asemite Nature Notes

"THE TWO JOHNNIES"

"John of Birds" and "John of Mountains"

John Burroughs, age 72, and John Muir, age 70, taken in Yosemite in May 1909 by Fred Payne Clatworthy. This superb historic photograph has been donated to the Yosemite Museum by the photographer.

Cover Photo: Glen Aulin, Tuolumne Canyon, 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

THE MONTHLY PUBLICATION OF
THE YOSEMITE NATURALIST DIVISION AND
THE YOSEMITE NATURAL HISTORY ASSOCIATION, INC.

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VOL. XXIX — OCTOBER, 1950 — NO. 10

JOHN BURROUGHS AND JOHN MUIR IN YOSEMITE

By Fred Payne Clatworthy, Photographer
Palm Springs, California

The first week of May 1909 found the writer on his way by train and stage to have his first view of Yosemite, the incomparable. It was a bright, sunny day when the old horse-drawn stagecoach swung up in front of the Sentinel Hotel amid clouds of dust. No oiled roads then. Nearly everyone wore linen dusters and, alighting on the hotel porch, we were met by a brigade of boys with brushes to dust us.

I was in the midst of this operation when my attention was attracted to two distinguished looking, gray-haired men—one a little serious, the other constantly cracking jokes. On inquiry I found the serious one to be John Burroughs, 72, of New York State. The other with the many jokes was John Muir, 70, of California. The former was on his first trip to Yosemite; the latter had been here many times before.

Next morning, without thought of the two famous naturalists, I shouldered my 5 x 7 view camera and tripod and started, alone, for Nevada Fall. Thinking only of pictures I came on a party of several men and women traveling the same way as myself. The only difference, and an important one, was that they had a big basket of lunch, and I had none. When questioned they said they also were headed for Nevada Fall, and asked if I would join them. That big lunch basket settled any hesitation I might have had.

It was quite a notable group I, a humble photographer, was joining. Here were the "two Johnnies" I had seen the day before, also a Mr. Brown—editor of the *Dial*, Dr. Clara Barrus — Mr. Burroughs' personal physician and biographer, plus several other notables. It seems the Santa Fe Railroad had gotten the two Johnnies together for the trip, which also included Grand Canyon. Later, Burroughs was sent to Hawaii also.

We stopped to eat our lunch beside a roaring stream crossed by a rustic bridge. During lunch John Burroughs left the group and lay down on the bridge with his ear to a crack between the floor planks and listened to the song of the stream. For a considerable time he seemed glued to that crack, entranced by the wild, happy song.

After lunch I persuaded the two Johnnies to sit on the root of a huge tree for a natural picture, showing "John of Mountains" with rolled-up sleeves and a stick in his hand. He said to "John of Birds": "See that valley below us? That is the effect of a glacier." Said "John of Birds," who thought his partner took the glaciers too seriously: "Yes, if a bumblebee were to light on yonder rock, there would be some effect."

As they both laughed at this retort, the shutter clicked and a historic picture was obtained. A copy was later mailed to each, and in return each wrote me a personal note. These notes thanked me, saying the picture was the best liked of the many taken of them on this western trip because it was natural and not posed.

That same night we all moved from the Sentinel Hotel to Camp Ahwahnee, which had just opened for the season. I had the pleasure of going with the two Johnnies on other walks and of sitting at the same table with them at camp.

On this trip I also met Galen Clark, Yosemite's first guardian, as he was sitting on a chair under a tree in front of his cabin, and Mr. George Fiske, the aged photographer who made some of Yosemite's first famous pictures. As I remember, he occasionally used a wheelbarrow to transport his big camera around the park. Never will the writer forget this wonderful trip, as streams and falls were at their best. It was full moon, and it was there I made my acquaintance with the "two Johnnies."

SCORPIONS IN THE MARIPOSA GROVE

By George C. Turner, Jr., Ranger Naturalist

It is commonly thought that scorpions are strictly desert-inhabiting animals. Perhaps this fallacy has developed because a few dangerous and, therefore, highly publicized varieties are found in southwestern United States and Mexico. In reality these animals are rather widespread and can be found throughout much of temperate North America.

Being a cold-blooded creature—i.e., having no control over its body temperature which is instead regulated by the temperature of the surrounding medium—it is necessary for it to live in regions of moderate climates. Such animals are either dormant or so stiff in cold weather that they are virtually unable to secure food. Because of the rather long and severe winters of the Mariposa Grove of giant Sequoias at an average elevation of 6500 feet, it would seem to offer a poor habitat for these animals. However, on August 7 of this year the resident fire guard, Bill Rice, discovered a scorpion on the underside of the lid on a water control box near the Big Trees Lodge.

Upon discovery the creature immediately raised its stinger-bearing postadomen and spread its lobster-like claws in a defensive stance. The surprised fire guard captured the animal and brought it to this naturalist. Interested in observing its manner of securing food, I placed several insects with the scorpion in a fruit jar. It was noticed that the apparently weak claws were used in futile attempts to hold any insect that wandered into reach. At no time while being observed was the stinger used to paralyze the prey. During this period the scorpion appeared too clumsy and weak to subdue any of the introduced insects. On the morning following these observations, however, it was found that all the insects were dead, and that the winged ones had been stripped of their wings. Apparently either increased vigor on the part of the scorpion or decreased wariness of the insects caused their destruction during the night. Further observations indicated that the scorpion never took food during the day, always waiting for nightfall.

WHAT'S IN A NAME — "CEDAR"

By Lee Haines, Ranger Naturalist, 1946

One of the characteristic evergreen trees growing in the forests of Yosemite Valley and other adjacent areas of the Transition Life Zone is the California incense-cedar (*Libocedrus decurrens* Torr.). Frequently mistaken by visitors for redwood, the name "cedar" is equally misplaced. There is no other popular name for trees that has been more indiscriminately applied than this. At least two dozen different and distinct species of trees, belonging to widely separated plant families, are known by this common name.

To the casual observer any evergreen tree with needle-like or scale-like foliage is a "cedar." To the lumberman a "cedar" is any tree having fragrant wood of unusual durability. There is small wonder, then, that people on tree walks in Yosemite National Park register surprise when the naturalist tells them that there are no true cedars native to the western hemisphere.

The mountains bordering the Mediterranean Sea are the only regions where the true cedars are to be found in a native condition. These trees of the genus *Cedrus* (from the Greek *kedros*, the name of a resinous tree), belonging to the pine family, occur in northern Africa, Asia Minor, and southern Asia. One of them, the deodar cedar (*Cedrus deodara* Loud.), is found in the Himalayan mountains from Afghanistan to Nepal at elevations between 6,000 and 12,000 feet. The specific name *deodara* or *devadara* is a native word indicative of the connection of the tree with sacred objects and worship. It is said to be derived from two Sanskrit words: *deva*, a diety, and *dara*, wood—hence, "wood of the gods." This is a tall, graceful tree of pyramidal habit, 50 to 100 feet high, with horizontally spreading branches and yellowish-green foliage. It has been planted

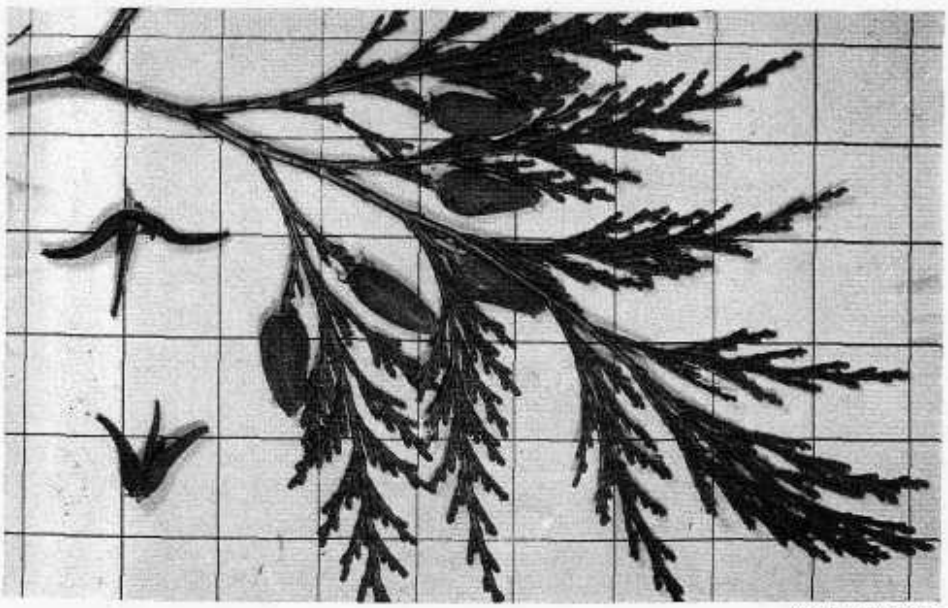

Photo by Brockman

Cones and foliage of California incense-cedar. (Inch squares on background.)

abundantly in California for ornamental purposes in parks, lawns, and along drives.

The Atlas cedar (*Cedrus atlantica* Manetti) occurs on Mount Atlas in northern Africa, at elevations from 5,200 to 7,200 feet, forming the prevalent arborescent vegetation throughout the province of Constantine in the eastern Atlas range. The specific name *atlantica* refers to its habitat. This second species in the genus *Cedrus* is a large tree of open growth, 30 to 100 feet high, with upright leading shoots, horizontally spreading branches drooping in age, and bluish-green foliage. It has been planted ornamentally throughout the Pacific Coast region.

The cedar-of-Lebanon (*Cedrus libani* Loud.) at one time inhabited the mountains of Syria and Asia Minor, especially Lebanon and a portion of the Taurus range. According to a recent report there remains a single grove of perhaps 400 trees in the historic Lebanon mountains. Their age is estimated to be at least 1500 years. The specific name *libani* refers to the ancient mountain with which the tree has been associated from remote antiquity. This third species of *Cedrus* is a large tree 50 to 120 feet high, with nodding leading shoots and wide, spreading horizontal branches forming a flat-topped crown in old age. The leaves are dark or light green. This picturesque tree of massive growth has been successfully grown in the Arnold Arboretum at Harvard University and is to be found cultivated in parks and large estates in America.

The cedar-of-Lebanon is especially linked in our minds with the reign of King Solomon and the building of the temple. The beautiful wood of this cedar was regarded as so essential that Solomon was willing to put 150,000 men to work for three years harvesting it to panel his temple. The temple of Diana of Ephisus, another famous temple of the ancient world, was also veneered in this way.

The limited range and a decrease in the number of individual true cedar trees make it obvious that no commercial real cedar wood reaches America. Cedar chests, cedar-lined closets, and cedar shingles are items in our everyday life that bear a misleading name. In the United States the common name "cedar" is widely misapplied to species and varieties of the genera *Chamaecyparis* ("white-cedar," "yellow-cedar," falsecypress), *Juniperus* (juniper, "redcedar"), *Thuja* (arborvitae, "redcedar," "white-cedar," and *Libocedrus* ("incense-cedar"). It is from the native stands of these trees that our "cedar wood" of commerce is derived today.

NATURE NOTELET

By Robert Sharp, Park Ranger

On July 3 of this year, while checking campers at Tenaya Lake, my attention was called to an eleven-inch rainbow trout caught in the lake a few hours earlier by Mr. Glen Ramont of Ceres, California. The fish had two feet of leader extending from its mouth and another two feet of the same leader with a number 8 hook on the end extending from the anal passage. My examination of the digestive system proved that at some previous time this fish had been hooked, the leader had broken, then both hook and leader were later passed through the entire digestive tract without serious harm or handicap to the fish.

POCKET MOUSE FOUND IN THE PARK

By O. L. Wallis, Park Ranger

On July 9, 1950, while patrolling near the Mariposa Grove, I noticed a small mouse lying in the roadway about one-half mile east of the South Entrance Ranger Station on the Big Trees highway. Stopping to examine the animal, I discovered it to be a that this mouse occurs widely *californicus*), a mammal which had not previously been collected within the boundary of Yosemite National Park. Apparently it had been killed by an automobile, and one ear had been eaten by ants.

In their *Animal Life in the Yosemite* (1924), Grinnell and Storer reported that this mouse occurs widely through the Upper Sonoran Life Zone in central California as far east as El Portal on dry chaparral-covered slopes. The pocket mouse was not listed in an earlier publication on the mammals of Yosemite by these authors (1921). Ingles (1947) mentions that the California pocket mouse is present in the mountains and foothills around the southern end of the San Joaquin Valley and on the lower, western slopes of the Sierra Nevada, from the Lower Sonoran into the Transition Life Zone. It was of interest, therefore, to pick up this mouse at an elevation of 5300 feet in definite Transition Zone environment, since it is typically a form of the Sonoran Zone. At the site of the discovery the ground cover of the south-facing slopes on either side of the highway consists of dry chaparral with scattered white firs, sugar pines, ponderosa pines, and incense-cedars.

The size of the pocket mouse is about that of a house mouse, but the tail is longer, and it has long, large hind feet and small front feet. The coloration of the upper surface is reddish buff darkened by numerous black hair tippings, while the under surface is white. Its name derives from the fact that an external, fur-lined pouch or "pocket" is located on each cheek with an opening near the side of the mouth. The pocket gophers (*Thomomys* spp.) are the only other Yosemite animals having cheek pouches, which are used to carry food materials to the storage burrows.

As the exclusively nocturnal pocket mouse bounds along on its enlarged, long hind feet in kangaroo fashion, the long, tufted tail aids as a stabilizer and counterbalance. The weak forefeet are used primarily in feeding or in thrusting food into the external cheek pouches; then they function as hands in the manipulation of the food with great dexterity.

The Yosemite specimen has been made into a study skin and deposited in the Yosmite Museum collection. The measurements of this individual are: Total length—8.3 inches (210 millimeters); tail—4.6 inches (118 mm.); hind foot—1.0 inches (26 mm.); tail tuft—0.6 inches (15 mm.). Unfortunately, while the skin was drying, a white-footed mouse (*Peromyscus maniculatus*) damaged the specimen by tearing away the nose, ear, and some of the hair in the head area.

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forced finally to seek a weaker animal. Most of the dead deer I have found which I was convinced were killed by a mountain lion were small deer.

Harry C. Parker, Associate Park Naturalist of Yosemite National Park, has told me that he is of the opinion that this park area does not have a sufficient number of mountain lions to kill off the surplus, unhealthy deer. Where the mountain lion has been eliminated from deer range in other parts of the country, the deer have suffered heavily from starvation and disease brought about by overpopulation and the resultant overuse of their natural food supply. One large area in Arizona had to import the mountain lion in order to improve the deer of the region. Apparently the mountain lion has its role to play in the great balancing program of Nature.

Photo by Ralph Anderson

California Wildcat

CORRECTION

Our readers probably were mystified by the missing name of the new mouse reported for the park by Ranger O. L. Wallis in his article on page 97 of the October 1950 issue of **Yosemite Nature Notes.** A printer's error that caused the omission requires correction to clarify the article. The eighth line as it is printed is out of place, so that the second sentence should read: "Stopping to examine the animal, I discovered it to be a California pocket mouse *(Perognathus californicus)*, a mammal which had not previously been collected within the boundary of Yosemite National Park."—Ed.

HAY STORAGE AND TUNNELING ACTIVITIES OF BELDING GROUND SQUIRRELS

By Mary V. Hood

This was our fourth summer on a particular campsite in Section B5 of the Tuolumne Meadows campground. It is an open, sunny spot atop a moraine surrounded by lodgepole pines. On three sides the hill slopes down to open grassy places beyond which are trees, then the road, and finally the Meadows. Here we have watched the activities of the Belding ground squirrels or "picket pins" *(Citellus beldingi)* with a good deal of interest, and have taken many kodaslides of them.

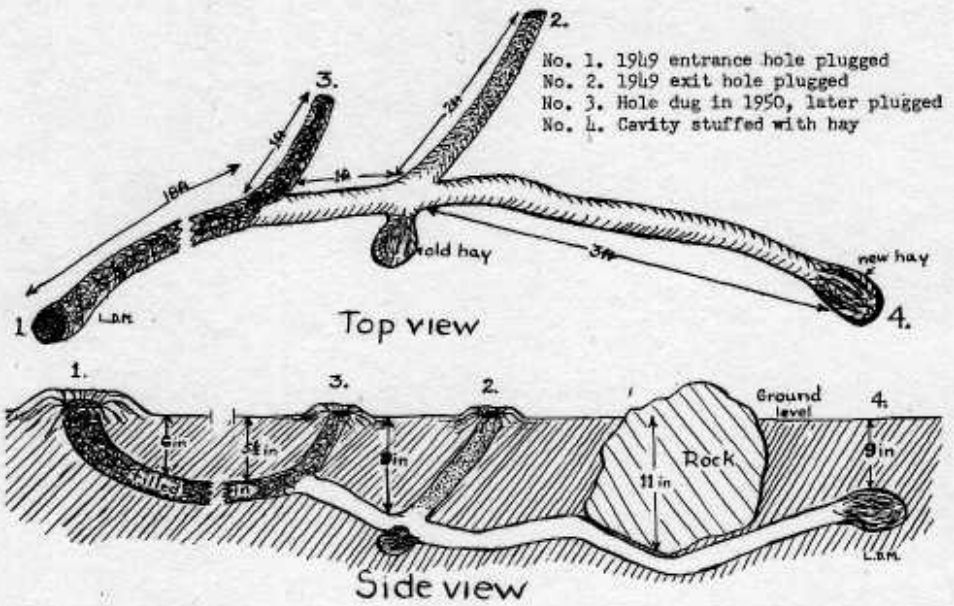
On July 29, upon returning to camp after a day's absence, we noted a new hole in the middle of a large sunny patch of ground. Only about a cup and a half of fresh dirt drew our attention to the activity.

At about 10 a.m. the next day a small ground squirrel was seen to arrive with a mouthful of hay. Photographic preparations were immediately begun and the photographer installed in a comfortable chair. His presence greatly disturbed the squirrel which would gather courage enough to reach the hole, but at the click of the camera would turn and run for the woodpile. Here it would hesitate for several minutes before returning to the hole where, again, it would scare at the sound of the camera. This behavior was in sharp contrast to that of an older Belding we photographed two years ago on this same campsite, which would pause about two feet away from the hole and then make one dive, later followed by an equally fast exit.

After about an hour, when the 1950 squirrel still had not found the courage to enter the hole, the photographer withdrew in order that the squirrel might gain some confidence. The camera was left in place. No activity was seen for about half an hour, then several loads of hay were delivered in quick order. The photographer now quietly took his place and, although it was obvious that the squirrel observed him, it did not allow the intrusion to interfere with the order of business. About 2 p.m. the shadow of trees had advanced to cover the hole, so the photographer retired.

The Ralph Andersons joined us about 3:30 that afternoon, and during their visit the ground squirrel frequently dashed in and out of its hole, each trip entering with a huge "mustache-like" load of hay. We remarked that often it was quite green. At about 4:30 p.m. after our friends had left I saw the squirrel at the hole which by now was plugged. Fifteen minutes later it began to rain. Next morning I again noted the squirrel at the hole. It seemed to be only a visit of inspection; it sniffed around as if checking up on the general condition of things, then left. It was never again seen to visit this area of camp.

On August 11 I excavated the burrows. The general plan of the passageways may best be seen in the accompanying stretch. At only one place was a depth of eleven inches reached and that in order to go under a large boulder. At most places the tunnels were only about six inches below the surface and from two to two and a half inches wide. There seemed to be no reason why they could not have been dug much deeper had the spermophile so wished.



Apparently some squirrel had dug a tunnel last year starting from the far side of our campsite's fireplace where a large pile of dirt was found. This dirt had been brought to the surface from the first ten or twelve feet of tunneling. Then the squirrel continued to dig ahead while filling the tunnel behind, resulting in a sealed-in, five-foot burrow and storage hole, after which it dug its way out through hole No. 2. Remains of old hay were found and it is assumed that last year's squirrel blocked its exit, hole No. 2, and left for parts unknown. Then in 1950 the same or another squirrel reopened the "workings" at hole No. 3—hence the small amount of dirt found at this new hole—and dug a new chamber, storing the dirt in the old burrow. When the hay was removed it was found to fill a two-pound coffee can, tightly packed. Kodaslides and measurements were duly taken and the hole filled in.

Two questions occur to us: If the hay was stored for food, when would it be needed or used by the squirrel? If stored for a bed, do these squirrels hibernate less than a dozen inches below the surface of the ground?

SNOW FLEAS?

By Carl W. Sharsmith, Ranger Naturalist

On the lower periphery of an extensive snowpatch, like heaps of soot shaken out of a stovepipe, a conspicuous black mass covering an area several feet wide lay outspread in the bright afternoon sunlight. Minutely quivering and churning on the surface, and glistening with a peculiar bluish-black luster, a closer view revealed the mass to be alive! Excitedly the hikers crouched to look more closely as the fortunate few snatched out their pocket magnifying glasses and soon shouted: "It's

insects!" "Millions of them!" "Tiny black rascals, about a sixteenth of an inch long; six legs, two antennae, but no wings!" "Golly, how they can jump!" "What are they; what can they be?"

Meanwhile, the naturalist, as excited as the others and fully agreeing as to the insect part of it but reserving his opinion as to the final question, continued to peer through his own pocket hand-lens. For a time he was silent. He recognized the insects as springtails (Collembola), but was cudgeling his memory for the various bits of information he had gleaned from books on the "cryofauna" or minute animals that habitually live in snow and ice.

Thus on August 8, 1949, did the group of hikers accompanying the naturalist far up on the north slope of the highest of the Echo Peaks at 10,700 feet elevation make one of the most interesting discoveries of that season in the Tuolumne Meadows area. While it must hastily be added that the insect subsequently turned out to be not the real snow flea as hoped, but only a relative of it, the discovery stimulated a good deal of close examination of the midsummer's persistent snowbanks in the hope that the true snow flea might eventually be found.

To return to our first exciting find, a few days later this snow flea relative was again seen in nearly equal abundance on a snowpatch just east of Parker Pass. Still later in the same month it was found to be sparsely distributed on snows near the Conness Glacier. During the following summer of 1950 it was found on several occasions and in various localities on peaks in the Tuolumne Meadows area, on snowpatches lying in full sun at altitudes ranging from 10,500 to 12,000 feet, although never in the myriads observed in the few sites during the preceding year. Inhabiting the persisting snowbanks which in summer are composed of grains rather than flakes, the insects are invisible or appear merely as dust specks until the sharp eye discovers them rapidly crawling or occasionally jumping among the loose snow grains on and near the surface of the bank. Apparently they are present in midsummer on our high Yosemite snowfields, and may be found in any year. Before 1949, however, they seem to have entirely escaped notice by anyone. Certainly if their appearance in profusion sufficient to blacken the melting snows like soot was at all a common occurrence, they would previously have been noted by hikers tramping over the region and called to the attention of the naturalist.

Our insect was identified as *Podura aquatica* Linn. by Dr. Robert L. Usinger, Associate Professor of Entomology at the University of California at Berkeley. Dr. Usinger also tells us that it is found "commonly on the surface of ponds throughout the Sierra." Snow, however, seems to be a new or at least a little known habitat for the insects. Those seen on our snows seem to be perfectly at home in view of their frequent occurrence and vigorous movements in the little spaces between the snow grains, which to them are spacious chambers. Here they are very thoroughly alive in temperatures which would benumb most of our other insects. When found so well adjusted to this habitat, they could quite justifiably be thought of as "snow fleas" which they somewhat resemble in size and appearance. Perhaps also, like the true snow fleas of the European Alps, they subsist on wind-blown pollen drifted onto the snows.

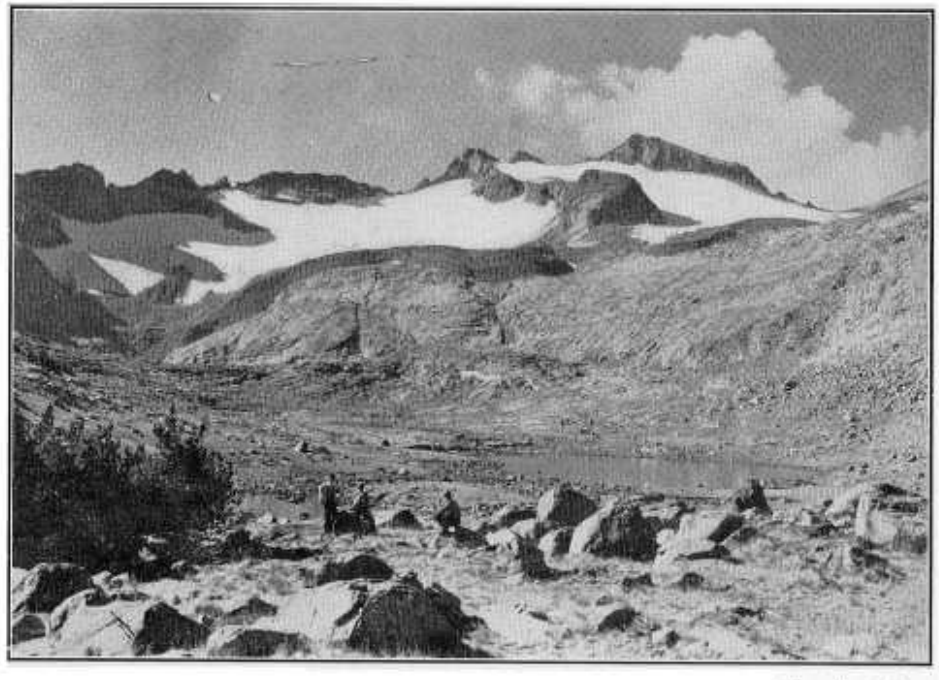


Photo by Anderson

Mt. Lyell and the Lyell Glacier