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Adventures With a Pair of Ring-tailed Cats

By Enid Michael, Ranger-Naturalist

When camping in the Yosemite Valley one expects to be bothered by bears and mice, and on rare occasions a skunk may prove obnoxious, but really one does not expect to lose much sleep over the doings of a pair of Ring-tailed Cats. However, the Tom and Tabby cat behavior of a pair of these handsome animals caused quite a bit of excitement, some amusement, and many moments of startled wakefulness and some alarm.

The visitation of the cats came on the cold midnight of May 15. Snugly tucked in bed I seemed to hear in my dreams scampering footfalls on the canvas roof and then just as I realized that I was not dreaming there came the clatter of racing feet on the tent floor. Then a thud as the animals tumbled into the wood pile back of the stove, followed by a series of shrieks and squeals. In the darkness I got an "ear picture" of two animals in mortal combat. For the moment I

lay still and then the thought struck me that whatever the animals were, they were altogether too lively to be skunks. I raised up in bed; the animals apparently became disentangled and raced for the door. But, somehow in their startled hurriedness they found time, or at least one of the animals did, to pollute the air. There came to me uneasy sensations. The center of my concern seemed to be somewhere near the pit of my stomach. Had I misinterpreted the clatter of hurried footfalls? Do skunks, thought I, in the ardor of love, sometimes forget the dignity of their race in answer to hurried desire. The nauseous air of the tent was dense with a heavy odor of musk. Presently I expected to be stifled. But, instead of the odor getting worse, the air quickly thinned. And as the air thinned I could see more clearly and I realized that I had not aroused the animosity of a skunk, but had merely interrupted the love affair of a pair

of Ring-tailed cats.

As it turned out we were to see more of the Ring-tailed cats, for soon they discovered that our kitchen tent offered good foraging grounds. Having had much experience camping in the Yosemite it became a habit with me to put all food away before going to bed, but one night the butter plate was carelessly left on the kitchen table. The next morning butter and plate were missing. A search around the outside of the tent disclosed the missing butter plate unbroken with what remained of the butter much tooth-marked. Evidently an animal had taken the butter plate in its teeth, climbed the tent wall to the crack between the tent roof and the fly, and made its way to the back of the tent and then to the ground without dropping the plate. This was clever work, but there was a show of greater cleverness to come with the next adventure.

On the night of May 27 I was awakened by a noise that sounded as though a partly-filled paper bag was being dragged over the roof of the tent. At once the thought came to me that the Ring-tailed cat had discovered some food that I had neglected to put away. I got up and went into the kitchen and found the bread drawer partly open. I was sure that I had closed the drawer before going to bed, but there it was partly open and a half loaf of raisin bread was missing. I could figure no way that a ring-tailed

cat could reach up high enough to reach the handle of the drawer, and from the top of the table the animal might reach the handle, but surely it could not get purchase enough on the table top to pull the drawer open.

I closed the drawer and went back to bed. Soon there was a pattering of feet on the roof of the tent and a light thud as the cat landed on the kitchen floor. I raised up in bed in time to see the cat moving across the floor in the direction of the kitchen table. I threw a shoe at the beast and was much surprised when she (it was the smaller cat) did not leap to make her escape by the usual route. In fact there was no sound to indicate that she was even trying to escape. Apparently a thrown shoe was getting to be old stuff with her. Out of bed and softly into the kitchen I went. The ring-tailed was nowhere to be seen. I thought that she was probably hiding behind some box and so I sat down to await anything that might happen. My chair was opposite the kitchen table and about three feet away. There was no sound, but after a minute or two the bread drawer began to slide mysteriously open. The clever animal had gone behind the table and by wedging her body between the tent wall and the drawer she was able to develop sufficient pressure to force the drawer open. She seemed very bold, but probably having taken dry bread to her mate, she

had been sent promptly back for the butter.

Ring-tailed cats and mice seem not to go together. At any rate,

since having nightly visits from the ring-tailed, we have not been bothered with mice.



CALIF. RING-TAILED CAT (*Bassariscus astutus raptor*).

RED SNOW AT TIOGA PASS

C. W. Sharsmith
Ranger-Naturalist

A fine display of "red snow" was recently seen near the ranger station at Tioga Pass, though it was not distinctly noticeable until the snow bank was walked upon. The tracks made in walking became a clear, pale, rosy red, due to the compacting of the microscopic plan. organisms as the snow was stepped into.

Not at all restricted to regions of perpetual snow, red snow is found occasionally throughout the high regions of the Park. The plants

belong to a vast order of simple plants known as algae. Those which thrive in snow just at melting temperature are representatives of several kinds of algae, of which the commonest kind is probably *Sphaerella nivalis* Sommerf. Really "green" plants, the green or chlorophyll pigment is masked by another known as haematochrome. This latter gives the characteristic color to the cells which, when sufficiently abundant, gives our "red snow."

The snow-loving algae may also color snow yellowish-green, green, or brown, but these seem to be rare in Yosemite.



The Hudsonian Zone Moves Down

(By CHAS. W. MICHAEL)

At an elevation of approximately 7,500 feet and perhaps 100 yards southeast of the point where the Eagle Peak trail crosses Ribbon creek meadow, there is a wonderful stand of Mountain Hemlock (*Tsuga mertensiana*). This is the lowest point in Yosemite National Park that the hemlocks are known to grow. These hemlocks, along with their usual associates such as *Bryanthus*, *Kalmia*, *Ledum* and *Vaccinium*, form here an island of Hudsonian flora disconnected from other Hudsonian territory by a distance of many miles and at least a thousand feet of altitude. Here is an island of Hudsonian flora completely surrounded by a sea of Canadian flora.

Doubtless the reason that these hemlocks and their Hudsonian associates grow happily 1,000 feet below their normal range is that here there happens to be a pocket of Hudsonian climate. As evidence of the cold climate of this section there was on July 4, 1935, banks of frozen

snow still lying at the feet of the hemlocks and color was just beginning to show in the buds of *Bryanthus* and *Ledum*. A hundred yards away and up the slope a Hudsonian flora could not possibly exist, for here such heat-loving plants as *Eriogonum umbellatum* and *Spraguea umbellata* were in full flower. Evidence would seem to indicate that the main physical factor that determines the prosperity of this little colony of Hudsonian Zone plants is temperature, and not altitude or moisture.

While it is true that in especially cold sections one finds islands of Hudsonian Zone flora surrounded by Canadian Zone flora, reverse conditions are the case where Upper Sonoran Zone plants are found surrounded by Transition Zone plants. A striking example of Upper Sonoran flora 3,000 feet above the normal range of altitude is to be found on the south facing slope above Emerald pool. Here is found a stand of *Ceanothus cuneatus*.

plant of the foothill district that has made a clear jump of 3,000 feet in altitude and 15 miles in distance. *Ceanothus cuneatis* is common about El Portal, 2,000 feet below the floor of Yosemite Valley. Not a single *Ceanothus* of this species has been found in the Valley, and yet 2,000 feet above the Valley on the hot slope above Emerald pool there is quite a stand. Here again it appears that the physical factor which permits a certain plant to thrive is temperature, and not altitude or moisture.

It is an interesting fact that the Pallid Wren-tit (*Chamaea fasciata henshawi*), who is found in association with *Ceanothus cuneatus* at El Portal, also completely jumps Yosemite Valley to appear in the *Ceanothus* thickets above the Emerald Pool.

A NEW FLOWERING PLANT IN YOSEMITE

by Ranger-Naturalist Enid Michael

After living in the Yosemite for 16 years, and during that time observing and studying wild flowers, it is a thrill to find in the familiar meadow a flowering plant that one has never seen before. This good fortune was ours on Sunday, June 25, 1935. In the grassy meadow below the Old Village we came upon the strange plant. In general appearance it was not unlike the Meadow Goldenrod save that the

panicle of flowers was white instead of yellow. The plant apparently was one of the *Galiums*, but one I had never seen before in Yosemite or elsewhere.

A perusal of Dr. Jepson's Manual of Flowering Plants, disclosed the stranger to be *Galium boreale*, a plant of wide distribution.

A VICIOUS DRAGON-FLY

By Ranger Naturalist
Dwight C. Smiley

An incident which showed the vicious nature of a dragon-fly was observed on August 9, at 2 p. m. The writer was hiking along the Glen Aulin trail one mile from Tuolumne Meadows when a loud buzzing was heard near the trail. Investigation showed two dragon-flies in a fierce battle. From a slight difference in their size and a marked difference in coloration, it was judged that they were of two different species.

The larger of the two was lying back downward on a flat piece of granite. The smaller dragon-fly, also back downward, was clasped by the jaws and feet of the larger. The jaws of the latter were patiently and doggedly chewing through the chitinous covering of the neck of his victim. There was an audible crushing sound. At the same time the victim was struggling with all the power of four wings to release itself.

The chewing and struggling con-

tinued. The head of the attacker was gradually disappearing within the exoskeleton of the unfortunate victim. After ten minutes two-thirds of his viscera was gone yet he continued to struggle. The larger fly was eating the left side and internal part of the smaller fly from the neck toward the rear. Having arrived at the base of the slender abdomen, he neatly clipped it off, and continued to eat the material at the head-end of the abdomen.

The observer turned the flies right side up. Whereupon the forward part of the smaller fly started to walk away. The escape was thwarted by the right forefoot of the cannibal fly which was placed calmly but quickly on the back of the escaping part.

Having finished with the forward part of the abdomen, he continued his meal on the struggling frontal portion. After ten minutes of continuous eating, as above described, he abruptly flew away. The small, partially eviscerated dragon-fly continued to struggle and even walked an inch and a half though he was minus the rear part of his body and two-thirds of his insides. This might be pure reflex action as was certainly the case in the curling and uncurling of the abdomen which was lying alongside.

At the time the observer left, mother nature was starting to clean up the remains of the victim. A spider, the size of a pin-head was starting to work on the abdomen

CONDITIONED RESPONSE IN THE GOLDEN-MANTLED GROUND SQUIRREL

(Ranger-Naturalist D. C. Smiley)

At Glacier Point, elevation 7214 feet, there are at least two dozen Sierra Nevada Golden-Mantled Ground Squirrels (*Callospermophilus chrysodeirus chrysodeirus* - Merriam) which willingly eat peanuts from the hand of visitors. The curio shop does a rushing business in nickel packages of peanuts, all of which are wrapped in cellophane. It is evident that at least one of these little animals associates the sound of crushing cellophane with the functions of eating peanuts.

On June 20 the writer was standing on the east porch of the Glacier Point Hotel. It was fifteen feet to the ground below. A Golden-mantled Ground Squirrel was on the ground scurrying around looking for edibles. When the writer waded up a piece of cellophane, the little fellow became greatly agitated. He sat up, located the source of the sound, then rushed here and there, every few hops sitting up to look for the peanuts that logically should be showered down at him.

Again the question of intelligence in animals arises. The writer offers no further arguments pro or con on the much debated subject. However, the behavior of this ground squirrel was similar to the human behavior which may be observed any day in a small boy who smells a fresh batch of cookies.



The Bird Feeding Tray

By Ranger-Naturalist Enid Michael

Just in front of our tent in Camp 19 is a bird feeding tray. A standard raises the tray about five and one-half feet above the ground. The tray is kept well laden with such food as bread stuff, suet, melon and melon seeds. Many species of birds find food to their liking, and as a result there is an almost continuous bread-line. Red light reflected from water-melon rind glorifies such yellow or orange-breasted birds as robin, grosbeak or tanager as they lean over to feed. Five species of woodpeckers patronize the suet, and this food also attracts nuthatch and chickadee. The Blue-fronted Jay is an omnivorous feeder and also an accumulator—after eating his fill he always carries something away. Food that he does not share with his family he carefully stores away for future use. Our Blue-fronted Jay is a muchly maligned bird. He has the reputation of being a bully and a thief, a reputation that is so widespread that it is generally accepted without question. An unprejudiced study through the years will lead one to admire and respect

Two small birds that come often to our offering of suet are the Red-breasted Nuthatch and the Mountain Chickadee. The boldness of the little nuthatch gives him an advantage over the other birds. He will peck away at the suet while I stand but two feet away.



Blue-fronted Jay

Another patron of the feeding table is the Sierra Chickaree. He is a very active little squirrel and by climbing into the azalea bush he can leap onto the tray. Such feasting as did the little chickaree made the clumsy ground squirrels

squirrels had to be content with the crumbs that fell from the table. For many days they looked with hungry eyes at the plentiful supply of food just about five and a half feet above their heads.

The leap was too great and the standard that supported the tray was too slick to climb. At last a ground squirrel more clever than his companions solved the problem. One morning I looked out of the tent and saw a ground squirrel gnawing at the slick standard. At first I thought that there must be some salty flavor in the wood that appealed to his taste. I watched the squirrel for a long time—perhaps 20

minutes, then by hooking his hind claws into the last gnawed nick, and by leaning far out, he was able to get his front paws onto the food tray. Swinging free with his hind legs he hunched onto the tray and proceeded to enjoy a hard-earned meal.

The ground squirrel is not one of my favorites. To me he has an unprepossessing appearance. Rat-like he sneaks low to the ground, his eyes have a pig-like expression. As a matter of fact, I can almost hate him when I catch him red-handed robbing a bird's nest of eggs or young. However, the cleverness of this one ground squirrel I cannot help but admire, and so far I have not removed his stairway to the feeding tray.



Mt. Chickadee

minutes. He was gnawing to a purpose. A nick in this side of the standard, then a nick in the other side—slowly he cut steps up the standard until he reached the underside of the feeding tray. Here he clung for several baffled mo-

INDIAN RINGS ?

By Enid Michael, Ranger-Naturalist

On the Turtle-back Dome above Yosemite Valley laid out on the acres of bare granite, are a series of age old rings. Nicely placed slabs of granite, one layer deep, form these rings, which average 12 feet in diameter. Some of the slabs are beginning to disintegrate; all are covered by a lichen growth.

Apparently these rings have lain undisturbed through many, many years. Undoubtedly the rings are the work of human hands, but what sort of human hands laid them out, and for what purpose?



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Dan Anderson