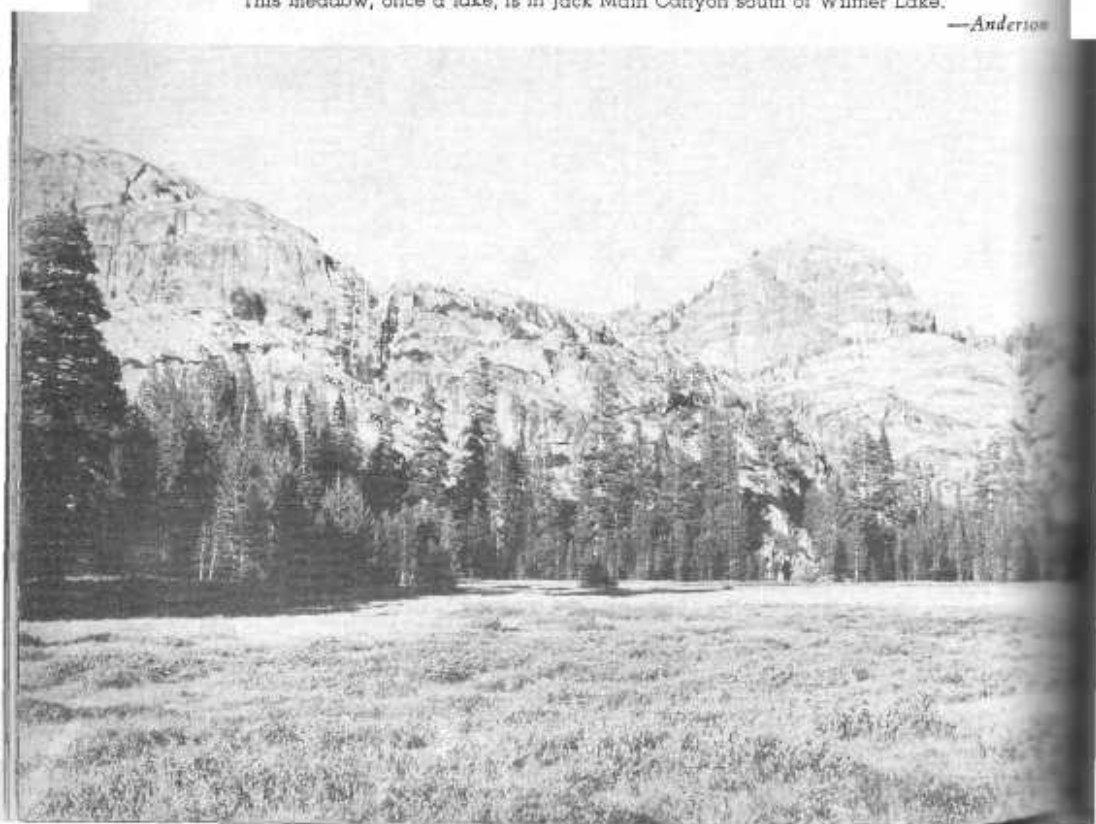
many interesting features of nature. The late July climate seemed suitable for an abundance of both plants and animals; many species of both were observed. We felt that it was somewhat unusual to spot five coveys of mountain quail (*Oreortyx picta*) at different places along the trail. The most memorable part of the hiking trip developed as we dropped down from the dry Moraine Ridge and moved up into the cool Paradise Valley, elevation 8000 feet. Many small, shaded meadow areas swallowed up the trail, and I never will forget the freshness of one of these little glens with its head high bracken fern and cornlily, and the smaller under-growth coloring from the spirea, lupine, senecio and paintbrush. The trail was hardly visible through the plant growth, but as we found our way through the glen and

out into the open, we spotted on a glacial polished granite ridge just in front of our view the king in his domain. A splendid four point buck, with beautiful physical growth as evidence of his plentiful food supply, looked us over once or twice before moving slowly on over the next ridge. A sooty grouse hen (*Dendragapus fuliginosus*) and her covey of chicks were not quite as anxious to eye us as we moved up towards the upper part of the valley, but instead moved hurriedly along under the low-growing plant life. The hen tried very hard to lure us away from her chicks as she moved slowly in the opposite direction, faking an injury and then flying away suddenly after her young were safe.

After a pleasant lunch stop along the slow meandering Paradise Valley stream, we left the valley and

This meadow, once a lake, is in Jack Main Canyon south of Wilmer Lake.

—Anderson







Innumerable meadows such as this are passed in the Jack Main Canyon and are typical of the high country.

—Anderson

moved up over the last two miles of our trip. Here we reached our destination for the second night, Avonelle Lake, elevation 8500 feet. We were quite interested in sampling the size of fish, so after hurriedly setting up a camp we whipped out our spinning outfits and started working around the lake. Not meeting with success in our first hour of casting, we continued to throw lures at the fish. But now we started to notice and comment upon the nestled beauty of the lake. Avonelle is a lake with deep blue color, surrounded by steep granite cliffs, seldom visited by the hikers of the north country. It is not on a regular trail. The fishermen must leave the Tiltill Valley trail and cross-country over easy terrain for approximately the last half mile of the trip. My first strike caught me looking around at

the beautiful country and therefore unaware of the size of the competition at the other end of my fishing line. The nice big rainbow won in record time as he freed himself of the silver "Wobble-right" lure after a couple of high shaking leaps into the air. In the next half hour four more of the big fellows were interested in taking a chance with the silver lure, and always they were successful in either taking the lure with them or shaking it loose with a series of violent leaps out of the water. Having had the opportunity to get a good view of these tackle-busters while attempting to land some of them, we noticed that the run of size seemed to be between 16 and 24 inches. Their coloration was very dark, characteristic of a deep lake, and the band of coloring down their sides was extremely bright and

beautiful. As the shadows of late afternoon began to hit the granite walls of the opposite side of the lake we made haste to prepare dinner and get in some more fishing during the late daylight hours. The fish were not active near the surface, so we decided after dinner to once again attempt to lure the big fellows out of the deep water with our spinning outfits and lures. The evening became still and peaceful as the water surface turned to a glass-like mirror finish. Meeting with little success I decided to retire to my sleeping bag early while my partner continued to throw a few more "Flat-fish" lures at the big ones. The slumber of the night was rudely interrupted as my partner held two wet Rainbows over my head. He was ready to hit the hay after having successfully won the battle with two of the seventeen inch fellows.

The next morning we were up bright and early, ready to catch a few more before we had to return to

work. (We were not up early only because of the thought of catching more fish; we had slept all night on a nest of big black ants!) A couple more hours of working for the big ones was enough to let us know that they were not too active, so unhappily we had to eat breakfast, pack up, and return to Yosemite Valley. On our way back through Paradise Valley we could not resist throwing our lines in the water. We were well rewarded with rainbows from six to 12 inches, and spotted some in the stream up to 15 inches.

After climbing some five thousand feet and hiking approximately forty miles we were pleased to return to our soft beds, but only with the expectation of returning soon to Paradise Valley and Avonelle Lake where we know there are a lot of fish to catch. To lure the big ones out of the deep holes is worth many hours of trying. You can be well assured that I will be back after some of these fine trout in Yosemite National Park. How about you?

Rewards like this one are waiting in the backcountry.

—Anderson



## THE SELF-APPOINTED GREETERS OF YOSEMITE

By C. F. A. Powell, Ranger Naturalist

Large and conspicuous, deliberate and colorful, raucous and alert, the Steller Jays (*Cyanocitta stelleri*) of Yosemite are a constant source of amusement and comment by Glacier Point visitors.

Although obviously a jay, visitors constantly ask the genus and species of the large blue birds, often 12 to 13½ inches in length, with the elegant, black, pompous crest. Bolder than many birds, as colorfully changing from day to day as Yosemite's cirque lakes, these gregarious birds make themselves as obviously a part of the Yosemite scene as Half Dome or the high peaks of the Sierra. Described by one visitor as the birds with the blue-grey breast, another will counter with the observation, "I saw one that was a dark cobalt blue". True it is, that the color variations of these jays range from blue-grey to in some cases a definite, sleek, cobalt blue.

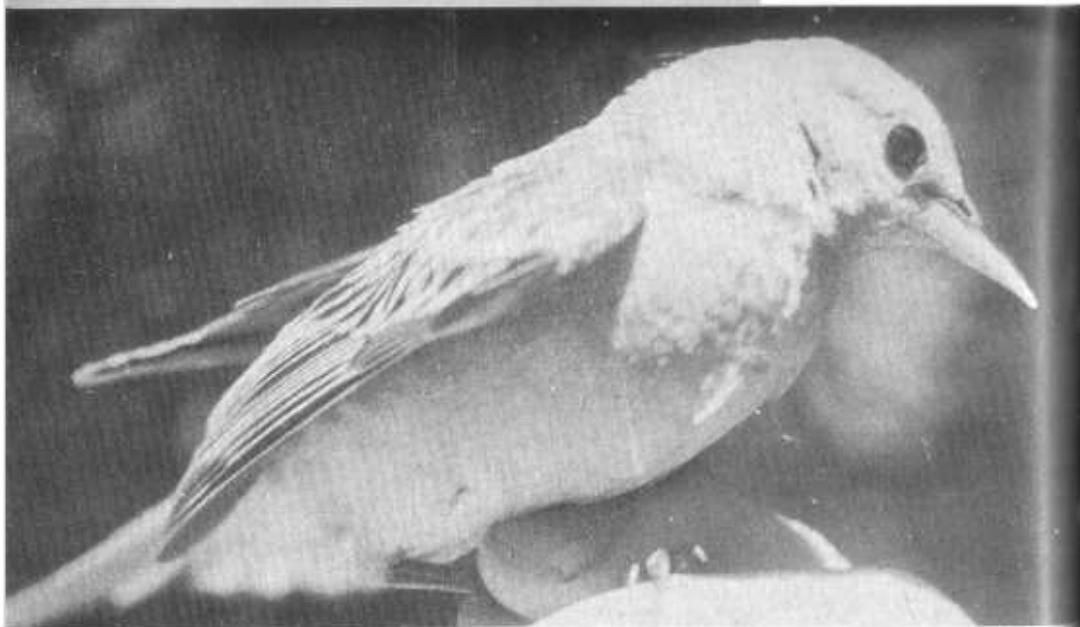
Even more striking than color, perhaps, are the attitudes, activities, and calculated behaviorisms exhibited by the Steller jays.

To the jays has been attributed a relatively keen sense of intelligence and sagacious behavior that sets them apart from many birds that act only on instinct or habit.<sup>1</sup> To support this claim one has to but see the large numbers of Steller jays that inhabit the Jeffery and sugar pines, and the red and white firs, not only around Glacier Point, but in the Transition and Canadian life zones anywhere in California. Their very abundance is testimony to their adaptability and to their success in competition.



Stellar Jay

In a small red fir (*Abies magnifica*) at the Glacier Point campground as many as twenty-three Steller jays have been seen at once, perched each morning and noon for a period of six weeks. Seemingly not just any red fir would do; this particular one was located within easy proximity of the four ranger naturalist cabins. Ranger naturalists being rather permanent summer residents, daily trips to the garbage can were usually necessary after breakfast and lunch. Wisely, the jays maintained a vigil for crumb or crust lost on those trips to dispose of scraps. Be the tidbit cereal, meat scraps, bits of fruit or vitamin pills, the omniverous jays were vocally appreciative for the handout. The children of the rangers had on occasion made the jays' vigil especially profitable. Much to the delight of the children the birds would group enmass around the deliberate handout and greedily and impolitely grab the food, fly to the



The western tanager makes friends easily.

—Harwell

nearest perch, gobble their scraps and return to grab again.

Although, seemingly, twenty-three jays would prove an uneven match for one seven inch chipmunk, the jays indeed respected the very presence of this familiar mammal. A long eared chipmunk (*Eutamias grad-  
rimaculatus*) that had made a home in a nearby log was also appreciative of an occasional crumb. While the chipmunk fed however, the jays would not approach. Berate the chipmunk they would, complain and fuss, but not until the chipmunk had chosen politely, had eaten well, and had scampered on would the jays venture to the remaining scraps.

Other birds did not intimidate the jays however. Jays were observed willingly sharing, greedily but without comment, with Robins (*Turdus migratorius*), juncos (*Junco oregonus*) a sooty grouse (*Dendragapus fuliginosus*), and an occasional western tanager (*Piranga ludoviciana*).

If an expectant crumb was not forthcoming, or if a naturalist attempted a little early morning sleep or a belated lunch, the Steller jays became indignant and downright demanding. Early morning knocking on the cabin door, or a persistent tapping at a window or on the roof was not uncommon. At first its seemed as though someone were playing a joke. Persistent, repeated knocks dispelled this idea however. Finally it was proved to be neither joke nor accident for the jays knew when it was breakfast and lunch time; they deliberately and repeatedly knocked and tapped for "crumb service".

Although strongly gregarious, these jays also exhibited individually rewarding endeavors at times. Nuts, grains, fruit, garbage, dead and decaying animals, large insects, bird eggs, nestling birds, small snakes, frogs, and mice are but a few of the foods enjoyed.<sup>1</sup> Individual

jays were observed on old logs relishing the insects they could uncover. A pine nut or an acorn taken from the ground was observed to be relished. As self sufficient as these birds could be however, a camper or picnicker needed only rattle a lunch sack to attract an expectant gallery of hungry jays.

Although the word "jay" (from the French *jaï*) means gullible, stupid, and an impertinent chatterer, it is personally felt that far too much criticism is heaped upon the Steller jay.

Objectionable to some are the jays' total disregard for other birds, even to the point of eating nestling birds. Those who object however, are those who readily enjoy steak, veal, chicken, and pork chops. As is usually true in nature, the jays themselves have often provided a tasty entree for other predators. Four fledgling jays that fell to their doom from a nest by the Glacier Point Hotel became just such a repast.

Although jays can be impertinent chatterers and noticeably raucous, there are those that object who enjoy

political campaigns, club conventions and sports events. Jays aren't always raucous. They can be admirable mimics. They are at times mild and plaintive, soft and chuckling or even sweetly whispering. They give evidence of a variety of communications. Just let a bear or deer invade an area of twig, root, mud, and pinehidden jays' nests. The warning chirps of the jays warn man and forest creature alike of the larger intruders.

As native "public relations specialists" for Yosemite National Park, the Steller jays continue to do an outstanding job. Greeting every visitor they can't help but be noticed, and people continually enjoy their open-eyed, expectant chirping. They are amused as the jays appropriate a crumb or berate the unsuspecting soul that interrupts a quest for crust.

To the list of questions often asked about the features of Yosemite, must be added this rather unpredictable, yet remarkable bird.

† Pickwell, Gayle, *Birds*, Whittlesey House, McGraw Hill Book Co., New York, 1939.

The sooty grouse was not intimidated by the jays.

—Harwell



## NATURE'S BATHTUBS

By Dick Jackson, Ranger Naturalist

Hiking in Yosemite National Park quite often provides the adventure-some visitor with an unforgettable acquaintance with unusual and enjoyable features of nature. It was on an early July day during the summer of 1957 that a group of hikers exploring possibilities for guided all day hikes had the pleasure of viewing and finding satisfaction in one of the geological features of a Yosemite stream bed.

The pleasant day started with an automobile trip from Yosemite Valley to the El Capitan trail junction on the Big Oak Flat road, about two miles below Tamarack Flat. From here we hiked approximately four and one half miles along the trail until we came to Ribbon Creek. Feeling the need for lunch about this time, we decided to hike down the creek to the lip of Ribbon Fall. About one-fourth of a mile above the rim of the valley the stream bed begins to flow over smooth exposed granite that drops in elevation with a series of stair step-like cascades. At the bottom of each descending slope the

water tumbles into a large pothole. These stream-bed cobble-stone formed potholes, some twenty to thirty in number, vary a great deal in size and shape. Many are as large as a bathtub, but some of the pools are large enough for several people to enjoy the invigorating water together.

After a fine trail lunch and some relaxation enjoying the wonderful views of Yosemite Valley and its surroundings from the lip of Ribbon Fall, we could not resist the temptation of a brief splash in the inviting natural swimming holes. We found the clear cool water in the potholes delightful. A sun bath on the adjoining glacial worn granite was especially appreciated after adventuring into the cold water in the depths of the potholes.

With the new energy acquired from our baths in nature's own bathtubs, the remaining hike to the summit of El Capitan and back to our car was easily accomplished.

Many such outings in Yosemite National Park can offer similar rewards for a hiker's efforts. Won't you have a taste of adventure soon?



## OUT OF YOSEMITE'S PAST

A One Picture Story



At the turn of the century pageants were popular in Yosemite. Just what was being portrayed here at Mirror Lake is lost to time unless some reader may have the answer.



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