YOSEMITE NATURE NOTES

The Yosemite Museum

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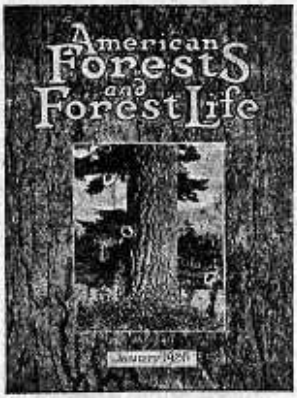

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YOSEMITE NATURE NOTES

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ODDITIES OF NATURE IN YOSEMITE

By P. J. White

Everywhere we find freaks or oddities in nature and Yosemite is not the exception. These peculiar examples draw and hold our attention and make us endeavor to discover the causes for such strange growths or forms. Often they make us wonder how and why they continue to exist.

Has a Gooseberry Bush Turned Parasite?

The ranger-naturalist in taking a party from the Yosemite Lodge on a nature walking trip never misses the opportunity to point to a most unnatural phenomenon--a gooseberry bush growing high up in a great black oak tree. It never fails to bring expressions of astonishment from the members of the group, nearly all of whom have seen many gooseberry bushes growing but not on the limb of a tree.

Several years ago, it is believed, the seed was carried and deposited there by a bird. There was perhaps but one chance in a million that this seed would find enough damp soil in the hollow of the oak so that it could germinate and start growing. The tree stands only a few feet from a road which until recently furnished plenty of dust.

Gooseberry bush growing on oak tree

Evidently the tiny plant found sufficient nourishment in the accumulated soil and enough moisture

from the heavy dews to grow into a sizeable plant. Its roots went deep down into the cracks in the bark and, perhaps, found a hole bored there by a bark beetle or pushed their way through, finally reaching the growing layer of the tree. Having found a new and never-ending supply of moisture it grew into a large full-grown bush about five feet across. It is possible that the hollow stub of the oak above acts as a reservoir of moisture.

The Heartless Oak

The oak tree, in trying to overcome this strange parasite, has now grown entirely over and inclosed the roots of the bush. The fruit of the gooseberry never fully matures, indicating that the shrub does not get as complete a food supply as one growing in soil.

The future of the shrub cannot be foretold accurately but probably the oak will win the fight to smother and kill it as it so often does when attacked by mistletoe.

The Heartless Oak

On the Lost Arrow trail near the foot of Yosemite Falls stands what is left of a once great and proud black oak tree. Adversities such as fire and destruction by insects followed by a rotting away of nearly nine-tenths of the trunk left a semicircle of bark and a thin layer of wood in many places not one inch in thickness. This remaining piece, twisted and leaning, is now but twelve feet high as the original trunk has been broken off at this height.

At the very top is now flourishing a new growth of large sized branches, spreading out at all angles, making a pretty umbrella-like canopy of green foliage. In fact, the new growth has fast become so luxuriant that with the heavy snows it will make the tree top-heavy and finally break it down within a year or two.

This part of a tree which persistently continues to grow in the face of such difficulties forms a most excellent example of tree growth. It shows that heart wood is not necessary to a tree except to hold it upright. It shows that the growing part of a tree lies just between the bark and the wood, and that an inch of sap-wood will fulfill the requirements of bringing up water and minerals from the roots as well as reinforcing the stump enough to stand. Then, too, we learn that as long as a tree has not been entirely girdled and a strip of bark with the cambium layer left intact there is opportunity for a tree to continue to grow and try to heal over the scar.

Girdled Incense Cedar

About one hundred yards below the Pohono bridge there stands an incense cedar, now dead, from which the bark has been cut and stripped from the ground to a height of four feet. This removal of bark entirely around a tree usually kills in a short time, but here is the exception to the rule. The drawing on this page shows how this tree looks today with a new growth of wood and bark, which was added after the act of vandalism was performed nine years ago. A cross section of the new wood shows distinctly nine annual rings gradually becoming thinner as the tree slowly died. No doubt but that the foliage received enough moisture from the roots for food making through hte sapwood and was able to live until this wood became too dried and dead to perform its natural function.

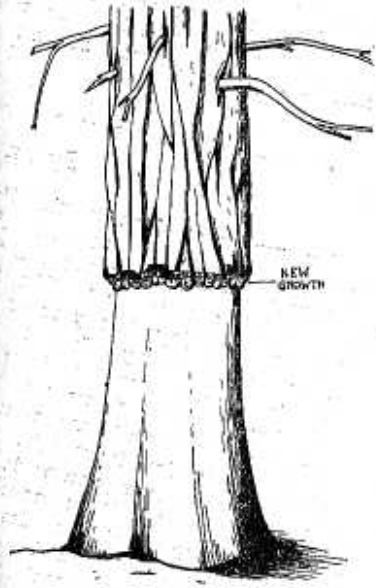
A Stump That Grows

An even greater sight than a tree growing after being entirely girdled is that of a stump which continued to live and grow year after year. Near the Vernal Falls bridge is such a stump. This tree does not stump-sprout nor naturally remain alive after being cut down, but this stump has actually lived and put on annual rings each year for about thirty-five years.

Having no leaves with which to manufacture food, it is necessary for this stump to receive nourishment from some other source It just so happened that several Douglas fir trees were growing close together in the rocks and by chance the roots of this tree crossed and touched the roots of another. As these crossed roots grew they were squeezed together tightly and finally grew together. Now the stump is obtaining sufficient food from the root of the growing Douglas fir standing nearby to continue slowly its growth. To be sure, it is not growing higher, but it is growing larger in diameter and is also gradually covering over the top with new wood and bark.

Growing Under Difficulties

Most of us have seen trees growing in narrow cracks in solid granite and in other seemingly im-



Girdled Incense Cedar –

possible places. We have seen how these trees have gained a foothold and in growing have slowly widened the cracks in the rocks, displaying an enormous and almost irrisitible power. But an even stranger example of force was noticed by a ranger in the firehouse. There he saw tiny seedlings of the black oak pushing up the asphalt floor, some just peeping through and six or more already

through and showing several leaves.

During the early spring when it was decided to change the garage into a fire station, the ground floor was covered deep with dust. In order to raise the level of the floor a quantity of dirt was shoveled in from under a large oak tree nearby. It was natural that many acorns were contained in this fresh dirt. Then this was wet, packed down, and over all was laid three inches of crushed rock and asphalt rolled flat by a heavy roller.

Even under such adverse and impossible conditions the acorns sprouted and with an almost unbelievable force the seedlings worked and pushed their way upward through three inches of pavement. It was found by experiment that it was necessary to use a chisel and considerable effort to dig through the floor to the roots of one of the tiny trees.

YOSEMITE BIRD REPORT FOR JUNE

By Enid Michael

The month of June in the Yosemite valley started off with fair weather. A change came June 6 which brought showers. The following three days heavy rains fell almost continuously. June 10 was cloudy, then a few fair days and another storm which started on the afternoon of June 15 and continued unceasingly for forty-eight hours. At this time heavy rains fell over most of the Merced watershed, with snow on the higher peaks. Both the Merced river and Yosemite creek reached the peak flow for the season. June 17 the storm cleared and then followed an unbroken stretch of warm weather with the thermometer hovering above 90 degrees.

The downpour of rain, no doubt, brought misery and disaster to many birds, especially the ground-nesting species. Three pairs of Brewer blackbirds made an unusual and unfortunate choice in selecting nest-sites These birds built their nests in a thicket of dead willow stems on an island in the middle of the river. It appeared as a very safe home-site, but the unlooked for rise of the river brought disaster. And by the way, speaking of willows, the thickets of salix lemmoni are sadly stricken and the few remaining stands are rapidly being exterminated through the agency of the oyster-shell scale. It is not unreasonable to predict that all willows and cottonwoods of the valley are sooner or later to follow the way of salix lemmoni. Vegetational changes must affect the lives of certain species of birds and it is really amazing what changes have taken place in the flora of Yosemite valley during the last ten years.

Fifty-one species of birds were noted during the month, which number is four below the June average for the last nine years. Of the fifty-one species noted there is not a single species that has not been known to have nested in the valley some time during the last ten years.

Ornithologically this June month approximated the normal. There were no surprises and no exceptional observations.

YOSEMITE'S BIRD MAN

H. E. Perry

The Bird Man of Yosemite has a host of friends both of the feathered and of the human kinds. Living and working in his kindly manner as he has for the past seven or eight years in Yosemite valley, his acquired name has become familiar to a multitude of people, his model camp has offered a natural shrine to all who would turn aside to worship with their feathered brothers, and his work has developed to the point where it is becoming recognized as one of the valuable institutions of the park.

Situated a short distance west of the entrance to the Ledge Trail, the Bird Man's home is an example of orderliness, good management and cleanliness. The cool freshness of recently sprinkled surroundings greets one as he enters the rustic gate and the exceptional neatness has served to inspire many a lady visitor who may have been learning the art of camping for the first time.

The work of the Bird Man is doing much to turn interest toward bird appreciation and conservation. Talking as he does to two groups of people each day, the spirit of his message through their aid is filtering into larger groups of society and the resultant greater interest in bird life and animal conservation in general is encouraging.

Through innate gentleness and unusual patience, the Bird Man has developed a friendship with the bird population around him which not only seems to be soul satisfying to him but which is fascinating to his audiences. All of the birds in that locality exhibit a rare degree of tameness, but it is with the Steller jays that his chief interest lies. Impossible as it may seem to the amateur, the Bird Man recognizes the individuality in his Steller jays and has appropriate names for many of them. Certain ones have been enjoying his companionship for two and even three years and their confidence in him is astounding. The skill with which "Brownie" and "Old Timer" catch peanuts in mid-air is only one evidence of the patience which he has exerted in his association with these friends. It is difficult for anyone to witness the activity of the steller jays during one of the Bird Man's talks without gaining increased respect for these remarkable birds. At the same time, many other kinds of birds are pointed out as they partake of the abundance of food on their feeding trays and the attentive listener has most of his bird questions answered before they are asked.

In addition to the talents already described, the Bird Man possesses an artistic ability which finds expression in the clever bird caricatures which he creates during the winter months. These artificial birds are fashioned through combinations of natural objects which can be picked up along the trail side, such as squirrel-gnawed pine cones, feathers, nuts, acorn cups, etc., and they are put together in ways that often express human traits and characteristics. The minuteness and accuracy of detail are other evidences of unusual patience and skill.

In private life, the Bird Man is known as Herbert Sonn, an artist who is filled with a love for the out-of-doors and a keen appreciation of human nature. His years in Yosemite valley have been filled with kindly labor and his efforts have brought increased happiness to all who have known him. In a very practical way Sonn has augmented the work of the Government Nature Guide program and it is to be hoped that as time goes on there will be a more complete realization of the splendid service he has rendered.—

AN EXPOSURE OF BASALT

By J. S. Smith

Because of their composition, structure, origin and rare occurrence, basalt intrusions are of unusual interest to geologists and a few well-known out-croppings provide some of the world's most novel scenic features. The Giant's Causeway on the northern coast of Ireland, the Palisades of the Hudson and, more locally, the Devil's Post Pile of the Sierra, some sixty miles east of Yosemite, attract visitors from all sections of the globe.

Not so well known, but remarkable, particularly as the only one occurring within a large area of the Sierra, is an out-cropping of basalt on the south side of the Tuolumne river about midway between Tuolumne Meadows and Glen Aulin. Although visible from the trail, the formation is not easy of access because the river intervenes, and the writer, desiring specimens, essayed a pole vault which developed into a cold plunge and a scramble.

Basalt is basic lava, probably formed by the fusion and cooling of impure slates, shale and limestone. Since it cools more evenly than other similar rock formations it cracks vertically and contracts into regular shapes producing an interesting columnar structure.

In the intrusion on the Tuolumne, which is approximately forty feet high and eighty-five feet wide, it is evident that a fissure was present in the overlying granite through which molten lava was forced to the surface, where it cooled. At the foot, broken fragments of the dark, almost black, rock material form a mound similar to the talus slopes of the granite cliffs.

CAMPFIRE PROGRAMS ARE POPULAR

By C. A. Harwell

At the request of Park Superintendent Colonel C. G. Thomson a new service is being offered in Yosemite this summer to accommodate the four thousand campers in the valley. Under the direction of rangers a bonfire is lighted each evening in central locations and an appropriate program is put on. This gives camp patrol rangers a new duty and opportunity. While making their daily rounds they invite campers to bring camp chairs and come out to the evening programs and also secure talent from visitors to furnish entertainment features. This new feature was started in Camp 7, June 27, and in Camp 14, July 9. Suitable platforms and electric lights, and equipment for picture projection have been installed.

The feature of each evening's program is an illustrated lecture on some phase of the natural history of Yosemite or other topic of interest to our visitors, given by one of the ranger-naturalists of the National Park Service. This work is under the direction of the park naturalist.

The response has been splendid. An appreciative audience of 500 to 600 gathers each evening about these camp fires. Locations were chosen so that a clear view of the fire-fall from Glacier Point can be had by these groups.

AFIELD WITH RANGER NATURALISTS

Black Bear Kills Fawn

On July 22, 1929, campers in Camp 7, and members of the Yosemite School of Field Natural History were awakened at daybreak by a pitiful distressing squeal, as if someone were blowing on a blade of grass placed between the thumbs. Rising from my bed I saw all the deer from the nearby meadow, approximately fifteen in number, come running to the vicinity from which the sound came, but kept running back and forth at a distance of about one hundred yards from the supposed place, keeping up a blowing or snorting. Curious to know what was happening I proceeded to find the spot from which the sound came. From behind an azela bush along the bank of a meadow slough came crunching sounds, which upon closer approach proved to be caused by a large cinnamon bear sitting on his haunches and feeding on something. Chasing the bear away we observed that he was breakfasting on a fawn apparently only a few days old, which the mother had tried to hide in the grass. The meat of the fawn was still warm, which proved that the sounds we heard were the poor little fawn's cries as it was grabbed by the bear. After leaving the spot the bear returned, took the remains of the fawn and carried it across the meadow into the forest and rocks north of the Ahwahnee Hotel.—George L. Unnewehr.

FURTHER YOSEMITE TOAD STUDIES

DR. F. O. EVANS

Dr. Rudolph Stohle, exchange student at the University of California, from Switzerland, is collecting specimens of the Yosemite toad to be used in a research on sex determination. The Yosemite toad is of unusual interest for a study of this character because of the marked difference between male and female in size and coloration.

Evidence of Migration Noted

One of the first birds to leave Yosemite valley at the end of the nesting season is the hermit warbler. This bird makes its presence conspicuous during late May and June by a drawling song somewhat like the syllables leedle-leedle-leelee-lee. The bird forages largely in rather high coniferous trees. After the middle of July the song is no longer heard and the birds seem to have totally disappeared from the floor of the valley. No one seems to know exactly where they go unless it is to lower elevations. The leaving of the hermit warbler is the first evidence of fall migration. A little later male tanagers are less frequently seen, and by late August females and young alone are to be noted, indicating that male tanagers have begun a migratory movement. A still more noticeable movement of birds from the higher country is to be noted in late September and early October.—H. C. Bryant.

JAY STORES PEANUTS

RALPH TEALL

A blue-fronted jay recently gave an amusing instance of his food-storing habits in the heart of Camp Curry. A guest was giving it unshelled peanuts. As it picked up each one it flew about twenty feet and stuffed it carefully under the pine needles covering the ground. It often happened that a hiding place only a few feet from some interested spectator would be chosen. Each time the jay would return for another nut to be secreted in a new place. The bird apparently did not notice, or chose to ignore the fact that as each nut was stored it was promptly retrieved by a small boy and again offered to be hidden. Through the fifteen minutes in which it was watched the jay was seen to hide two nuts at least three different times.

RECENT MUSEUM ACCESSIONS

"Illustrated Flora of the Pacific States was presented by the Stanford University Press.

"A Guide to the Birds of Colorado" by Bergtold was given by the Yosemite Natural History Association.

Willetta S. Hill gave the following:

"In the Heart of the Sierras" by J. M. Hutchings.

Painting, "The Snow Plant," by Thomas Hill.

Portrait of Thomas Hill.

Article, illustrated, on work of Thomas Hill from San Francisco Bulletin, July 16, 1899.

Article, illustrated, on Thomas Hill and his Wawona studio from The Wasp, December 30, 1905.

Article, "The Last Spike," newspaper clipping.

Article, "The Last of the Yosemites," San Francisco Examiner.

Portrait, Mariposo county Indians, Mrs. Jim Roan and infant Ruthie.

Portrait, Mariposa county Indian, Ruthie Roan.

Eighteen autographs as follows: W. F. Hancock, Benjamin Folsom, Chas. Dudley Warner, C. Schroter, Arthur Sullivan, Kate Field, Albert Bierstadt, C. Fleischman, Thomas Hill, J. D. Phelan, Chas. F. Lumnies, Lillie Langtree, R. B. Hays, Howard Potter, Ben C. Truman, John Muir, Joaquin Miller (2).

Anna L. Johnstone presented the following:

Photographs of Mr. Jorgensen's studio, Mirror lake, Yosemite 5 o'clock tea, trail to Nevada fall, dancers on overhanging rock at Glacier point, Half Dome, going to Christmas dinner in Yosemite, the old well, Yosemite valley store, Yosemite falls, glimpse of the upper Yosemite falls, Yosemite road in winter, Maxie's snow shoe ride, Mr. Jorgensen's studio, Nevada falls, Bridal Veil falls, glimpses of Yosemite chapel, overhanging rock at Glacier point, the domes of Yosemite on Christmas morning.

The Yosemite Natural History Association presented "The Bookman's Glossary" by John A. Holden.

Illustrated "Family Burns" by D. F. Collier; discovery and conquest of the Northwest, two charm stones, and a glacial boulder were obtained from Mrs. Estelle Berger.

Mrs. Pink P. Ross made available:

Hutchings tourist guide, Yosemite Valley, 1877.

Mariposa Gazette, August 8, 1863.

Twelve Yosemite views by Fagersteen, 4 by 7 inches.

Fagersteen picture of Sentinel Hotel.

Fagersteen picture of "Pike," Yosemite guide.

Watkins' photos with Taber trademark, 16 by 20 inches of El Capitan, Wawona tree, Vernal falls, North Dome, Mirror lake.

Arthur S. Rosenblatt presented a print from the first photograph ever taken in Yosemite by C. L. Weed, 1859. He also gave portraits of T. G. Phelps, Ferris Poheman, Joseph Walkup, A. R. Meloney, James Anderson, Joseph Coulter, E. Garter, John E. Burch, W. S. Ferguson, Isaac Allen, A. W. Taillefort, Humphrey Gueffetto, A. J. Moulder, Gilbert A. Grant, Pachico Remmulado, Samuel A. Merrit, William T. Lewis, Geslan Johnson, J. H. Baker and Sam Bell. Also presented by Mr. Rosenblatt were a number of other early photos, sixteen mining scenes, Placerville street scene, giant Sequoia, two Bridal Veil falls, El Capitan, two Vernal falls, two Auburn street scenes, Glacier point, valley view, Yosemite falls, Three Brothers, early city view, Half Dome, North Dome-Royal arches, two Nevada falls, Cathedral rocks, North Dome-Half Dome, two Sequoia grove pictures, mining town in canyon, Sentinel rock, Yosemite, two gold wash in canyon, gold sluice way in canyon.

Mrs. Lucy Milburn has loaned to us the Peregoy Hotel register of 1870.

The United States Biological Survey presented us with the following:

A biological survey of North Dakota.

Life zone investigations in Wyoming.

Birds and mammals of the Pribilof islands, Alaska.

Insects, Arachnids and Chilopods of the Pribilof islands, Alaska.

Revision of the American Pikas.

Revision of the American Lemming mice.

Biological investigations in Alaska and Yukon territory.

Revision of the mice of the American Genus Peromyscus.

Biological investigations in Alaska and Yukon territory.

A biological investigation of the Athabaska-MacKenzie region.

North American fauna.

This is the official publication of the Educational Department of Yosemite National Park. It is published each month by the National Park Service with the co-operation of the Yosemite Natural History Association, and its purpose is to supply authoritative information on the natural history and scientific features of Yosemite National Park. The articles published herein are not copyrighted as it is intended that they shall be freely used by the press. Correspondence should be addressed to C. A. Harwell, Park Naturalist, Yosemite National Park, California.

C. G. THOMSON
Superintendent