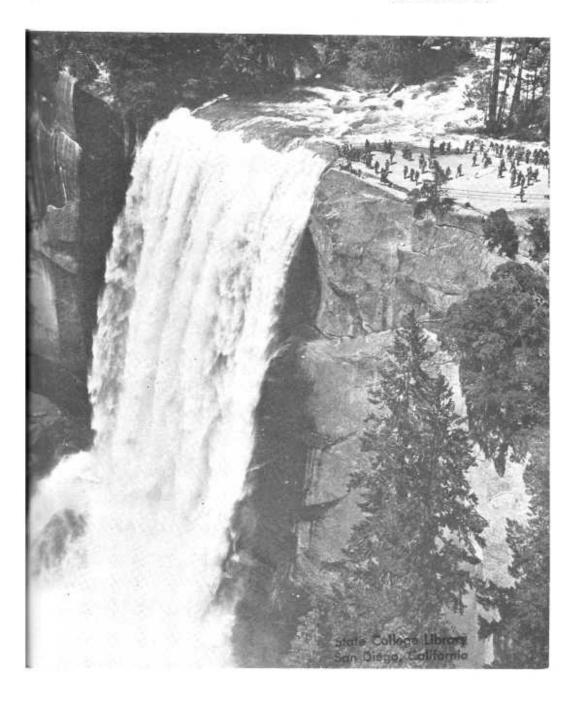
YOSEMITE

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Photographs by Douglass H. Hubbard





IN COOPERATION WITH THE NATIONAL PARK SERVICE.

NATURE NOTES

y o se mit e Since 1922, the monthly publication of the National Park Service and the Yosemite Natural History Association in Yosemite National Park.

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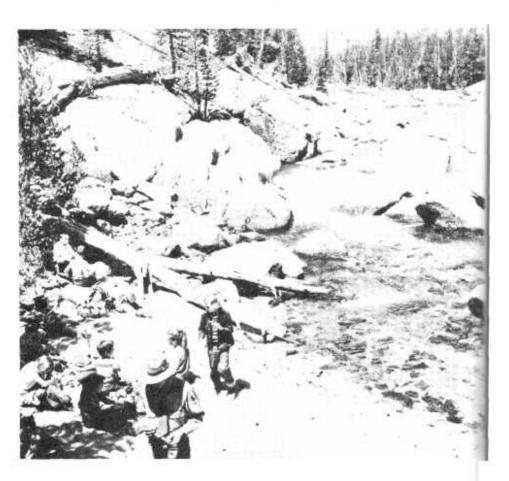
CHILDREN'S DAY

By Gerald Reckin, Ranger Naturalist

Children's day in Tuolumne Meadows is one of many emotions. you are between the ages of 8 and 10, a good hiker and willing to leave your parents behind, you gualy for the all day hike to the miniature devils post pile. The parents are mewhat apprehensive about the ranger's ability to lead their children the destination without serious mishap. There is great concern about be length of the hike (6 miles), will the water be safe to drink, how much bunch is neded and is there a first aid available. The ranger, of course, sures the dubious moms and dads that "they have never yet lost a child."

The meeting place is the contact mation in Tuolumne Meadows. At this point there is a great deal of concern about who is going to ride with whom on the 3 mile auto caravan to the starting point of the hike. At last they are on their way and in a few short minutes the cars turn in on a service road and stop Fond farewells are bid as though the hike were lasting for weeks and then the parents drive away with instructions to return at 4:30 o'clock.

Now is the time for introductions so that throughout the day everyone can become well acquainted and enjoy a friendly atmosphere of comradship. A big circle is formed and one at a time each gives his name and where he lives. Sometimes as many as 35 boys and girls are eagerly awaiting the information the ranger is going to give about hiking and spending a day in the wilds of the Sierras. First they talk about conserving their energy by walking at a moderate pace, then about developing a keen sense of awareness to the beautiful things of nature that surround them. One of the great joys



Photographs by Donglass H. Hubbard

and eagerly awaited experiences is the opportunity to carry the special back pack that is taken on each hike to contain the litter which is found along the trail. Each child, during the day, has an opportunity to become the official litter bag packer.

Now it is time to start down the human trail, through the beautiful shaded lodgepole pines, toward a



small meadow and around small ponds of water that yield a fortune in natural things to observe and discuss. The beautiful wild flowers that line the trail bring a never ending line of questions from the astutely interested children. Then an almost tree lerrifying thing is observed. A tree or several trees are standing along the trail which have been torn, scratched and are bleeding of pitch almost as though some human had taked them with a knife. What is it? What has happened? Quieting the din the ranger incourages the children to examine the ground for evidence of what has happened. There on the forest floor are the tell tale prints and hollowed trail of the American black bear. Now the inberest is keenly whetled and the eyes



-Frank Betts



121 CODMITE

of the children sweep through the forest searching for the culprit that is responsible for this deed.

At this point they leave the human trail and are reminded that only the rangers and the children know where to go from here. They travel along a narrow deer trail until it ceases and then across country and down a mountain to another beautiful meadow. This they call jaw bone meadow and there lies one of the secret trail markers, two fallen and rotted trees that form a perfect X, to show them the way back up the mountain. The life in a meadow is wonderful and the children are very eager to hear about the many animals that live there. The Belding ground squirrel sits straight up and whistles his little bird like call and the meadow mouse scurries off to his hole which is covered by a small hay pile of grass which he has gathered. Down down they hike toward still another meadow and the Tuolumne River. The granite lies exposed on both sides and is eagerly waiting to tell its story through the voice of the ranger. The shining glacial polish, huge glacial eratics, feldspar crys tals and white out-croppings of quartz all tell the story mother nature has written in the granite mountains. Now they pause on another meadow quietly to hear the voice of the forest. What do they hear? They hear the wind, a bird, a most auito, running water and now and then a cone or twig dropping from the trees.

Now the rushing water seems to be closer; another quarter of a mile and there it is! Fresh clear water tumbling and churning over granite boulders forming into pools and then



rushing on again downward to a destination all water must meet. All

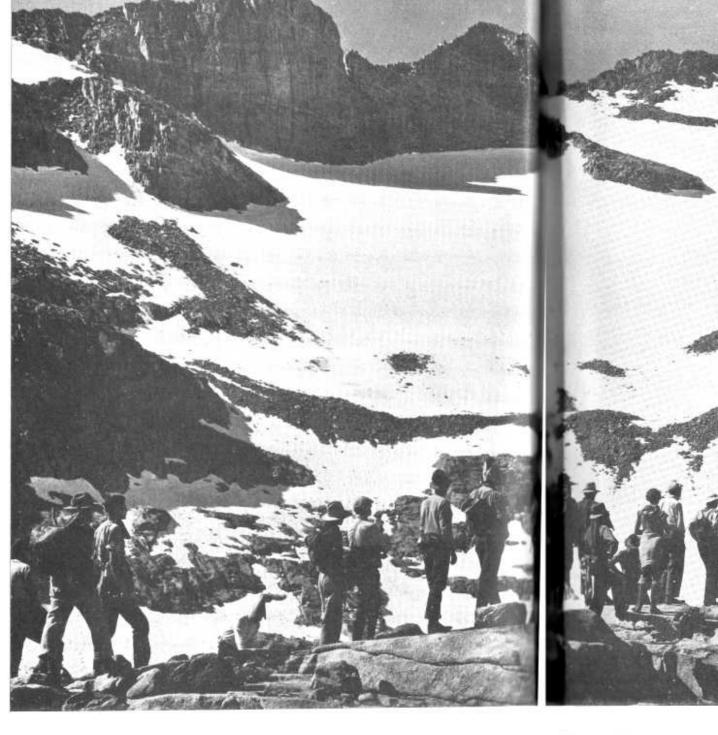
ikers become thirsty and now is the me for drinking cold delicious water from the Tuolumne River. The sun rising high in the sky and their tomaches tell them that it is nearing such time. A beautiful sandy beach stiled in the rocks by the river takes an excellent place to eat and set.

The children rest for a very short while and soon there is talk about laying games. Sand in your mouth, a delightful game that is played all. One hour has passed and it time to pack up all of their litter and belongings and be on their way. They leave the river and travel up a stream bed and then suddenly soming up at their left is a huge mass of black rocks. The children cognize it immediately as the minuture devils post pile. Large black

pillars of basalt are standing on edge much like posts leaning against one another. At this point they have reached the extremity of their hike and must start back. Suddenly one of the children remembers that they haven't had their swim. So back they go to a beautiful little pool that lies just beside the river. Here the children splash and play until it is time to start the journey homeward.

The hiking party is much quieter now as some are beginning to tire as they cross the meadows and climb through the forest on their way back to the automobiles. The cars are in sight now and the children dash forward to meet their parents and once again the story of the hike is related through the mouths of children to moms and dads about the wonders of nature and the miniature devils post pile.





Mt. Lyell Glacier

-Anderson, NPS

The Founders of the National Page System acted wisely when they be the first National Park set apart. Not set apart to be uselessly hoarded as a miser boards his idle gold, but set apart for definite, prescribed uses; to work for the Nation's welfare, just as properly invested capital works and accru benefits for the investor.

Arno B. Cammerer Director, 1933-1940 National Park Service

A NATURE WALK TO THE TOP

By William E. Steinkraus, Ranger-Naturalist

If you are innately drawn by the scene of a distant summit, and while in a determined pursuit of the objective, you can heartily appreciate nature's prizes along the path, leave your cozy spot beside the fireplace and come with us on an exciting trip from Yosemite Valley to the highest spot on top of the Sierra Nevada mountains.

At the Happy Isles Nature Center, late-comers hurry quickly past the wildlife dioramas, pausing just long enough to observe the backpacking display before closing time at the Center. The lights go out inside, and another wekend has arrived.

From Happy Isles, it would be most rewarding to follow the John Muir Trail all the way, beginning here and continuing for 211 miles across the Sierra Nevada range to our destination, the summit of Mount Whitney. Since a month's vacation is not practical at this time, another route to the summit is necessary.

Consequently, our trip begins in the opposite direction. We travel westward in our green station wagon down beautiful Yosemite Valley. The weather is perfect. The sun has already set in the deep narrow valley. We follow the route northward out of the canyon over the Big Oak Flat Road to the Tioga Road cutting across the high mountain range eastward over the pass and down the eastern side of the Sierras to U. S. Highway 395. Our journey continues southward along this road descending gradually into Owens Valley.

From Lone Pine, we drive west once more.

Here, directly before us, the High Sierras rise like a great wall for over 10,000 feet above the valley floor. We are now climbing the highest cliff in the country. This escarpment was formed millions of years ago when a large block of the earth's crust broke loose and tilted upward to the west. The Sierra Nevada range is a single block of the crust, 430 miles long and 40 to 80 miles wide. Owens valley, bordering the range on the east, is part of a section of the earth which moved downward with respect to the mountain range.

We begin our ascent up the step eastern face from 3727 feet above sea level. Now the scenery changes rapidly. We leave behind the dry desert plants of the Upper Sonoran life community to view the rare arctic vegetation of the Arctic-Alpine life zone. A short distance above the valley, in the Upper Sonoran zone, we pass through a spotty forest of pinyon pines, the only single-load pines in the United States.

About two miles beyond these trees, one reaches the end of the road at a pleasant campground at Whitney Portal. It is now past midnight and time for a quick rest inside the station wagon.

At 6:15 A.M., August 14, 1959 at 8,367 feet elevation, my wife Faith and I signed out at the trail register. Here, we are surrounded by a colorful northern Canadian type forest of white fir; lodgepole, Jeffrey, and western white pine. Below this point, one passes directly from a simi-arid climate with its pinyon pines into the Hudsonian life community. Several intermediate climatic life zones are missing on the dry eastern slopes of the Sierra range.

Looking upward toward the peaks in the sky, we see very little of the 13 miles of winding trails separating us from the top. We see only the evergreens pointing upward toward the high jagged ridges all covered by a blaze of gold. The alpine glow lights the way before us. Behind us, the sun is now rising above the Inyo Mountains beyond Owens Valley. The trail zigzags continually for two miles up a long, steep slope.

Above the slope, beyond Lone Pine Lake, a beautiful flat green area lies before us. Here, the white grante cliffs are clearly reflected in a small lake beneath us. Mount Whitney is hidden from view. After crossing Lone Pine Creek, a curtain of water is seen pouring over a low falls beyond Outpost Camp where threwood, mountain pride and larkspur are in bloom beside the trail.

Again, the trail continues uphill to Mirror Lake at 10,600 feet above sea level. Beside this lake, four miles above Whitney Portal, hikers find a pleasant retreat before climbing on to the summit the following day. Physical conditioning is necessary before attempting the entire trip in a single day. The ascent is continued by passing to the left upward around the lake. Then from the cliffs above, we pause for an inverted view of the pines and mountains reflected in the clear captive water.

Several hundred feet higher, the trail approaches timber-line. We have left, behind, the Jeffrey and western white pine. Another white pine, the hardiest of all the pines,

is adapted for this climate. Only a few feet above the last lodgepole pine, a low weather-beaten whitebark stands planted in solid granite.

Crossing timber-line, we continue onward up the straight canyon to a more brilliant environment. In the midst of a large boulder field, a stream of meltwater is heard rushing by under the rocks beneath our feet. A few steps farther up the boulder field, the creek is crossed by leaping from rock to rock. We sit down for a rest upstream where the trail turns away from the green mossy lined stream. A lovely wildflower garden surrounds us here. Alpine columbine, monkey flower, and shooting-star are discovered in full color.

The trail winds upward past some shining granite, rounded and polished by the glaciers of long ago. The high vertical walls ahead, now, form a giant saw-toothed ridge against the deep blue sky.

Beautiful Consulation Lake suddenly appears on our left. A purple patch of rock fringe blooms among the boulders beneath us.

Passing the halfway point, we press on along a very moderate incline, until we reach a small lake at Trail Camp 12,000 elevation. A curious Sierra marmot appears from beneath the large boulders.

Our steps bend upward on the most difficult section of the hike. Three miles of sharp switchbacks lead straight up the steep slope to Muir Crest. Meltwater, from the glacier ice above, crosses the trail on several switchbacks. The canteens are filled here, for no water is found beyond this spot.

The next feature of interest is an eight by twenty foot outcrop of pure white milky quartz in the granite slope.

The trail zigzags seem endless and tiring, but the anticipation soars as the top of Mount Whitney finally appears from behind another peak. As higher we go, we see more of the world stretching out before us.

At 13,777 feet above the ocean level, we round a bend over the high crest and pass through a "window" to the other side. We feel lost in the rugged landscape before our eyes. Looking westward across the high Sierra mountains of Sequoia National Park, we experience a new world of high jagged peaks and deep canyons. The quality of the landscape is expressed by the diversity of the colors before us. Fluffy white clouds are growing rapidly in the pale blue background framing the brown, tan, rust, and gray cliffs which stand auard over the emerald patches of alacier carved lakes below.

In the broad flat valley beneath us, the rounded rock surfaces are revealing features of intense glacial The colorful Hitchcock scouring. Lakes are small basins in this smoothly scoured floor. The cliffs of Mount Hitchcock rise sharply behind these lakes or tarns which formed at the bottom of a cirque when the glacier ice melted away. A well developed cirque, or steep-walled hollow carved out of the side of a mountain by ice plucking, can be seen, as a perfectly shaped shell, beyond and above Mount Hitchcock. Behind the circue, Mount Kaweah rises higher than the surrounding peaks.

We are separated from this mountain by Kern River Canyon running north to south along a fault line in the earth's crust. The stream channel has been greatly enlarged by huge tongues of ice during the glacial periods. We leave the "window" and hike northward along the rocky western slope of Muir Ridge. Upon reaching the junction of the John Muir trail, only two miles of trail lie before us. The rocky path cuts a fairly level line along the side of the crest near the very top of the jagged ridge. We stop at each opening in the saw-toothed pattern for a breath-taking view downward toward the deep canyons and lakes to the east. The "windows" have been etched out by frost action and snow slides.

As we pass the last opening in the long ridge, we marvel at the delicate alpine sunflowers, and sky pilots blooming beside the dry rocky path. The last hundred feet upward seem most painful, but they also pass.

We have reached the top at about 2:30 P.M. Sitting on top of the world. 14,496,811 feet high, we now enjoy a long rest while observing the subord inate Sierra peaks all around us Northward, an endless sea of mountains appear as giant waves in a rugged rocky landscape. Beyond Owens Valley and the Inyo mountains behind it, two mountain ranges are visible within the Basin and Range Province. Death Valley, beneath them, is hidden from view.

However, the most fascinating feet ture of the surroundings is the very summit on which we are perched Mount Whitney is not a sharp mate terhorn peak, but rather it is crowned by a flat rounded top. The curving platform summit is really a remnant of an ancient rolling landscape of about 60 million years ago. The curving surface clearly reflects the old southeast trending folds of a former erosion cycle, Muir Crest, itself, how the same general direction Enough time has not passed to allow the glaciers to pluck away the flat mountain top since the recent rise of the Sierra Nevadas, Aplite, a reals tant, fine-grained type of granite

found on Mt. Whitney, accounts for the slow process of erosion of the summit. No evidence of stream erosion is found here. No gullies exist, for snow falls here during the summer as well as the winter. A thin blanket of snow accumulates at the top. The fallen snow is quickly removed by evaporation and severe storms. The slow process of erosion is effected by frost action breaking up the rocks, consequently, the top is covered by a layer of loose boulders with a characteristic metalic texture.

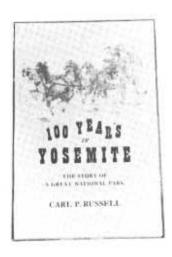
It has been estimated by the geologist, Francois E. Matthes, that the summit erodes about a single foot every 60,000 years. Mount Whitney is here to stay for a long time to come.

So, let us leave our high perch to the elements and return to Whitney Portal before dark, where at 8:15 P.M. we sign back in at the trail register-

AND WE DECLARE

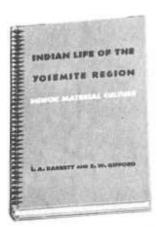
A lithe and towering redwood stood With lowest limb above the wood That gathered near with eager ear, To hear this sage, and veterans' grace For having lived through countless wars. In peace and quiet to behold How gracefully a tree grows old, without a battle for its place. A hazel bush asked for the ear (Knowing trees will always hear) And whispered, "Were you also born From a seasoned nut, as all my kin, To come alive, and witness where Once the fertile part had been?" "Yes, dear Bush," the redwood said; "But I was in a smaller seed. Four thousand years ago conceived, And it held every part of me, But faith had made me rise and grow. Now, Hazel; You should not despair, Because You're small and I am big. We both will be what we declare."

100 YEARS IN YOSEMITE BY DR. CARL P. RUSSELL



In no single book can one find the human story of Yosemite National Park as completely told as here. Explorers, the Indian fighters, the pioneer developers, and the supporters of conservation are brought to life in words and pictures. Hotels, stagecoach days, and mining excitement, all create a stirring background for the story of these men. Dr. Russell is a former Yosemite Superintendent. A valuable addition to any library, it is an ideal companion for a Valley sojourner. 206 pp., 42 illustrations.

INDIAN LIFE OF THE YOSEMITE REGION BY DRS. S. A. BARRETT AND E. W. GIFFORD



This extensive classic on the material culture of the Miwok Indians is written for the student and layman alike. It includes such topics as foods and medicines, arts and industries, clothing, weapons, and basketry. Abundantly illustrated with photographs of original indian material, this former publication of the Milwaukee Public Museum would be a worthwhile addition to your library. 260 pp., 50 pp. of illustrations.

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