

IOWA CONSERVATIONIST

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INCREDIBLE "BROTHER 'POSSUM'"

UGLY ACTING SNAKES

By Kenneth D. Carlander and
Robert B. Moorman
Iowa State College

Probably more tall stories are told about the hog-nosed snakes and the water snakes than any other harmless kinds. They act and look more dangerous than the poisonous species.

Hog-nosed snakes when cornered or startled will coil and then expand and flatten the head and neck to twice their normal width in a fashion suggesting a cobra. Meanwhile, air is expelled from the inflated body in short violent hisses which may easily be confused with the rattling of a rattle-snake. If a person approaches they will viciously strike—usually with a closed mouth. Because of their aggressive habits, hog-nosed snakes are often called puffing adders, spreading adders, or blow snakes. Dr. Ditmars, who has observed most of the dangerous snakes of the world, states that none of them appear more dangerous than the hog-nosed snakes. And yet it is all bluff. Only rarely will a puffing adder bite, and even then there is no poison or other danger.

This pugnacious show is only part of the snake's protective response. If the intruder is not driven off or if a person tries to kill the "dangerous" snake with a stick or stone, the snake begins to writhe and twist in realistic death agonies. The mouth is held wide open and the tongue is permitted to trail "lifeless" in the dirt and sand. In a last convulsion the snake turns on its back and then lies motionless, belly up, with the mouth open and the tongue drooping. The snake can then be picked up and will show no breathing or other movement. Usually it will be tossed off into the bushes where it can make its getaway. If left to lie for awhile, it will wait

(Continued on page 86)



This mother opossum, when found, was providing transportation facilities for 31 young. Twenty-one were riding on her back and 10 tiny hairless newborn were in her pouch. At least nine of the five-week-old hitch-hikers belonged to some other mother opossum.

By James Nelson Gowanloch

Chief Biologist, Louisiana Department of Wild Life and Fisheries

Subject of this article is the most fantastic, most amusing, most misunderstood of all native mammals of the United States, the opossum.

The opossum, one of the few American mammals that ever contributed a universally used phrase to the English speaking world, "playing 'possum," has entered into the folklore, the legend and the literature of the United States. * * *

The life history of the opossum has only recently, in some of its most significant chapters, become known.

Young opossums are born in a virtually embryonic condition, only an astounding 12 to 13 days after mating.

Newborn opossums are actually less than two-thirds the size of a honey bee, and a honey bee is only one-half inch in length. The illustration shows, in the scale indicated, this comparison. Stated in another way, four thousand three hundred and twenty newborn opossums (this is spelled out to preclude any idea that the figure is a misprint) are required to weigh one pound. An opossum may bear 20 young. The mother opossum can only provide dairy facilities for 12. Excess individuals are simply surplus crop. They have no social security cards. They die.

Most astonishing in opossums' life history is that when born, they are provided with usefully vigorous front legs and highly developed apparatus for smell. Otherwise they look like no reasonable or acceptable offspring of anything. These trivial creatures immediately proceed to migrate under their own power into their mother's pouch, where they nurse and grow. Speed of growth is prodigious, in the first seven days one thousand per cent. Milk-fed for two months, they begin to peer inquisitively out of their pouch

(Continued on page 84)

Keep Your Head Down In Shooting

The difference between a hit and a miss in wing-shooting often lies in that very slight distance between the shooter's cheek and the stock of his gun.

There should be no distance at all between the cheek and the stock. The expert wing-shot makes sure that the gun stock is against his cheek before he pulls the trigger. This, with practice, becomes an instinctive movement that is one of the prime essentials in good shooting. Raising the stock to the cheek allows the shooter to quickly gain a true "sight-picture" and helps him to refrain from making the all-too-common error of raising his head just before firing.

Raising the head causes the gunner to shoot high, the most common fault among shotgun shooters. "Keep your head down"

is one of the cardinal rules in good shooting, and its strict observance must be practiced if the charge of shot is to strike the object at which the shooter thinks he is pointing.

Most gunners realize immediately upon touching off the trigger whether or not the gun was properly pointed. In trap shooting a few sketchy breaks will warn the shooter that he is not holding right and that he is "scratchin' 'em down" with the edge of his pattern. The fellow who shoots with both eyes open (and this is the proper method) is more apt to raise his head a bit and shoot high than the chap who closes one eye, for the latter is more inclined to "sight" his shotgun rather than "point" it.

To get a proper "sight-picture" in using a shotgun, the gun should

(Continued on page 87)

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LAKE NAMES SHOULD REFLECT CHARACTER

Says Bill Jarnigan, able and widely known editor of the Storm Lake Pilot-Tribune, in his Old Timer's column in the Trib:

"Bro. Knudson of the Emmetsburg Democrat is worried. He can't get folks to call their lake 'Five Island Lake,' although the name was changed from 'Medium Lake' some five years ago.

"The depth of indignity was reached when an Iowa newspaper referred to it as 'Five Fingered Lake.'

"Wouldn't lose too much sleep over it, though, Bro. Knudson. Old Timer has believed for years that the name 'Storm' prefixed to our beautiful lake is a disadvantage. Creates the impression among strangers that we are a stormy community, whereas nothing could be farther from the truth!

"Storm Lake has one distinction at that. It's the only post office by that name in the world."

What Bro. Jarnigan may not know is that we have a special reason here in Emmetsburg for wanting the whole world and the State of Iowa in particular to call our lake by its official name. Of our five islands, No. 1, right here in the lower lake, is badly in need of some fixing up, and as our lake is a state lake this crumbling mound is in the custody of the state.

Now if the state doesn't do something about this, someday it's not going to be Five Island Lake any more, but Four Island Lake. Hence the emphasis on the name. See how crafty we're getting?

That "Finger" business, as Bro. Jarnigan surmises, really is insulting. Anybody knows fixing up a finger is a small fry repair job compared to rebuilding an island.—*Emmetsburg Democrat.*

The female meadow mouse may produce as high as 17 litters during a year. The young female may mate when less than four weeks old.

The average cottontail rabbit lives less than one year.



Walnut trees may bear abundantly in from seven to eight years, and the nuts are clear profit just for picking them up and hulling them.

WALNUTS—BLACK GOLD

By Merrill V. Nipps, Walnut Dealer Agent

(From an article in the *Missouri Conservationist*)

Walnut kernels, picked out by hand, were for many years a small source of income to Ozark farmers. Some sold their own kernels; others sold to produce dealers who in turn sold to nut brokers in cities. Many small operators, produce dealers usually, would sell walnuts in the hull to farmers and buy back the kernels, setting a price so that women and children or shut-ins in the home could make a dollar or so a day. This grew into a sizeable business until, in 1941, a walnut kernel dealer in Fordland, Mo., handled more than 500,000 pounds of kernels, buying from other dealers as well as from farmers.

About this time things happened. The food and drug department started cracking down on home-cracked walnut kernels due to the danger of spreading disease. The wage act was passed requiring processors to pay a minimum wage, thus complicating further the walnut business. It was along about this time, too, that we went to war and needed black walnut shells for gas mask filters.

I came here from Philadelphia about the time the war started to get walnut shells for making activated charcoal to be used as filters in gas masks. Lined up with a nut processor at Gravette, Ark., who said he would process all I could buy or ship to him, I pegged the price at \$1.25 to \$1.35 per hundred pounds for hulled, dry, sacked black walnuts and started every

produce and feed dealer in Missouri to buying them. That winter of '41 was the first time there had ever been an unlimited, guaranteed market for black walnuts. We got over four million pounds that season. Shells were shipped to a plant in Chicago. We sold the kernels as our profit.

The business was continued and has grown until now, in a good year, we buy 12,000,000 pounds of black walnuts. More recently other plants have sprung up, one at Stockton, Mo., and another at Sulphur Springs, Ark. Each of them bought over a half-million pounds of walnuts last year.

Farmers are becoming more and more conscious that this is a sure cash crop for them and are gathering more walnuts every year. Last year (1949) they got from \$3 to \$3.50 a hundred pounds for them as compared to slightly over \$1 a hundred in 1941.

As walnut kernels were produced in larger quantities, new uses for them have been found. Main outlets today are in the bakery, ice cream and candy industries. In our factory at Gravette, we can crack 100,000 pounds of black walnuts, and clean, pasteurize and ship 12,500 pounds of kernels in a two-shift day.

The forestry division of the Conservation Commission and the College of Agriculture of the University are urging farmers not to sell their immature walnut trees for logs since, over a period of a few years, they are worth far more for the nuts they bear. They are good income possibilities to individual farmers. I know of one farmer living near Walnut Grove, Mo., who sold more than \$750 worth in one season, bringing in from 500 to 2,000 pounds of wal-

nuts each weekend. During the fall of 1946, the dealer in Walnut Grove bought for us over 500,000 pounds of walnuts, paying the farmers in his area some \$15,000. This is a good income from one small area.

Missouri is by far the biggest walnut-producing state in the nation, the heaviest producing area being within a hundred-mile radius of Springfield.

Walnut kernels are rich in protein—one pound having as much protein as five to six pounds of beef. Ordinarily native black walnuts will produce from 12 to 15 pounds of kernels per 100 pounds of hulled nuts.

Grafted name-variety nuts will produce from 25 to 35 per cent kernels. I planted 12 in 1943 that at present are not 30 feet tall, but are bearing large crops of nuts each year. They respond richly to manuring and cultivation. I firmly believe that ten years from now my walnut orchard will produce more money per year than a same size orchard of apples or peaches. And it is much less expensive to maintain. Walnut trees planted in a pasture do not impede the grass. In fact, wherever you see black walnut trees, there is a fine blue grass for the tree doesn't shade heavily and the outer hulls of the nuts serve as soil feeders.

A warning to farmers who plant walnut trees—keep stock away from them until the trees are 'way up there. Livestock eat the foliage like nobody's business.

There is absolutely an unlimited market now for all the black walnuts farmers have or can find anywhere. The nuts are clear profit just for picking them up and hulling them. A quick easy way to hull them is with a home-made trough installed under a jacked up rear wheel of a car.

Black walnuts can be a million-dollar industry in the Ozarks. We're already more than halfway there.

FISH FOODS UTILIZED IN THE DES MOINES RIVER DRAINAGE

A study of foods consumed by 930 fish representing 23 species from the Des Moines River watershed has been presented. For the sake of simplicity, the foods utilized by the various fishes have been grouped into five major categories: fish, insects, invertebrates other than insects, plants, and organic material. A diversity of fish, insects, and plants constitutes the bulk of the diet of all fish. The data show that all fish are in direct competition for the same foods, and this competition has very little regard for size of fish. For example, adult buffalo, carp, suckers, and quillback are using the same food as young fish, whereas the food of adult game fish is also being utilized by stonecats, bullheads, and carp.—*Briefs, July Biology Seminar.*

QUARTER OF A MILLION VISIT TRAVELING EXHIBIT IN 1950

By George W. Worley
Superintendent of Public Relations

The big semi-trailer which houses the Conservation Commission's traveling wildlife exhibit finished its 1950 schedule on October 18. Since April it has been on the road almost constantly, exhibiting its load of live animals to nearly 225,000 Iowans.

The first appearance of the exhibit in 1950 was at the Sports and Vacation Show in Des Moines with an attendance of about 30,000. During summer vacation months the exhibit set up at 27 county fairs and other gatherings. About 127,000 youngsters and adults attended these public showings. Over 65,000 school children in 16 counties saw the exhibit this year. Five additional educational shows attracted over 4,000 visitors.

A special effort is made to make the traveling exhibit interesting and educational to school children. About two weeks before the exhibit appears, special printed materials are distributed to teachers and pupils. These materials are used by teachers to prepare their pupils for the exhibit. Interest in the coming attraction is increased. Pupils look forward to seeing the animals they have talked about and studied. After the exhibit moves on, printed materials may be used for review and reference. At each school state conservation officers guide groups of pupils past the cages and tanks, explaining the habits and importance of our wildlife and answering questions.

The big blue and white exhibit truck with its "Conservation Can't Wait" motto is becoming more and more familiar to Iowans on the highways and at their schools and fairs.



At each school state conservation officers guide groups of pupils past the cages and tanks. Here Roy Downing, exhibit supervisor, is explaining the habits and importance of our wildlife to a group of youngsters.

* * * * *
The purpose of the exhibit is summed up in a quotation from the exhibit bulletin, "A Peek at Iowa Wildlife":

"The State Conservation Commission's traveling wildlife exhibit is designed to interest school children and other citizens of Iowa in the welfare of native wildlife.

"Wise use of soil, water, and plant life is necessary if wildlife is to prosper. The same wise use of soil, water, and plant life is necessary if PEOPLE are to prosper.

"When all Iowans understand this basic conservation fact, they will demand more conservation activity from state, federal, and private agencies and will also be better prepared to give these agencies the cooperation and help they must have.

"We cannot continue to waste our God-given soil, water, forests, minerals, and wildlife as we have during the past hundred years. If we do we cannot remain a healthy, prosperous people.

"CONSERVATION CAN'T WAIT!"

NEW WINCHESTER HANDBOOK

The 1950 edition of the "Winchester Handbook" contains 112 pages of shooters' information. Among the many new features is a range table for all Winchester center fire cartridges, a table of wind allowances, and a table of cartridges interchangeable and adapted to the same gun. The handbook explains in simple language the mysteries of shot string, barrel length, pattern, powder, velocity, trajectory, killing power, range of bullet types, and a host of other subjects. The new booklet is free on request from Winchester Repeating Arms Company, New Haven, Connecticut.

ANIMALS AND BIRDS OFTEN AID SEED GERMINATION

Although some small animals and birds eat so many tree seeds that forestry reseeding is difficult in many areas, it is also known that a great many birds and animals aid reforestation by the passage of seeds through their digestive tracts, the U. S. Fish and Wildlife Service reports.

Many hard-coated seeds are scarified by stomach or gizzard action, and germination is better as a result of passing through the animals than it would be without. The birds and animals also aid in making a wide distribution of seeds, and the fertilizer provided in the scats themselves aids the growth of germinating seeds.

DR. ADA HAYDEN, 1884-1950

By Mrs. Addison Parker

The recent death of Dr. Ada Hayden, research assistant professor of botany and plant pathology of Iowa State College, brings a real sense of loss to faculty, students and friends to whom she endeared herself in her long career of teaching and research. She expressed loyal friendship, unswerving honesty of purpose, calm and quiet judgment, genial kindness and humor, and devotion to the duties of her profession. By her fidelity, personal character and professional ability she made a valuable contribution to botanical literature and to the development of research in her own field, and to conservation through her studies for the Iowa Cooperative Wildlife Research Unit.

These included studies of the distribution and ecology of plants in the waterfowl breeding areas of Iowa, Round Lake, Ruthven, Virgin Lake, Ingham Lake, Rush Lake, etc.

As a member of the Ecological Union and of The Grasslands Association, Dr. Hayden was devoted to the preservation of native prairie areas. She was a member of the committee which made a prairie survey of the state to ascertain the location of unplowed virgin grasslands, and to urge their preservation.

It seems particularly fitting that one of the state prairie areas should now be named in honor of Dr. Hayden, to perpetuate her memory and to give recognition to her notable contribution to research in conservation. The 160-acre native prairie in Howard County, nine miles west of Cresco, will now be called the Ada Hayden Prairie.

The earthworm caught by the early bird is no early worm but one that stayed out too late, for earthworms are nocturnal animals, emerging only at night and retreating underground in the morning.

The average weight of cock pheasants shot during the fall season is 2 pounds, 13 ounces.



Jim Sherman Photo.

The Conservation Commission's traveling wildlife exhibit is designed to interest school children and other citizens of Iowa in the welfare of native wildlife.

"JOE BEAVER"

By Ed Nofziger



ED NOFZIGER

Forest Service, U. S. Department of Agriculture
"Take off that hunter's red cap! Want to get shot immediately?"

'Possum . . .

(Continued from page 51)

apartment in four weeks, venture to emerge and walk at five weeks. Eight weeks old, they embark upon their own individual careers. Extraordinary fact is that during the interval they cling to their mother's back and are thus transported about, she often has her pouch again filled with an additional newborn family. Opossums breed when one year old, may live eight. * * *

The best founded of all legends concerning "Brother 'Possum" is that embedded in the children's tales where he is always getting into trouble.

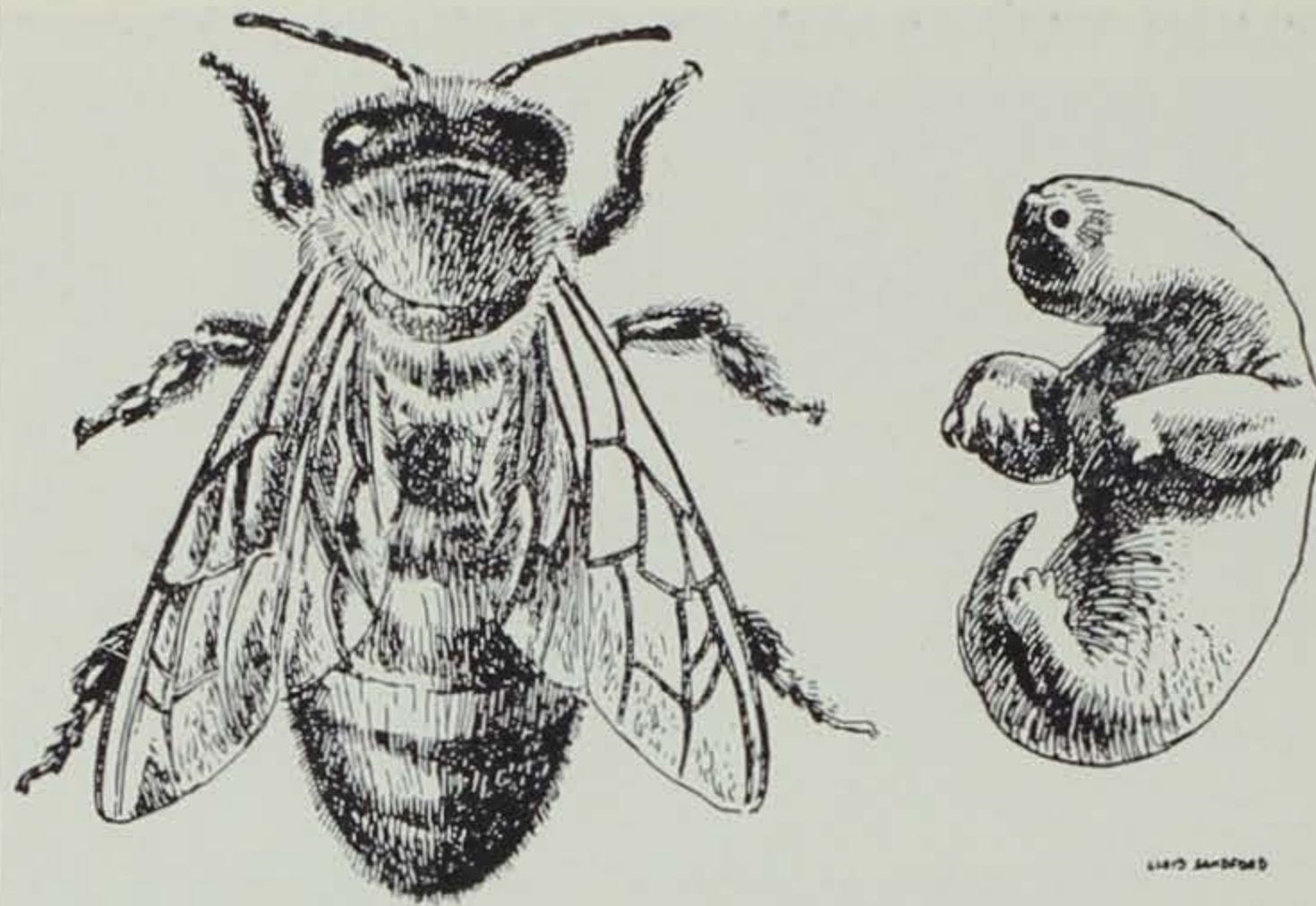
The opossum is our stupidest mammal. Unperturbably, he ambles anywhere, at any time, under any circumstances into possible disaster. The crushed anatomies of definitely deceased opossums provide familiar spectacles on every highway.

The legend of the opossum "playing 'possum" is biologically sound. The opossum, profoundly alarmed, simply shams death. This simulation of death is matched by many insects and, among the reptiles, by the harmless hog-nosed snake, the traditionally deadly "spreading adder." When in peril, the opossum, with superb actorship, plays dead. Eyes tightly shut, it opens its mouth, rolls out its tongue, becomes completely limp and if lifted immediately falls, instantly and similarly limp again. This counterfeit of death it will enact for a long period of time.

Various explanations have been given. Some believe this strange chain of events is the automatic result of shock. To this explanation the writer from personal observation cannot subscribe, since it seems all too apparent that "Brother 'Possum" knows exactly what is going on, and although his eyes may seem to be closed, he has at least raised his eyelashes sufficiently to see who is where. Scientific evaluations of death shamming as a protective mechanism are still far from acceptable, but it does seem apparent that in some fashion this peculiar behavior contributes to the survival of the opossum through the fifty odd million years that it has existed in the presence of efficient and hungry enemies. * * *

Opossums as pets are objectionable. They are stupid and they stink, not the clean aroma of the skunk, but a perfume purely reminiscent of a busted garbage can.

Opossums are greatly enjoyed by many people as food. Their flesh resembles that of pork more closely than of any other domestic meat. The flesh is much too fat for many palates. It may be pointed out in the light of our present delayed global peace that the fat of one opossum can provide enough explosives to fire five 37-millimeter shells. Presumably an expert chef



Louisiana Conservationist Illustration. Comparative size of honey bee and newborn opossum. Four thousand three hundred and twenty newborn opossums are required to weigh one pound.

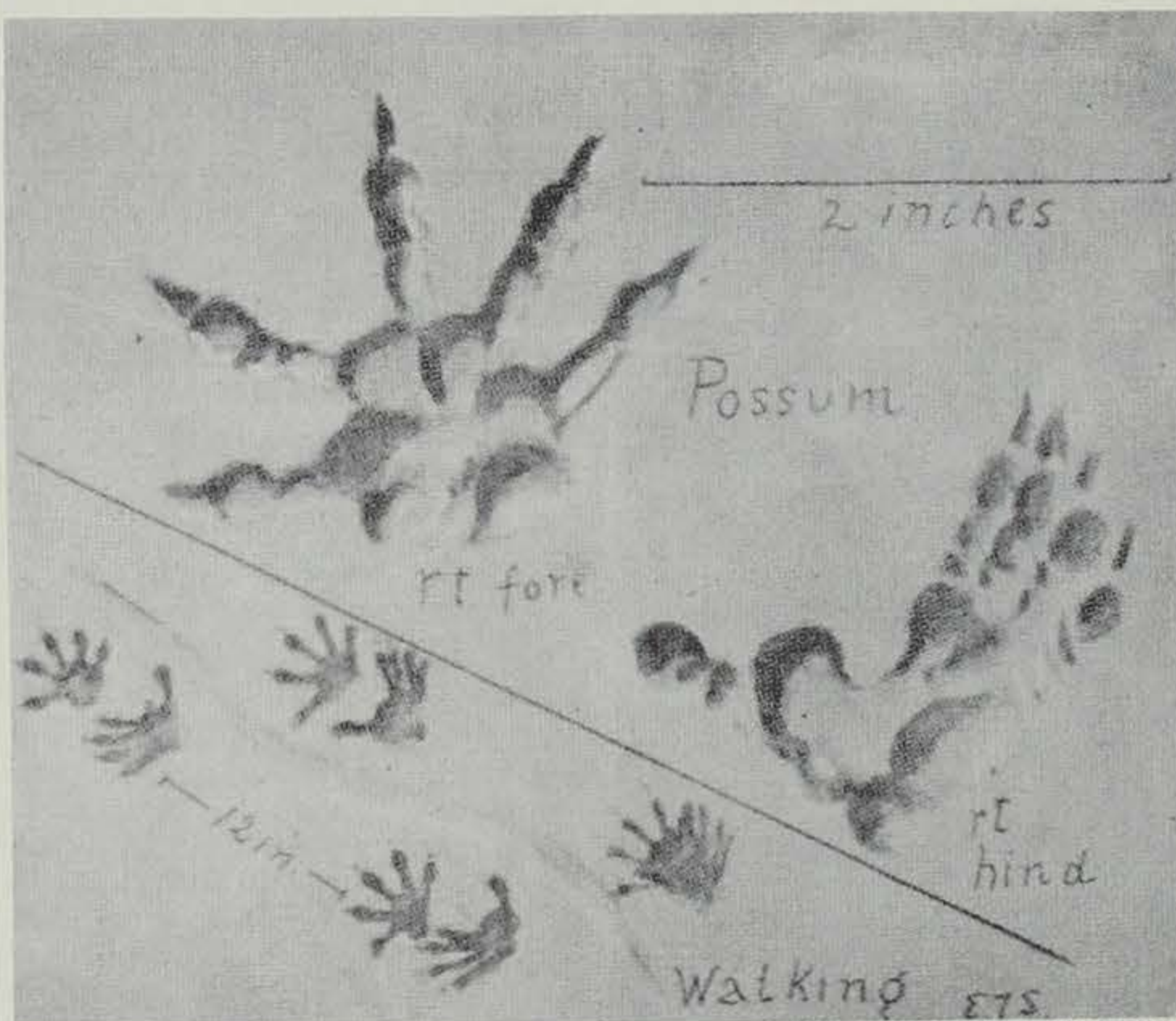
* * * * * could devise a method of preparing an opossum that would eliminate gourmet criticisms, but people who like opossum like opossum, and to them such a rigamarole of technique is superfluous and such a finicky connoisseur attitude equally superfluous, as stupid as the opossum itself.

The opossum, despite popular opinion, is of little importance as a fur animal. The fur, initially charming in appearance, is not durable. The writer, who has made an extensive study of the "guard hairs," the outer hairs of fur animals, found that these guard hairs in the opossum are extremely fragile. Opossum has been largely used as a trim for cloth coats, since worked up as a single material in a complete garment it has never proven satisfactory. * * *

The part that the opossum plays in the wildlife pattern is, in the belief of the writer, a bad one. The opossum is without doubt one

of our wild mammals most tolerant of man. It will without hesitation move into the attic of a home whenever it can and from such a base of operations raid hen houses, fruit trees, and green corn and cause heavy continuous diverse damage with an obligato of mysterious racket above the bedroom ceiling. It enters without hesitation the limits of large cities. It lives on everything from quail eggs to curbside garbage which it expertly uncans, thus qualifying as a number one, truly omnivorous member of the wildlife tribe. Country based, it voraciously eats mice, frogs, birds, berries, nuts, fish, persimmons, and about anything else except the mineral kingdom. * * *

Difficulties of establishing precise cause of game bird nest destruction are considerable and make accomplishment of accurate statistical studies only infrequently attainable. Often only by the



Louisiana Conservationist Illustration. The birdlike forepaw print of the opossum is like no other North American mammal print. This distinctive signature at the site of predatory depredations often seals the opossum's guilt.

identification of shed hair of the predator (scientifically quite precise microscopically) is it possible to name the true culprit.

However, the extraordinarily distinctive fore-footprint of the opossum will instantly mark it off from such other raiders as mink, skunk and raccoon. The long fore toes with their bird-like imprints are unmistakable.

Herewith, therefore, briefly presented is this account of some attributes of the fantastic and legendary "Brother 'Possum," who in the children's tales was always getting into difficulties and who should deservedly, the writer believes, get into still a great deal more trouble, long earned, long overdue.—Louisiana Conservationist.

RAW FUR PRICES UP

Raw fur prices at current fur auctions are decidedly higher than last year. Prices on long-haired fur, including skunk, fox, raccoon and opossum have been extremely low the past several years, and in 1949 fur buyers were reluctant to purchase some of the cheaper furs at any price. As a result, trappers have not been harvesting the surplus animals and some species, particularly raccoon, have become extremely abundant.

Current increases in the value of long-haired fur are expected to stimulate trapping this year, and it is believed by some buyers that fashion is beginning to dictate the use of long-haired fur in higher priced garments.

In addition to better prices for long-haired fur, muskrat, beaver, mink and weasel are also showing increased values in the fur markets.

Pleasant Valley, Iowa
October 13, 1950

Editor "Iowa Conservationist"
State Conservation Commission
Des Moines, Iowa

Dear Sir:
About May 15, 1915, my son, hired man and myself were shingling a large cattle shed. About 9 o'clock in the morning a ruffed grouse, or woods pheasant, alighted on the roof, and my son, with a little coaxing, picked her up and put her in a cage. We let her go in the evening and next morning she was back again, and again we picked her up and released her.

I think the constant pounding of the three hammers was to the pheasant like the drumming of a cock on an old log. This was the last pheasant seen in this part of Pleasant Valley Township.

Years ago when I was 12 years of age (I am now 82 years young), my brother and I spent many weeks in the virgin forest north of our home. It was then we often would see a cock grouse drumming on old logs.

Yours truly,
F. F. SCHUTTER.



Jim Sherman Photo.

Part of a group of 1,500 egrets that gathered to roost each evening at Lake Odessa during the fall. The birds scatter out each day for long distances, often stopping in farm ponds to find food.

TAMA FARM POND STAGE FOR WILDLIFE

By Ruth Blake

Much has been written about the farm pond as a soil conservation measure and as a means of supplying adequate water for stock. But it is as an attractor of wildlife that the pond furnishes the most excitement.

During the migration season wild ducks and geese are often attracted to the ponds. Every such flock we see is gratifying to us but is no longer considered unusual. Now it is when egrets come to dip for fish that we get the biggest thrill.

One early morning recently we looked down upon the pond to see five tall white birds standing at the water's edge. We watched the birds at their ease, preening and occasionally lifting to flap across to the other side. Not used to seeing such large birds, their wing-spread seemed tremendous to us. Stealthily we crept closer to positively identify them. Quiet and careful of movement as we were, the birds were soon aware of us. They seemed to come to attention as if at a signal. Erect on their slender black legs with their long, graceful necks held high, they reached a height of more than three feet. As they stood so very still and straight their very alertness made them a sight to behold.

The egret's plumage is entirely white. At the migrating season, when we saw them, the long identifying plume or "aigrette" was missing. The birds flew away in the direction of the Iowa River a mile distant. As they flew they carried their heads near their shoulders. This fact distinguishes them from cranes. Cranes always fly with neck extended.

Near the edge of the pond where the birds had stood we found several long, tapering, pointed feathers. In the soft mud were many tracks. One print measured 6½ inches in length and 5½ inches across. The egret is of the heron family and is sometimes called white heron. It is characteristic of

the herons that the four toes are all on the same plane. (Birds of the crane family have an elevated hind toe.)

"SPORTSMEN" IN THE DUCK MARSHES

By Gib Knudson, Jr.

The way some of the duck hunters have behaved since the season opened is enough to turn the stomach of any shooter with a shred of decency left in him.

We have never heard more complaints among hunters themselves than we've heard this fall about the hoodlum shooting which has dominated every public shooting ground in northwest Iowa. The hunters who do all this damage are in the minority, but the minority seems to get bigger every year.

The majority treat their fellow hunters as well as the game they are hunting with some respect. But these hoodlums treat nothing with respect. We have never seen a more brazen, ruthless disregard of the rights of everybody and everything, including the waterfowl itself, than we've seen on the outlet of Lost Island Lake this fall.

On opening day there must have been 500 to 600 hunters on the outlet. At 11:40 a.m. the first shot was fired, twenty minutes before legal time. This early bird put every other man on the outlet on the spot. Ducks got up in clouds and scores of shooters who want to stay within the law and don't like to see any advantage taken of our shrinking duck supply had to shoot early or run the risk of missing out on the birds.

We weren't close enough to hear it, but we have been told the poacher who touched off the fireworks ahead of time got a long and thorough cussing out by a neighboring hunter. We hope so.

Up at the north end of Five Island Lake many more hunters were waiting for noon to come. At 10 o'clock a pickup stopped on the road, a hunter climbed the fence and dashed over to the slough south of the Little lake and took a quick

potshot. He picked up his ducks and fled.

Behind he left frightened ducks leaving the lake in droves and a bunch of enraged hunters who had to stand there helpless and watch the best of their day's sport slip away from them.

Up at Four Mile Lake, south of Superior, two hunters pushed their boat into heavy cattails. They were good shots and they shot at every bird that came within 80 yards of them all afternoon. No effort to push out and look for fallen ducks, no effort to shoot only ducks they could find later, no attempt or wish to stay within the four-bird limit.

A friend of ours who watched these game hogs estimated they killed between 60 and 70 ducks and coot and let them lay, all except their limit, which they selected from dead ducks close to the boat when they left. He saw teal, widgeons, mallards, spikes, bluegills and shovelers tumble in the slaughter.

At the outlet, a few days later, about a dozen duck boats were spaced at intervals in the reeds over in the southeast corner. All of these boys had made elaborate preparations for a day of decoy shooting. They had boats, boots, decoys and some had dogs. They took care in locating themselves and in setting their blocks out just right. They studied the wind and they took pains to conceal themselves properly.

We were among them and all of the shooters in our sector were getting a shot once in a while. There was admirable restraint when a few pintails or mallards started coming down from up high, their wings bowed. Out-of-range shooting was held to a minimum and everybody was having a little luck.

Then two hunters on foot came up from the downwind side and waded out to the top of their boots. They fired at every duck that head-

ed for that end of the outlet for the next two hours, and we're telling you those of us out in the boats didn't get one shot in all of that 120 minutes.

We sat there and watched those moon shooters turn back small bunches, singles, pairs and two big flocks. They shot at everything, regardless of range up or off to the side. They scratched down one mallard drake, which came down fighting and when they came down that way you don't get them. They couldn't get that one for sure, because it hit thick cattails 150 yards from them. They made no effort to get it, of course.

After two hours of this we gathered up our decoys and pulled out. We had no desire to spend the afternoon watching two hunters go berserk with their shotguns. Decoy shooting, one of the most rewarding of all kinds of duck hunting, is fast becoming extinct on such places as the outlet.

We can't figure these crazy hunters out. We don't care who he is, any man who has been hunting ducks for years can't tolerate the greed and deliberate bad hunting practiced by the hoodlums. There is more to duck hunting, we hope, than greed and banging away with a gun.

Old hunters find no satisfaction in shooting a duck they can't get, or shooting to keep somebody else from getting it. What is the point in tooting dumbly and aimlessly on a duck call all day? Or shouting drunkenly at friends or swearing drunkenly at your dog?

All of such behavior wrecks the hunting for everybody. We have hunted ducks for more than 30 years and to us it will always be the greatest sport. But after seeing what we have seen this fall we wonder if duck shooters, as a class, have become so degenerate they don't deserve any season at all.—*"Outdoors," Emmetsburg Democrat.*



Jim Sherman Photo.

Decoy shooting, one of the most rewarding of all kinds of duck hunting, is fast becoming extinct because of "moon shooters" who shoot at anything within a quarter of a mile. Old-time duck hunters, who sometimes invest a thousand dollars or more in equipment, are plenty "burned up."



C. P. Walker Photo.

The common water snake is not a poisonous snake. It does, however, have a nasty disposition. Here a common water snake is in the act of swallowing a bullhead.

Snakes . . .

(Continued from page 81)

until all is quiet and then try to sneak away.

There is one comical flaw in the hog-nosed snake's "playing possum". If the "dead" snake is turned over onto its belly, it quickly comes to life and turns onto its back to pretend it is dead again. The hog-nosed snake apparently feels that a snake has to be belly up to be dead.

Captive hog-nosed snakes soon become quite docile and will no longer strike, bluff or play possum. Hog-nosed snakes feed mostly upon toads and frogs but will also eat an occasional mouse, bird, or larger insect. They are among the few enemies of the warty toads, which are able to secrete a poisonous substance which most other snakes and animals will avoid. When toads are attacked they usually inflate themselves with air, making themselves much larger and more difficult to swallow. Hog-nosed snakes, however, have a pair of long teeth near the back of the mouth which can puncture and deflate the victim.

Two species of hog-nosed snakes are found in Iowa, the common or eastern hog-nosed snake (*Heterodon platyrhinus*) found in most parts of the state, and western hog-nosed snake (*Heterodon nasicus*) reported only from the Okoboji lakes region but probably found elsewhere in western Iowa. Upon close examination, hog-nosed snakes can be distinguished from

all other Iowa snakes by the fact that the snout is turned up at the front and the scale or plate that turns up at the end of the snout has a ridge down the middle. This turned-up snout is used in burrowing in sand and soft dirt. In the western species the snout is turned up more sharply than in the eastern species.

In the field these snakes can usually be readily identified by the flattening of the head and neck and by their threatening actions. They are rather stout-bodied snakes with squarish dark brown spots down the back and more pronounced spots on the side. In larger individuals the markings are less distinct, giving a dusky mottled appearance. The throat is white, and the belly is yellowish with dark blotches. A good characteristic for distinguishing the two species is the color of the undersurface of the tail. In the eastern species this is yellow, in the western black. A large hog-nosed snake may be 2.5 to 3.5 feet long, and the western species seldom gets as large as the eastern species.

The common water snake (*Natrix sipedon*) is a heavy-bodied snake about the same size or slightly larger than the hog-nosed snakes. It also has a vicious disposition and will readily strike and bite. Many people believe it to be poisonous and call it a water moccasin. The true water moccasin, or cottonmouth, a dangerous venomous snake, is not found in Iowa, nor is it found within a couple of hundred miles of our borders. The water snakes found

in Iowa are non-poisonous and their bite is no more dangerous nor painful than the scratch of a pin. It is true that the common water snake looks a great deal like the cottonmouth, and in areas where the latter snake is found it is well to avoid all water snakes. The common water snake, however, does not have the pit before the eye, the heart-shaped head, or the fangs which the poisonous species have. Furthermore, there are two rows of plates on the undersurface of the tail of the harmless species, while the cottonmouth has only a single row except near the tip.

Common water snakes are seldom found far from water except in spring and fall while they are migrating to rocky areas to hibernate. They feed primarily on fish, frogs, and crayfish.

The markings are quite distinct except on old individuals, and the common water snake is often known as the banded snake. The ground color is light grey or tan and the pattern consists of a series of wide cross bands or saddles, reddish-brown or dark grey in color on the front third of the body. Further back the cross bands are broken into squarish blotches. The belly is yellowish or grey, usually with crescent-shaped red or black marks roughly in two rows. The scales on the back are strongly ridged, giving the snake a rough feeling.

There is another water snake found in Iowa, but it is quite different from the common water snake. Graham's water snake (*Natrix grahami*) is a fairly secretive species and is docile and timid when caught and handled. It gives off a musky secretion from anal glands similar to that of the garter snake. In fact, Graham's water snake looks much like a garter snake. On each side of the body is a broad yellow band bordered by black and there is usually an indistinct stripe down the back. It never has a prominent yellow stripe down the back as do all garter snakes, however. Also the plate in front of the anus is divided into two in the water snakes. Graham's water snake usually has small, dark spots on the center of the belly and particularly under the tail.

The water snakes give birth to their young, as do the garter snakes, but in contrast to the hog-nosed snakes, which lay up to 64 eggs with leathery shells.

Although the water snakes are often accused of killing many fish, research investigations indicate that most of the fish which they catch are rough fish or small fish and they do little damage to the more important, and more active game fishes.

The meadow mouse is one of the busiest animals in the United States. Taking only a few hours out for sleep here and there, it rushes around so much that even families are born and reared on the "fly."



The late George B. Coon, for whom the 72-acre fishing access on the Skunk River has been named, displays a pair of descended skunks during the 1942 State Fair.

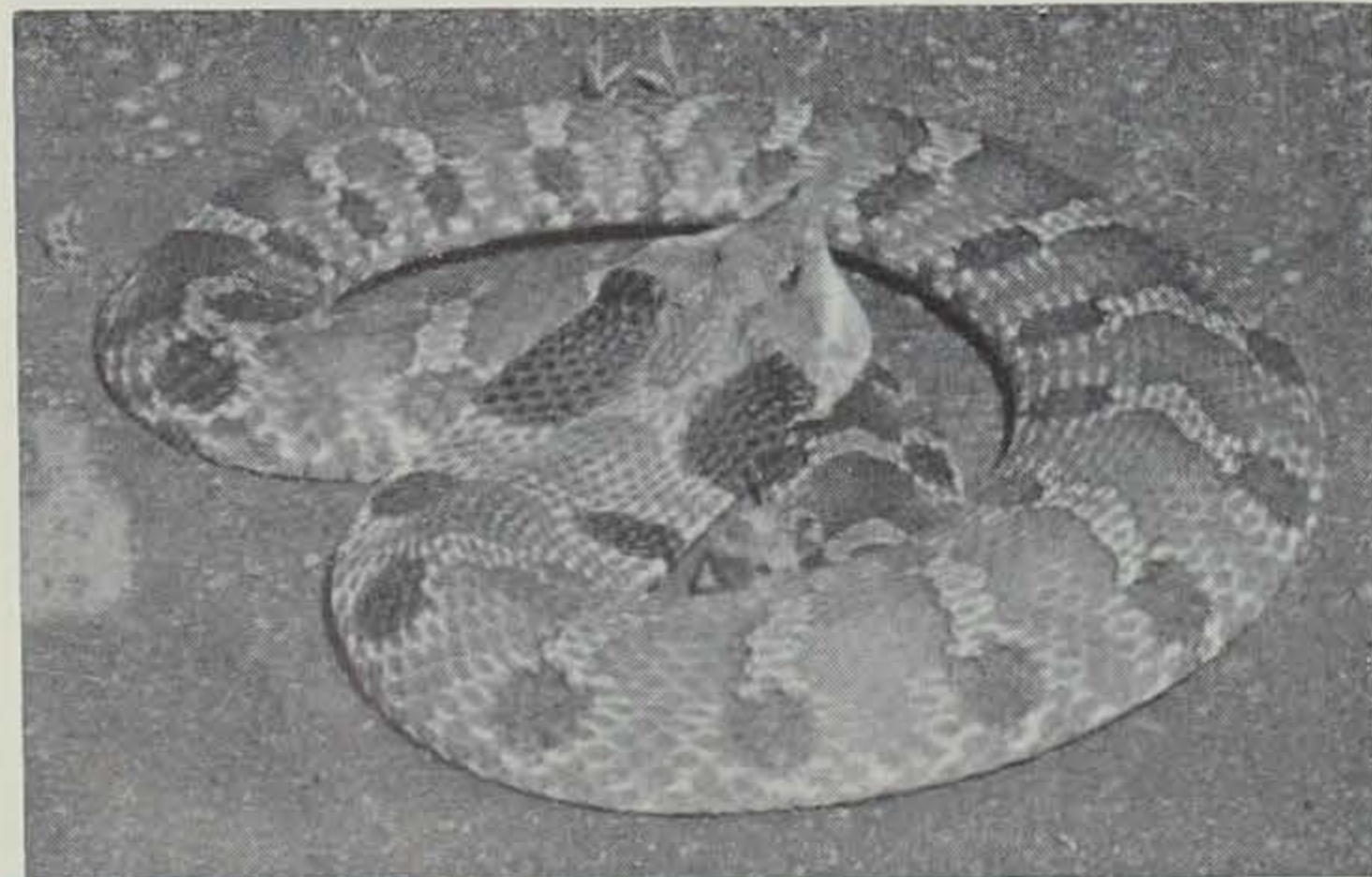
FISHING AREA NAMED FOR LONG-TIME GAME WARDEN

The mile-long, 72-acre fishing access area on the Skunk River, two miles north and 12 miles east of Fairfield, has been named the George B. Coon Area for the late "Mac" Coon. Mac, born at Eddyville, Iowa, in 1863, was appointed deputy game warden in 1905 by George A. Lincoln. He was deputy game warden for 14 years and was appointed custodian of the State Game Farm at Clive in 1919. At the time of his death in 1943 he was in charge of the state park at Farmington, Iowa.

For 33 years Mac was in charge of the game exhibit at the state fair, which in early days was shown under a large circus tent. After the present fish and game building on the fairgrounds was built, Mac took charge of the birds and animals there. He was a familiar figure to thousands of fair visitors, much of the time carrying a deodorized skunk in his arms through the crowds in the building.

NORTHEAST IOWA RIVER SURVEY

Five of the 10 permanent survey stations established on the major rivers of northeast Iowa in 1949 have been revisited to date. These stations will serve as a year-to-year check on population trends in specific rivers. Little concrete data is on hand which would indicate any radical change from last year's game fish populations. Young populations of game fish which have been building up for the last two years have started to thin out. — Briefs, *July Biology Seminar*.



The harmless hog-nosed snakes look and act more dangerous than poisonous species. When cornered they expand and flatten the head and neck to twice their normal width.

THEY ARE THIEVES!

By Miller V. Joiner

Let us apply the label correctly. Make no mistake about it: The wild forests, the streams, the fish and the game of this state are public resources. They belong to you and me, and the millions of people like us, because we are the public. They do not belong to you, they do not belong to me, nor to the man down the street, individually, but to all of us together. We, all of us, are the public.

Therefore, the persons who destroy our public resources are our enemies. They are thieves!

Worse, they are vandals, they are destroyers, and they are criminals. Just as the men who destroy our public parks, our streets, or our homes are criminals, so, too, are the men who destroy or deface our public resources.

Let us not forget these facts. Those who would burn or cut down our public forests are enemies of the public—you and I. Those who would destroy or pollute our streams, rivers, lakes or ponds are also our enemies. Those who would slaughter or endanger our public wildlife are destroying or endangering property that belongs to you and me—the public.

Furthermore, the men who take, trap or kill our wildlife in defiance of the public laws are defying us, because we are the public. Do not forget that the public laws were made to protect property that belongs to the public—you and I, together.

Game law violators, then, are thieves. Game laws were made to protect and conserve the wild creatures that belong to the public. Without such laws, our game and fish would gradually disappear. There would soon be none left for you and me—the public—to enjoy.

So it follows that those who violate the public game laws are helping destroy our public wildlife. They are actually stealing things

from the public. They are thieves.

There can be no excuse for violating these laws or these principles.

Ignorance is no excuse, for it is the duty of every individual to acquaint himself fully with the public laws.

Nor does it make any difference whatsoever whether you and I, personally, are in full and complete agreement with such laws. We, as the public, duly elected and appointed certain people to represent us in government, and these people, in their wisdom, saw fit to pass certain laws designed to protect that property that belongs to us—the public.

Nor can we excuse the game law violator on the ground that he is our personal friend and neighbor. For one who destroys our property automatically becomes our enemy. Those who destroy public property automatically become enemies of the public, and you and I are the public.

The public should consider game law violators as thieves.—*Florida Wildlife.*

WALNUTS FOR SPRING PLANTING

Walnut trees are the most valuable and one of the easiest to plant of all our native trees. The simplest method of planting is to hold the nuts over winter and then plant them in the spring. When the ground is soft they may be pushed in with the heels, and if the nuts are stratified, practically all will sprout and grow.

To stratify walnuts pick up the required number in late fall, place in a wooden box, and with alternate inch layers of sand between the layers of nuts, the box and nuts are then buried in well-drained soil about 12 inches deep and left buried over winter.

Iowa's smallest mammal, the pigmy shrew, weighs slightly more than a dime.



Jim Sherman Photo.

The expert wing shot makes sure that the gun stock is against his (or her) cheek before pulling the trigger. With practice this becomes instinctive and is one of the prime essentials in good shooting.

Head Down . . .

(Continued from page 81)

be so placed against your shoulder and cheek that when pointing it, very little, if any, of the top of the barrel is seen and the sight is about all of the gun that the shooter sees. By a simple little test, the shooter can quickly determine the value of this. For the test use, if possible, a trap gun or one with a ventilated or raised rib. By properly aligning the rear bead with the front bead, you will find that the point of aim will be practically in the center of the pattern. By lining up the sights so that the front bead seems to be sitting on top of the rear bead, the shooter will find that the center of the pattern will be about eight inches above the point of aim. By allowing about four inches of the front part of the rib to show, it will be seen that the center of the pattern is about 12 inches above the point of aim. This is assuming that you are shooting at a pattern paper 40 yards away.

This does not mean that you will miss your target entirely every time you raise your head a bit. These examples of "head raising" are slight, yet the variance of pattern centers is enough to prove that things are not always as they seem when the shooter's head is even slightly raised.

If the shooter will develop the habit of making sure that the gun butt is high enough on his shoulder so that his cheek can be placed against the stock and the head kept in a fairly erect position, he will find that the aligning of the gun properly will become pretty much a matter of instinct. Raising the head or trying to get the shoulder away from the gun butt not only spoils good shooting chances but also aggravates recoil sensation. The shooter who holds his gun properly seldom feels it

"kick." Bulky clothing is often the unsuspected cause of shooting over the target. It is a handicap to the instant placing of the gun butt on the shoulder, and if the gun butt is low the charge of shot is generally high.

Raising the head, with its consequence of shooting too high, has resulted in more crippled and lost game than, perhaps, any other shooting fault. Our most frequent error, it is the easiest to correct . . . if we will only remember to "KEEP THAT HEAD DOWN."—*Remington News Letter.*

LABOR DAY AFTERNOON

Within sight of the courthouse tower. . . two beaver slide thru the bank in the Iowa River. . . while examining them discovered that both 'coon and muskrats had evidently been snitching some rides . . . turning to a likely bass spot old lady mink, who had been watching me, took a nose dive into the river. . . wading slowly downstream with an east wind flicking my face I happened to look up and there about a hundred feet ahead of me, posed against a background of green corn, was a beautiful doe. Turning her head ever so slightly, she made a whistling sound and a fawn, just ready to lose its spots, popped out and stood beside her for just an instant before both turned and cut into the cornfield. No fish but a very successful trip.—*Marshalltown Times Republican.*

Trap doors, hinged with silk, guard the entrance to the silk-lined burrow of the trap door spider.

Snakes form a part of the great web of animate nature and should no more be killed wantonly than should birds or any other living creatures.

Among American snakes, the species bearing living young outnumber those laying eggs. Iowa snakes are about evenly divided in this respect.



Jim Sherman Photo.

Let us apply the label correctly. Game law violators are thieves. Game laws were made to protect and conserve the wild creatures that belong to the public. The violator, then, is stealing from you and from me, for we are the public.

Wardens' Tales

Eugene Goeders, conservation officer in charge of Calhoun and Webster Counties, writes:

"Mrs. George Snow of Manson has done her share to help produce a good crop of pheasants for the 1950 season, and her method was a novel one.

"While her husband was mowing hay this summer, he ran over a pheasant nest. Stopping the mower, he found 14 unbroken eggs, some of which were pipped. Knowing there was little chance of a hen returning to the damaged nest, he put the eggs in his cap and took them to the house, where he was going to place them under a setting hen. He found there wasn't a chicken on the farm which was at the moment domestically inclined. Mrs. Snow dug out the family hot water bottle and put it to work. Within 24 hours all 14 chicks had hatched. Since that time the young birds have had the run of the Snow farm and, as is customary, they have returned to their wild nature. They still come back each night to the barnyard to roost with the chickens.

"Mrs. Snow advises that the hot water bottle technique is not recommended for use over a full incubation period."

Louis Lemke, conservation officer in charge of Jones and Cedar Counties, writes:

"After planting several thousand multiflora rose plants last spring and finding it hard work, the directors of the Cedar County Conservation Club have placed an order for a tree planting machine. The club has decided that the machine would be rented to all other conservation clubs in Jones and Cedar Counties and that any farmer who is a member of the club can use the machine free of charge for planting multiflora rose and other trees or shrubs on his own land. We expect to be able to plant more than 1500 multiflora rose per hour and hope to keep the new machine busy during the entire planting season next spring."

Garfield Harker, Emmetsburg, area fisheries manager, writes:

"The other night two prominent Emmetsburg businessmen went catfishing in the Des Moines River near here. One of the fellows, after studiously watching his line for about an hour and getting not even a nibble, decided to reel in and check his bait. Upon retrieving his line, however, he was struck by the sudden realization that his hook had been caught in a tree 20 feet above the water all the time.

"If this sort of fishing becomes widespread, the department is going to have to switch to stocking flying fish, or fellows like this will have to pick up some pork chops



Within 24 hours after Mrs. Snow had placed the hot water bottle with the eggs, all 14 had hatched.

on the way home to fill the family frying pan."

Charlie Adamson of Davenport, conservation officer for Scott County, reports that two Davenport men were recently attacked by a red fox while fishing on Brush Creek near Maquoketa. The men, Hank Runge and Martin Knuth, were just about to call it a day when right across the creek and up the bank toward them came the fox.

"All I had was a glass fly rod, so I started switching at the fox with that and hit it on the nose," Runge reported later. "Then I yelled at Knuth to get a club. I made for a club, too, and in the meantime Knuth rammed his bamboo pole at the animal and broke the pole."

Runge then came back into the battle with a club and finally succeeded in hitting the fox on the head, killing it. Both men agreed that it was a hard fight and that they were mighty thankful to have vanquished their foe before he succeeded in biting either of them.

The dead fox was turned over to Conservation Officer Adamson, who sent it to the State Hygienic Laboratory at Iowa City, where it was found to have rabies.

TOOK NO CHANCES, BUT—

He brushed his teeth twice a day. The doctor examined him twice a year.

He wore his rubbers when it rained.

He slept with the windows open. He stuck to a diet with plenty of fresh vegetables.

He gave up his tonsils and traded in his worn-out glands. He golfed—but never more than 18 holes at a time.

He got at least eight hours' sleep every night.

He never smoked, drank or lost his temper.

He was all set to live to be a hundred.

The funeral will be held next Wednesday.

He had forgotten about guns that aren't loaded—*Manitoba Federated Game and Fish.*

DOGS CAN BE A HANDICAP

As a general rule a dog is a valuable asset to a nimrod, whether he's hunting squirrels, pheasants or ducks.

Just the opposite was true in the case of a half dozen local business men who departed for the timber on a recent afternoon.

One of the men, noted for his culinary ability, brewed up a big batch of nearly three gallons of his special variety of soup and a big pot of black tea over a camp-fire.

The soup and tea were ready. The men, who had just come in from hunting the bushy-tails, were hungry. The savory odor of the

soup was causing them to become still more hungry.

Suddenly and without warning, one of the dogs lunged at the other dogs at the edge of the fire. The dogs hurtled against the kettle of soup and the pot of tea—upsetting the whole works, even extinguishing the fire, and causing general consternation.

Now and then an occasion arises when man doesn't consider a dog to be his "best friend."—*Adair News.*

A millipede, or "thousand-legged" worm, has twice as many legs as a centipede, or "hundred-legged" worm, of equal length. In spite of their larger number of legs, they run much more slowly.

TWO SIMPLE SLOGANS

The State Conservation Commission is promoting a very simple and important program. Two slogans are involved, "Ask the farmer first" and "Kill no hens."

The future of pheasant hunting in Iowa is entirely dependent upon the sportsman's reaction to these very two simple requests. If you ask the farmer first and kill no pheasant hens you will continue to enjoy good hunting in Iowa.

In 20 years of hunting in this territory there have been very few times that we were refused permission to hunt when we asked the farmer first. If that permission was refused it was usually for some very good and obvious reason and usually accompanied by the farmer's apology for not being able to allow hunting on his place.

In the few times that we have gone into fields without permission we have frequently been ordered off with resulting embarrassment for all concerned. And often the farmer accompanied his order to get off by the statement that if we had asked he would have been glad to let us hunt.

The procreation mathematics of "kill no hens" is easily understood. Pheasants are polygamous. A pheasant cock normally has a harem of two or more hens. Experiments have shown that egg fertility is guaranteed in a ratio of one cock to 10 hens.

The pheasant population is up this year and there will be plenty of cock pheasants for every one. Ask the farmer first and kill no hens and we will enjoy good hunting another year.—*Eagle Grove Eagle.*



Jim Sherman Photo.

Two simple slogans are keys to future pheasant hunting, "Kill no hens" and "Ask the farmer first." Here two hunters are asking for the privilege of hunting pheasants.