

## Nature Study School at Yellowstone

Nature at its wildest and grandest will be studied at first hand next summer in Yellowstone National Park by a picked group of students under nationally known teachers. The opening of the new school of natural history has just been announced by Park Naturalist Dorr G. Yeager.

It is to be a training school for nature guides and teachers in natural history. The work will be of strictly university standard, although no university credit will be given. The number of students will be limited to 35, and selection of students will be made on the basis of the date of application, the latter to be in writing. Two years of college training or the equivalent will be considered as the maximum requirement, and any man or woman between the ages of 20 and 50 years, with the necessary educational qualifications, is eligible for enrollment in the school. Applications for enrollment should be made to Park Naturalist Yeager at Yellowstone Park, Wyoming, not later than March 1, 1930.

The field headquarters of the school will be at Roosevelt Lodge, which is located on the site chosen by former

President Roosevelt and John Burroughs as one of the most beautiful in the park and containing the greatest variety of wild life.

Four weeks will be spent in and about field headquarters in the study of botany, zoology, geology, and geography of the region. In addition, four days will be spent at each of the four main centers of travel at Mammoth Hot Springs, Old Faithful, Yellowstone Lake and the Grand Canyon of the Yellowstone. At Mammoth and Old Faithful especial attention will be given to the study of the algae and bacteria in the hot springs and to the geology of the hot springs and geysers. In this connection the recently-completed hydrothermal museum at Old Faithful will prove of unusual interest.

This is not the first venture of the National Park Service in establishing field schools. The Field School of Natural History in Yosemite National Park, California, has just completed most successfully its fifth successive year. This school is conducted in cooperation with the State Fish and Game Commission of California.

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## Anti-Vitamin May Cause Rickets

Oatmeal and other cereals are suspected of harboring an "anti-vitamin" which, when too much cereal is eaten, can counteract the effects of vitamin D and cause rickets even when an otherwise adequate diet is being eaten.

Most scientists have concluded that vitamin D, which is found in fats, notably cod liver oil, can prevent rickets, the disease that causes faulty bone formation with the familiar bowed legs and bulging foreheads in infants and children. This disease has been considered due to poor nutrition and principally to a lack of vitamin D in the diet.

However, recent experiments with cereals show that rickets is not purely a result of too little vitamin D but is primarily due to a lowering of the amount of calcium in the blood, Dr. L. Mirvish of the University of Cape Town Medical School has reported to the scientific magazine *Nature*.

The presence of rickets-producing "anti-vitamins" in cereals, chiefly oatmeal and wheat, was first indicated by experiments of Prof. Edward

Mellanby of Sheffield University, England, who called the substances "toxamins".

Following this lead, Dr. Mirvish extracted the "anti-vitamin" substance from oatmeal and injected it into rabbits. He found that the calcium in the blood was lowered as a result of these injections. This bore out and explained the work of other investigators who found that rickets can be induced in young animals by feeding them an excess of cereals or by adding extracts of cereals to a diet which did not produce rickets in control animals.

Rickets may prove to be a sign of underactivity of two small glands in the neck, known as the parathyroids, and thought by some authorities to have an important relation to the supply of calcium in the blood, Dr. Mirvish suggests.

"If that is the case, our present conception of the role of vitamin D and probably of the other vitamins will have to change very appreciably," commented Dr. Mirvish.

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## NATURE RAMBLINGS

By FRANK THONE



*Fringed Gentian*

"Thou blossom bright with autumn dew,  
And colored with the heaven's own hue . . .  
Thou waitest late and com'st alone,  
When woods are bare, and birds are flown  
Then doth thy sweet and quiet eye  
Look through its fringes to the sky,  
Blue—blue—as if that sky let fall  
A flower from its cerulean wall."

Thus William Cullen Bryant, many years ago. Like all of the earlier American poets, Bryant was a lover of nature and liked to write about woods and wild things.

But he did too good a service to the fringed gentian. Attractive enough by itself, the weight of literary favor proved overwhelming to the poor flower which was carried off in thoughtless handfuls by people who really liked flowers, but did not stop to think that possession usually means destruction. The choicest things must usually be left untouched; they perish when we reach out and take them.

Such at least has been the fate of the fringed gentian. Once common in the eastern part of America, it is now one of the scarcest of our native flowers. It is no exaggeration to say that there are thousands of people who regularly walk the woods and fields in the fall, in places where the fringed gentian might be expected to grow, who have never in their lives seen one. Yet they in their turn often as thoughtlessly rob their grandchildren of flowers still left in existence, as their forefathers in their day robbed them.

It is seldom possible to grow the fringed gentian in a garden. No one, finding a gentian growing wild, should carry it home for transplanting, unless it is plainly in the path of a steamshovel or other form of destruction. Wild things are best left where they are, so long as there is even the slenderest of chances for them.

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