

# SAN DIEGO STATE COLLEGE LIBRARY

DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
YOSEMITE NATIONAL PARK

## YOSEMITE NATURE NOTES

Volume III

July 5, 1924

Number 10

Yosemite Nature Guide Service

G. P. Russell, Park Naturalist

This is one of a series of bulletins issued from time to time for the information of those interested in the natural history and scientific features of the park and the educational opportunities the park affords for the study of these subjects.

Utilization of these bulletins by those receiving them to the end that the information contained therein might be as extensively distributed as possible will be appreciated.

W. B. Lewis, Superintendent

---

### GO WITH A NATURE GUIDE TO SIERRA SUMMITS

It is quite impossible to get the true spirit of your park if you but visit Yosemite Valley. Until recently it has been an expensive undertaking to leave the crowds and go up into the wild wonderland beyond the "rim". But now a remarkable development has taken place, and the very best of Yosemite is open to all. Can you enjoy hiking ten miles a day through the amazing beauty of the High Sierra? Then tie a lunch to your belt and go.

At the end of each day's pleasure you are assured of a bed and hot meals. HIKERS' CAMPS have done away with the necessity of carrying your own equipment, and the cost of these remarkable accommodations is within the reach of all. 75¢ a night for a bed and 75¢ a meal makes living in the High Country less expensive than living at home. The seven camps are so located that a few days or the entire summer may be spent in visiting the regions they make accessible.

On July 7 a nature guide will take a party over some of the park's most beautiful trails. Six days will be given to revealing wonders undreamed of by the average Yosemite visitor. You may learn of the delicate adjustments of Nature, of the place her animal and plant productions occupy within definite

zones, of altitudinal changes which bring about wild life changes; you may gaze from great heights upon unequalled panoramas wherein you may trace a geological story which will be remembered as no written story can be remembered; you will be long in touch with a naturalist whose greatest ambition is that you may properly interpret Nature; and above all you will gain a consciousness of the real value of national parks.

#### INSPIRATION FROM A STUDY OF NATURE

"One impulse from a vernal wood may teach you more of man, of moral, evil, and of good than all the sages can." To this statement of Wordsworth most will agree, but few there are that get the impulse. Many visitors to Yosemite search for amusement or at best for scenery and are blind to all living things about them; they hear jazz and perhaps the thunder of waterfalls but are deaf to the finer sounds of nature. The nature guides in Yosemite teach visitors "to read nature as a book", a basic preparation for securing the impulse mentioned in the quotation above.

#### JUNE BEETLE SEASON ARRIVES

At this time of year in Yosemite a large, ten-lined June Beetle flies about the lights at night and crawls about in the tents. To most this is a terrifying "bug", and many are afraid even to touch it. In reality this beetle is harmless. Should the one who finds it stop to study it, he would find many points of interest. The antennae, although somewhat club-shaped, are something like a comb with movable teeth or leaves. The stronger outside wing covers protect the inner transparent wings used in propulsion. This adult beetle develops from a "white grub" or larva that lives in the ground. The famous scarab beetles of the Egyptians are included in the same family. A wise nature study teacher once said, "I feel that a lesson on a spider has been of the right kind if I can teach my pupils to watch it, not squash it." We suggest that Yosemite visitors take this viewpoint in relation to the common, large June Bug of the region.

#### LODGE POLE PINE AND FOREST FIRES

The Yosemite tourist interested in the trees of the park frequently is astonished at the large number of cones produced by one of the pines. In some areas the cones under this pine are so numerous that it is not possible to walk without crushing many cones. The cones are small, one of the smallest of pine cones. This pine, the lodgepole, is unique because of its wonderful reproductive power. In the Little Yosemite we have a splendid example of this. Here we find areas with small trees of this species growing so thickly that one can pass through only with difficulty. A forest fire passed over this area some years ago, and now the lodgepole pine has reclaimed the soil with an abundance of growth. This has been made possible not only because of the large number of cones, hence large number of seeds produced by this tree, but also by the fact that some of the cones remain closed for a number of years, adhering all the while to the branches. A forest fire easily kills the tree because of its thin bark, but the closed cones usually give adequate protection to the seeds. After the fire, the cones open, shed their seeds, and a new growth springs up.

## SOME NOTABLE SAPROPHYTES

Among the many notable plants found in the Yosemite region are a few which are saprophytes; that is, they obtain their food from decaying organic substances. The famous snow plant with its bright red stems, leaves, and flowers, is a very conspicuous object as it pushes up through the brown needles of the forest floor. A trip to the rim of the valley over any of the trails will be rewarded by the sight of one of these strange plants. It does not grow up through the snow, as some people suppose, but makes its appearance very soon after the snow melts. A relative of the snow plant (*Pleuricospora fimbriolata*), entirely lacking in coloring matter, is another one of these saprophytes. It looks very much like a small snow plant without the red color. It occurs near Glacier Point and along the Pohono Trail. Still another relative of the snow plant, pine drops (*Pterospora andromedea*) is also one of these saprophytes. It is found under the pines on the floor of the valley. It may be recognized by its pendent flowers on slender stems, which are very sticky. A fourth one of these saprophytes, the coralroot (*Corallorhiza multiflora*) is found growing among decaying pine needles or other vegetation and is most commonly seen in the red fir forests on the rim of the valley. It is one of the orchids. The stems and scale-like leaves are pink or straw colored, as are also the flowers with the exception of the lower petal, which is white with purple dots.

## THE BLUE-FRONTED JAY

For his malicious activities among the smaller birds during the nesting season, the Blue-fronted Jay is a much maligned bird. As a race, the jays have an evil reputation both among the smaller birds and among human observers. It is true that jays have a predilection for fat and tender baby birds, but it must be remembered that we too have a taste for spring broilers.

Meat-eaters we are as a race, and from our point of view it is quite all right to live at the expense of some other living thing. How then can we blame the jay for his most natural desire to satisfy a perfectly natural appetite? From the jay's point of view, all jay qualities are good qualities. He is a good provider, a loving husband, and a bold defender of his home.

Nature has supplied insects for the smaller birds to feed upon. She has also supplied smaller birds for the jays to feed upon. And the jays in turn furnish food for the hawks.

The Blue-fronted Jay is a handsome bird, and where man has not interfered with Nature's balance he has his niche to fill.

## TELLING YOSEMITE'S STORY

### No. 6 - Yosemite Valley U Shape in Cross Section.

Previously we have given the U-shaped cross section of the canyon as the first characteristic of glaciation. We have stated that the bottom of the Tenaya gorge displays this unmistakable evidence, but do we find a concave surface on the floor of Yosemite Valley? We do not. It is the purpose of this article to explain the apparent absence of the U-shaped profile in the Yosemite Valley itself.

The glacier in one stage of its existence extended just to El Capitan. At that point the melting of the ice just equaled the forward movement of the flowing mass. The great quantities of sand, gravel, and rock debris which had been riding upon and in the ice were here dumped in a great ridge across the face of the melting glacier. This terminal moraine became a natural dam. Extending as it does across the very gates of the valley, it impounded the waters from the melting ice mass. Further changes in climate caused the glacier to recede slowly toward the head of the valley. The water backed up behind the moraine, and a beautiful lake five and one-half miles long was formed. This beautiful, ancient Lake Yosemite was of comparatively short life. From the geologists' standpoint it was but a brief time before it was glutted with sand. From every side many torrents, rushing from the melting ice above the "rim", fell thundering hundreds and even thousands of feet into the basin at the foot of the cliffs. With these streams and especially with the Merced River and Tenaya Creek flowing from still active glaciers, came enormous quantities of sand. The streams quieted temporarily as they entered the lake and their loads of sand settled down and covered the solid rock bottom of the lake. This continued until broad deltas extended far out into the lake from the points of entrance of each stream. At last the deltas were continuous, and a flat expanse of shining sand replaced the fair lake surface. Then began the cycle of plant succession. Overgrown first with grasses and small plants, the valley floor was next populated with willows and shrubs. Rapidly the forests extended their outposts, and only patches of meadow remained. Through these lovely parks meandered the Merced, made lazy by this bit of plains it had built in the mountains.

Mr. F. E. Matthes in his engineer's way has computed the probable depth of the sand filling the rock basin. He is of the opinion that 300 to 500 feet of sand would be drilled through before the granite floor of the original glacier trough could be reached.

The original contours of the Yosemite Valley were typically U-shaped as left by the glacier. Should the reader find it difficult to convince himself that river sediment has so changed its outlines, he may witness the same identical process going on today. Mirror Lake, not a remnant of the great glacial lake but one formed recently, is rapidly being filled with sand. Tenaya Creek is building a delta into the lake, and reflections of Mount Watkins will soon be viewed in the surface of a Mirror Pool.



Digitized by  
**Yosemite Online Library**

<http://www.yosemite.ca.us/library/>

Dan Anderson