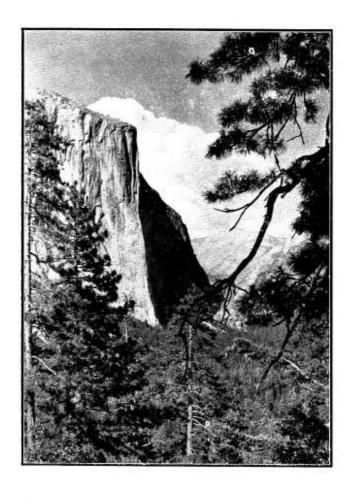
YOSEMITE NATURE NOTES

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JIM COLE TRANSFERRED TO JOSHUA TREE NATIONAL MONUMENT By Acting Park Naturalist M. E. Beatty

On September 9, 1940, James E. Cole, who for five years has filled the Junior Park Naturalist (Museum Preparator) position in Yosemite National Park, officially became Superintendent of Joshua Tree National Monument. On the evening of September 14, a group of more than eighty Yosemite friends gathered together for a "pot-luck" dinner and a social evening to extend congratulations for this promotion and to wish him well in his new work. Mr. Cole, with his wife and two daughters, left Yosemite on the 17th for Twentynine Palms, California, where he will establish his new headquarters and residence.

Joshua Tree National Monument covers 825,340 acres in San Bernardino and Riverside Counties in Southern California. The monument was established in August, 1936, and until now has been under the urisdiction of Lawrence C. Merriam, Superintendent of Yosemite National Park. Outstanding features of the monument are fine stands of Joshua Trees and the unique desert flora. Mr. Cole has had numerous opportunities to visit the monument hav-

ing been assigned by Superintendent Merriam to conduct a complete study of the area.

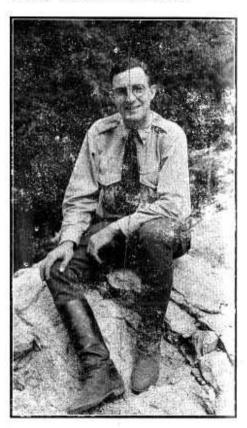
Mr. Cole first came to Yosemite as a member of the 1933 School of Field Natural History, where his work proved superior. During the following summers of 1934 and 1935, he was selected to serve as a seasonal ranger-naturalist, and received his civil service appointment as Junior Park Naturalist in August, 1935. As Museum Preparator, he was responsible for the planning of new exhibits and the revision of existing displays. Here his natural mechanical and artistic ability stood him in good stead.

Among the many projects completed by Mr. Cole, several are so outstanding as to warrant special mention. Handicapped by lack of room space in the Yosemite Museum for expansion purposes, he conceived a plan whereby the room used by the Yosemite School of Field Natural History students as a laboratory, could also be used to house all the scientific research collections. Waste space adjoining the fireplace and under the roof extension was

utilized to house metal cases which now contain study skins of birds and mammals, fungi and insects. Around the walls of the room are other cases designed to handle rock specimens and the herbarium. Lacking a suitable art room, Mr. Cole rearranged existing rooms to house the Moran and Jorgensen art collections.

Working with Mr. Frank Tose. Chief of Exhibits of the California Academy of Science, Mr. Cole revised the Life Zone habitat groups; he also supervised the assembly and installation of the eight new geology display cases which have fluorescent lighting, and with Acting Park Naturalist Beatty planned and installed the exhibits for these cases. An entirely new set of exhibits were arranged and installed in the Tuolumne Meadows Contact Station, telling the story of the flora, fauna, geology and history of that region.

More recent exhibits prepared by Mr. Cole include a view finder for Sentinel Dome. This is an orientation device designed to gid the visitor in identifying the peaks viewed along the horizon, and was installed during the middle of this past summer. Just installed in the geology room is a new working uplift model designed for visitor use. By pressing a button, the visitor sees the rise of the Sierra Nevada and the downfaulting of the basin area to the east, then follows the effect of this in the cutting of Yosemite Valley, first by the Merced River and later by glaciers. Illuminated labels explain the sequence of events in logical order. The new model, which was designed by Mr. Cole, has a dual purpose, for by cutting out the label lights it can also be used by the naturalist staff during the regular geology lectures which are given a number of times each day during the summer months.



In addition to his duties as Museum Preparator, Mr. Cole assisted in regular contact work and as an instructor with the Field School. He is a polished lecturer and has a very pleasing personality. He is a specialist in the field of botany, which will be important in his new work at Joshua Tree National Monument with its wide variety of desert plants. Yosemite and the entire Naturalist Department will miss Jim keenly, but we feel that his all round ability will be the Park Service's gain in his newly chosen field.

A NEW SNAKE AND TWO NEW FROGS FOR YOSEMITE NATIONAL PARK By Charles Martin

On Tuesday, April 23, 1940, a small snake ten and a half inches in length was taken from under rocks by CCC enrollees doing construction work on the new Big Oak Flat Road, at approximately 5,000 leet elevation. When first brought to the Museum, it was identified as a juvenile Valley Gopher Snake (Pitupphis catenifer catenifer Blainville) but on closer examination, and with the aid of a reptile key, it was found that the snake was a Spotted Night Snake (Hypsiglena ochrorhynchus Cope). Further investigation into the Museum's alcoholic collection showed another Spotted Night Snake labeled as a juvenile Valley Gopher Snake. This particular specimen had been taken on April 11, 1939, from under rocks at the base of El Capitan at 4000 feet elevation, by Junior Park Naturalist I. E. Cole. The two snakes were sent to Mr. L. M. Klauber, herpetologist for the San Diego Natural History Association for identification, and Mr. Klauber verified the classification given the reptiles by Charles H. Martin, CCC contingent working with the reptiles and amphibians at the Museum. Thus a new species of snake was added to Yosemite National Park's record.

The Spotted Night Snake is sim-

ilar in color and pattern to the young of the Valley Gopher Snake. It is a vellowish brown in color, and is heavily spotted with dark brown specks. There are two rows of large brown blotches, these often running into one another, down the middle of the snake's back, and two or more rows of smaller spots on each of its sides. Large brown spots are on each side of the neck, and these often converge with the other spots on the neck to form a semi-neck band of dark brown. The belly is without markings, except for occasional spots on the tail, and is yellowish or cream in color. A large adult of this species would reach sixteen inches in length. The Spotted Night Snake can easily be distinguished from the Valley Gopher Snake, by the pupil of the eye; in the Hypsiglena, it is elliptical, while in the Pituophis, it is rounded. The



Hypsiglena ochrorhynchus Cope Note elliptical pupil in this species eye.

scale count of the Hypsiglena is nineteen or more, and its scales are smooth, while on the Pituophis, the scale count is twenty-nine or more and the scales are keeled or rough.

Being a nocturnal snake, this species is seldom seen about in the day time, but it can be collected from under rocks where it dwells. Its food consists of grubs mainly, and also of small lizzards and frogs. The snake lives in the mountanious regions of the west, and is often seen in the deserts which border these mountains. Other specimens of this species have been recorded from northern and central California, but these are the first two on record for the park.

There have also been added to the park's record lately, two new species of frogs; the California Redlegged Frog (Rang aurora draytonii Baird and Girard) and the California Yellow-legged Froa (Rana boylii boylii Baird). Specimens of the Red-legged Frog have been taken at the Swamp Lake Research Reserve. Tuolumne County, at an elevation of 5300 feet, on the following dates: one on July 7, 1938, by Mr. M. C. Schwartz and I. E. Cole; one on July 10, 1938, by Mr. H. J. Leraas; and twelve between July 5 and 11, 1940, by Catherine Hemphill. Miss Hemphill also took a specimen from just outside the reserve area in the man-made Sandpit Lake, on July 9, 1940. Whether this amphibia is native to the park, or whether it has been planted here, has not vet been definitely established; however, it is reasonable to believe that they are native here, since they are found throughout the state in still pools or ponds from the flat country lands to and through the mountainous regions. More specimens have been found in the park this year than in any previous year, so their number here is evidently growing

The first two recorded specimens the California Yellow-legged Frog (Rana boylii boylii Baird) for the park were taken last year by I.E. Cole—one at Lake Eleanor Dam. Tuolumne County, at an elevation of 4600 feet, on April 20, 1939; and one from a pool at Fern Springs, Manposa County, elevation 4000 feet, on April 30, 1939. On March 14, of this year, Darwin Tiemann and J. E. Cole collected two specimens at Wawo na. Mariposa County, at an elevation of 4600 feet. According to Dr. T. I. Storer, professor of zoology at the University of California at Davis the Rana boylii boylii should be found at elevations from 4000 to 4500 feet. From 7000 feet on up, the Sierra Yellow-legged Frog (Rana boylii sierrae Camp) is found. Just what occurs in the intervening area between 4500 and 7000 feet we have not yet determined, but when several specimens taken from Miguel Meadows, at an elevation of 5300 feet are classified by Dr. Storer, we will have an idea as to what is to be found in this area.

Our records show Rana boylii sierrae taken from the following localities:

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Coll	ected Location	Elevation	County	Date	Collector
3	Yos. Research Rese	rve 8,000'	Mariposa	July 14, 1933	D. Michner
1	Yos. Research Rese	rve 8,000'	Mariposa	July 16, 1933	D. Michner
1	1 mi. E. of Mt. Class	rk 10,000'	Tuolumne	Aug. 4, 1933	D. Michner
3	Yos, Research Rese			July 12, 1934	
1	Yos. Research Research	rve 9,000'	Mariposa	July 12, 1934	A.Cameron
2	Smedberg Lake	9,2231	Mariposa)	July 26, 1934	A. Cameron
1	Kerrick Meadows	9,300'	Mariposa)	July 27, 1934	A. Cameron
1	Smedberg Lake	9,223	Mariposa]	uly 29, 1934	A. Cameron
2	Kerrick Meadows	9,300	Mariposa J	luly 29, 1934	A. Cameron
2	Yos. Research Research	rve 8,200'	Mariposa]	July 6, 1935	M. D. Bryant
6	Yos. Research Research	rve 8,200°	Mariposa	July 8, 1935	H. F. Evans
4	Lyell Base Camp	10,400	Tuolumne	July 22, 1935	H. F. Evans
2	Lower McCabe Lak	e 10,000°	Tuolumne	Feb. 2, 1939	J. E. Cole
1	Pohono Trail at Brid	ial-			
	veil Creek	7,000	Mariposa J	uly 19, 1939	D. Tiemann
3	Lower McCabe Lak	e 10,000°	Tuolumne	Aug. 2, 1939	J. E. Cole
1	Virginia Canyon	10,000	Tuolumne	Aug. 5, 1939	J. E. Cole
5	Small lake at base				
	of Lyell Glacier	11,500	Tuolumne	Sept. 24, 193	9 J. E. Cole
1	Tuolumne Grove,				
	Big Trees	6,000	Tuolumne	June 23, 1940	C. H. Martin
1 Above Lake Tenaya 8,000°			Mariposa June 27, 1940 C. H. Martin		
6	Lake N.E. of Clark	Peak 9,700'	Mariposa J	uly 25, 1940	C. Hemphill
2	Lake S.W. Isberg P	eak 10,000°	Madera Ju	ly 30, 1940	C. Hemphill

The five specimens taken from the small lake at base of Lyell Glacier are peculiar in that they have conspicuous white dots on their backs. Mr. Michner reports that the tadpoles of this species were very numerous at the lake east of Mount Clark, in August, 1939. In July of this year, Miss Hemphill also reported numerous larvae in a lake northeast of Mount Clark and in a lake southwest of Isberg Peak.

NATURE NOTELET By Ranger Naturalist G. A. Petrides

The Western Meadowlark (Sturnella neglecta Audubon) is a bird seen but occasionally in Yosemite Valley. To a number of previous records should be added the observation of the author who flushed a bird of this species from a meadow near the Ahwahnee Hotel on August 5, 1940.

PYGMY OWL — A LOVABLE KILLER By Ranger Naturalist Enid Michael

The Pygmy Owl is indeed a mighty hunter. At a nest that I once had under observation I saw the hunter come in four times within an hour with a kill in his talons. Among the victims were a full grown chipmunk, a lizzard and two meadow mice. The female parent of the brood of four was the butcher; she ripped the game to pieces and served the bloody morsels to the young.

One morning in June, I had the good fortune to be on hand when four young Pygmy Owls left the nest-hole. Strangely enough, and especially so among owls, the young had shed all of their down feathers before leaving the nest. Except for lighter eyebrows and shorter tails they looked like their parents. Mother Pyamy sat on a limb with three young on one side of her and one voung on the other side. Under her feet she held a lizzard that she had received from the hunter. Bit by bit she ripped off pieces of flesh which she passed each in turn to her young. The young owls nestled close to her side, but even so it was a long reach to the third bird.

The abandoned nest-hole of the California Woodpecker just suits the Pygmy Owl as a nesting site. In the large cavity carved out by the woodpecker there is plenty of room to rear a family. The entrance hole is large enough to permit the owl to slip easily in and out, although when she is carrying a chipmunk or a large lizzard to get inside may

often prove a struggle. As long as any young remain in the nest, the mother bird always goes completely into it to feed them; she never drops the food into the nest-hole for the children to fight over, nor does she ever pass the kill to the young bird whose head happens to be poked out of the doorway. Often when the young owls are about ready to leave the nest a youngster will come to the doorway with food in its bill, and as it gazes out on the world it will nibble on a ham of mouse or perhaps on the hindauar ers of a lizzard.



California Woodpeckers living and nesting in the same oak groves year after year and the Pygmy Owls with their preference for woodpecker holes for nesting sites often bring these very different kinds of birds together as near neighbors. And

good neighbors they are too with never a quarrel or harsh word between them, although they may be rearing their broods in nest-holes not ten feet apart.

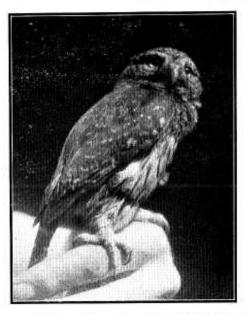
For a time it was my belief that small birds were the main item on the bill-of-fare of nesting Pygmy Owls, but recent observations would seem to prove that this is not always the case. This spring between May 15 and June 2, many hours were spent watching the nest of a pair of Pygmy Owls. At this nest meadow mice and lizzards were brought in many times and only once did the hunter come in with a bird—a Tolmie Warbler.

CALIFORNIA PYGMY OWL AT MERCED LAKE By Ranger Naturalist Walter G. Heil

On August 13, 1940, at Merced Lake, 7200 ft., the voice of the Pygny Owl was heard by me and by members of my seven-day hiking party. Evidently, this is a high occurrence for this species as the vertical distribution, according to Dawson, Grinnell, and Storer is only upper Sonoran and Transition Zone.

Although we did not see the bird. the song was definitely that of the male California Pyamy Owl. This same bird had evidently been heard by members of my party earlier in the morning who reported at 6:30 a.m. a constant series of soft notes all given on one pitch, which they declared was the same pitch as the song heard later in the morning by the whole party between 7:30 and 8 o'clock. It is well known that the Pygmy Owl may call for as long as 10 minutes without going into the rapid series of these same notes which may be described as the song of the bird.

Park Naturalist Harwell had reported seeing this species at the 5,000 ft, elevation on the Wawona Road in December, and I have seen the bird on the Ledge Trail at approximately the 5,000 ft. level. These stations are at the approximate up-



per limits of the Transition Zone, but at Merced Lake the bird was distinctly in the Canadian Life Zone. It may be that further observation will disclose the fact that this species makes a post-nesting migration to higher elevations. Pygmy Owls nest commonly in Yosemite Valley.

LODGEPOLE PINE TAKES OVER THE OLD TIOGA ROAD By Ranger Naturalist C. W. Sharsmith

The aggressiveness of the Lodgepole Pine in spreading into High Sierra meadows is well known. In the natural course of events, these meadows are eventually transferred into forest. In National Parks this process brings up the problem as to whether to let nature take its course, since National Parks are established for the preservation of natural conditions, or whether man should interfere in order to maintain a normally transient feature of the landscape which has greater gesthetic value than its natural successor. The beauty of Tuolumne Meadows has influenced a manmade restriction in the invasion of the meadows by Lodgepole Pine, so that full appreciation of the spreading powers of this species is not so easily obtained here. For this we should visit portions of the old Tioga Road in the Tuolumne Meadows vicinity.

The old Tioga Road about Tuolumne Meadows was abandoned for the new about five years ago. Obliteration was hastened by plowing it up. This has made all the more available to the surrounding Lodgepole forest a strip of new territory presenting ideal conditions for the establishment of these trees, and further enhanced by the freedom from any other plant competitors ahead of them. Along this strip are millions of seedling trees averaging eight inches to one foot in height. They are often crowded and it seems likely that a strip of young forest will mark the location of this historic road long after most of the road itself has completely disappeared.

BLUE FLAX ON MOUNT DANA By Park Naturalist C. A. Harwell

While leading a hiking group from Tioga Pass to Mount Dana August 1, 1940, we followed the park boundary as we approached the mountain, noticing that sheep had recently been grazed to the very park line. When we reached the 10,400 ft. level, we contoured to the west keeping above the willow thickets. We were pleasantly surprised to find several hundred plants of Blue Flax (Linum lewisii Pursh)

in good bloom on the open slopes well inside the park line. Some of the flowers were just going to seed.

This is a rare plant in Yosemite. Jepson gives its altitude range as 4,000 to 9,000 ft. in the Sierra, so this discovery extends its altitude range. Seeds are to be collected, and an attempt will be made to establish this plant in the Museum Wildflower Garden in the floor of the valley.

