

IOWA CONSERVATIONIST

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ROCK QUARRY SNAKE HUNT

THE FARMER LIKES FRIENDS, TOO

By Henry P. Davis

This is election year and every town hall and picnic ground, as well as every radio studio, will resound with the oratorical efforts of candidates and electioneers for public office, high and low.

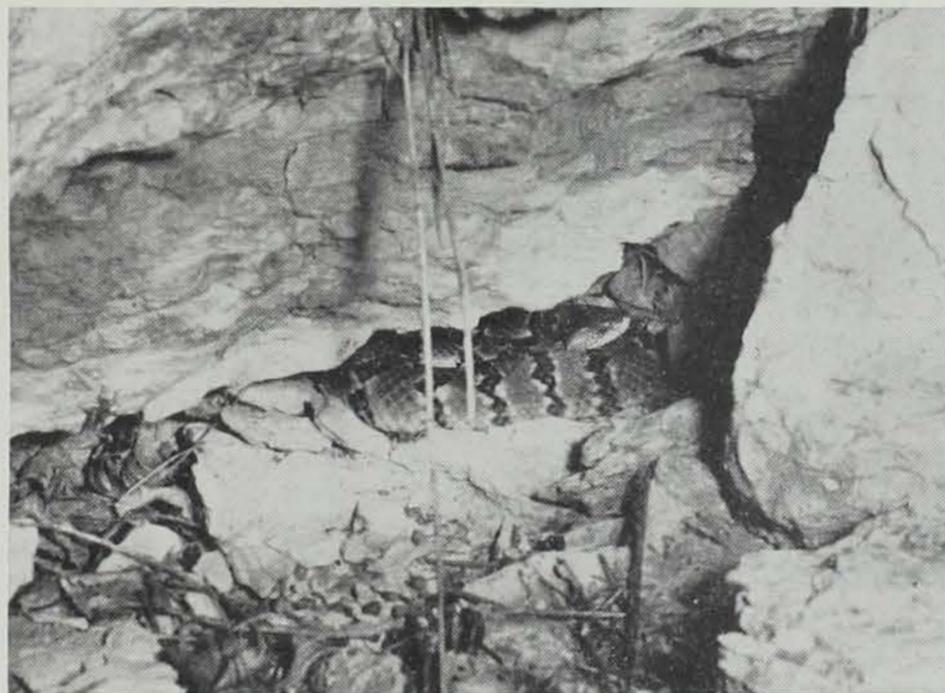
This is the time of year for another campaign which involves some "politicizing" but in which set speeches are unnecessary.

It is the campaign every sportsman should make to insure himself a place to hunt if he expects to hunt this fall. You won't be seeking votes in doing this but at the same time it may involve a bit of "politicizing" and certainly the exercise of considerable diplomacy. Coupled with the campaign to secure hunting rights for yourself, there is another activity which goes hand in hand. This is the effort to create better relationship between the farmer or landowner and all your fellow-sportsmen.

The reason the farmer is often "gun-shy" of the "city sportsman" lies on the doorstep of the "city sportsman" himself. Farmers, as a rule, are friendly folks. They welcome visitors and like to chat with strangers who may have a different slant on things. Most of them are hunters themselves, but they don't mind sharing their opportunities to hunt with gunners who conduct themselves as gentlemen and sportsmen.

Unfortunately for many city sportsmen about the only time the farmer sees them is when they're asking him for permission to hunt on his land or trespassing on it without his permission. This is where the city sportsman makes his big mistake. It is easy enough to get acquainted with the farmers in any community if one will only make the effort. And from

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Crotalus horridus, the deadly timber rattlesnake. After feeding and during hot weather, the quarry rattlesnakes relax in the partial shade of eroding limestone blocks.

TIME FOR RESOURCES INVENTORY

By Fairfield Osborn

President, New York Zoological Society; President, Conservation Foundation; Author, "Our Plundered Planet"

Suppose your radio blared forth today the news that a great new continent has been discovered—billions of acres of unspoiled land, rich in forests, grasslands, mineral deposits, wildlife, and deep, clean-running rivers. An air survey has indicated that there is no equivalent area in the world so completely fitted to become the home of millions of prosperous, well-fed, happy people. This new land belongs to no one but a few thousand scattered and for the most part nomadic peoples. It stands there for the taking—a great untouched stock of natural living resources.

One cannot help but wonder, should such a phenomenon be possible, whether the human race would make the same mistakes in "conquering" a vast new land area

that we Americans have made in "harnessing Nature" in these United States.

Less than five centuries ago Columbus brought home to Europe the greatest news flash of all time. Even so, more than a hundred years were to pass before a thin fringe of colonists was permanently established along our Atlantic coast and a few scattered Spanish outposts had found root in what is now California. Over two centuries more elapsed before the "winning of the West," and the actual settlement of the Great Plains did not take place until a few short decades ago. In these really recent years we truly began to roll.

These general facts are cited for the purpose of reminding us that it took some time as human history goes for the pressure of population to carry our people into the great interior of our country. Only a lit-

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To really enjoy a rattlesnake hunt one must be dropped on his head while still quite young, but rattlesnakes were needed for the Conservation Commission Traveling Exhibit and to be shown in the snake collection at the State Fair. The call of duty was reason enough for Conservation Officer Tom Berkley, one of the department's rattlesnake catching experts, to be carefully searching the rock strewn floor of the limestone quarry in Madison County.

A few seasons of editorial deadlines, paper shortages, and mailing lists has the same effect on a man as being dropped on the noggin when a baby, so the editor of the "Conservationist" went along for fun.

It is hard for many Iowans to believe that there are enough rattlesnakes anywhere in Iowa to be more than accidental, but in almost every county of the state where there are major limestone outcroppings, the large and deadly timber rattler (*Crotalus horridus*) may be found. In some of these areas they are abundant. In Allamakee County, for instance, a few years ago bounties were collected on some 1,500 of these poisonous reptiles in a single year.

Many people believe that the famous rattlesnake dens are the creation of the imaginative mind of some horror story writer. Rattlesnake dens are not fiction but fact. Deep in the fissures of certain limestone bluffs there is an opening or cave with just the proper temperature to attract these reptiles for their long winter sleep.

With the first cool weather of approaching fall the rattlesnakes for miles around begin a gradual migration toward the favored cave. By the time of the first frost large numbers of snakes may be found in the immediate vicinity of the den opening, going into the cave on cold nights and coming out on the ledges during sunshiny autumn

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RABBIT FEVER FACTS

Tularemia, the dreaded "rabbit fever" that becomes a subject for discussion each winter, probably has as much misinformation connected with it as any other disease in the United States. A recent study of it, made by technicians of the Missouri Conservation Commission, has revealed certain factors.

Tularemia is an infectious disease caused by blood-carried parasites (*Pasteurella tularensis*). It mainly attacks wild rabbits but occurs in about 20 other wild creatures—and man, who is highly susceptible. Rabbits, cotton-rats, mice, woodchucks, chipmunks, muskrats and gray foxes contract it readily; less likely to be infected are the common rat, opossum, coyote, quail, grouse and red fox. Domestic rabbits have shown no natural infections.

Although generally fatal in the wild, tularemia is not often a man-killer but is extremely weakening and leaves the victim a ready prey

to other infections that may prove deadly.

Wild rabbits cause more than 90 per cent of the cases in man. The infection is transmitted from animal to animal by bloodsucking insects, chiefly wood ticks, rabbit ticks, rabbit lice or rabbit fleas. Man usually becomes infected through dressing or handling diseased rodents, through the bite of ticks or of animals who have eaten contaminated materials, or through eating insufficiently-cooked, infected rabbit meat. The disease is not transferable between humans.

There is no positive way to identify tularemia in a rabbit, outside the laboratory, but there are two strong indications: (1) any live, free rabbit that doesn't "take off" fast and run well should be avoided; slow, thin cottontails often prove to be infected; (2) a spotted spleen or liver, popularly considered an indication, is a good bet—it's not always true but it's better to act like it were.

The human symptoms of tularemia are varied. Generally, it takes about three and one-half days for the first manifestations, when the glands near the area of infection begin to swell painfully. They may burst. This is followed by a period of high fever, which lasts two or three days, then comes a period of normality, succeeded by another rise of fever which lasts two or three weeks. Convalescence is slow (three weeks to six months) and normal health may not return for a year. The mortality danger chiefly is from secondary infection: pneumonia or general blood poisoning.

An effective treatment has been discovered recently. It is streptomycin, somewhat like penicillin, which greatly reduces mortality and lessens severity of symptoms, while speeding recovery. But tularemia is a disagreeable disease at best, deadly at worst.

Since rabbit is a favorite human food, the exercise of common sense in avoiding infection should be automatic. While dressing or handling wild rabbits, hunters, dealers, cooks and all others should wear rubber gloves. Thorough cooking completely destroys the germ and makes the meat safe.



Tularemia occurs in about 20 wildlife species. Even the dainty northern white-footed mouse is susceptible to the disease. Tom Scott Photo.

- * * * * *
- 1. Shoot—and handle—only active, normal rabbits.
- 2. Wear rubber gloves for handling and dressing rabbits, keeping the gloves away from your face.
- 3. Cook all rabbit meat thoroughly before serving it.

Although tularemia cases in Iowa have numbered only two or three cases per season during the past few years it is always possible that the disease may flare up as in 1939 when 168 Iowa cases were reported.

A WORD TO THE WISE

Identification of illegal venison is comparatively easy once conservation officers get on the trail, Dr. S. C. Whitlock, Michigan conservation department pathologist told midwest fish and game law enforcement officers at their recent session in that state.

It is possible to identify venison even after it has been reduced to steaks, chops or hamburger.

If there is a single hair clinging to the meat, it can be unquestionably identified as coming from a deer. Bone fragments of a relatively small size likewise can be definitely determined to have come from a deer carcass.

Taste, smell and general appearance may be used to some extent in testimony by conservation officers who are thoroughly familiar with venison on the hoof and on the table.

Finally, there is the "precipitation" test which will identify accurately the species of animal from which confiscated meat originates. This test works best with fresh meat or blood, but can be applied to cooked pieces if they are in the least bit rare in the center.

Health authorities charged with preventing such adulteration as the use of horse meat in sausage make tests to determine the species of animal from which the meat comes as a matter of routine. In difficult cases tests can be made in laboratories of state colleges and universities.

Human ears cannot hear the incessant clamor of the bat as it flies about overhead because the bat's signaling voice lies in the wave band of about 50,000 cycles or vibrations per second. Human ears can only detect sound in the band from 20 to 20,000 cycles.

JUNE COMMISSION ACTION

A meeting of the State Conservation Commission was held at the Commission offices in Des Moines, July 15 and 16, 1948.

Members present were E. B. Gaunitz, A. C. Gingerich, F. W. Mattes, Mrs. Addison Parker, F. J. Poyneer, J. D. Reynolds, and E. G. Trost.

The Commission:

Agreed to construct a ditch to allow drainage of a 160-acre marsh area adjacent to Harmon Lake in Winnebago County into Harmon Lake.

Adopted Administrative Order No. 113 opening certain portions of Red Cedar and Des Moines Rivers to the taking of mussels.

Adopted specifications for the construction of private boat docks on Lake Macbride, Lake Keomah, and Beeds Lake.

Authorized funds to be requested from the Interim Committee for purchase of a prefabricated building to be made into a house for the Lake Manawa lake patrolman.

Denied application of the City of Council Bluffs for a right-of-way easement in the Lake Manawa Area in Pottawattamie County.

Accepted resignation of Director G. L. Ziemer, effective August 15.

Approved budget of the Division of Fish and Game for 1948-49 fiscal year in the amount of \$1,045,000.

Made appointments to vacant positions as follows: Director—Bruce F. Stiles, effective August 16; Assistant Director—James R. Harlan, effective August 16; Chief, Division of Fish and Game—Ray Beckman, effective June 16; Superintendent of Biology—Everett Speaker, effective June 16; Superintendent of Federal Aid—Lester Faber, effective June 16; Superintendent of Fisheries—Robert Cooper, effective June 16.

Agreed that the Superintendent of Federal Aid be directly responsible to the Chief of Division of Fish and Game.

Approved budget of Division of Lands and Waters on a six months basis.

Approved budget of Division of Administration for 1948-49 fiscal year.

Accepted resignation of L. L. Faris, Assistant Engineer, effective July 10.

Granted easement on a strip of land on the State Forest Nursery in Story County for widening of U. S. Highway No. 69 south of Ames.

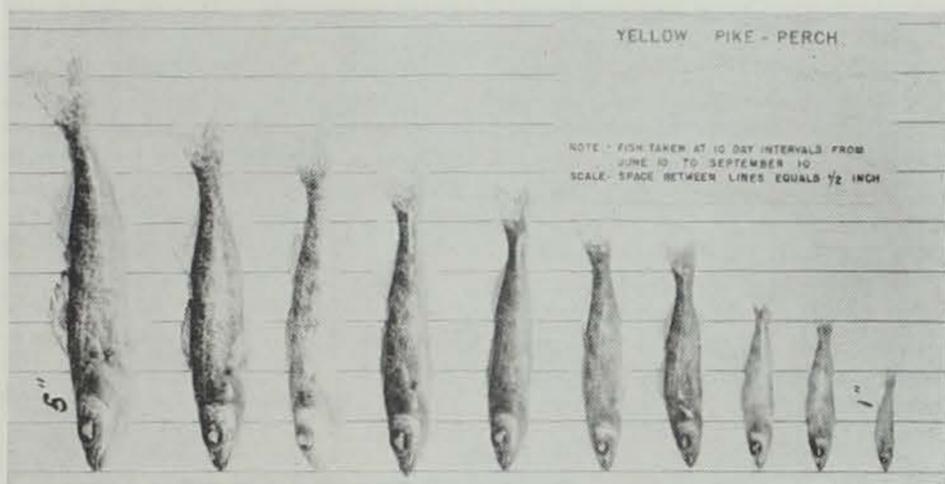
Approved and executed Chrisman option on 12½ acres in Allerton Reservoir Area in Wayne County.

Accepted offer of \$100 by Clayton Arnold of Lake Park to purchase .27 acres in Trappers Bay Park in Dickinson County, subject to Executive Council approval.

Meeting adjourned.



When Br'er Rabbit does not take off with a burst of speed and head for the nearest briar patch he is probably sick or injured. The trouble may be tularemia.



Rapid growth of walleyed pike can be attributed to the long growing season in Iowa and to the presence of an abundance of natural feed. E. B. Speaker Photo.

CLEAR LAKE PIKEPERCH

By Robert Cleary
Fisheries Biologist

Iowans can hold their heads high when bragging about their Clear Lake yellow pikeperch, or walleyes, as they are commonly called. Research by the Iowa Cooperative Fishery Research Unit at Ames has indicated that the pikeperch are larger and plumper for their age than in most other lakes reported in neighboring states. At the end of the first summer in Clear Lake, the young pikeperch average about 4.5 inches long from tip of snout to tip of tail. The following spring when it is one year old, its average is 5.9 inches long; when two years old, it is 10.9 inches, and 14.5 inches when it is three years old. This rapid growth can partly be attributed to the longer growing season in Iowa than in the lakes to the north, but it also indicates that favorable conditions for pikeperch exist in the lake.

As the pikeperch grow older, they increase in length more slowly, but for at least the first five years they increase more rapidly in weight as they grow older. The one-year-old fish weigh a little over an ounce; the two-year-olds, 6.2 ounces; and the three-year-olds about 15.2 ounces. The largest fish, and incidentally the oldest, taken during this investigation, weighed 7 pounds 11 ounces, was 28 inches long, and was 11 years old. The ages of the fish were determined from a study of the rings on scales from the fish, a standard method used extensively by fishery biologists.

The male pikeperch mature at a shorter length and at an earlier age than do the females. The female, it appears, does not mature until 3 or 4 years old or at a length of 14 to 17 inches, while the males mature fully a year younger and at a length of 11 to 14.5 inches.

Most of the pikeperch in Clear Lake are fairly young fish. Of the fish taken by anglers during the study, 83 per cent were less than four years old. It seems that the lake supports a young fast-grow-

ing population. Since these fish in Clear Lake are fast growing, in good condition, and appear to be maintaining their numbers, the present management program is seemingly satisfactory. If in the future the population declines as a result of inadequate spawning stock, fish management can be adjusted to suit the needs.

The plan of the Commission to stock pikeperch fry only in alternate years should, over a period of years, prove whether fry planting is profitable in Clear Lake.

The new regulations permitting more angling for fish other than black bass, catfish, northern pike, and pikeperch should improve the fishing for these game fish. More perch, crappies, sunfish, and bullheads will probably be caught under the new laws. These species normally compete with the young game fishes.

If present conditions continue, the yellow pikeperch should provide many fishing thrills in Clear Lake.

FISH AS A BRAIN FOOD? BUNK!

"Eat fish and grow smart" is an old, old saying, but scientists say that it's all the bunk. A recent release from the Ohio Division of Conservation says:

"Science does not recognize any one food as more beneficial to the brain than another. What food is good for the whole body is also good for the brain.

"Fish meat is considered rich in phosphorus, and a German scientist of the nineteenth century started the idea, 'No phosphorus, no thought.' As a matter of fact, the human brain attains almost its full adult size during the first six years of a child's life and during the time when its chief article of diet is milk.

"The flesh of fish is lighter and more easily digested than most of the flesh meats and, therefore, it is a suitable and desirable food for so-called brain workers or persons engaged in occupations involving little physical exertion and much mental labor."

Fish, like humans, get seasick if left to the mercy of the waves for an extended period.

Construction At Lake To Be Completed Soon

Construction was completed recently on the Rice Lake Dam, which is expected to raise the lake level more than a foot. Also underway in reclaiming the lake is the dirt and rock laying operation along the south and west sides of the lake. This work is being done by the Sylvan C. Olson Construction Company of Forest City.

Replacing the temporary plant set up, the new concrete spillway will undoubtedly prove very helpful in improving the depth of the lake. State Conservation Commission officers, when construction began in the middle of June, estimated the addition of the height would raise the water level 18 inches.

Completion of the dike now being laid will be around August 1, Harold Gorball, Forest City, fore-



One of the major and expensive construction tasks whenever lake levels are raised is riprapping, a necessity to prevent bank erosion. Lake Mills Graphic Photo.

man of the operation, disclosed. At present 3,000 feet of dirt have been laid of the total 5,000 feet scheduled to be put down. Two thousand four hundred tons of rock will also be placed in the dike work. Plans call for the use of 1,800 tons of lime rock from the Fertile quarry and 600 tons of oversized rock from Hogsback.—Lake Mills Graphic.



Concrete spillway at the outlet of Rice Lake has been raised. The addition will raise the permanent water level 18 inches. Lake Mills Graphic Photo.

ADVICE ON FISHING

There is one place you never want to take the wife along—when you go fishing. Take her along when you go to a dance, or when you go to a show, and she'll come in fairly handy preparing the dinner when you go on a picnic, but by all means leave her at home when you want to catch a mess of fish.

She is certain to spoil your aim when you are casting; she talks too much; she always has to bother you about baiting her hook; she talks too much; she's always getting backlashes on her reel that you have to untangle; she talks too much; she catches more fish than you do and gloats; she talks too much.

Just tell her to stay home next time.

—Ossian Bee

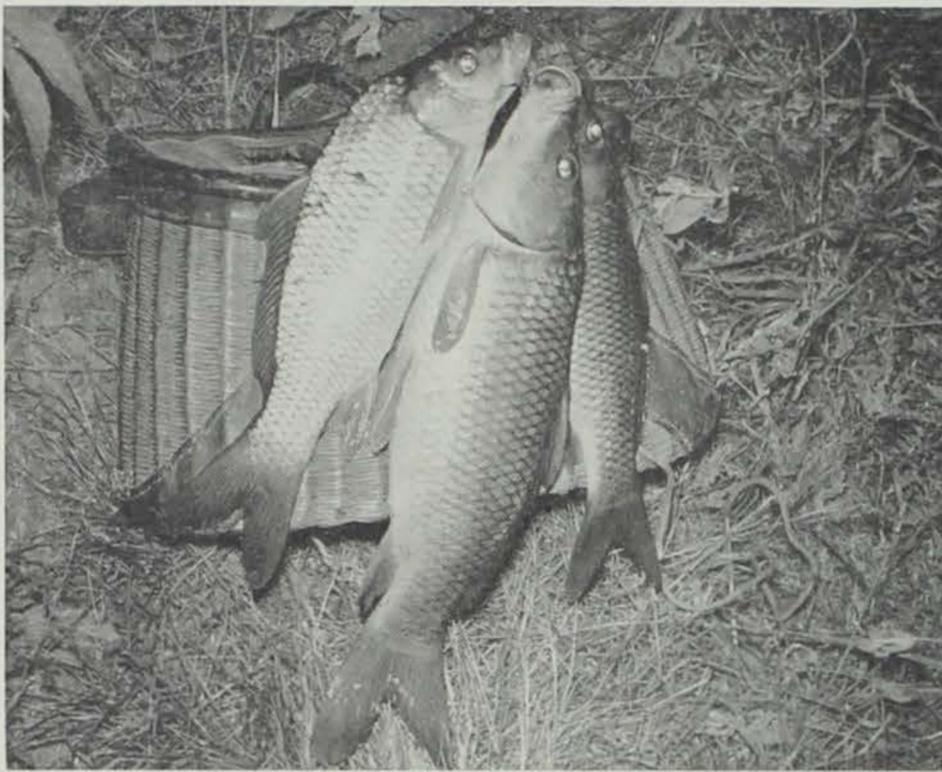
Birds are descended from reptiles and, like their ancestors, they do not perspire.

A professor who had trained fleas says that a healthy flea can jump what would be to us the equivalent of half a mile.

OUTDOOR ODDITIES BY WALT HARVEY

THE EGG OF THE RUDDY DUCK IS MUCH LARGER THAN THAT OF THE MALLARD, ALTHOUGH THE RUDDY IS ONLY ABOUT HALF AS LARGE AS THE MALLARD.





A lot of things happened to fishing during July. But one thing that gladdened hundreds of faithful was the fact that the carp were hitting. Jim Sherman Photo.

FINS, FURS AND FEATHERS

By Everett Place

A lot of things have happened to the fishing in this part of Iowa during the past month—but one thing has come to pass during the past week that is beneficial and hundreds of the faithful will be pleased—The carp are hitting!

Yessir! Dating from about the middle of last week, the carp in the Maquoketa and its tributaries started nosing at the dough baits offered, and at this writing it is no trick at all to catch all you want almost anywhere there is enough water to cover a carp.

Saturday evening at the Delhi dam I took five that would average five pounds each in less than an hour. I used my own favorite carp recipe bait—all spring they had refused to accept my offerings, but the other evening they nuzzled right up to it—and I had fun.

Another thing—I was using a spinning reel for the very first time in my life, and the line on the reel is only a six-pound test. So, the landing of a seven-pound carp on a line that is tested to stand only six pounds of strain is a bit complicated. But we managed somehow, and every fish hooked was brought to the stringer.

As yet I certainly lack ability to get distance in casting with the spinning reel. There is a knack to it, I discover, and maybe it will take me some time to get onto the correct way to do it. The spinning reel works only with a very light line and when a fellow has been used to working with a line that stands a test of from 20 to 50 pounds, then drops to a line that registers a six pound test, he is at something of a disadvantage.

At one time I think the largest carp took out at least a hundred

feet of line. Seemed to me he was headed for up-river right through the wheels, but he shied off and started for some unnamed destination downstream. After that I got the fish befuddled in its directions and finally induced it to steer into the sandy shallows at the lower end of the pool.

Every carp fisherman has his favorite carp dough, and I don't suppose telling you of mine will do anything more than raise a smile. But when carp are hitting, I do get a lot of them on my bait. Well, maybe everybody gets carp when carp are hitting, regardless of the bait.

Here's how I make cornmeal dough bait: I get a quart of water really boiling and while it is boiling I slowly sift enough cornmeal into the water to make a stiff dough. Then I add enough salt to make it just over-salty for corn meal mush. Now while the stuff is bubbling and stewing, I stand right there and stir fervently, lest the stuff should scorch. If it scorches, it is ruined. I strive to cook out every possible drop of water. At long last, when the dough is very stiff, I take it from the pan, dump it on a piece of oiled parchment, and let it cool. When it is cool enough to handle, I knead it enthusiastically until it has taken on a fineness of grain that adapts it for dough-balls. Then I finally add a tablespoon of vanilla extract, and work the flavoring through the dough-ball. Then it is ready for use.

I notice that most carp fishermen fashion their bait on the hook something like a pear, and they use a big bait too. I use a No. 2 hook for carp and I work my dough-bait into an inch-long size, just thick enough to conceal the barb of the hook. Maybe it is just a notion, but I try to think like a carp (and that's about my gait)—if I were a carp would I pick up

a bait easy to swallow, or would I wrestle with a bait that made me open my big mouth oversize? Anyhow, I use a much smaller bait than the average carp fisherman.

Sunday forenoon George Bock and I went to Plum Creek, east of Earlville, for a big hour's quest for more carp. We got a heavy stringer of them, too. But here I had the surprise of my life—while retrieving my bait of cornmeal dough, a foot-long bass hit the bait—and I caught my first bass on cornmeal dough!

My wife caught a nice catfish Saturday evening. She seems not to enjoy carp angling any too well. Well, just to find out something, I cleaned the catfish and I filleted the carp and we ate them for Sunday dinner. First, I sampled the catfish for flavor and goodness—it was fine. Then, I took a carp fillet—and, believe me, it tasted better than the catfish.

Prejudice ruins a lot of joy in life. Maybe we fishermen are going much too far to one side when we rear and tear against the carp, as both a fighting and as a food fish, is good stuff. Certainly we know now that they are just as strong on the line as are bass, walleyes or catfish. Maybe we will learn how to prepare carp for the table—if we ever do, then the price of carp will go sky-high. I think the flavor of carp, properly prepared, is just as fine as walleye or catfish. And here we have streams, lakes and ponds full of them—and we're just wasting our breath cussing carp. Get yourself some man-size tackle and go after them! No fish offers more sport in the catching than do carp.

A stranger to me from Rock Island, who is vacationing at Littlefield's camp, said smoked carp sells across the counter in the tri-cities at just as much as sturgeon. Said they are ultra-delicious, and why

don't we catch a lot of them and have them smoked?

The game fish have been sulking the past week or more. A couple of weeks ago fishermen were getting nice strings of stripers, crappies and catfish—but not this past week. A few bigmouth bass are being taken, but no reports on smallmouths being taken in this area. From now on the favored bass baits will be softshell crawfish, and maybe that's what the catfish want, too.—Hopkinton Leader.

THEY'RE CALLED "SPORTSMEN"

The Milepost has received complaints from farmers living in the Skunk River bottom that fishermen and other "sportsmen" are playing havoc with their properties. Fishermen in their haste to get to the river banks to ply their trade are trespassing on the farm lands of these farmers who have worked hard to put in a crop and who do not want to see it ruined by the thoughtlessness and deliberate meanness of others.

Reports have come that fields of corn and other crops have been invaded by cars which leave a path of wanton destruction. The "sportsmen" have opened gates and left them open, letting farm animals stray out of confined areas. Their dogs have been known to chase cattle.

Guilty parties who call themselves sportsmen and who want to live up to the name will immediately cease all such actions. For those who enjoy the benefits of nature, but do not care if anyone else does nor if anyone else makes a living, there is just one answer. Call the sheriff.

—Ames Milepost

The catfish family is distributed over much of the earth, and contains approximately one thousand species.



We're just wasting our breath cussing carp. Get yourself some man-sized tackle and go after them. No fish offers more sport in the catching. Jim Sherman Photo.



Conservation Officer Tom Berkley preparing to slip a rope loop over the head of a nervous rattlesnake.

ROCK QUARRY . . .

(Continued from page 57)
days to absorb heat from the sun's rays.

With the arrival of warm days in spring, the deadly reptiles come out of the den and lay around in the vicinity for a couple of weeks before fanning out over the country side to favorite feeding grounds where they bear young and grow fat on small mammals.

The old rock quarry in Madison County where our specimen hunt took place has for a long time been the favorite summer feeding ground of large numbers of rattlesnakes and its reputation is such that the "Keep Out" signs posted by the quarry owners are a waste of paint and lumber.

Berkley's snake hunting equipment consisted of a broomstick with a soft rope loop attachment, a willow stick four feet long with a crotch at the lower end, and a wooden shell box with a small trap door on top and screen wire ventilation ports on the sides, plus knee-high leather boots, the tops of which were carefully hidden from prying eyes by the legs of heavy trousers.

Your editor's baggage consisted of camera and film, oxfords, a vivid imagination, and a bangup set of "rattlesnake shakes."

The quarry floor where the search took place was covered with a disintegrating gravel-sized layer of limestone through which grew volunteer cottonwoods of varying heights and a patchwork of weeds and grasses. Scattered around in the 500-acre quarry were ridges and piles of limestone blocks of various sizes. In these rock piles the rattlesnakes stay while keeping out of the sun and while digesting their prey, coming out to sun briefly before retreating back to the coolness of the rocks.

We had scarcely reached the

quarry floor before a large red-barred garter snake was captured, bare-handed, to start our collection. A hundred yards further on Berkley stopped in the sweltering heat to wipe the sweat from his face and saw a large bullsnake. It, too, was added to the menagerie without any commotion.

Twenty minutes elapsed without action. The stifling heat of the quarry had become almost unbearable; then a sharp whistle from Berkley signified a discovery. Lying partly in the shade of a rock pile, he spotted a large timber rattler, coiled and apparently ready to strike at whatever came his way.

Cautiously advancing to broomstick length, the noose was placed over the reptile's head, and the docile snake, without a single shake of his rattle, allowed himself



This four-foot rattler, securely held in the loop of a snake stick, allowed himself to be dropped into the snake box without the venomous struggle that generally accompanies their capture.

to be lifted up and dropped into the snake box.

"This is easy," I said. "These rattlesnakes are about as dangerous as marshmallows at a Sunday School picnic." Berkley replied, "That one wasn't mean, but don't let him fool you. He had his belly full. He would have been different a few days from now."

Almost immediately another rattlesnake was discovered in a similar rock pile. As we approached to noose it, with the ease of melting butter it flowed under a flat rock. The rock was turned over and the second rattlesnake, a six-rattle three-footer, was added to our horde. Pretty easy and not much fun, I thought.

In a few minutes the third was found. It was a beauty, brilliantly colored after having shed its skin a few days earlier. As we came close it coiled and with the electric tenseness of a race horse stood its ground, shaking its seven rattles and button with an intensity and hate almost unbelievable.

The soft rope loop was slipped over its head and it, too, was dropped into the snake box where it buzzed hysterically.

It was an hour later, as your editor rested, leaning on a large rock, that he said to Berkley, "It's a long time between snakes." Almost nonchalantly the officer replied, "Not so long," and then pointing to a little dugout at the base of the rock and within five feet of my unprotected ankles I saw the largest, most beautiful rattlesnake of all, a five footer with eight rattles.

This was the time for camera action. We must have a close close-up. A quick overall picture and as Tom made ready with the snake stick, your heroic editor moved in for a snake portrait. Closer and closer—now the geometric pattern of the skin could be seen through the finder—then the vicious elliptical slit of the pit viper's eye came in focus. Just as Berkley yelled, "You are getting too close," I got it.

In spite of the immediate excitement and confusion Tom added the fourth and last rattler to the collection.

A couple of days later Berkley stopped by to see how I was getting along. My wife brought him into the bedroom and when he saw my badly swollen ankles and legs he said, "You know, Jim, you should wear high top boots when you go rattlesnake hunting. I always do. Jiggers just kill me too."

THINGS YOU MAY NOT KNOW

Only the male Katydid, crickets and cicadas sing. The females are silent.

The pigeon is the only bird that drinks by suction. All other birds take the water into their mouths and throw their heads back in order to swallow.

Wardens Tales

Shop Talk From the Field

Tom Berkley, conservation officer in charge of Dallas and Madison Counties, writes:

"While working at the State Fair last year I was assigned, as usual, to the snake exhibit. One night about ten o'clock a gentleman who had been imbibing rather freely came over to see the snakes. He seemed fascinated by the rattlers and stood in front of their cage for several minutes, wobbling a bit, but otherwise hardly moving a muscle.

"After a while, another well saturated gentleman came along and planted himself beside the first. After looking the snakes over for a while, he said, with exaggerated dignity, 'There isn't anything to that. There isn't a snake in there that would bite me!'

"The first drunk whirled around, looked the second one over, and said sharply, 'There isn't a snake in there that wouldn't bite me, and you're not a damn bit different than I am!'

Conservation Officer Wesley Ashby, in charge of Iowa, Johnson, and Washington Counties, sends in the following carp baits used by some of his carp fishermen.

1. Climax wallpaper cleaner flavored with cinnamon, nutmeg, and vanilla extract. To change to catfish bait, add almond extract and olive oil.

2. Cracked wheat bread, cinnamon (or oil of cinnamon), nutmeg, and vanilla extract for flavoring.

3. Boil elbow macaroni until about half done. Drain. Put in paper sack with dry cornmeal and shake. Squeeze into balls.

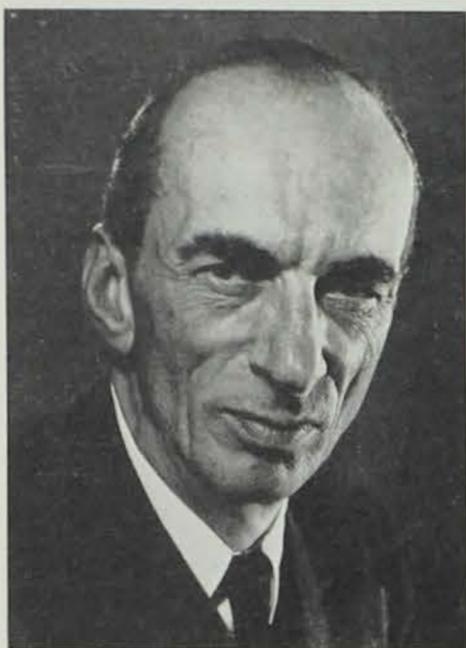
4. Graham flour, oatmeal, cornmeal, equal parts. Don't cook. Flavor with cinnamon, nutmeg, vanilla. Work into a dough, using milk instead of water.

5. Cracked wheat bread made into a dough with Watkins hog mineral. Sometimes if the carp are reluctant a dash of red (not cayenne) pepper is added to the bait as an appetizer.

Tom Johnston, conservation officer in charge of Jefferson, Mahaska, and Keokuk Counties, writes:

"I've been with the department for 21 years and it seems to me that every year this state is getting wilder. Just to prove it—the other afternoon I'd been working on the Skunk River. My wife had gone along, and as we started back home we drove around through back roads that are little traveled except by people living on them. Within a couple of miles from home on a stretch of lonely road a deer crossed about 50 yards ahead, went into a meadow, stopped and stared at us. As we drove off, my

(Continued on page 62)



Fairfield Osborn, President, New York Zoological Society; President, The Conservation Foundation; Author of "Our Plundered Planet." Conservation Foundation Photo.

TIME FOR . . .

(Continued from page 57)
 The while ago our resources seemed limitless. Land was cheap. Virgin timber was free for the cutting. Rich grazing lands stretched away beyond the horizon. The history of many a pioneer family starts with the stripping of a farm in Maine or Connecticut, a move to Ohio, on to Iowa and off across the plains to the Great West—leaving a trail of spoliation and waste.

In the colonization of a great new continent would we repeat the errors of the past?

In the beginning the American people took over the custody of some 1,900,000,000 acres of land. Some 40 per cent of it was in virgin timber. A billion of the total acreage—over half of it—was suitable for crop lands, farm pasture or range-grazing lands. The remainder represented natural desert and mountain tops. That was the inventory of our resources, our pantry, when the United States went into business.

How do we total up today? Let us check the timber item. Of the approximately 800 million acres of virgin forest that fell to the care of the founding fathers only about 133,000,000 acres—some 17 per cent—is reported to remain. About half of the original total acreage is in second and third growth forest including scattered farm woodlots. And how are we administering this pitiful remnant of our former wealth? The Forest Service of the Federal Government in its last annual report states that in 1909 the total stand of saw timber in the United States came to 2,826 billion board feet. By 1945—a generation and a half later—our national "woodpile" had been reduced to 1,601 billion board feet—a reduction in our inventory of some 44 per cent. This does not indicate the amount of standing timber represented by those species of trees that were not considered valuable in 1909, but which are

now included in the latter total. Nor does it reveal the fact that of our remaining 133 million acres of virgin forest 96 per cent is in the western states. So far as virgin timber is concerned the east, the south and the central states have practically none of it.

This is only part of the forest story. It is reported that we are consuming our now limited supply at the rate of 54 billion board feet each year while our annual growth rate is only 35 billion. Consumption surpasses replacement by more than 50 per cent. It does not take much paper to figure how long at this rate it will be before we can close out our timber inventory.

Let's look at the farm land item. The most recent report of the Soil Conservation Service estimates our present farm croplands total at approximately 460,000,000 acres. Erosion, largely man-made, is said to take away 5,400,000,000 tons of our life-supporting topsoil every year. It is stated that 3,000,000,000 tons wash or blow away from American farms every twelve months—enough to fill a freight train that would girdle the earth 18 times. Erosion by wind and flood is estimated to carry away some 21 times as much plant food

from our soil as the total of its productive crops. The total red ink item representing annual soil loss in the United States approaches \$4,000,000,000. This total is made up of the losses of soil, plant nutrients, direct loss to farmers, plus the cost of damages by flood and erosion to highways, railroads, waterways and other facilities and resources.

So the story goes. Our forests and our grasslands are the basis of our national wealth. Oil, minerals, all our other resources add to the total, of course, but it is by our forests and our grasslands that our people eat and live.

Ding Darling is so very right. It is high time to take an inventory of our pantry. No family could live and thrive by such inroads on its capital and no one can spend more than he earns for long. No sound business could pursue a policy by which capital replacements were not adequately and regularly planned. And by the same token no nation can survive that spends its wealth faster than it can be replaced. The most tragic chapters of the human story bear this out—Greece, Spain, China, India and many more throughout the history of man.

The time for our defiance of the

laws of nature has come to an end. If we do not cease the practice of using up our resources faster than they can be replaced we too will become a "have not" nation. As Ding predicts, our trusteeship will have failed and the race will spend the rest of its history fighting for what little resources remain. As for the United States we can then get along without a stocktaking, for there will be no inventory on our shelves. Old Mother Nature will have become Old Mother Hubbard.

WARDEN'S TALES . . .

(Continued from page 61)
 wife said 'Shades of Daniel Boone.' And if seeing the deer wasn't already enough to take us back 100 years or more, an incident down the road a little further certainly did.

"An Indian stepped out into the road, believe it or not. He was all dressed in feathers and buckskin and carried a bow and arrow. He held up his hand and I stopped. The Indian said, 'Me heap big Injun. Me scalpem white man and takem white squaw.' My wife said, 'Oh, oh, Mr. Indian, don't kill us. Please don't take me.' Well, it was too much for this bad Indian and he had to grin. He really was putting on a good show for an eleven-year-old whose folks were having a picnic supper a little way up the creek. This is no fairy tale; it's just the way it happened."

Harold Johnson, conservation officer in charge of Sioux and Plymouth Counties, writes:

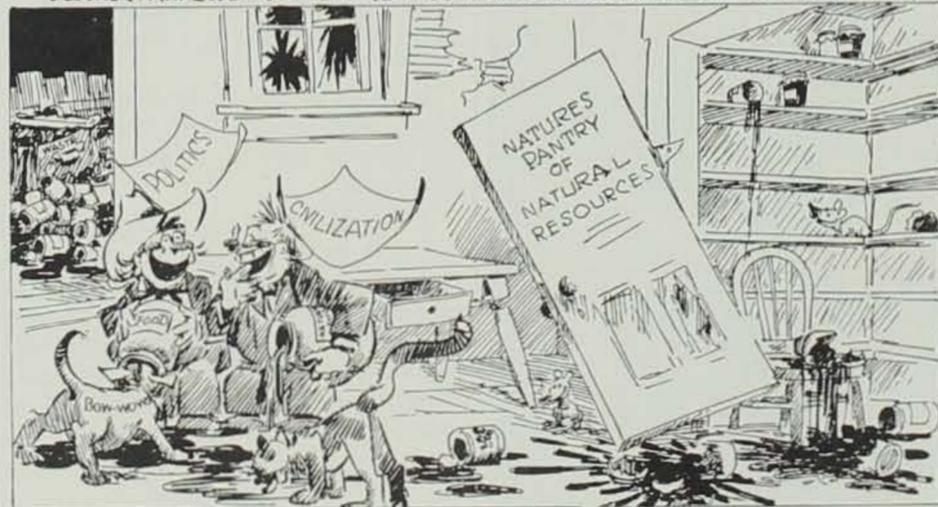
"The hazards of the profession of game wardening don't make us very good insurance risks. But no one would expect any mortality at a kids fish day. But let me tell you.

"The Orange City Fish Day was held at the sand pit north of Alton, after being stocked with 5,000 bullheads by the department. When the contest opened early in the morning, Jim Gregory and I were busy with several hundred youngsters, getting them lined up, showing them how to bait hooks, etc. As the day wore on, I saw one youngster with a throw line on the end of which was a round lead weight that would weigh about two ounces. I told him that he didn't need such a heavy weight, but he insisted he wanted to get it 'way out there.' I walked on down shore about fifty feet and was talking to another boy when, bang! something hit me smack in the center of the forehead and knocked me to my knees. The lad with the big sinker had been swinging the lead weight around his head, preparatory to a mighty toss. The line became entangled on a root and abruptly stopped. The lead weight had broken off and beamed me.

"Sure enough, the lad's name was David. Now, Gregory calls me Goliath and thinks it's funny."



MOTHER NATURE SPENT A MILLION YEARS PUTTING UP PRESERVES FOR US—NOW LOOK AT 'EM!



PS AND THE WORLD SPENDS THE REST OF HISTORY FIGHTING FOR WHAT'S LEFT OF SUSTAINING RESOURCES

Time To Take An Inventory of Our Pantry

Reprinted from "Our Great Out-of-Doors," published by the Iowa Division, Izaak Walton League of America.



Most farmers are hunters themselves and don't mind sharing their opportunities to hunt with city sportsmen who conduct themselves as gentlemen. Jim Sherman Photo.

THE FARMER . . .

(Continued from page 57)
 personal experience I know that effort will soon become a pleasure.

Practically every rural community has some sort of central gathering place, such as a grange, farmers' union, sales barn, etc., where frequent meetings, socials, or picnics are held. All the man who lives in town has to do to become acquainted with the farmers of any section is to pay an occasional visit to these meetings. If he can contribute something to the meeting, such as an interesting 16mm. motion picture or a travel-talk, he will make friends right off the bat and will be welcome anywhere in that community.

I have a friend who has unlimited hunting privileges in one of the best quail sections simply because he donates books to a grange lending library after he has read them himself.

Another friend has made it a point to find out the birthday of a good many farmers and their

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Even when hunting groundhogs and other agricultural pests, permission should always be secured from the landowner to trespass before taking up the hunt. Jim Sherman Photo.

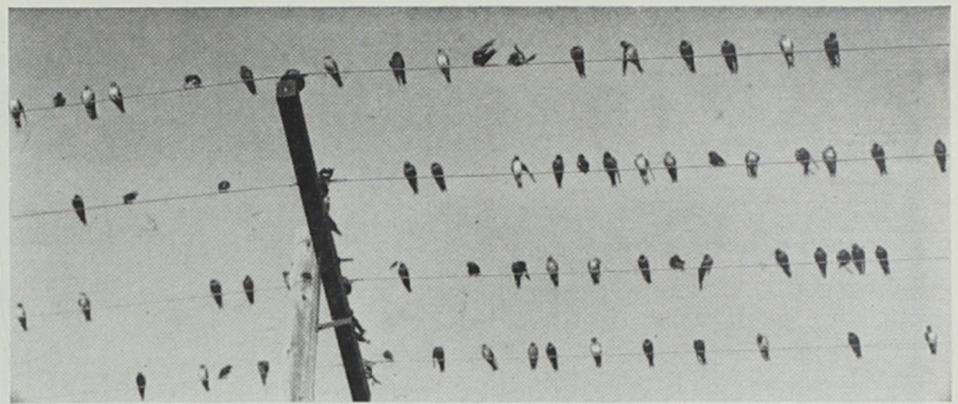
wives and mails them appropriate cards each year. He doesn't overlook the Christmas card idea, either. And the posted signs in that area mean that the land is posted for him.

A group of city sportsmen I know give a barbecue to the farmers of a certain community just before opening day each year. And in that community there exists a very fine farmer-sportsman relationship, for mutual problems are freely discussed and each group leans over backwards to cooperate with the other.

These are only examples of what sportsmen can do to insure a hunting place for themselves and to make things easier for the other fellows, too. There are many, many other ways.

One of the best methods I've found to win the farmer's friendship is to ask permission to hunt woodchucks or crows on his property. Both are destructive pests to him and I have never received anything but an enthusiastic welcome when I mentioned 'chucks or crows. You'll be having some of the finest sport offered in the field and he'll be thinking you are doing him a favor. And right now is the time of year to go after that sort of sport. A couple of sallies after Mister Whistlepig and a few raids on the crow population of his area will more than likely bring an invitation from the farmer himself to hunt over his land any time. If you get into a good crow flight and do much banging away, the chances are the farmer will drop whatever he's doing and join you. Then, mister, if you can show him how much fun crow shooting is you'll have a friend for sure.

These are practical suggestions. I know they'll work in almost any section, for I've seen many close and lasting friendships made in just this manner. After all, this whole life is a matter of give-and-take, but when it comes to hunt-



Much early weather lore was based on the action of birds, animals, and other creatures of the natural world. Martins and other swallows congregated in midsummer on wires indicate rain within eight hours.

* * * * *

WEATHER LORE AS REVEALED BY WILD BIRDS AND ANIMALS

Early American settlers based a lot of their weather lore on the actions of birds, wild animals, and other creatures of the natural world. While some of these things may not be much ahead of the early settlers when it came to forecasting weather changes, there is no question about nature's creatures being more sensitive to atmospheric pressure changes, humidity, and other weather phenomena than man. By watching the actions of these creatures, the early settlers made their weather forecasts.

The writer thought of these things one day last week when two rain crows were complaining over something. It was the first time we had heard one of these birds for almost two weeks, and, fortunately for the reputation of the birds, rain fell the next day. A lot of our early settlers placed much more confidence in the rain crow. Its mournful calls were welcomed in dry weather when the crops and gardens were in need of rain, but in rainy weather its calls sometimes prompted an early settler to frighten the bird away.

Rain crow is a popular name in most communities for the cuckoo, a shy and retiring bird that may spend weeks unnoticed in a grove until it begins to "predict rain."

There are two common species of the cuckoo in this country—the yellow-billed and the black-billed. While few birds are much more widely known than the cuckoo, much of the popularity of this bird comes from the European cuckoo, which is a totally different bird. The cuckoo of the old world receives a lot of its popularity from the so-called "cuckoo clocks."

The American cuckoo is from 10 to 12 inches in length, grayish-brown or olive-brown with dull white underparts. They nest in trees and their shallow nests usually contain from two to six dull bluish-white eggs. While both spe-

ing, quite a number of fellows who buy hunting licenses seem to think it is all "take." If you'll just "put" a little into the sport, you'll "take" a lot more out of it.

cies are commonly known as "rain crows," it has never been explained how the word "crow" has been applied to this light-colored bird. The crow is almost synonymous with black, or dark-colored. The American cuckoos are fond of tent caterpillars, moths, fall webworms, and many others of the worst enemies of the fruit grower. They seem to prefer hairy caterpillars to smooth kinds, and thereby destroy a lot of caterpillars that are seldom taken by most birds.—Ruthven Free Press.

MAIL CARRIERS COUNT GAME

Chalk up an assist for about 1,000 Iowa rural mail carriers. Beginning July 26, they will make their second wildlife survey in Iowa and many other midwestern states.

They will record the number and size of quail and pheasant broods while driving their regular routes. Entries will be made on cards supplied by the Iowa Conservation Department. At the end of a week, the cards will be mailed to the department for compilation.

The July survey is the second of four to be made in 1948. The first survey was made in March, a population count of adult birds. Data gathered in July will be compared with the March figures. The comparison will reveal how the game bird population is making out.

The mail boys do this for free, on their routes, with the approval of the postal service. They deserve a pat on the back for this helping hand. We'll wager that more than one rural mail carrier knows exactly where a covey of quail hangs out, or where a family of pheasants may be seen feeding along the gravel road. Driving the same miles and territory daily they get to know the country. They are certainly qualified to assist in a game survey if any one is so qualified.

—Davenport Democrat

Ducks have an almost telescopic eyesight. They can focus their eyes for near or far vision.

OUR CITY WILDLIFE

by C. W. SCHWARTZ

Birds and other wild animals illustrate an amazing adaptability by dwelling even in the hearts of our largest cities. Some varieties are very commonplace, having become completely adjusted to rigorous urban life. Others may be visitors during migration or only chance residents. To the observing city dweller, these animals and their behavior often provide a welcome diversion.



Wood ducks sometimes nest in large city parks having lakes and wooded sections.



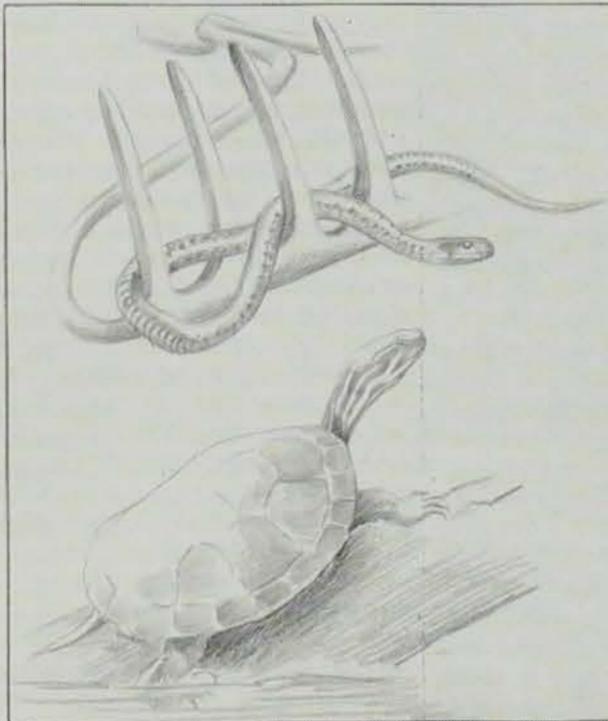
Our smallest falcon, the sparrow hawk, occasionally frequents large cities. Cornices of buildings offer perching sites while chinks in the masonry substitute for hollow-tree stubs as nesting cavities. Sparrows and mice form the urban diet.

Nighthawks have readily adopted flat, gravelled roofs as nesting sites.



The nightly phenomenon of chimney swifts going to roost in favorite chimneys offers an amazing spectacle to the city dweller. These swifts formerly roosted and nested in hollow trees but now largely depend upon man's architecture.

In one residential section, a breeding colony of black-crowned night herons has become established. Great distances are travelled between this nesting site and feeding areas.



The brown snake of our city lawns, the painted turtle of our park lakes, and the common toad of our gardens and fish ponds are not strange neighbors to the observant urbanite.

At twilight bats, which hide during the day under the eaves and in dark crannies of our buildings, can be seen foraging above the city streets.

