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# YOSEMITE

# NATURE NOTE



Volume V

December 31, 1926

Number 12

## THE YOSEMITE NATURAL HISTORY ASSOCIATION ITS PURPOSES

1. To gather and disseminate information on the wild-life of the Sierras.
2. To develop and enlarge the Yosemite Museum (in co-operation with the National Park Service) and to establish subsidiary units, such as the Glacier Point lookout and branches of similar nature.
3. To promote the educational work of the Yosemite Nature Guide Service.
4. To publish (in co-operation with the U. S. National Park Service) "Yosemite Nature Notes".
5. To study living conditions, past and present, of the Indians of the Yosemite region.
6. To maintain in Yosemite Valley a library of historical, scientific, and popular interest.
7. To further scientific investigation along lines of greatest popular interest and to publish, from time to time, bulletins of non-technical nature.
8. To strictly limit the activities of the association to purposes which shall be scientific and educational, in order that the organization shall not be operated for profit.

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## FROM THE NATIONAL CONFERENCE ON OUT-DOOR RECREATION

Called by PRESIDENT COOLIDGE

"THAT THE CONFERENCE ENDORSE NATURE STUDY IN SCHOOLS AND THE EXTENSION OF THE NATURE STUDY IDEA TO EVERY AMERICAN SCHOOL AND FAMILY; . . . . THAT THE ESTABLISHMENT OF MUSEUMS OF NATURAL HISTORY IN NATIONAL PARKS WILL INCREASE THE EDUCATIONAL RECREATIONAL VALUE OF THE PARKS".—Resolution of the Conference.



# YOSEMITE NATURE NOTES

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## A GOOD WORD FOR THE COYOTE

By C. P. Russell

**S**HOULD there be a medium through which the good points possessed by coyotes may be brought to public notice, that medium is the educational service of national parks. Yosemite has not overlooked the opportunity. Consistent with the policy upon which national parks were created, the coyote population of Yosemite National Park is not menaced with a killing campaign. Here the defamed predators occupy their niche in nature's scheme. Occasionally the animals are seen by visitors, but more often the presence of the beasts is made known to tourists through the remarkable chorus of yapping voices raised to Sierra camps. If we may judge from the enthusiastic comments made by vacationists from the cities, after they have been serenaded with this weird, wild music, yelping coyotes are one of the park's assets.

Rarely park officials' attention is called to the fact that a coyote has feasted upon a Yosemite fawn; or mayhap evidence points to the probability that two or more of the wild dogs have pulled down a full-grown deer. Undoubtedly coyotes do kill some deer and many lesser animals as well. This is a perfectly natural state of affairs, and inasmuch as a national park is more than a game preserve, it is a condition that warrants no action against the coyote. Yosemite National Park is a wild-life sanctuary and as such it is interested in preventing human influence from altering original conditions, but is in no way bound to interfere with the natural behavior of animals within its boundaries.

### Where Would Extermination Policy Stop?

If control methods are practiced on coyotes, it is difficult to arrive at a stopping point. Weasels, martens, fishers and wolverines prey upon song birds, quail and grouse, and by the same reasoning that subjects the coyote to persecution these last named interesting mammals would be exterminated in national parks. The senseless policy

of slaughter of everything that preys upon game may be embraced outside of our national wild life sanctuaries, but within them it stands estranged. May we hope that mislead sportsmen, game worshippers and ammunition manufacturers may see the folly of their ways while there is yet time to save those species that are now victims of their killing campaigns.

Rightly enough, the United States Government controls locally the enemies of cattle and sheep. But the hue and cry against the coyote has become universal and it is this universal extermination that constitutes an infringement on the rights of nature lovers.

### A Coyote Habitat Group in Museum

Persistent and widespread opposition to the present unfair practice will bring results. The Yosemite Museum has raised its voice, and the hundreds of thousands of citizens who visit the institution learn from an attractive exhibit that the coyote is not all bad. Gus Nordquist a taxidermist of Oakland, volunteered to prepare and install a coyote habitat group in the new



COYOTE AND SKUNK GROUP. Gift of G. Northurst.

Government museum. We might well have portrayed a very natural scene by showing coyotes feeding upon the carass of their kill. However Mr Nordquist recalled an interesting incident involving a skunk and a coyote that he once witnessed and it was agreed that such an amusing scene would be more desirable than the bloody business of coyotes feeding. Mr. Nordquist's work arouses great interest among visitors and the large transparent labels clearly tell their story. On one side of the plate glass front of the case is the following:

Mountain Coyote—(Canis latrans lestes)—The coyote is not necessarily a bad citizen. On the sheep range he is a menace; in a squirrel infested country he is a benefit. If we kill off all the coyotes, we must ourselves account for the thousands of ground squirrels and jackrabbits which the coyote now destroys annually.

With the exception of the skunk the coyote is the most valuable fur-bearer in California. Pelts taken between December 1 and February 15, when the fur is prime, have brought \$20 each. This fact must not be lost sight of in any proposed method of eradication.

Control rather than extermination should be our aim in most places. In a national park the

coyote must be permitted to occupy his natural place in the wild life sanctuary. Yosemite carries on no killing campaigns.

Most of this text was taken from Joseph Dixon's "Control of the Coyote in California," published in 1923 by the University of California.

#### The Skunk's Weapon of Defense

On the opposite side of the exhibit case is a transparent label of similar size giving the following information on the skunk.

Striped Skunk—(Mephitis mephitoides)—This animal is famous the world over for its "Smell Gun." The fluid is a liquid musk secreted by two large glands under the tail. Those who have never smelled it may realize some of its power if they imagine a mixture of perfume musk, essence of garlic, burning sulphur and sewer gas, intensified a thousand times.

Like the rattlesnake, the skunk usually gives fair notice and acts only on the defensive. The animal prefers to aim at a foe it can clearly see.

Dogs and wild creatures usually prefer to let the skunk alone. Even this coyote would endure a terribly hard pinch of hunger before inviting a volley from the "Smell Cats" famous "breach loader."

E. T. Seton's "Northern Animals" provided the basis for this label.

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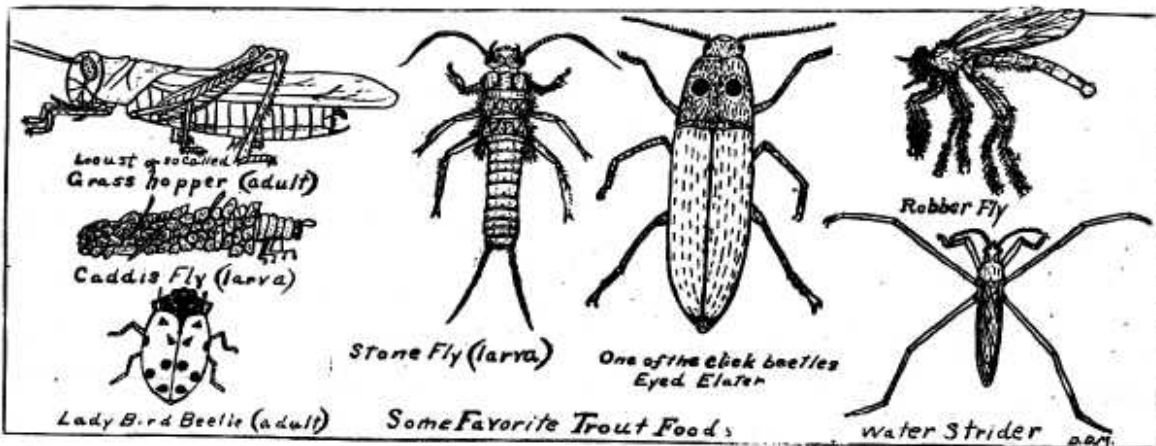
## YOSEMITE NATURE NOTES

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## The Food Habits of Trout in Yosemite National Park



SOME INSECTS UPON WHICH YOSEMITE TROUT FEED

## FOOD HABITS OF TROUT

By Helen Y. Howe and Avis F. Meigs

Yosemite School of Field Natural History

When a trout strikes at your Royal Coachman, what does he think he is getting? We wondered. Out of sheer curiosity and a desire, perhaps, to improve our ability as anglers, we began to investigate the matter. Soon, with the interested assistance of park anglers, entomologists and chefs, we were deep in trout dietetics.

The very first day of our investigation proved eventful. While taking our morning swim in the Merced we saw a lone fisherman on the opposite shore. What luck! Here we could get material with which to start at once! We waded excitedly and asked the man if he had any fish. Yes; but why two young ladies were so excited about his four trout we could not make him understand across the river. Much to his amazement we dived in and swam over. Thus we met Tony, Camp Curry cook and one of the most enthusiastic fishermen in the valley. Surely we could have the stomachs from his fish—all that he caught for the rest of the season and all those which came into the kitchen of Camp Curry.

That afternoon those four Rainbow trout stomachs from the Merced were opened at the Yosemite Museum. Professor Essig of the University of California was present. From what appeared to us unrecognizable insect fragments Mr. Essig began pulling out almost perfect specimens including beetles, caddis cases, hoplias, a wasp. Suddenly he became excited, examined an insect shell closely, turned to a book, read for a few moments, examined the specimen again under a lens and finally announced that here we had the larva of a rare insect—none other than the "aquatic dragonfly." Surely a trout's stomach was the last place one would expect to find this. Thus our first day ended with enthusiasm running high.

From June 21 to August 5, 1926, 100 stomachs were examined. The appended table gives our data concerning them:

Investigations indicate that in the valley—Merced river—and at El Portal—Crane creek—where there is an abundance of vegetation and insect life, the trout have an abundance of food. We have not decid-

ed what significance this condition has for the angler. Do the trout strike at artificial flies more readily because they are accustomed to catching insects on the water or does the abundance of natural food make fishing more difficult? The stomachs of trout caught in the upper mountain streams have less in them. Black carpenter ants seem to be the chief article of diet. In the high mountain lakes insect food seems to be very scarce and most stomachs are entirely empty. The few which contained food had very little in them. Mr. Russell, park naturalist, reports catching fish in a High Sierra cirque and upon examining the stomachs, found that they contained many small bivalve mollusks.

Since the remains of many small insects which may be seen floating on the surface of streams are found in the stomachs of trout, surface feeding of the fish is indicated. Inasmuch as some of the insects are most nocturnal in habits, as the predaceous ground beetle, a part of this feeding may occur at night. Bits of cedar and pine needles in the stomachs indicate that the fish sometimes make a mistake in their judgments. The presence of caddis fly larvae in cases, stone fly nymphs and crane fly larvae suggest that the fish obtain part of their food under water—sucking off whatever adheres to floating stems, plants, et cetera. It is interesting to note that lady bird beetles, which are apparently so ill-tasting to birds and are avoided by them, form one of the chief sources of food for trout. Dragon fly nymphs sometimes attack young brook trout, as young as themselves; we were glad to find, therefore, that the trout occasionally reversed the situation and had a meal themselves.

Do we know any more about fishing because of this investigation? Practically all the fish examined were caught with Royal Coachman, a grey or a brown hackle. As these bore little resemblance to the stomach contents, we have come to the conclusion that it is not the kind of bait you use here in Yosemite which counts, but the realistic way in which you make it alight on the water.

## Hundred Trout Stomachs Examined

No.	Species	Locality	Stomach Contents	Date (1926)
4	Rainbow	Merced river	Lady Bird beetle; Caddis cases; Pubescent hoplia; wasp; Aquatic dascillid; salmon eggs (bait)	June 24
1	Rainbow	Merced river	Salmon eggs (bait); Caddis fly larvae	June 28
6	Rainbow	Merced river	Caddis fly larvae in cases; Crane fly larvae; grasshoppers; Pubescent hoplias; stink bug; angleworm	July 6
3	Rainbow	Merced river	Lady Bird beetles; oak tree hopper; Click beetle; metallic wood borer; water strider; robber fly	July 15
3	Rainbow	Lost valley (Merced Pool)	Black ants; Crane fly larvae; Predacious ground beetle; Lady Bird beetles; Pubescent hoplia	June 27
18	Rainbow	Crane creek (El Portal)	Grasshoppers; Predacious ground beetle; Stone fly nymphs; Stone flies (adult); whirligig; Caddis fly larvae in cases; dragon fly nymph; wasps; click beetle; Ten-Lined June beetle; darkling ground beetle; earthworm; water skater	July 1
4	Eastern Brook	Bridalveil creek	Black ants; Caddis fly larvae	July 4
13	Eastern Brook	Yosemite creek	Darkling ground beetle; Lampyridae; Click beetle; black ants; Caddis fly larvae in cases; whirligig	July 5
10	Eastern Brook	Merced river	Lady Bird beetles; mosquitoes	July 23
3	Rainbow Trout	Babcock lake	Empty	July 26
8	Rainbow	McClure fork	Farnidae; plant fragments	Aug 3
2	Eastern Brook	Young's lakes	One empty; Lady Bird beetle; Caddis fly larvae	Aug 5
8	Leach Leven	Glen Aulin	Long horn borer; Predacious ground beetle; other insect fragments not identified; several stomachs empty	Aug 7
10	Eastern Brook			



### PINE MARTEN NEAR VALLEY FLOOR

On November 6, at 11 a. m., Assistant Chief Ranger Clyde Boothe witnessed a marten catch a California ground squirrel. The animal was in the trail and so engaged in the business of killing its struggling prey that only close approach by Boothe turned it from its purpose. When threatened with being tramped upon, the marten released the ground squirrel and sprang lightly to the top of a great boulder

beside the trail. The ground squirrel dragged itself in the opposite direction. Marten eyed the human intruder for a moment from close range and then disappeared in a rock pile.

This incident took place on the Vernal Fall trail, three-quarters of a mile from Happy Isles, and is, we think, the lowest occurrence of marten recorded near Yosemite valley.—C. P. R.



## YOSEMITE MUSEUM FORMALLY PRESENTED TO PARK SERVICE

WASHINGTON, D. C.—An interesting ceremony took place in the office of the Secretary of the Interior a few days ago when acting Secretary E. C. Finney accepted, on behalf of the National Park Service of the Department of the Interior, the newly completed museum in Yosemite National Park, California.

The presentation was made by Chauncey J. Hamlin, chairman of the committee on museums in national parks of the American Association of Museums, in the presence of department officials and conservationists of note.

Funds for the museum building and equipment were secured by the American Association of Museums from the Laura Spelman Rockefeller Memorial, which made a grant of \$75,550 for the purpose.

In making the presentation Hamlin read the following letter addressed to the Secretary of the Interior:

"Dear Sir:

"Early in 1924 the American Association of Museums had its attention called to the desirability of furthering the educational program of the National Parks, by erecting museums therein, the exhibited material of which might explain to the visitor the national phenomena of its neighborhood.

"The association promptly conferred with Director Mather of the National Park Service, organized a committee on museums in national parks and, through its efforts, obtained a grant of \$75,550 from the Laura Spelman Rockefeller Memorial.

"It was the original purpose to construct and equip a museum at Yosemite that would properly house the collections then on hand and provide facilities appropriate to the needs of the general public and visiting men of science.

"It is my privilege to report to you that the Yosemite Museum is now completed. It has four large exhibition rooms, a lecture hall, a library and stock room, headquarters for the nature guide service, workrooms and laboratories and valuable exhibition material quite beyond the original plans.

"This achievement has been made possible through the sympathetic

and co-operative assistance of the National Park Service, the financial assistance of the Yosemite Natural History Association and of the American Association of Museums and the personal efforts and gratuitous services of the members of our committee.

"You are doubtless well aware of the remarkable response that the public has already made to this educational project. I am informed that the building is frequently crowded with visitors eager to learn the story that it so forcefully recites. Museums and other educational institutions have become alive to the appropriateness and practicability of this kind of instruction and the Association of Museums, encouraged by the work at Yosemite has sought and has received funds which will enable it to provide a new center of instruction at the Grand Canyon. It has also made surveys which it is hoped will extend the work into other national possessions.

"Knowing your desire concerning the supreme purpose of the national parks, confident that the establishment of local museums is one of the most practical ways of educating the public and, with the authority given me by the council of the American Association of Museums, I now pass over to you—in this informal way—such rights and ownership as the association may have in the museum at Yosemite National Park, feeling sure that under federal administration its educational purposes will be maintained adequately.

"Assuring you of the sustained interest of the American Association of Museums in all that the National Park Service may do to render the works of the Creator more intelligible to those who commune with nature, I am, Mr. Secretary, very truly yours,

"CHAUNCEY J. HAMLIN."



# MUSEUM NOTES

## RECENT MUSEUM ACCESSIONS

Books for the Yosemite Nature Library are slowly filling the spacious shelves of the reading room. During the month of October 54 volumes were obtained.

Mr. and Mrs. A. A. Scott of Aberdeen, Wash., presented 12 valuable old books, many of which are especially pertinent to the museum's work. Ten bound volumes of "Harper's New Monthly Magazine," dating from 1851 to 1874, are in his lot. Articles by Charles Nordhoff on "California; How to Go There and What to See by the Way," 1871-72; "California, What to See There and How to See It," 1872; "California, Its Products and Productiveness," 1872; and "Northern California, The Sacramento Valley," 1873, found in these old magazines are particularly interesting. An 1872 edition of Mark Twain's "Roughing It," "Kit Carson's Life and Adventures," 1869, and scientific works by Geikie, DeQuartrefages and Galton as well as many other authors of fifty years ago, lend value to the A. A. Scott gift.

Five volumes of historical interest were purchased by the Yosemite Natural History Association. Mr. F. S. Schmoer, park naturalist of Rainier National Park, presented a copy of his splendid book of Mount Rainier, "Our Greatest Mountain." Dr. David White of the United States geological survey gave a copy on Berry's "Tree Ancestors." The chapter on Sequoias in this work is in itself of great value to members of the Yosemite Nature Guide staff and students in the Yosemite School of Field Natural His-

tory.

A bound copy of George M. Wheeler's report on geological surveys west of the 100th meridian, containing a report made by Lieut. M. M. Macomb on his 1878 work in the Yosemite region, was presented by F. P. Farquhar. This book is of interest, aside from its value as a dependable source of Yosemite history, in that it was once the property of the Yosemite guardian's office. On the fly leaf is M. Hutching's unmistakable inscription to that effect.

Charles F. Saunders, author of a number of meaty books that afford delightful reading though they be has given the museum copies of his meaty, has given the museum copies of his "Useful Wild Plants" and "Under the Sky in California."

"Nature Guiding," a remarkable treatise on the teaching of nature study, comes from Dr. William G. Vinal, a one-time Yosemite nature guide. Dr. Vinal demonstrated himself to be a leader in his Yosemite work and is everywhere recognized as a top-notch in this line of educational activity.

The Yosemite branch of the Mariposa county free library will be housed in the museum's nature library room. Books will arrive November 15, and a qualified librarian will be placed in charge. Only those volumes belonging to the county will circulate, but this new use of the library room will stimulate greater use of the museum volumes that are available for the reading tables.—C. P. R.



## A WILD-LIFE CREED.

A conservationist's creed as to wild life administration is given by Dr. Joseph Grinnell, professor of zoology and director of the California Museum of Vertebrate Zoology at the University of California, in a recent issue of "Science." In brief, the creed follows:

1. I believe that the fullest use should be made of our country's wild life resources from the standpoint of human benefit—for beauty, education, scientific study, fur, etc. All these possible uses should be considered in the administration of wild life, not any of them exclusively of the others.

2. I believe that that portion of our wild animal life known as "game" belongs no more to the sportsman than to other classes of people who do not pursue it with shotgun and rifle. More and more the notebook, the field-glass and the camera are being employed in the pursuit of game as well as other animals.

3. I believe it is unwise to attempt the absolute extermination of any native vertebrate species whatsoever. At the same time it is perfectly proper to reduce or destroy any species in a given neighborhood where sound investigation shows it to be positively hurtful to the majority of interests.

4. I believe it is wrong to permit the general public to shoot crows or any other presumably injurious animals during the breeding season of our desirable species.

5. I believe in the collecting of specimens of birds and vertebrates generally for educational and scientific purposes. A bird killed, but preserved as a study-specimen, is of service far longer than the bird that is shot just for sport or for food.

6. I believe that it is wrong and even dangerous to introduce (that is, turn loose in the wild) alien species of either game or non-game birds and mammals. There is sound reason for believing that such introduction, if "successful," jeopardizes the continued existence of the native species in our fauna, with which competition is bound to occur.

7. I believe that the very best known way to "conserve" animal life, in the interests of sportsman, scientist and nature-lover alike, is to preserve conditions as nearly as possible favorable to our own native species. This can be done by the establishment and maintenance of numerous wild-life refuges.

8. In the interests of game and wild life conservation generally, I believe in the wisdom of doing away with grazing by domestic stock, more especially sheep, on the greater part of our national forest territory.

9. I believe that the administration of our game and wild life resources should be kept as far as possible out of politics. The resources in question should be handled as a national asset, administered with the advice of scientifically trained experts.

## A PERSONAL INVITATION.

YOSEMITE NATIONAL PARK IS YOURS! WE OF THE NATIONAL PARK SERVICE WANT TO HELP YOU TO MAKE FRIENDS WITH YOUR PARK AND TO UNDERSTAND IT IN ITS EVERY MOOD. ALL OF THE FOLLOWING SERVICE IS OFFERED TO YOU *free* BY YOUR GOVERNMENT:

### Visit the Yosemite Museum!

Here you will learn the full story of the Park — what tools were used by the great Sculptor in carving this mighty granite-walled gorge; who lived here before the white man came; how the Days of Gold led to Yosemite's discovery; how the pioneers prepared the way for you; and how the birds and mammals and trees and flowers live together in congenial communities waiting to make your acquaintance.

Plan your trail trips on the large scale models in the Geography Room.

The Yosemite Library in the museum provides references on all phases of Yosemite history and natural history.

Popular lectures on Yosemite geology and other branches of natural history are given by nature guides at scheduled times each day.

The nature guide on duty will be more than willing to answer your questions on any subject.

### Go Afield with a Nature Guide!

Take advantage of this free service that will help you to know your Park. A competent scientist will conduct you over Yosemite trails, and from him you may learn first hand of the native flowers, trees, birds, mammals, and geological features.

See Schedule of Nature Guide Field Trips.

### Visit Glacier Point Lookout!

From there you will obtain an unexcelled view of Yosemite's High Sierras. The binocular telescope will bring Mt. Lyell to within one third of a mile from where you stand; you can recognize friends climbing trails several miles away. The Nature Guide in attendance will help you to operate it and will explain what you see.

A small library is at your command.

You will enjoy the informal nightly campfire talks given here.

### Attend the Nature Guide Campfire Talks!

In addition to the museum lectures members of the educational group give talks as a part of the evening program at Camp Curry and Yosemite Lodge. Non-technical explanations of how Yosemite came to be; what you may expect of Yosemite bears; how the local Indians lived; what you see about your camps; what trout you will catch in Yosemite water; how you may best visit the wonderland of the summit region; and scores of similar subjects are given by the National Park Service Nature Guides.

ALL OF THESE OPPORTUNITIES ARE PROVIDED FREE OF CHARGE BY YOUR GOVERNMENT.

—TAKE ADVANTAGE OF THEM—



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Dan Anderson