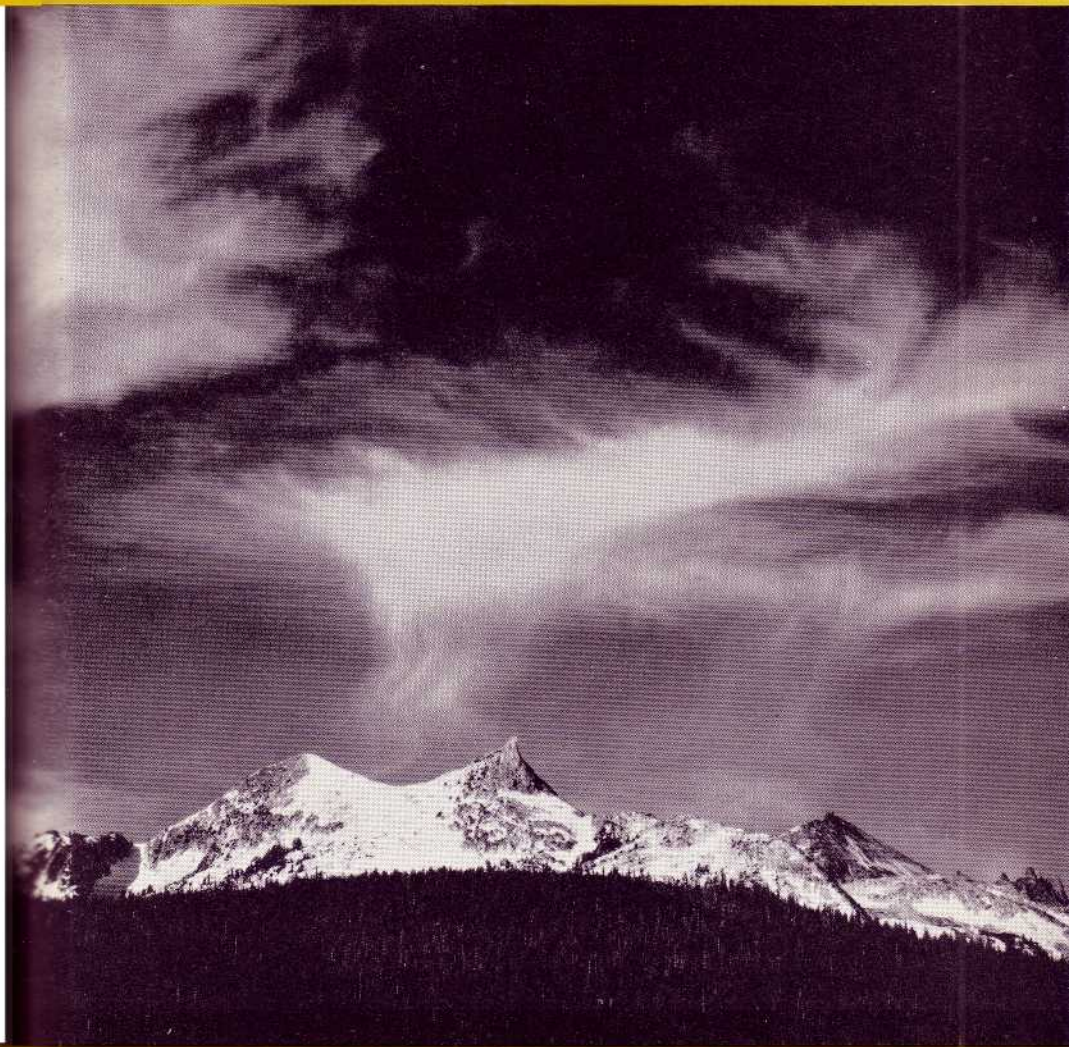


Yosemite Nature Notes



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NO. 11



Anderson Photo

The late Ta-bu-ce (Maggie Howard) gathering acorns during Autumn. See page 139.

Cover Photo: Unicorn and Echo Peaks, Tuolumne Meadows. 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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REPORT ON THE DANA GLACIER

By Allen W. Waldo, Ranger Naturalist

Last winter's records indicated a very light or subnormal snowfall in the high portion of the Sierra Nevada. The lower portion of the area, as represented for instance by Yosemite Valley, had a much heavier than average snowfall. The effect of this light snow in the high country was very obviously reflected in the condition of the glaciers during the summer of 1949.

I was able to observe only one of these glaciers closely during the summer season. It was possible, however, to observe similar effects on the Lyell Glacier by observation from a distance with field glasses and I feel quite certain, therefore, that all of our Sierra glaciers probably show similar conditions.

I made three trips during the summer season to the Dana Glacier. The third trip was almost at the end of the summer. At that time nearly all the snow had long been gone from the ice surface. The ice of the glacier itself had melted away from the right hand edge for a distance of four or five feet as compared to last summer. The surface of the ice in other places had been reduced in elevation sufficiently to expose a much greater amount of rock material in areas bounded by nearly vertical rock faces and where, therefore, the ice was not able to retreat from that portion but merely to lower.

This summer, for instance, it was possible to climb along this margin over solid rock surfaces where last year we were forced to go over ice to reach the same point. The melting of the surface of the ice and removal of snow was also illustrated along the left portion of the glacier where great open crevices developed. Some of these obtained widths of four or five feet and depths of twenty-five or thirty feet where in former years no appreciable openings showed. It may be that formerly there were open crevices in this same area, but if so they were capped rather completely by a covering of snow which did not melt off and which hid them from view.

The bergschrund¹ was also much more open than in normal summers, and the chute leading from the bergschrund to the top of the mountain ridge, which in other years was always snow covered, was this year surfaced by glare ice. It was obvious, therefore, from all evidence that this glacier was appreciably reduced in elevation and extent as a result of deficient precipitation last winter and a very warm, sunny summer in 1949. During the second trip to the glacier, one member of the party went by himself to a portion of the terminal moraine not visited by the rest of the group in order to obtain some photographs. He reported upon his return that he observed a place where the

1. The crevasse or series of crevasses, deep and often broad, occurring at the head of a mountain glacier.



Photo of Dana Glacier, taken before the war.

Anderson Photo

ice had melted out from underneath the terminal moraine where he could look into a tunnel-like opening, maybe twenty or thirty feet in length, in which the morainic debris was resting directly upon the glacial ice. This is merely one further evidence or proof of the fact known, concerning probably all of our Sierra glaciers, that the terminal moraine does not occur at the end of the ice but actually rests upon the lower portion of it, and that at least in the case of the Dana Glacier it still has not melted away from beneath this covering of debris.

Another man, not on one of our conducted trips, reported to me that he observed while alone at the Dana Glacier that there was one place near the lower outside portion of the terminal moraine where glacial ice was showing clear through to the outer edge and was not there covered by morainic material. I do not know that this was true, and in fact could not find such an area during my last visit. However, it is still possible that his observation was correct and that later sliding of the morainic debris covered the formerly

exposed surface of the ice.

The deep melting this summer was responsible for producing a surface of such a rough and pitted character that for the first time it was possible to lead a party of hikers over the steep face of the Dana Glacier up to its termination at the bergschrund. I have never felt that it was safe to attempt this in former years without special glacial climbing equipment which our summer tourists do not possess. It is rather interesting to note that in spite of the extreme melting which took place this summer, no cave was exposed within the glacial mass as happened two summers ago.² It was my feeling from observation, furthermore that the ice might have been thinned to such an extent that it would be impossible any longer to hold a cave open. I could not, of course, prove that this statement is true because I do not know how thin the ice may still remain at this point, but I feel quite certain that the ice surface is several feet lower in the vicinity of the point where the cave previously appeared.

2. As of October, 1949, caves have appeared under the within portion of this glacier—Editor.

TWENTY-FIVE YEARS AGO

(No. 6)

By Carl P. Russell, Park Superintendent

In the five preceding installments of this series of short articles on the history of Yosemite Museum affairs is a brief recounting of the salient points in the story of local interpretive developments. Arranged chronologically, these events provide an abbreviated outline of the early history of the Yosemite Naturalist Department as follows:

1920. "Nature Guiding," which had been instituted and financed personally by C. M. Goethe at Lake Tahoe in 1919, was transferred to Yosemite Valley as an experiment. H. C. Bryant and L. H. Miller conducted this pioneer interpretive work under the personal aegis of Stephen T. Mather, first Director of the National Park Service.

1921. Ansel F. Hall, a Yosemite ranger (later the first park naturalist in Yosemite) established the forerunner of the Yosemite Museum in the Jorgenson Studio. It became headquarters for the nature guides and housed the first Yosemite Museum Library.

1922. The Yosemite Museum Association was organized. **Yosemite Nature Notes** made its bow as a mimeographed paper.

1923. Mr. C. J. Hamlin, President of the American Association of Museums enlisted the interest of the Laura Spelman Rockefeller Memorial in the opportunities for educational services and the museum needs of Yosemite National Park.

1924. The Yosemite Natural History Association succeeded the Yosemite Museum Association. **Yosemite Nature Notes** entered upon its present printed series.

The inspiration for organized research on park wildlife problems came with the appearance of the book, *Animal Life in Yosemite* by

Grinnell and Storer, 1924. It had the effect of crystallizing the wildlife policy for the entire Service in that it led George M. Wright, Assistant Park Naturalist in the Yosemite organization, to launch a Service-wide program of wildlife studies at his personal expense. This was the beginning of the Wildlife Branch, which is now headed by Victor H. Cahalane, Chief Biologist in Washington, with representatives in the Regional offices and in some field areas.

\$75,500.00 was donated by the Laura Spelman Rockefeller Memorial to the American Association of Museums for the purpose of developing the Yosemite Museum. Dr. H. C. Bumpus was made responsible for the overall management of the project; Ansel F. Hall was appointed Executive Agent, Herbert Maier was architect and Carl P. Russell (Yosemite Park Naturalist since 1923) was curator.

In this year also construction of the Glacier Point Lookout was started with funds raised by the Yosemite Museum Association. Contributions to this project were made by the National Park Service, the American Association of Museums, the Yosemite Park and Curry Co., and the Yosemite Natural History Association, successor to the Yosemite Museum Association. This was the first "trailside" or "branch museum." It is the pioneer among the many similar focal point museums throughout the Service.

H. C. Bryant shaped plans for the Yosemite School of Field Natural History in 1924 and with the combined support of the California Fish and Game Commission, the Yosemite Natural History Association and the National Park Service laid the ground work for the 1925 session

NATIONAL PARK SERVICE MUSEUMS

(OTHER THAN HISTORIC HOUSE MUSEUMS)

82 CENTRAL AND BRANCH MUSEUMS

Mount Rushmore National Memorial
Devils Tower National Monument
Fort Laramie National Monument
* 2 Yellowstone National Park
Mammoth
Norris
Madison
Fishing Bridge
Old Faithful

Grand Teton National Park
Whitman National Monument
Mount Rainier National Park
Longmire — Yakima
Ohanapeosh

Dinosaur National Monument
Crater Lake National Park
Sinnott Memorial
Watchman

Lava Beds National Monument
Lassen Volcanic National Park
* 3 Yosemite National Park

Yosemite
Glacier Point Lookout
Mariposa Grove
Tuolumne Meadows

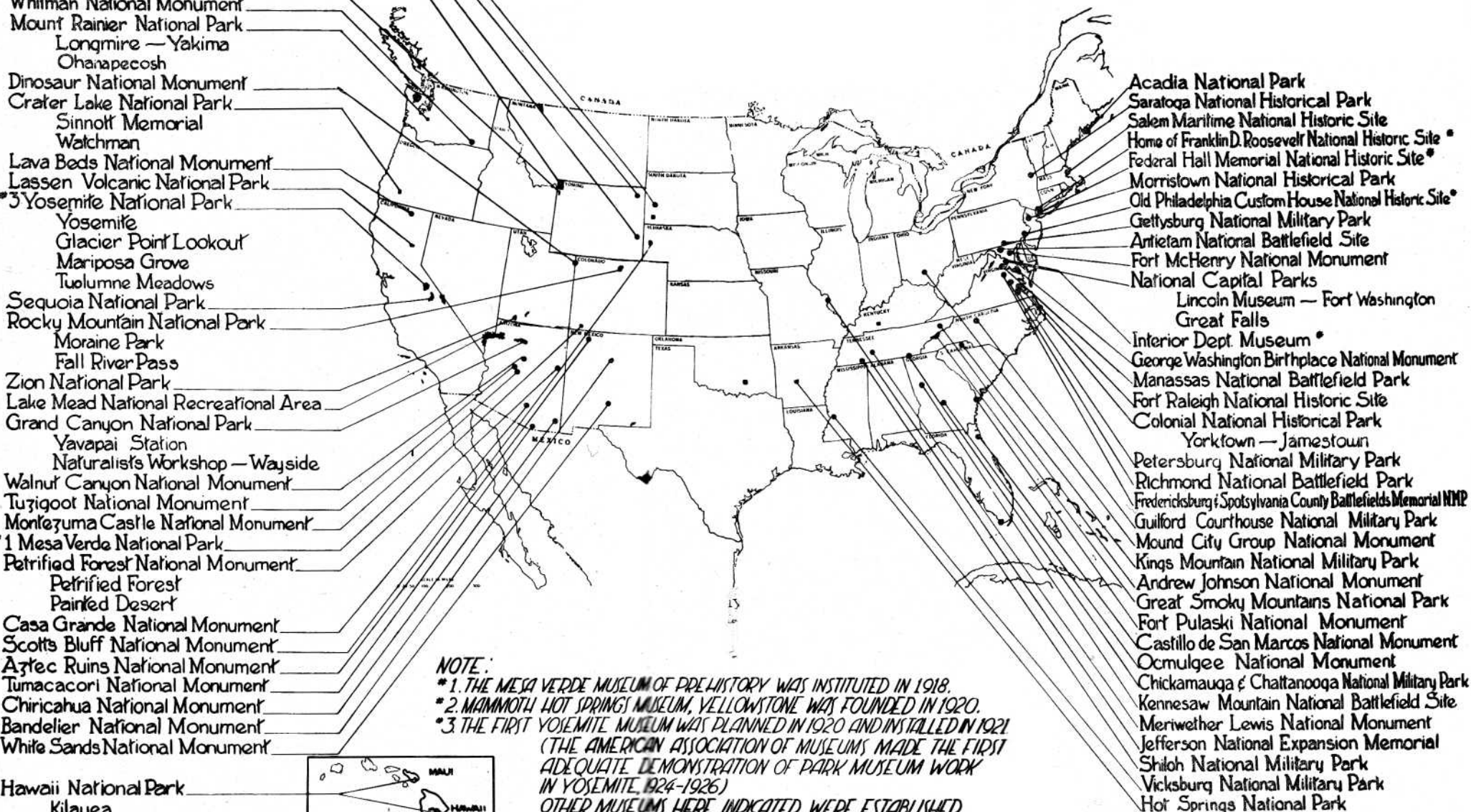
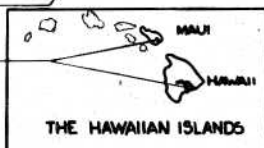
Sequoia National Park
Rocky Mountain National Park
Moraine Park
Fall River Pass

Zion National Park
Lake Mead National Recreational Area
Grand Canyon National Park
Yavapai Station
Naturalists Workshop — Wayside

Walnut Canyon National Monument
Tuzigoot National Monument
Montezuma Castle National Monument
* 1 Mesa Verde National Park
Petriified Forest National Monument
Petriified Forest
Painted Desert

Casa Grande National Monument
Scotts Bluff National Monument
Aztec Ruins National Monument
Tumacacori National Monument
Chiricahua National Monument
Bandelier National Monument
White Sands National Monument

Hawaii National Park
Kilauea
Haleakala



Acadia National Park
Saratoga National Historical Park
Salem Maritime National Historic Site
Home of Franklin D. Roosevelt National Historic Site *
Federal Hall Memorial National Historic Site *
Morristown National Historical Park
Old Philadelphia Custom House National Historic Site *
Gettysburg National Military Park
Antietam National Battlefield Site
Fort Mcherry National Monument
National Capital Parks
Lincoln Museum — Fort Washington
Great Falls
Interior Dept. Museum *
George Washington Birthplace National Monument
Manassas National Battlefield Park
Fort Raleigh National Historic Site
Colonial National Historical Park
Yorktown — Jamestown
Petersburg National Military Park
Richmond National Battlefield Park
Fredericksburg & Spotsylvania County Battlefields Memorial NHP
Guilford Courthouse National Military Park
Mound City Group National Monument
Kings Mountain National Military Park
Andrew Johnson National Monument
Great Smoky Mountains National Park
Fort Pulaski National Monument
Castillo de San Marcos National Monument
Ocmulgee National Monument
Chickamauga & Chattanooga National Military Park
Kennesaw Mountain National Battlefield Site
Meriwether Lewis National Monument
Jefferson National Expansion Memorial
Shiloh National Military Park
Vicksburg National Military Park
Hot Springs National Park

NOTE:

- * 1. THE MESA VERDE MUSEUM OF PRE-HISTORY WAS INSTITUTED IN 1918.
 - * 2. MAMMOTH HOT SPRINGS MUSEUM, YELLOWSTONE WAS FOUNDED IN 1920.
 - * 3. THE FIRST YOSEMITE MUSEUM WAS PLANNED IN 1920 AND INSTALLED IN 1921 (THE AMERICAN ASSOCIATION OF MUSEUMS MADE THE FIRST ADEQUATE DEMONSTRATION OF PARK MUSEUM WORK IN YOSEMITE, 1924-1926)
- OTHER MUSEUMS HERE INDICATED WERE ESTABLISHED SUBSEQUENT TO THE YOSEMITE DEMONSTRATION.

* NOT OPERATED BY NATIONAL PARK SERVICE

of the School with the new Yosemite Museum as headquarters.

To those familiar with the scheme of operation of the Yosemite Naturalist Department in 1949, it is apparent at once that the above synopsis of the interpretive setup in 1924 includes all of the basic elements of the present day program. For twenty-five years there has been but little change in the physical plant and the details of operation remain much as they were in the year of their beginning. One significant circumstance which is not revealed by the synopsis is the role played by Yosemite personnel in spreading the park naturalist program to other National Park Service areas.

In 1923, Director Mather arranged for the appointment of Ansel F. Hall (first Yosemite Park Naturalist) to the position Chief Naturalist in Charge of Field Educational Headquarters in Berkeley, California. It was the purpose of this new office to promote the improvement and expansion of all interpretive work in the western parks and monuments. In 1926, Herbert Maier (architect and builder of the Yosemite Museum and the Glacier Point Lookout) joined Dr. H. C. Bumpus as an agent of the American Association of Museums in planning and building trailside museums in Grand Canyon and Yellowstone National Parks. George M. Wright, Assistant Park Naturalist in Yosemite, launched the wildlife research program on a Service-wide basis in 1928, with headquarters in Berkeley, California. In 1929, Carl P. Russell (Yosemite Park Naturalist) was transferred to Field Educational Headquarters, Berkeley, as Field Naturalist concerned with museum developments in western areas, a program of work which later became Service-wide as shown by the accompanying chart. In the

same year Harold C. Bryant (first Yosemite Nature Guide and founder of the Yosemite School of Field Natural History) was placed in charge of all research and interpretive work with headquarters in the Director's Office, Washington, D. C.

Thus it may be concluded reasonably that from the beginnings made in Yosemite stemmed most of the activities which today are coordinated in the Division of Natural History under the overall supervision of the Chief Naturalist, Washington, D. C. It is also evident that a good deal of the leadership under which the work was expanded on a Service-wide basis was provided by men who pioneered in research and interpretation on the proving grounds in Yosemite.

Much could be written about the gradual extension of the park naturalist activities to other scenic-scientific areas and about the related interpretive program which has grown to large proportions in the historical and archeological areas of the National Park System. For the purposes of this brief account, it will suffice to call attention to the expansion of the museum program as shown by the accompanying chart. It is not extravagant to state that this widespread educational feature of the National Park Service received its initial impetus from the successful demonstration made in Yosemite National Park, 1924-1926.

During the years that have elapsed since the Yosemite Museum was built, earnest attempts have been made to expand all phases of interpretive activities throughout the Service in accordance with Director Mather's original plan. Great gains have been made, but some unplowed ground remains to be cultivated. The expansion should continue, and concomitant with the new

developments *some way must be found to provide satisfactory maintenance of the pioneer establishments* and enlargement of the physical plant and the naturalist personnel.

For about a quarter of a century the Yosemite Museum and the Yosemite park naturalist organization have remained in status quo so far as capacity of the building and number of permanent staff members are concerned, yet the demands placed upon this interpretive unit are now overwhelming. Actually, services rendered by the Yosemite naturalists in 1947-48 were 1300% greater than were the services given by the same permanent organization and the same physical plant in 1925-26. To what extent this increased pressure has caused the Yosemite Museum to "bulge at the seams" can be

imagined. Every device has been employed to obtain efficiency of operations, but there is a limit to the elasticity of both physical structures and the endurance of man.

If the opportunity to serve the growing crowds of Yosemite visitors is to be met satisfactorily, the Yosemite Museum should be enlarged to twice its present size, and the staff of permanent naturalists and seasonal ranger-naturalists must be added to in accordance with prescribed plans of the Chief Naturalist and the Personnel Officer of the Service. This growth can take place only if additional resources can be obtained through gifts or increased appropriations. Some quite heroic effort must be directed upon the problem of raising funds.

THE ACORN SHOWER OF 1949

By Donald Edward McHenry, Park Naturalist

They shouldn't be falling this way these acorns. Scattered all over the ground, roads and pathways their plump forms irresistibly invite me to kick as many as possible ahead of me to see how far each will bounce. I can't afford to do this either for the toes of my shoes are slowly but surely wearing away. And if I choose to resolutely ignore them I feel as if I were walking on marbles. Only they are marbles which collapse with a sorry crunch under my weight.

This is all because the falling of acorns of the California Black Oak (*Quercus kelloggii*) is a bit unusual this year. In the first place the acorn crop is now in one of its two to three year cycles of abundance. Another factor which adds interest to the occasion is the continuing shower of these acorns. By twos, threes and fours they come tumbling out of the trees pelting the roofs of houses

and tops of parked cars with an incessant staccato sound not unlike reports of a 22 caliber rifle. Sometime they land on passing people. Usually people are keenly aware of this. A kindergarden child came running crying to his teacher because of a welt on his back caused by a falling acorn.

What usually happens, of course, is that the greatest part of the crop falls all at once with the first unsettled weather not long after the first killing frost. This year warm weather and mostly clear skies has persisted well beyond normal time. As a consequence the falling of the acorn crop has been spread out over several weeks and is still in vigorous progress. From the number of acorns on the ground it is also evident that the present supply exceeds the food requirements of the resident wildlife population in Yosemite Valley at this moment. As the season ad-

vances there is little doubt but that the nut eating animals of the park will become keenly aware of this source of food. Incidentally Superintendent Russell watched the deer eating some of these acorns around his residence and noted that they were interested only in those which had been crushed on his driveway and walks, passing up the whole nuts.

Some of the local Indian residents of Yosemite Valley are now out gathering acorns to lay away as food for the coming winter or until the crop two years hence ripens. This may come as a surprise to those who might have entertained the notion that this traditional Indian practice was a thing of the past. One has only to observe some of these Indians toting gunny sacks full of acorns to realize that this is not true. To some of these Indians this traditional food is not only one of their choicest and most nutritious foods, but is certainly one of the cheapest and most readily obtainable. Some of this harvest will appear in demonstrations of the ancient custom of making acorn cakes and gruel when Lucy Telles prepares them as part of the naturalist interpretive program this coming summer.

In selecting their acorns the Indians use the well known method of

testing acorns by dropping them into water. Those which are good usually drop to the bottom while the wormy acorns usually float. When the acorns began falling in early September, Chief Lee-mee told his audience at the Indian demonstration that this was "no good" because so many of them would have worms. Subsequent testing them in water followed by cutting them open and examining them showed that about 40% of those collected had grubs. These probably are the larval form of the common acorn weevil (*Balaninus rectus*) which, with its close relatives, is a serious pest on many nut bearing trees. Quite contrary to a general belief birds, at least the California Woodpecker, do not seek acorns for their grubs but for the nut meat itself.¹

This year's crop of acorns decidedly is not a bumper crop but just a cyclic period of abundance. Older residents of the Valley recall previous years when acorns dropped in such abundance that it made driving difficult. This was due to the slippery mass which the crushed acorns made over the roads. This year is unique only in the manner in which these acorns are falling—the acorn shower of 1949.

Editor's Note: Since the above was written Mono Indians have come to Yosemite for acorns, bringing with them pinyon nuts for trade.

1. Ritter, W. E., 1938, *The California Woodpecker and I* (University of California Press, Berkeley) p. 17.





YOSEMITE JUNIOR NATURE SCHOOL 1949
 By Mary V. Hood, Member Yosemite Field School Faculty

As we read of the long fight to conserve some of the wilderness for future generations, we become increasingly aware of the emphasis all great workers in this cause put on education and especially on the creation and arousing of an interest among our young people. It was, therefore, particularly gratifying to be invited to help this past summer with a two weeks demonstration children's nature school for the students of the Yosemite Field School.

It was decided that the Field Schoolers should spend the mornings with the children in nature walks and games, meeting with those situations which they might encounter later as ranger naturalists.

In the afternoons a series of simple yet effective handicrafts were prepared. Amidst a most delightful state of confusion and youthful enthusiasm various projects took shape. Wood was hammered, clay was

thumped while forty individuals "expressed" themselves in leaves, squirrels and owls. But strange to say there was little or no so-called disciplinary problems. We were all too busy.

What did we achieve? Certainly we had the children's full enthusiasm and the parents showed an added interest when they saw what the children had made. As each craft was introduced we hope they got something of our underlying theme such as why a tree has leaves, the concept of the balance of nature or the basic philosophy of conservation. If the children took these thoughts home, that was only one part of the plan. The school was designed for the Field Schoolers and it is hoped they got at least half of what they said they got. If that is so then the pebble has been cast and it will spread its rings over the pool of the nation's consciousness.



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Dan Anderson