

YOSEMITE NATURE NOTES

VOL. XVII

November, 1938

No. 11



Yosemite Nature Notes

THE PUBLICATION OF
THE YOSEMITE NATURALIST DEPARTMENT
AND THE YOSEMITE NATURAL HISTORY ASSOCIATION

Published Monthly

VOL. XVI

NOVEMBER, 1938

No. 11

RATTLESNAKE AND JAYS

By Ranger-Naturalist Enid Michael

My tent is located in a quiet corner of Camp 19 near the base of the south wall and at the foot of a great talus slope. Bear, deer, fox and coyote have been seen in camp. A weasel lives in a crack of the granite wall and ground squirrels have their homes in the rock slide. Birds of many species come to the feeding tray and a pair of Pigmy Owls reared a family a hundred yards from camp. Blue-fronted Jays are very common and they keep me informed as to any unusual doings about the camp.

Shortly after noon on July 6 the jays set up a commotion directly back of the tent and naturally I walked out to see what all the fuss was about. The jays were gathered in a circle, some perched on boulders, some in the lower branches of the fir, some in the azalea bushes and some in the lower branches of the maple. I counted seventeen birds. All were looking toward the ground and all were scolding loudly. These jays were much excited, they leaped into the air and changed from perch to perch; they continued to look toward the ground

and they kept up an incessant chatter. While they moved about they did not move away and the circle of birds was irregularly maintained. The center of concern was quite apparent, but although I was not more than ten feet away I could not locate the object of their abuse. I kept moving closer and finally when just five feet away I caught sight of a large rattlesnake. The snake was coiled snugly on some dry maple leaves in a mottled light of sunshine and shadow. The snake was sleeping peacefully and so perfectly did its mottled body blend into the setting that I was inclined to believe that it had deliberately chosen the spot that offered the most in the way of camouflage.

I sat down in the shade to study the rattlesnake and to see if the jays would finally manage to disturb its slumber. One by one the jays departed and after perhaps five minutes I was alone with the snake except for a ground squirrel that continued to protest from a safe distance. I watched the snake for a long while and there was no indication that it was aware of any

disturbing element.

I sat silent and motionless, the jays were gone. The ground squirrel moved closer and closer, swinging her tail from side to side in a most unusual manner and stopping every few feet to stand up and sniff the air. Finally the squirrel worked her way to the top of a boulder where she could look down at the snake from the safe distance of about eight feet. I believe that this was the first time that the squirrel actually saw the snake, I believe she sensed its presence by other means than sight, probably from the behavior of the jays. Why not?—she should understand the language of the jays better than I. The squirrel sat up very close to me and I could see by the condition of her breasts that she had suckling young at home. No wonder she was worried. Anyway, mother squirrel ceased to swing her tail in the odd and unusual manner. She now arched her tail over her back and with a quick jerk of her tail every second or two she seemed to thump out those short, sharp whistled alarm notes.

After a half hour or so even the squirrel deserted me. The snake was a beauty with a nice fresh coat of skin. He did not rattle nor did he stick his tongue out at me. I rather liked him and I knew that he would make a good mouser to have around camp. But there are children in camp and a rattlesnake is not exactly a pretty plaything.

I telephoned to the Yosemite Museum and Ranger-Naturalist Tex Bryant came over and scooped the

snake up in a butterfly net and now the handsome snake will have an admiring audience gathered about the snake cage at the museum.

What especially interested me was the fact that of all the birds in the neighborhood it was only the jays that became excited about the snake. Had the cause of the excitement been the weasel the jays would have been joined by grosbeaks, tanagers, juncos and any other birds that happened to be around.



THE BLUE-FRONTED JAY
(*Cyanocitta stelleri frontalis*)

By Ranger-Naturalist Enid Michael

In spite of their evil reputation I do like the Blue-fronted Jays. And I may as well confess at once that to me there is no good reason to bestow an unsavory reputation upon the jay; at least it seems to me that it ill behooves a member of the human race to point a finger of scorn. Of course, everyone knows that jays steal eggs of other birds. I myself

have never caught the jay in the act of stealing eggs. But, suppose we admit that the jay does steal eggs I do not see how we could very well hold that against him. Any good poultryman kills his hens that do not lay eggs to be stolen. Jays do occasionally eat nestling birds, but so do we — squabs on toast are really not so bad.

On the other hand jays save many lives. They see everything that goes on in the neighborhood and they are quick to shout a warning call if an enemy appears. The watchman jay with his loud shouted warning has led me to many adventures that I would have otherwise missed. Many times jays have called my attention to a weasel, to a hawk, to an owl, or to a rattlesnake. It was the jays that called my attention to the only Long-eared Owl I ever saw in the Yosemite Valley. So many times have I investigated the hubbub set up by a band of jays that I can now almost guess the identity of the enemy by the behavior of the birds. If the cause of the excitement be a snake the jays will be perched low and with heads tipped downward they will be shouting toward the ground and not moving much. They may even hop around on the ground and scold. If the enemy be a weasel they will fly low and shout from the wing. The jays must move quickly to keep up with the fast moving weasel and besides they care to take no chances with the killer. If the commotion set up by the jays is taking place in a dark wood it is

likely to be one of the larger owls that is causing the mob scene; and if the jays are joined by all the small birds of the neighborhood the center of concern will likely be the little Pigmy Owl. Sometimes if it has been a quiet day a bear or a coyote may give the jays something to shout about.

Most people know the jay as a noisy bird with a raucous voice, a few people know the jay as a sweet singer. The jay is an early nesting bird and in Yosemite Valley he starts his courting in late winter and it is then that he sings his best sweet whisper-songs.

The jays are wonderful nest builders. They believe in having sound timbers in the foundation of the nest and each twig that goes into the foundation is carefully selected. Each twig to be used is snapped from a tree or shrub and never picked up from the ground. On the platform of rough twigs is built a well formed cup of softer material, such as weed stems and bits of string for lashing the nest together. The walls of the cup are plastered with mud and then follows a lining of pine needles. The nest is so large that the incubating bird may crouch down so as to be completely hidden from below, with perhaps just the tip of the tail or the tip of the bill showing beyond the rim of the nest. Jays sometimes place their nest not more than five feet above the ground, at other times the nest may be placed as high as fifty feet above the ground. The noisy jay is not always a noisy bird. In matters regarding

the nest he is a silent bird, the nest is his secret. Even young jays are wise enough to keep their mouths shut while in the nest.

Jays are very attentive to their mates and kind to their children. They are good providers and they are thrifty. They store acorns and other kinds of food. What they cannot eat at one meal they carry away and store and it is this thrifty habit that gains for the jays the reputation of being greedy birds.

"Fine feathers make fine birds," they say. If feathers alone could make a fine bird the Blue-fronted jay would be a very fine fellow indeed. The truth is that the jay has too many human traits to be really lovable.

EPICORMIC BRANCHES

By Ranger-Naturalist E. L. Lucas

Nature walks each Saturday from Glacier Point to Sentinel Dome involve the explanation of a white fir stump with epicormic branches. (see cut). This stump is located on the trailside just above the Glacier Point campground and is very noticeable to visitors. These branches were formerly included in the tree trunk, but due to decomposition are now exposed in a striking way. Since they reduce the timber value of the trunk, much thought and experimental research in the field of horticulture and forestry have been devoted to them. Their causes have not been made altogether clear, because observations are encountered

involving unexplained phenomena such as correlation and polarity. However, despite this, their biological significance is important.

The wintering form of the young annual shoot is the bud. Buds are abundant and originate early on the young tree. Experiments have proved that the buds on the lower



portion of the trunk may persist almost without growth while the mother trunk continues to add annual rings. However, they keep pace with the diameter growth of the trunk and become incorporated in the wood branches. They may be awakened and develop as substitute

branches when the regular branches are damaged or lost.

Factors which are favorable for the development of epicormic branches are as follows:

1. Due to crowded conditions of the regular branches, the buds on the lower part of the trunk may be awakened. This indicates a condition of balance in tree growth.

2. Since these branches stand nearer the source of water supply they may withdraw nourishment intended for the crown and develop at the expense of the crown.

3. Many times the activity of the soil falls off and the shortage most strongly affects the crown and it dies from the crown downwards while the lower epicormic branches remain alive and grow.

4. Mechanical forces such as wind pressure on the crown encourage a greater diameter growth, a decrease in crown growth and the epicormic branches benefit and awaken and develop.

5. When the tree is suddenly set free from crowded conditions, then due to better root space and more light, the lower buds are better able to revive and keep pace with the ring growth of the trunk.

6. Sometimes they are called "agony shoots," because it gives the impression of a last attempt of the tree in its death agony to save itself by means of such substitute branches.

Perhaps no one of the above factors will account for the growth of epicormic branches, but certainly all of them working together under

favorable conditions may explain how they are formed.

THE EAGLE IN FLIGHT

By Ranger-Naturalist E. L. Lucas

Visitors at Glacier Point are occasionally treated to the unusual thrill of the flight of a Golden Eagle. On June 18 an eagle was sighted soaring from the Valley between Glacier Point and Grizzly Peak. The rapidity of its rise in flight from the valley, perhaps aided somewhat with an up-current of air, was very striking. It soared to an unusual height in a matter of two or three minutes. Suddenly, it half closed its wings and made a power dive over Glacier Point and Sentinel Dome into the west end of the valley, presumably into the region of El Capitan. The dive to the west and out of sight was less than one minute.

The visitors stood speechless for sometime. Finally, someone ventured the double question, how fast did the eagle travel and why did it take that particular course to the west end of the valley?

The path of flight must have been over four miles covered in a maximum time of four minutes. This would indicate that its speed must have been well over sixty miles per hour. It was assumed that the eagle chose this route to the west, rather than following around over the floor of the valley, because it wished to avoid the heavily populated area of mankind.

SUMMER RAINFALL IN THE SIERRA NEVADA

By Ranger Naturalist A. Carthew

Visitors to the Sierra Nevada of California are sometimes surprised to experience rain in a state with a reputedly dry summer climate. This is particularly true of those who have just one day to see the mountains and happen to be present when it rains. The summer rainfall of the mountains is a normal occurrence and is not in the category of California's "unusual weather."

There are two distinct types of summer rainfall, a recognition of which is often helpful in planning a hike or a day's outing. The thunderstorm or convectional type is the more common. This is a local type of storm which results from the unequal heating of the earth's surface, leading to the rising of the air above the superheated areas, followed by a cooling below the dewpoint and resultant rain. It may be expected to follow very hot sultry days and is presaged by the formation of the large white billowy cumulus clouds. These change into the cumulo-nimbus or storm clouds and produce rain. The storm of this type covers a limited area, is usually accompanied by lightning and thunder and is of rather short duration, possibly lasting but fifteen minutes. Such storms are welcome on hot days as they serve to "cool things off," temporarily at least. The hiker need have little fear of them because of the target they offer for lightning. This convectional type of storm causes considerable worry to the

forester as the lightning is likely to start forest fires and the relatively little rain is not of great value in dampening the surface.



Cumulus clouds over Half Dome

The second type of rainfall is from the cyclonic storm. This is the result of a low pressure condition that moves in usually from the Pacific-Northwest. The low pressure storm tracks do not swing far enough south in summer to cross our High Sierra very frequently, hence this type of storm is less common than the other. Such a low pressure area will possibly occur two or three times in the summer season. The approach of the storm is heralded by a falling barometer and a generally widespread cloudiness. The clouds

of the stratus or layer type. Following many hours of cloudiness the rains begin, falling gently at first and then continuing for many hours or even days. Such a storm is bad news to the hiker or daily visitor but is extremely gratifying to the forester. This type of storm is accompanied by relatively little thunder and lightning and the large amount of rain soaks the forest, keeping it green and greatly reducing the fire hazard. It may cover an area of hundreds of miles square so one's chance of "running out from under it" are quite small. Visitors to the mountains will be disappointed if their visit coincides with such cyclonic storms but to those who have a few days or weeks in the mountains the storm should prove a delightful experience.

John Muir loved the Sierra storms and on one occasion climbed high in a Douglas Fir in order to feel its pulse more closely. Mountain storms, although they do some damage and spoil the day for the occasional visitor, are in the main exceedingly valuable to man and are one of nature's most glorious phenomena.

NEW WEIGHT RECORD FOR SIERRA NEVADA BLACK BEAR

By **M. E. Beatty, Asst. Park Naturalist**

Occasionally in Yosemite we have an opportunity to get live weight records of bears before they are transported to other areas of the park. The trapping of park bears in a humane manner is accomplished

through the use of a large, galvanized-iron cylinder, mounted on trailer wheels. The cylinder is equipped with a trap door on one end and the bear is enticed into the trap by a meat bait. Touching the bait causes the trap door to drop and the bear becomes a prisoner. The trailer can then be coupled to a government car and transported to any desired spot and the bear released. This is common practice during the summer season, especially in the public campgrounds, where bears are prone to raid the food supplies of the campers.

On September 28, 1938, a large male bear (brown color phase) was captured in the above manner. Due to his large size, it was considered worth-while to secure an accurate record of his weight, before release. The trailer containing the bear was backed on to the government platform scales by Wildlife Ranger Otto Brown. The results were so astounding that the writer was called in to verify the findings. After properly balancing the scales, the combined weight of the trailer and bear was 1670 pounds. After releasing the bear, the empty trailer alone weighed 990 pounds. The bear was thus found to weigh 680 pounds which according to all available data, is a record for California and the subspecies.

The previous weight record for Yosemite was obtained on September 9, 1933, when an old bear had to be dispatched due to a broken hind leg. This individual weighed 550 pounds. It is possible that this new record of 680 pounds may be bettered at some

early date by specimens weighed later in the year just before they are ready for hibernation. According to Ranger Brown, a still larger bear frequents the feeding area. This individual has also been taken in the trap but was released before arrangements for weighing could be made. The belief that this particular bear is a still larger one is borne out by the fact that it had to back out of the trap when released, whereas the present weight record bear was able to turn around in the cylinder and come out head first.



It is, of course, entirely possible that heavier weights have been recorded for other sub-species of the American Black Bear, especially with zoo specimens. The writer will appreciate any authentic information on any such records.

BUG VERSUS BEETLE

By Ranger-Naturalist C. Ahrens

On the edge of a pool, formed by a tiny stream that crosses the Snow

Creek trail, I found the grim remains of a strange combat. A water strider, one of the bugs, had captured a lady-bird beetle. Perhaps the victim had tumbled into the pool; and while it was struggling to find footing, it had been seized by the strider. The lady-bird beetle had been carried to the shore, turned over on its back, and through one of the sutures between the plates on the under side of the thorax, the strider had forced his long sharp beak. But while the villain was sucking the juices of the victim, the head of the skipper came into the reach of the chewing mouth parts of the lady-bird beetle and the curved mandibles enclosed the upper part of the beak in a dying but tenacious grasp. So I found them still tightly locked together, silent evidence of a curious struggle that had ended in death for both attacker and victim.

YOSEMITE TRAVEL RECORD

October, 1937	16,348
November, 1937	9,537
December, 1937	* 5,825
January, 1938	11,630
February, 1938	10,268
March, 1938	7,098
April, 1938	12,005
May, 1938	41,438
June, 1938	78,218
July, 1938	120,338
August, 1938	85,478
September, 1938	45,128

Years Total	443,328
* Flood Month	



Digitized by
Yosemite Online Library

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

Dan Anderson