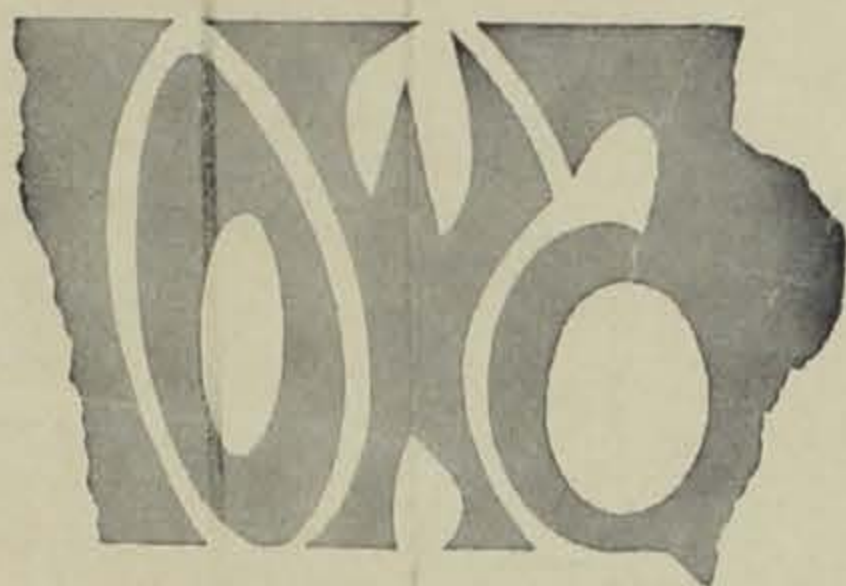


APR. 27 1973



JANUARY 1971



CONSERVATIONIST



COMMISSION MINUTES

November 3, 1970

COMMISSIONERS

- EARL E. JARVIS, Chairman—Wilton Junction
- WILLIAM E. NOBLE, Vice Chairman—Oelwein
- JIM D. BIXLER—Council Bluffs
- JOAN GEISLER—Dubuque
- LES LICKLIDER—Cherokee
- DR. KEITH A. McNURLEN—Ames
- ED WEINHEIMER—Greenfield



FRED A. PRIEWERT, Director

The Commission entered into an agreement with Iowa Electric Light and Power Company, Cedar Rapids, for the development of a recreational lake and storage reservoir in the Pleasant Creek Valley Area of Lynn County. This would serve as an emergency water source for the operation of the Duane Arnold Energy Center and as Iowa's first pump storage reservoir developed for a recreational facility for the public, subject to adequate appropriations from the State Legislature.

A special awards certificate was presented to Gene Dorr, hunter safety instructor at Cherokee, in recognition of his contribution to the hunter safety program.

Exercised option to obtain 20 acres of land in the Big Creek Lake Project, Polk County.

Recommended approval of an agreement with Iowa State University for the 1969-70 Outdoor Recreation Participation Study.

Authorized the director to prepare and enter into an agreement with the Highway Commission for the transfer of jurisdiction to the Conservation Commission of borrow pit areas used in highway construction suitable for recreation purposes.

The following County Conservation Board land acquisition projects were approved as submitted: Johnson County, Stainbrook State Preserve and Old State Quarry Preserve; Osceola County, Ocheyedan Park Addition; Polk County, Four Mile Creek Green Belt Addition.

Approved the following County Conservation Board development plans as submitted: Appanoose County, Moravia Recreation Area; Cerro Gordo County, Ingebretson Park.

Approved the following Land and Water Conservation Fund Projects for submission to the Bureau of Outdoor Recreation: Osceola County, Ocheyedan Park, acquisition 16 acres; Urbandale Park Board, Murphy Neighborhood Park, development.

The following project amendment requests were approved: Conservation Commission, Lake Manawa State Park, development; Dubuque County Conservation Board, New Wine Park, development.

The following Fish and Game acquisition options were approved. Eldon Game Area, Davis County, 122 acres addition to present area; Skunk River, Keokuk County, 426 acres. About six miles from other state-owned lands on this stream; Allamakee County, 840 acres.

Accepted the bid of the Atlantic Lumber Company for construction of the fish management station at Cold Springs State Park, Cass County.

JANUARY, 1971



CONSERVATIONIST

ROGER SPARKS, Managing Editor

WAYNE LONNING, Photographer

DAVID R. EVANS, Editor

JULIUS SATRE, Circulation Manager

JERRY LEONARD, Photographer

CONTENTS

Commission Minutes	2
The Gifford Sanctuary	3
Doves Under Scrutiny	4
Outdoor Fun in Winter Too	6
Toad or Frog?	7
Running Down the "Masked Bandit"	8
Hunting the Tasty Rabbit	9
Foxes Are "Bugged" by Biologists	10
Campfire Cookery	11
Track Star in a Fur Coat	12

About the Cover . . .

Iceboaters enjoying their winter sport (see page 6)

Iowa Conservationist

Vol. 30

January, 1971

No. 1

Published monthly by the Iowa Conservation Commission, State Office Building, 300 4th Street, Des Moines, Iowa 50319. Address all mail (subscriptions, change of address, Form 3579, manuscripts, mail items) to the above address.

Subscription price: two years at \$2.00
four years at \$3.50

Second class postage paid at Des Moines, Iowa
(No Rights Reserved)



District forester Brenton marks fire damaged cottonwood for removal.



Foresters inspect diseased elm stand noting need for salvaging dead trees and reforestation of area.

The Gifford Sanctuary

By Steve Brenton
District Forester

THE GIFFORD SANCTUARY: A forty acre island of cottonwood amidst the cropland of the Missouri River bottom. Located just south of Council Bluffs, the sanctuary is within a mile of the South Omaha Bridge which spans the Missouri River. This area of towering cottonwoods was once a favored roosting and nesting site for the great blue heron. Situated in the midst of the wampy bottoms and adjacent to the "Mighty Mo", feeding areas were close at hand for the big wading birds.

In an effort to protect the area for the herons, in 1942, it was deeded to the State of Iowa, in memory of Dr. Harold Gifford. One of the original conditions stated that the area was to be managed and preserved as a wildlife sanctuary. After twenty-eight years it is still man-

aged as such, though many changes have occurred. During that 28 year period the Great Blue Heron vacated the sanctuary. Why? Probably many reasons caused their boycott. The river channel has been moved. The bottomlands have been drained and are now covered with endless rows of corn and soybeans. Jets now make steady flights overhead and industrial developments have continued to move ever closer. It still provides protection as a sanctuary though, as white-tail deer regularly seek cover there.

In the summer of 1970 the Gifford Sanctuary was assigned to the Forestry Section of the Lands and Waters Division of the State Conservation Commission. It is to remain, as in the past, a sanctuary, but now under the auspices of multiple use management it will also be utilized as an experimental forest area, and as a timber producing area. Eastern

cottonwood is the primary tree species, many of which are three feet in diameter and one hundred ten feet tall. Board foot volumes exceed 20,000 per acre, more than enough to build a three-bedroom house. American elm was also an important constituent but dutch elm disease has virtually eliminated it. Ground fires have plagued this area almost annually. It is a rare tree that doesn't exhibit the rotting catfaces brought on by the recurring fires. Windthrow is becoming ever more common as the decaying stumps give way in the prevalent midwestern winds. Decadent from old age and decay, the cottonwood of the Gifford Sanctuary is giving way to mulberry, ironwood and other shade tolerant species.

Since its transfer to the Forestry Section, a program has been initiated to bring about the salvage of the damaged cottonwood and the elms that are still merchantable. The areas of elm and the most severely damaged cottonwood have been marked so logging will produce small openings of two to five acres. The suppressed trees in the remaining area have been marked on an individual basis in an effort to maintain the residual stand in a healthy condition. The marked trees are to be advertised and sold by means of a sealed bid sale which will be administered by the State Conservation Commission.

The lumber produced from the timber will be suitable for use as boxing, crating, pallet stock, and hidden furniture parts. The tree tops and branches left after the logging operation, even though unsightly during the first few years will provide excellent cover for deer and rabbits. The small openings will be reseeded or replanted. This operation will offer an opportunity for studying various regeneration methods of bottomland hardwoods such as cottonwood, silver maple, American sycamore, and black alder. Certain areas will be allowed to reseed naturally while other areas will be machine planted. Various methods of seedbed preparation, weed control and seedling spacings are proposed. The information revealed from these studies will be useful in the farm forestry program as well as in timber management programs on other state areas.

Growing in full sunlight and rich soil, the new seedlings should produce a lush growth where the deer can browse and seek cover. When these logged-over areas have been reforested, other areas of mature timber will be harvested in a similar manner. As this pattern of harvesting and reforestation continues, a patchwork of varying age classes, from mere seedlings to mature trees, will develop. From this point of time on, there should always be an area of mature trees suitable for producing sawlogs, areas recently logged with fresh tops and branches where the deer and rabbits can seek cover, areas of sapling stands with their lush growth where song birds can nest and deer can browse on the tender shoots—End.



Doves under Scrutiny

by Eugene D. Klonglan
Assistant Wildlife Biology
Superintendent

Any Iowan who is the least bit interested in birds knows that the mourning dove is one of the Hawkeye state's more common feathered residents. Not so common, however, is the knowledge that the dove is one of the most scrutinized birds in the state. Only some of the hunted species of game birds such as pheasants, quail and waterfowl receive more attention year in and year out. This is true because the dove is classed as a game bird, even though not hunted in many states, and it is migratory.

Migratory birds, including mourning

doves, are recognized as an international resource requiring attention on a continental basis. Such is provided for by conventions concluded in 1916 between the United States and Great Britain (for Canada) and in 1936 between the United States and Mexico, plus the passage in 1919 by Congress of the Migratory Bird Treaty Act. This Act makes it unlawful to hunt, kill, sell, purchase or possess migratory birds, including doves, except as permitted by regulations adopted by the Secretary of the Interior.

To provide a sound basis for these reg-

ulations, considerable information is obtained annually on current nationwide population levels of doves and on numbers that may be available for harvesting. This task is supervised for the most part by the Mourning Dove Section of the Migratory Bird Population Station, an arm of the U. S. Bureau of Sport Fisheries and Wildlife, though much of the data is obtained by the individual states. With the year's accumulation of data in hand, the U. S. Fish and Wildlife Service, through the Secretary of Interior, sets up a framework of hunting

regulat
safe ha
ing sto
framew
select
their pa
more r
work i
may
see
tection
the mo
the fed
The o
is depe
tions th
migrati
Coordin
necess
Iowa, t
the tota
Never
roles in
ment so
most in
portant
raised
opportu
us on m
of here
doves, s
game"
line. F
tion Co
mention
formati
lation
particip
dove ca
large n
In addi
efforts,
have be
within
Conserv
Univers
deavor
The s
us the o
on a nat
call cou
These
listening
been as
having
one rout
A nation
results
ties. Ea
of the to
accompa
graphica
distincti
dove pro
mitting
species.
Bandin
on move
populatio
tality (i
pects ess
of the s
doves ar
each year

regulations that will permit a reasonable, safe harvest and leave an adequate breeding stock for future years. Within this framework the various states may then select hunting seasons best suited to their particular conditions. These may be more restrictive than the federal framework if the state so desires, but they may not exceed the limits set. Thus we see that the responsibility for the protection, regulation and management of the mourning dove is shared jointly by the federal and state governments.

The dove population of North America is dependent upon environmental conditions throughout its breeding territory, migration routes, and wintering grounds. Coordinated management efforts are thus necessary on a continent-wide basis. Iowa, then, is only one of many cogs in the total dove picture.

Nevertheless, Iowa plays several major roles in the nationwide dove management scheme. One of these, probably the most important, is that we are an important dove producing state and birds raised here provide considerable hunting opportunity in all states to the south of us on migration routes. Every state south of here has an open hunting season on doves, so birds reared here become "fair game" the minute they cross the state line. Furthermore, the State Conservation Commission takes part in the earlier mentioned task of obtaining annual information on the status of the dove population. This takes two primary forms—participation in the nationwide spring dove call count and in the banding of large numbers of doves in late summer. In addition to these annually recurring efforts, several dove research projects have been and are now being carried on within the state, primarily by the State Conservation Commission and Iowa State University, frequently being a joint endeavor between the two.

The spring call count survey provides us the only dove population figures taken on a national scale. There are nearly 900 call count routes in the United States. These are 20-mile long routes with listening stops one mile apart. Iowa has been assigned 16 of these, the state having been divided into 16 "cells" and one route randomly selected within each. A nationwide map is prepared from the results to illustrate relative dove densities. Each year Iowa is ranked as one of the top dove states by this survey. The accompanying map shows this quite graphically. Iowa thus has the dubious distinction of being one of the very best dove producing states, but yet not permitting hunting of this important game species.

Banding of doves provides basic data on movement and migration patterns, population density and distribution, mortality (including hunting) and other aspects essential to the proper management of the species. Approximately 100,000 doves are banded in the United States each year. Iowa's goal is to band around

3000. Information obtained from band returns shows that doves have a high annual mortality rate, but that the hunter is responsible for only a very small percentage of this.

The Wildlife Research Unit at Iowa State University has conducted several investigations into the life history of doves in the state. Emphasis has been placed on the study of nesting and production of young, food habits, mortality factors, migration, censusing and other interesting facts of the dove's life. If a dove hunting season ever does come to pass in Iowa, the facts gained from such research will play an important part in deciding just what type of a season would be most advantageous to doves and hunters alike.

"All the hunter asks is to harvest a portion of each year's production without affecting the next year's population."

In recent years an accelerated program of research and management on six species, or groups, of shore and upland migratory game birds has gotten underway on a nationwide scale. The mourning dove is the most important bird on this "non-waterfowl migratory bird" list. (The others are woodcock, snipe, rails, white-winged doves, and band-tailed pigeons—only the first three of which are of direct interest here in Iowa.) Extensive planning has been done by various committees and the first limited funds obtained by Congressional appropriation in 1968. Research contracts were made with several states, the U. S. Fish and Wildlife Service being the federal agency coordinating the program. Current and future funding has been curtailed because of pressures on the national budget, so the overall program as yet is just limping along. To date, Iowa has received some assistance on our banding work. Many states, including Iowa, have submitted research projects on those species of importance to them, and priority listings have been drawn up in anticipation of the day when additional funds become available.

We hope this expanded research program on these so-called "webless" migratory species can be gotten off the ground soon. Iowa is currently handicapped to a certain extent in providing funds for research on and management of the mourning dove. It is not easy to justify the

expenditure of hunting license or P-R funds on a non-hunted species when there are so many needy areas involving hunted species. In fact, it is estimated that about 11 percent of the half million dollars or so, Iowa receives each year in P-R funds (derived from federal excise tax on sporting arms and ammunition) is attributable to the sport of dove shooting in other states!

It should be recognized that hunters through the purchase of hunting licenses and through the payment of the above-mentioned excise taxes on their arms and ammunition are financing the preservation and restoration of habitat in Iowa not only for game, but also for song birds and other forms of wildlife as well. These sportsmen have provided the hard cash and effort to try to do the job of maintaining wildlife in the state, and have not limited themselves to token or mere voice support of such programs! Mourning doves benefit from these efforts. All the hunter asks is to harvest a portion of each year's production without affecting next year's population.

Iowa's dove population and that of the entire Central Dove Management Unit of which Iowa is a part (U. S. is divided into three units—Eastern, Central, and Western—for dove management purposes, a procedure similar to the Flyway concept used for waterfowl) remains abundant despite the hunting pressure exerted thereon during migration. The additional pressure of an Iowa open season would affect the Unit-wide population very little, if at all. Doves would not be hunted in Iowa to the extent that pheasants, rabbits, squirrels and quail are, or to the extent they are hunted in those states to the south that have a "tradition" of dove hunting. An estimated 10-15 percent of Iowa's sportsmen would become bonafide dove hunters if given the opportunity. Some doves would, of course, be taken incidental to other species by hunters pursuing a mixed bag. Iowa would not likely become a major dove hunting state of the magnitude of many southern states. Our role in the overall hunting picture would be small.

The State Conservation Commission is most interested in the welfare of the mourning dove, just as it is in all wildlife species—be they game or non-game. We have many professionally trained biologists and management technicians in our organization. These men have made a life's work of studying and applying the fundamentals upon which the science and art of wildlife management is based. The last thing they want to do is jeopardize the future of any species of wildlife—had they any thoughts otherwise, they would not be making a life's career of this work. It does not make sense to think they would recommend any course of action, be it on mourning doves or any other species, that would work toward the destruction of the very base on which their livelihood rests!

Doves can be hunted in Iowa.

Enjoy Parks, Forests All Year

Outdoor Fun In Winter

WINTER RECREATION IN IOWA STATE PARKS AND FORESTS

Area	County Location	Designated Snowmobile Route	Ice Skating	Fishing	Sled Coasting	Ice-Boating	Camping	Hunting
State Parks								
Backbone	Delaware	X	X	X	X		X	
Beeds Lake	Franklin	X	X	X				
Bellevue	Jackson	X			X		X	
Black Hawk Lake	Sac	X	X	X		X	X	
Bob White	Wayne	X	X	X				
Clear Lake	Cerro Gordo		X	X		X	X	
Dolliver Memorial	Webster	X			X		X	
Elk Rock (Red Rock Reservoir)	Marion	X	X	X	X	X		
Ft. Defiance	Emmet	X			X		X	
Geode	Henry	X	X	X	X		X	
George Wyth Memorial	Black Hawk	X	X	X			X	
Green Valley	Union	X	X	X		X	X	
Gull Point	Dickinson		X	X	X	X	X	
Honey Creek (Rathbun Resv.)	Appanoose	X	X	X	X	X		
Lacey-Keosauqua	Van Buren		X	X			X	
Lake Ahquabi	Warren	X	X	X	X		X	
Lake Anita	Cass	X	X	X	X	X	X	
Lake Darling	Washington	X	X	X	X		X	
Lake Keomah	Mahaska		X	X	X		X	
Lake McBride	Johnson	X	X	X	X	X	X	
Lake Manawa	Pottawattamie	X	X	X				
Lake of Three Fires	Taylor		X	X	X		X	
Lake Wapello	Davis		X	X	X	X	X	
Ledges	Boone	X			X		X	
Lewis & Clark	Monona	X	X	X		X	X	
McIntosh Woods	Cerro Gordo	X	X	X			X	
Nine Eagles	Decatur	X	X	X	X		X	
Palisades-Kepler	Linn				X		X	
Pikes Peak	Clayton				X		X	
Pilot Knob	Hancock		X		X		X	
Pine Lake	Hardin	X	X	X	X	X	X	
Prairie Rose	Shelby	X	X	X	X		X	
Red Haw Lake	Lucas		X	X	X		X	
Rock Creek	Jasper	X	X	X	X	X	X	
Spring Brook	Guthrie		X	X	X		X	
Stone	Woodbury	X			X		X	
Union Grove	Tama	X			X		X	
Viking Lake	Montgomery	X	X	X	X		X	
Wapsipinicon	Jones				X		X	
Waubonsie	Fremont	X			X		X	
Wildcat Den	Muscatine				X		X	
Multiple Use								
Wilson Island	Pottawattamie	X					X	X
Forests								
Shiamek	Lee-Van Buren	X	X	X	X			X
Stephens	Lucas-Monroe-Davis-Appanoose	X	X	X	X			X
Yellow River	Allamakee	X			X	X		X

Most people associate recreation in state parks and forests to "blue bird weather" activities such as camping, picnicking, hiking, fishing and swimming. But winter sports and activities are becoming more and more popular. Many hardy outdoor enthusiasts take advantage of the winter wonderland months by participating in various seasonal oriented forms of recreation such as camping, ice skating, ice fishing, ice sail boating, sledding and snowmobiling. There is some limited skiing where the terrain allows but no mechanical conveyances are available.

There are leisurely ways to enjoy your visit too. With mother nature's picturesque snowy mantled landscape, this time of year offers shutter bugs excellent opportunities for that prize photo. Nature lovers can have a heyday observ-



ing diffe
All in al
state are
Campi
winter is
All water
ous reaso
trical out
the park
Snowm
on design
unsure of
with the
be operat
for safer
way of
applies to
The fol
tivity gui
which off
portunitie

Too!

ing different wildlife and their tracks. All in all, it is a great time to visit these state areas.

Camping in state parks during the winter is operated on a primitive basis. All water facilities are shut off for obvious reasons. For the availability of electrical outlets, campers should check with the park officer.

Snowmobilers are cautioned to stay on designated routes in state parks. If unsure of routes, operators should check with the park officer. Snowmobiles may be operated on all state-owned lakes but for safety sake, operators should be wary of ice conditions. This of course applies to all forms of ice recreation.

The following is a helpful winter activity guide for state parks and forests which offer a variety of recreational opportunities.



TOAD or FROG?

Donald G. Huggins
Department of Zoology and Entomology
Iowa State University, Ames

Guess what? Iowa now has a toad that looks more like a frog than a toad. This squat, frog-like amphibian is the central plains spadefoot toad (*Scaphiopus bombifrons*) which has crossed the Mississippi River between Nebraska and Iowa. In the summer of 1967, many of these nocturnal, terrestrial, burrowing toads were discovered by the author in and around Wilson's Island (Pottawattamie County)—one of the state's newer recreation areas. Some were also found in the Iowa portion of DeSoto National Wildlife Refuge, 6 miles west of Missouri Valley.

Spadefoots do not belong to the same family as our homely "hoptoad," but can be confused with them. The short, thick muzzle, which gives the toad a pug-dog expression, and the vertically elliptical pupil of its large gold eyes, make identification easy. They get their name from the sharp-edged, black "spade" found on each hind foot. This "spade" is actually a modified inner foot bone tubercle (knoblike projection) that is hard and horny. The skin is smooth and fine textured, quite unlike the common toads. Spadefoots also lack the ridges on the head and the large paratoid glands behind the head which are prominent on *Bufo* toads.

The common toads belonging to the genus *Bufo* are not the same in Iowa. The American toad, found throughout the state, is the only toad in most of Iowa. The great plains toad, with larger black spots with light margins, is found in the two western tiers of the state. Woodhouse's toad is also found in these western counties. Fowler's toad is found in the southeastern part of the state. The spadefoot is Iowa's smallest toad, never exceeding a length of 2½ inches. General coloration varies from greenish-olive to grayish with indistinct darker

markings of brown and gray. The tubercles or bumps on its back and sides may vary in color from yellowish to reddish.

The call of this toad is unique, and is likened to the squawk of an injured animal, or a resonant "ye-ow". It calls vigorously when taken in the hand and once heard, it is not likely to be forgotten.

Spadefoots are seldom seen except during the breeding season. Breeding congregations usually occur after heavy rains from June to August. Generally, these curious-looking creatures spend the day in their burrows, emerging at night to feed on insects and spiders. Adults are found in soft soil at depths from a few inches to several feet. Using the "spades" on their hind feet, they push the soil aside and with a slow rocking movement burrow out of sight. They remain underground for weeks or even months at a time.

An unusual habit of these toads is the practice of inflating their bodies both in and out of their burrows. Body inflation may serve as a defense mechanism. The inflated round body would be difficult to grasp and hard for snakes and other natural enemies to swallow. Inflated in the burrow the toad becomes difficult to remove and prevents unwanted visitors from entering the burrow.

The usual home of the central plains spadefoot toad is in regions of low rainfall and open grasslands. However, our newly discovered friend has established itself in the habitat of the Missouri River bottomlands, Harrison and Pottawattamie counties. This area is characterized by extensive reaches of damp, wooded areas with scattered patches of sand bars and dunes. These sandy areas may be providing the spadefoot with its preferred habitat, but whatever the case, we welcome our new visitor and hope it will make its stay permanent.



We huddled on what seemed like a log in some wild, unfamiliar world, a spell of foggy, near-blackness—much worse than total darkness—engulfing us. We seemed miniaturized in a world of giant, rotting trees vaguely silhouetted in the misty darkness, or perhaps in a child's mind. Only the smoke crackling through Dad's pipe softened the brittle silence.

Though not at all accustomed to such sharp deviation from soft, warm blankets and quiet radio music, I somehow maintained composure. I remember sitting there, wild-eyed and chilling from more than the air; yet with reluctant courage, until the heart-stopping howl of the forgotten dog humbled me to absolute fear. Then came the chase, and the constant tumult ahead, and my excited stumbling pursuit of that small, elusive flashlight beam, until finally being carried to the tree where Dad and the hound killed a 'coon that night. Another 'coon hunter was born.

'Coon hunting is deep rooted in our American heritage. Timber lands and creek bottoms produce high raccoon populations offering an old but rather unique brand of sport. Although really appreciated by a relative few, Ol' Ringtail is pursued by an ardent band of serious minded traditional 'coon men.

Each man possesses one or more equally zealous 'coon hounds. Blue tick, Black and Tans, Redbones, and Walkers are a few of the famous breeds of baying hounds valued for their nocturnal "singing" abilities. Some cost several hundred dollars. Others will not be sold "at any price." It is the dogs that bring the 'coon men to love their sport. Coon hunters get together for companionship, and to talk and joke quietly, but mostly to listen with respect to their hounds' inherited talents.

The raccoon earns his title, "Masked

Running Down The "Masked Bandit"

By Roger Sparks

Bandit." He is cursed by many sportsmen for predation of gamebirds and for nest robbing. The landowner justly curses him for stealing sweetcorn and chickens. For these reasons, hunters are nearly always welcome on private property.

The ardent hound man likes to see a few hollow trees as he hunts, even though his quarry often escapes through a hole in the trunk. A smart old 'coon will sometimes run a great distance if he must, to reach one of these natural hideouts. But the coon hunter knows that these trees are the birth place of next year's crop, and without disdain, he respectfully moves on. He knows he has a good, long season to hunt his quarry, and he knows the plentiful raccoon will be back in strong numbers next year. Like the trapper, the 'coon hunter knows he is utilizing a harvestable resource.

The equipment used to hunt raccoons is fairly simple. A 22 caliber rifle or

pistol works fine. Strong beam flashlights are a must, and some are equipped with a shoulder strap for easy carrying. A good skinning knife is necessary along with a game bag to carry the skins. It must be said that if a man places value on his time, along with his dog and equipment, he will never sell enough skins (average price about \$2.50) to make money. But like all forms of recreation, it's the sport and subsequent enjoyment that count.

The skillful 'coon man does not, as many people believe, stay out all night. He goes out about dark for an easy stroll through the timber, and plans to return home by 10 p.m. He speaks often of the many lasting friendships established by lantern light at unusual meeting places along a timbered stream. And he speaks fondly of his best dog, and of the many nights of listening to him work. And he enjoys this sport loved by his grandfather. And he will pass it on to his grandson.



Hounds tree coon after long chase.



Hunting the Tasty Rabbit

By Sonny Satre

A hunter moving slowly through a wooded area stops suddenly in the snow when he detects a movement near a brushy plum thicket. Moments later a cottontail rabbit hops out of the thicket into a clearing, ready to take off across the snow. The hunter's .22 rifle cracks and the rabbit stops literally "dead in its tracks."

This is rabbit hunting of its finest—a traditional American sport—and one of the most popular in the country. More rabbits are harvested by hunters than any other game species. A tribute to the fine sporting qualities of the cottontail.

Iowa hunters are allowed over 5½ months of cottontail shooting with the season ending February 28 of this year. There is no doubt about the popularity of the sport in Hawkeyeland. Iowa cottontail hunters normally harvest approximately 2 million rabbits annually. The highest bunny populations are found in the southern one-third of the state. The daily bag limit on cottontails is ten with no possession limit. Shooting hours are from 6 a.m. to 6 p.m. With the rapid reproduction capabilities of cottontails plus present game management practices, there is no danger of overharvesting sporty br'er rabbit.

Why is winter hunting the most popular? Well, in the first place, a fresh snow is an asset to the hunter. He can track the rabbits and the speedy animals are more easily seen against the white background of the snow. It has been pointed out however, by the Iowa Conservation Commission game officials that hunters should take more advantage of the surplus bunnies during the fall hunting months. By waiting for snowy weather, hunters sacrifice many rabbits to predators and the elements, as rabbits have a very high mortality rate.

There are many ways to hunt rabbits. Perhaps the most sporting is with Bassett or Beagle hounds. The sight of the dogs scenting a fresh trail and eagerly pursuing the rabbits is a thrill. When the cottontail flushes from cover, it's time for the hunter to make his move with a hotgun.

Most shotgunners recommend a target load with a number six shot. A modified-choke is considered excellent for rabbit hunting because of the wider shot pattern as rabbits are proven tough targets when zig-zagging in a corn field. A full-choke barrel has a tendency of overshooting a rabbit and spoiling more meat. Shotguns ranging from 12-gauge to .410 are all popular. However, for others, a .22 caliber pistol or rifle is the first choice. On a cold day, cottontails will usually set tight. For a stationary target such as this, the pistol or rifle is a good bet. Rifle hunters should be aware, however, it is illegal to hunt from public roads or railroad right of ways in Iowa.

The majority of rabbit hunters don't have dogs to depend on. So the nimrod must tramp into the plum thickets and briars in search of the tricky bunnies. Stamping or kicking brush and wood piles often flushes them out of hiding. Where there is a comparatively heavy cover, one is more apt to find the heaviest concentration of cottontails.

est concentration of cottontails.

Rabbits require dense cover for protection against predators and Old Man Winter. The brambles, shrubs, dense undergrowth and old woodpiles provide protection and also a source of food. Areas like these near cornfields are typical cottontail habitat.

As with other game, it's wise to field dress rabbits as soon as possible. This will insure that the meat will taste its best. The process of dressing a rabbit is fast and simple.

Make an incision across the back of the rabbit and then grab the cut skin with both hands and pull in opposite directions. Continue pulling skin until free from the rabbit. With a knife, make a cut beginning between the hind legs, cutting all the way through the rib cage. Then remove its plumbing and place the meat in a plastic bag.

Rabbit hunting in itself is a great sport and fried or baked rabbit make the outing all the more worthwhile.

Measure That Trophy Rack

Iowa deer hunters who successfully bagged a deer in 1970 with trophy sized antlers are encouraged to enter the rack in Iowa's Big Game Record registry.

All trophy racks taken during the 1970 Iowa archery and shotgun seasons are eligible for entry. Certificates will be awarded to eligible entries which meet minimum standards.

In order to qualify for an award, however, a rack must be measured by a certified official scorer for the Boone and Crockett or Pope Young Clubs.

The Pope and Young Club maintains scores for archery killed deer while the Boone and Crockett Club keeps records for big game legally taken with firearms.

Award certificates will be presented in four classes. The classes, with minimum scores for each, are:

SHOTGUN—MUZZLELOADER

Typical White-tail	140 points
Nontypical White-tail	160 points

ARCHERY

Typical White-tail	115 points
Nontypical White-tail	120 points

Shrinkage in varying degrees takes place when antlers dry out. For that reason hunters must wait 60 days or more before having a rack officially measured.

Dear hunters possessing trophy racks taken in Iowa that have not been officially measured, may get in touch with the Iowa Conservation Commission, Information and Education Section, 300 Fourth Street, Des Moines, Iowa 50319, and we will forward official scorers who may be contacted.



By Ron Andrews
Furbearer Biologist

The red fox is the best loved and most hated, praised and berated, wisest and most controversial critter to occupy man's mind. Down through the ages, Reynard Fox has been slandered, maligned, chased and sometimes slaughtered by poisons, gases, airplanes and den dig-

Privacy Ends—

Foxes are "Bugged" By Biologists

gers. From a more sporting angle, Ol' Red is pursued by the hunter and trapper. Now his right of privacy has been invaded too. He is currently being "bugged" in the Clear Lake area.

In late September, twenty-one red foxes in northern Iowa were "wire-tapped" with miniature battery operated short wave radios. These radios are fitted in a collar around the animal's

neck. A whip antenna off the back side of the collar sends a beeping signal through the air which is picked up by a rotational antenna and receivers mounted on a station wagon automobile. Each fox carries a radio with its own frequency and can be distinguished from others by that frequency and the number of pulsing beeps per minute. Life expectancy of the radios is estimated at about 200 days. This radio tracking project is joint venture with a University of Minnesota student working for his doctorate in ecology. It is a pilot project for the State Conservation Commission which provides the manpower and collects the data while the equipment and radios are provided by the University of Minnesota.

Bugged animals were monitored daily and locations of these animals recorded. When do they move? Day or night? Why do they move? When and why do they stop? The beeps will tell part of the story. Maximum range of the signal is up to two miles from the ground mobile unit, and up to 20 miles from the air.

Of the 21 radioed animals, nine foxes tagged as pups during early spring ear tagging operations were recaptured and radios placed on them. In October and November the day came when one or two of these critters turned up missing from their release area. Then the project became an aerial one. Antennas and receivers on a fixed-wing craft pick up the signals of missing foxes. From the air animals were pin-pointed to the nearest quarter-section. Once located from the air it became a matter of returning to the mobile unit and living with these animals as they continued their fall dispersal.

Ol' Red is a nocturnal animal by nature, being active at night and resting during the day. Therefore my "wire-tapping" schedule was adjusted to that of the moving foxes. Movement begins at

sunset and
To this
followed
lease site,
Fertile, Io
southeast.
12 miles n
stored for
a point on
site where
wheels of a
nick name
sons was r
Garner on
Research A
the fox wa
the pheasa
north-north
shaped loop
and settling
Thompson
previous, a
Three Legs
still present
The reco
ile male v
point near
and east to
confused in
turned to th
Lake. The
McIntosh P
into Clear
siderable t
swim the l
ward paral
tined sout
Alexander,
rate loops a
All five
similarities
eral straight
ing, going
on course. A
near the en
to a section
two previous



Receiving antenna on car keeps track of Ol' Red's movements

unset and stops just before sunrise.

To this point five animals have been followed over five miles from their release site. An adult male released near Fertile, Iowa, traveled 54 miles east-southeast. One juvenile female traveled 2 miles northwest; another was monitored for 35 miles, making a big loop to a point only 8 miles west of the release site where it finally met death at the wheels of an automobile. A juvenile male nicknamed "Ol' 3 Legs" for obvious reasons was radioed four miles southwest of Garner on the Hancock County Pheasant Research Area, no less. For some reason the fox was apparently not satisfied with the pheasants present there and traveled north-northwest, making a big balloon-shaped loop around Bricelyn, Minnesota and settling in a section northwest of Thompson where it had rested two days previous, a total route of 57 miles. Ol' Three Legs, as of six weeks later, was still present in this area.

The record breaker was another juvenile male who traveled 89 miles from a point near Fertile, south to Clear Lake, and east to Mason City, where it became confused in the residential area and returned to the same section north of Clear Lake. The next night it moved south to McIntosh Point, a large sandbar jutting into Clear Lake. Apparently after considerable time wondering whether to swim the lake, the animal moved westward paralleling the shoreline. It continued south around Ventura Marsh to Alexander, Iowa, then made three separate loops and settled near Goodell, Iowa.

All five travel patterns have shown similarities in that they moved in a general straight line with one general bearing, going around obstacles to get back on course. Also each animal made a loop at the end of the route and returned to a section where it had been a day or so previous. The longest one night trip

by a fox was 12 miles and most of the movement occurred within a period of 6 to 10 nights.

Why do these animals move like they do? More questions will probably be asked than answered when the project is complete. Day length, hormone levels, age, and food availability are all factors that stimulate such movements. Movements appear to be random in all directions. Such movements of the fox occur prior to the January mating season. This is probably Mother Nature's way of filling habitat that is void of fox and also of reducing inbreeding and maintaining a healthy gene pool. When the project is complete, the data will be written up cooperatively and compiled in a book on "Foxes of the Upper Midwest."

Some might say this is a lot of foolish and expensive nonsense. Much of the data gained is basic research—knowledge for the sake of knowledge. However, some of the movement and mortality aspects of the project can be used in management of the fox and adjusting hunting and trapping seasons accordingly. The more we know about an animal's life habits, the better we can manage him.

Should hunters, trappers and other outdoorsmen find one of these radioed foxes, we encourage them to forward the information to the Conservation Commission, Clear Lake, Iowa as this is a most important part of the project. Thus far three radioed animals have been road-killed, two trapped and one met an inglorious death when it made contact with a "weed burner" electric fence.

And so another chapter is being written on the diverse life of old Reynard Red. Although his pride may be hurt by this invasion of privacy, we hope he will realize that as he goes beeping over the horizon, we are actually learning more about him, hopefully to his benefit in the end.



By Dick Ranney

Winter is the time of year when things are set in motion to keep us warm. The tip of our nose sends a message to our hands and tells them our ears are cold. The hands jump to the job and cover our ears. The hands in turn call to the mouth and request a few hot breaths to warm them. But the toes are freezing and ask the legs to please do something. The legs respond by stomping each foot. The toes are obliged but the legs need relief. So the back gets into the act and takes some of the pressure off the legs. The entire body is warm at last, but just when all systems are perking along in fine shape—wham. Goose bumps!

Goose bumps are the body thermostat and flip the switch putting the furnace into operation. This calls for some fuel to be put on the fire. Furnaces are located in the general area of our belt buckle. They come in all shapes and sizes from large and round to small and flat. Sometimes people wear things to make them look smaller. But everyone enjoys filling their furnace as long as strong combustibles which cause excessive "flare-up" are not used.

One of the best fuels you can use on a cold wintery day that will let you bank the coals and relax is hot baking powder biscuits and white bacon gravy.

Mix two cups of flour, four teaspoons of baking powder, two teaspoons of sugar, 1/2 teaspoon of salt and 1/2 teaspoon cream of tartar. Add 1/2 cup of shortening and blend. Add 2/3 cup of milk and mix until it no longer clings to the side of the bowl. Knead well on a floured board and roll out flat about 1/2 inch thick. Dip the edge of a juice glass into flour and cut round biscuits from the dough. Place them on a cooking sheet and bake at 425° for 12 minutes (or until brown on top).

While the biscuits are baking, place 3/4 pound of thick sliced bacon into a large skillet and fry until crisp. Remove the bacon and drain on a paper towel. Pour out the grease leaving two tablespoons in the skillet. Add two tablespoons of flour and mix well. Let the grease and flour cook a little while you are mixing it. Add two cups of milk and one cup of water. Add pepper, but don't add salt until you have tasted it as the salt from the bacon may be enough. Let the gravy come to a boil and cook. When it is done, break the crisp bacon into pieces and stir into the gravy.

Spoon generous amounts over the hot biscuits and fill your plate. Put a little starch in your furnace and try biscuits and white bacon gravy.



ST TRAVELLING LIBRARY
ST HISTORICAL BLDG
DES MOINES IA 50319

Track Star in a Fur Coat

If all the wild animals of North America decided to have a foot race, the white-tailed jack rabbit might very well win it. With a top speed of from 35 to 45 m.p.h., he certainly would do no worse than second, possibly behind the swift antelope.

Jack rabbits are a true hare and differ greatly from the common cottontail so abundant in Iowa. Jacks are large—about 24 inches and from six to nine pounds at maturity. Unlike cottontails, jacks are open country animals preferring plenty of leg room which affords them the opportunity to easily outrun coyotes, foxes, owls, and other predators (although these predators occasionally surprise or outwit their prey). Despite their ability to run, jacks seldom travel more than two miles from home.

Though ravenous vegetarians, jacks spend most of the daylight hours in forms scratched out of the earth along fence rows or weed patches. These forms are simple indentations (two or three inches deep) which fit the body. The big hares leave these spots to feed on

alfalfa, clover, corn, wheat, or soybeans during hours of darkness or subdued light.

Jacks have a great leaping ability. They often hold until danger lurks very near, then blast-off at full speed. Every third or fourth leap is a longer bound perhaps to gain a higher view or to check on the pursuer. As a rule, jacks are broad jumpers rather than high jumpers and have been known to span over 20 feet.

Female jack rabbits bear from one to seven young per litter, usually two or three times annually. The mating season extends generally from April to August. Young are born about six weeks later in a cupped-shaped nest in good cover.

Jack rabbits in Iowa change color with the seasons. The soft coat during warmer months is generally a light gray with faint brown speckles. The underside is snowy white. The six inch ears are tipped with black. During winter, the coat lightens, sometimes to a dull white, with the ear tips still black.