

YOSEMITE NATURE NOTES

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GEOLOGY LECTURES AT THE YOSEMITE MUSEUM.

All visitors to Yosemite are interested in the way that Nature carved such a marvelously beautiful masterpiece. Recent studies by members of the U.S. Geological Survey have proved conclusively the most important facts in the long hidden story.

The Sierra Nevada is a mountain range that has resulted from the tipping up of a huge block of the earth's crust - a block 400 miles long and 80 miles wide. The break or "fault" occurred at the eastern edge of the block; one may now stand at the summit of Mt. Lyell or Mt. Dana and look down 10,000 feet or more to Mono Lake and the desert valleys to the eastward. The westward slope of the Sierra slopes gradually - indeed, the average gradient from the crest to the San Joaquin Valley only averages two degrees.

Following the successive tiltings that raised the Sierra the main streams were forced to flow eastward. One of these trunk streams, the Merced, carved its channel to a depth of more than two thousand feet to form the slowly developing Yosemite Valley. Then came a change in climate. The snows of winter accumulated in the higher mountains, compacted into ice and sent forth glaciers into the lower country. Two of these glaciers, one from the main Merced drainage and one from the Tenaya Creek drainage, met in the Yosemite, greatly widened it, and, up to their retreat some 20,000 years ago, had succeeded in deepening the Valley some twelve hundred feet.

The story of the action of water and ice in the formation of Yosemite Valley is told daily at 10:30 A.M. in non-technical language at the Yosemite Museum by Chief Naturalist Ansel F. Hall of the U.S. National Park Service. Here all of the features of Yosemite are actually represented on a ten foot relief model and can be pointed out as if one were in an aeroplane flying over the region. Special lectures will be arranged at the request of ten or more persons.

22-INCH LOCH LEVEN TROUT TAKEN IN MERCED RIVER

The Merced River has furnished better fishing this year than ever before. Even unskilled boy fishermen are getting a few out of the river. The skillful anglers are taking big ones. A 22-inch Loch Leven Trout was caught from the Sentinel Bridge in the village on June 29, and was on exhibition during the day at the Superintendent's office. Introduced fish such as the Brown, Loch Leven, and Eastern Brook thrive in the warmer, slower-moving waters of the lower elevations whereas the native Rainbow chooses the rushing mountain streams of a granite-walled canyon.

MOUNTAIN TOPS AND SPRINGTIME

The Nature Guides are often asked the question: "Why are there so many flowers in Yosemite now, when down in the lowlands they were through blooming long ago?" Many persons do not realize that the spring season comes later and later with the increase in altitude, and that it is possible in a short distance to pass from a region of summer to one of spring. Last Wednesday the nature guide party to Glacier Point and Sentinel Dome went up the Ledge Trail. In the narrow canyon toward the top of the trail where the snow lies deep in winter and remains longer than in more exposed situations, it was observed that Spring had just arrived. The willows along the stream were just in bud, the ferns had not yet unrolled their fronds, and the gooseberries which were in fruit at the foot of the trail were just coming into bloom at this point.

INDIAN ARTIFACTS YET TO BE FOUND

A nearly perfect arrowhead was picked up by a member of one of the Nature Guide parties in Little Yosemite. This region was no doubt one of the Indians' hunting grounds, and their summer village there was called Kah-winⁱ-na-lah. The names of more than forty old Yosemite villages as well as the locations are on record at the Yosemite Museum.

USEFUL BEETLES.

The warm weather has awakened the Lady Bird Beetles. These interesting and useful insects congregate in large numbers in the leaf mold to spend the winter. Since their food is almost altogether scale and plant lice they are gathered by the Department of Agriculture and turned loose in orange groves and melon districts to eat the scale and aphids.

ANOTHER CAMP ROBBER.

Many Yosemite visitors remark about the numerous grizzled-gray, bushy-tailed squirrels so often seen about the camps. These are the same California ground squirrels (*Citellus beecheyi*; *beecheyi*) so common in the great California valleys. In Yosemite they have become camp robbers, entering tents and gnawing into stores of provisions. They may sometimes be heard to give a single loud whistle and less frequently they become sufficiently excited to launch into a continuous angry chirring ten minutes or more in duration. Recently one of these squirrels in Camp 19 became disturbed at the unusual sight of a tent opened at the back by the lifting of the rear tent wall. For twenty minutes the animal scampered about within a radius of twenty feet, continually reviling the inmates of the tent for bringing about such a change in his landscape.

SNAKE EGGS ON EXHIBITION

A Blue Racer kept in the terrarium at the Museum laid its eggs last week and they have attracted even more attention than the Rattlesnakes. On Tuesday, June 26th, three eggs were found and by 2:30 the same day three others had been deposited. Like other snake eggs they are cylindrical, about $1\frac{1}{2}$ inches long by $\frac{1}{3}$ inch in diameter, with no true shell, simply a tough white skin as a covering. The blue racer is a near relative of the black snake of the east. It is one of our fastest moving snakes and is one of the few that will sometimes climb about in shrubbery.

AN INSECT CARPENTER.

An interesting worker in wood is the Carpenter Bee. This bee will make burrows in rather hard wood and in the bottom of the hole lay an egg. After placing some honey and pollen by the egg it builds a partition and lays another egg and so on until the burrow is filled. A large number of pairs of bees will occupy the same stump or post.

GOOSEBERRY BUSH GROWS OUT OF OAK TREE

Near Yosemite Lodge will be found a large Black Oak, out of a dead limb of which there grows a good sized gooseberry bush now loaded with gooseberries. The dead limb is at least twelve feet above the ground. It seems almost certain that the gooseberry bush is stealing part of its food supply from the oak, for there is not sufficient soil in the dead limb to furnish a food supply. How did the seed get there? How old is the bush? Is it becoming a parasite? Such are the questions asked by everyone who sees it.

DADDY LONG LEGS IN EVIDENCE.

Some of the more timid campers in the Park are dismayed at the sight of enormous two-winged insects within their tents. These are the giant crane-flies now emerging in fair numbers from their pupae cases. They have developed from eggs deposited in the decaying vegetation of wet stream banks. Worm like larvae hatch from the eggs and feed upon the slimy organic material about them. After an unknown time in the larval condition they become pupae and finally emerge as the great flies at present so conspicuous about the lights of Yosemite Camps. Investigation will disclose the presence of a second pair of wings on the insect that apparently have become discouraged in their development and in thousands of generations shrunk to mere knobs.



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Dan Anderson