

NATURE STUDY

You May Make Animal Friends

It is Not Necessary to Be Either Saint or Hero
To Tame Shy Creatures of the Wild; Just Stand Quiet

By DR. FRANK THONE

HIAWATHA, so Longfellow tells us, made friends with the animals and birds of his forest home. He talked to them, and they to him, and thus he learned much of the lore that made him a hero while he lived and a looming myth after he died. St. Francis of Assisi, less mythical but even more legendary, preached to the birds and the fishes—even converted a man-eating wolf and made a vegetarian town-dog of him. It is all told in the "Fioretti," the "little flowers" of tradition that began to cluster around the gentle little poor man while he yet lived, and grew thick over his tomb after he died.

Tales of familiarity and friendship between men and animals are common in old-time rememberings of the race. Elijah had his ravens, St. Jerome his friendly lion. The fierce unicorn would become meek and tame at the bidding of an innocent maiden. No time or people is without such wonder-stories.

They seem wonder-stories to us, not merely because of the possible inaccuracies or exaggerations that may have crept into them through many unwritten tellings, but because there actually seems to be something "unnatural" about familiarity between a human being and a wild animal. It seems normal that birds and rabbits and squirrels should be afraid of us, and hastily get out of the way when they see or hear us coming.

Fear Can Be Avoided

But a fear-relationship between the animal world and ourselves need not be the case. Indeed, it never is the case, except through our own carelessness or cruelty. We need not walk alone in the world as much as we commonly do, and we do not need to be an Indian hero or an Italian saint to win the pleasant companionship of Brother Bluejay or Brother Squirrel. All we need to do is treat them as they are ready to treat us. All we need to do is stand quietly, move slowly, make no needless loud noises. Above all (and

this is hardest of all for our acquisitive human natures) we must not grab!

We cherish the illusion always that to hold is to have. Get your fingers closed round a thing, our instinct tells us, and it is yours. We cannot help that. The most completely restlessly, insatiably prehensile thing in the whole realm of living creatures is the human hand. To a large degree, evolutionists tell us, man was made by his own hands. That is, as those seeking, sampling, grasping things on the ends of his arms developed, getting into all sorts of situations, his brain had to grow into a pattern that could follow and control their behavior.

Our Nature to Grab

Whether this theory be wholly true or not, it is certainly true that the first thing any of us does, when an interesting or desirable object presents itself within arm's length, is to try to take hold of it.

And that utterly natural human gesture is exactly the thing that makes our lesser neighbors so terribly afraid of us, and leaves us so much alone in the world. To a bird or a squirrel or a frog or a butterfly, any sudden snatching movement means only one thing: something, somebody is trying to catch and eat him, and it behooves him to get away from there by the quickest and shortest route. So you are left with a handful of air, or at most a tail-feather, and your disappointment. And you have made some small scared thing more afraid than ever of that dreadful Ogre, Man.

The first step in winning the closer acquaintanceship of the friends of Hiawatha and St. Francis, then, is to perform this very literal act of self-mortification—you must quite deliberately kill one of your most fundamental instinctive tendencies. The open hand, not the closed one, is what speeds your wooing of the little folk of the forest.

You must not only refrain from trying to grab. You must learn not to make any sudden large movements at all. That again is counter to a very natural human tendency. Like our re-



MAKING FRIENDS

Even a lively small boy can teach himself the quietness necessary to make a brood of young flickers unafraid and friendly.

mote cousins who swing themselves about in the trees, we are creatures of large and sweeping gestures. But to the birds and smaller animals, large and sudden movements are the gestures of an enemy: life must be purchased with flight as soon as anything of that kind begins to happen.

Be Sympathetic

By the time you have learned to keep your hands to yourself, and to refrain from flailing about with your arms and legs, you will have begun to see the real foundation for friendship with animals unafraid. It is just this: you must so far as possible put yourself in their place. So far as your more complex mind will let you, you must think the way they do, and thus be prepared to respond sympathetically to their behavior, their way of acting.

You will have to meet them more than half way. If the bird and the beast are really your brothers, as St. Francis was fond of calling them, they are after all your younger brothers—your very

much younger brothers. You can understand them, at least in part; they can hardly understand you at all. Condescension is quite frankly called for, though there need not be anything snobbish about it. The more comprehending mind must fit itself to the ways of the less, and even be willing to have the little brother take certain outrageous small liberties. You must treat your small neighbors not as if they were grown-up humans, but as if they were the youngest and most irresponsible kind of small children.

Lure With Gifts

After the quietness, the passivity, that lets the natural trustfulness of small creatures develop itself, comes luring with little gifts of food—for the way to an animal's heart, no less than to a man's, lies through its stomach. This innocent bribery must also be conducted quietly and without aggressive movements. Too many of us become impatient when the squirrel does not promptly run up and take the proffered nut from between our fingers. The bestowal of many nuts is demanded as the price of confidence; even a squirrel's friendship is not for sale cheap. The park squirrel that runs up your coat and rummages your pockets at first sight has already received his introduction to human friendliness from other teachers.

Even after you have won the trust of bird or animal by quietness, and completed your conquest by an appeal to its appetite, you must continue the friendship on the creature's own terms. Some animals and birds do not mind being handled, others never submit willingly to being held. You simply have to find out the preferences of the species you are dealing with, and even of the separate individuals of that species.

Friendship between man and animals on a wholesale scale is splendidly demonstrated in our national parks. Hunting is rigidly prohibited the year round; every firearm brought into a national park is sealed by a ranger at the entrance. Hence the national parks animals and birds have never learned the fear of man as a destroyer, and know him only as another creature who comes into their range, and sometimes gives them food.

Even Deer

Thus we have the spectacle of friendly dealings not only between man and small creatures like marmots and jays, but the circle is enlarged enough to take in such giants as deer and black bear. Some of the larger animals, like the elk, are too shy to permit near approach, and some, like the grizzly bear, are natural solitaries who have no close contacts even with others of their own kind. Yet even these less intimate animals are not

frightened at the approach of man.

Animals whose lot is to serve as prey to other animals will lose their fear of these sub-human enemies as well, if for any cause the predator makes truce. The lamb is quite willing to lie down with the lion—provided he is not required to lie down inside. The odd picture appearing on page 189, made by the nature photographer, Lynwood Chace, of a new-hatched chick standing curiously over a sizeable snake not for the moment in an aggressive mood might be duplicated many times over, if one only had a camera handy at the right times.

Mouse Unafraid

An incident of the same kind, but even more striking, occurred some time ago at a scientific station in California. One of the men on the staff, a scientist of considerable dignity and position, was rather proud of his ability to capture rattlesnakes alive, in his off hours. One day he brought in a big rattler, which was naturally in a very vicious mood at being thus caught and thrust into a glass prison. The snake struck venomously at everything that moved, only to hurt his nose on the heavy plate glass. At last, learning that his normal game of offensive defense was getting him no results, the snake curled up in a corner and sulked.

After a few days, his captor thought the snake might be hungry, and dropped a mouse into the cage. Mice are natural prey of rattlers. But this one, like many snakes in captivity, refused to eat.

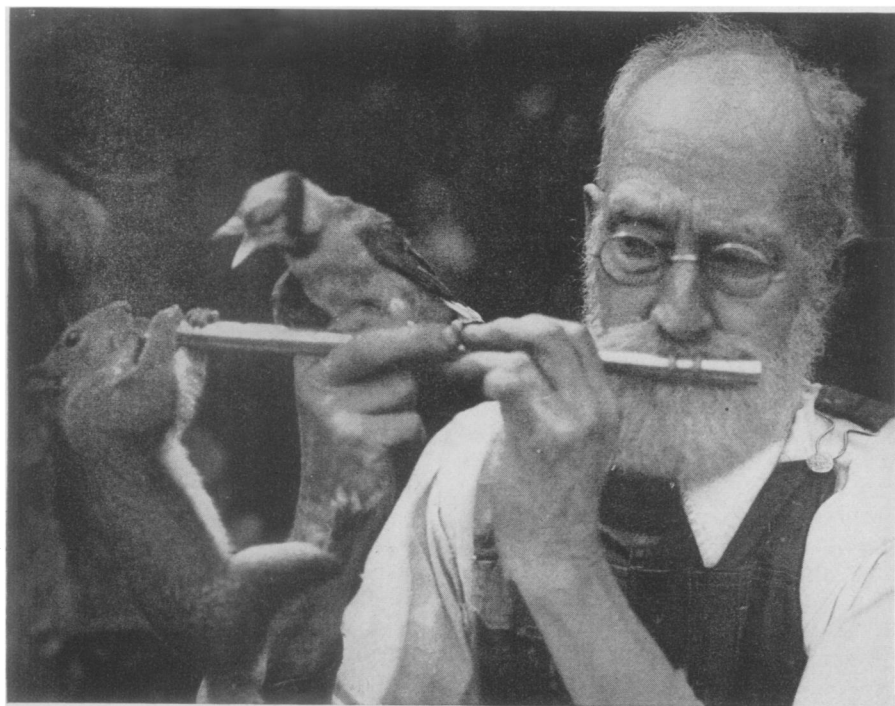
The mouse, at first frightened, finally calmed down and betook itself to another corner. After a few hours, the scientist took another look at the cage, to see whether his captive had decided after all to take a meal.

He found the rattler coiled up, fast asleep, and on top of him was the mouse, also fast asleep.

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In observing children of pre-school age, University of Minnesota psychologists find that children's quarrels at this age last, on the average, only 23 seconds.

A balanced diet for young mosquitoes, of some species at least, need not include the vitamins A, B, C, and D, is the discovery of a scientist who tested the diet requirements of mosquito larvae which have to be raised for certain laboratory experiments.



HARMONY

Young squirrel, young bluejay, old man, in a very literal "concert of friendship."

that Dr. Maurice Brodie, of New York University, is using, while Dr. John A. Kolmer, of Temple University, Philadelphia, may be working with a virus which is still alive. Using monkeys, they infect them with the disease. The spinal cords are removed, ground up, and treated with a chemical to completely or partially devitalize the contained virus. Dr. Brodie uses formalin and Dr. Kolmer uses castor oil soap. Dr. W. T. Harrison, of the United States Public Health Service, is known to be working on a similar vaccine, but he has as yet made no report of procedure or results.

As yet the use of such vaccines is far from being a practical procedure. Even though medical men were quite

sure that there would be no danger in treating children with the vaccines, there is still the lack of a simple test for susceptibility to tell which children are already immune and which should be immunized.

Under present conditions it would be necessary to use one and sometimes two monkeys in testing each child: One monkey to tell whether the child's serum will destroy the virus; children whose serum did not possess this property would be immunized and a second monkey used to determine whether the serum had taken on this property. Since monkeys cost \$15 each, it is apparent that such a test could not be used on a large scale.

Science News Letter, September 22, 1934

AGRICULTURE

Back to Land Movement No Solution for Farm Ills

FEWER people on the land, working shorter hours with modern machinery and other scientific aids, to operate bigger farms at a lower cost per bushel of grain or pound of meat produced: this was the somewhat unorthodox picture of real agricultural reform presented before the meeting of the British Association for the Advancement of Science by Prof. J. A. S. Watson of Oxford University, president of the section on agriculture.

The strong movement to send people back to the land, in Prof. Watson's opinion, is based mainly on blind tradition and can find very little rational or economic support. But such ideas die hard, he admitted.

"It is still considered a meritorious thing to employ an agricultural laborer, but there is no particular feeling about the employment of barbers, haberdashers or electricians," he said. "It is somehow more honorable to plough a field than to let it lie in grass. It is a nobler thing to grow wheat (even if nobody wants to eat it) than peaches or strawberries.

Legacy From Past

"These notions are a legacy from the time when the world was hungry of necessity, and when people lived healthily in the country but died quickly in the towns. We must realize that these conditions have ceased to be. There is a superabundant organization for food

production and there is no difficulty about breeding up a good and healthy human stock in the modern city. It seems to me that there is no argument for keeping unnecessary workers in agriculture or for driving people back to the land."

Neither had Prof. Watson much respect for the various schemes on which nations are working, each to make itself agriculturally self-sufficient, and at the same time to boost its exports of farm products.

He flicked at these schemes a whip-lash of ironic comment:

"Some of these measures, indeed, are not so much rational means to assist agriculture as the weapons of economic warfare, in which apparently one of the



CHROMIUM AND THE STAINLESS STEELS

an address by

Dr. F. M. Becket

President of the Union Carbide and Carbon Research Laboratories, Inc.

Wednesday, Sept. 26, at 3:30 p. m., Eastern Standard Time, over Stations of the Columbia Broadcasting System. Each week a prominent scientist speaks over the Columbia System under the auspices of Science Service.

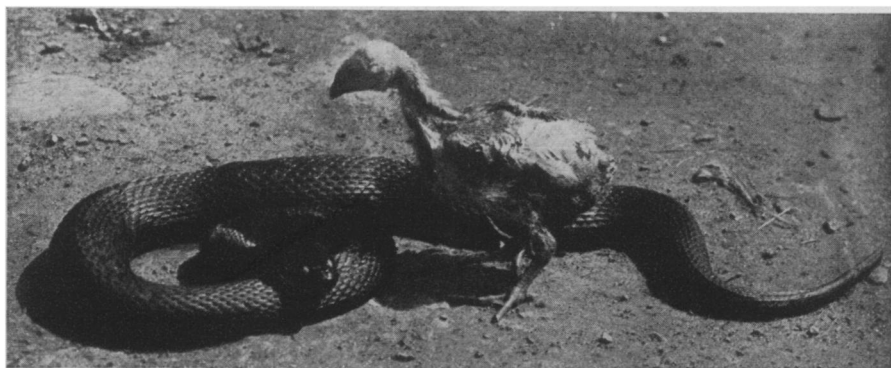
objects of strategy is to force upon the enemy more food than he can eat."

The complex of causes of the agricultural depression, as seen by Prof. Watson, has a striking resemblance to the same picture as viewed by the American Secretary of Agriculture, Henry Wallace, and the economists on his corps of assistants. Factors in the farmer's losing fight have included the continual opening up of rich new lands where grain could be produced at ever-decreasing costs, improved heavy-yielding crop plants and the overcoming of a lessening world demand in the face of this increasing world supply, a general slump in the whole economic set-up, currency value fluctuations resulting in a mounting burden of unpayable debt.

The principal weapon available to a planned agriculture, Dr. Watson felt, is greater efficiency per working unit—a larger output from fewer but better equipped and less overworked farmers.

Science News Letter, September 22, 1934

An albino elk, very rare, was seen this year in Glacier National Park.



FORGOTTEN ENMITIES

Even traditional enemies do not inspire fear, if they refrain from aggressive acts, as this water-snake did, at least for the time being. (See page 186)