

IOWA CONSERVATIONIST

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GOOSE HUNTING TO REMEMBER

FROSTBITTEN PANFISH

Jim Mayhew
Fisheries Biologist

Water used to mean the time for fishing dreams, and fireside memories of last summer's battles between man and fish. Whether we were victorious or defeated, we reminisced over the fishing season and planned for the season coming. That's the way it used

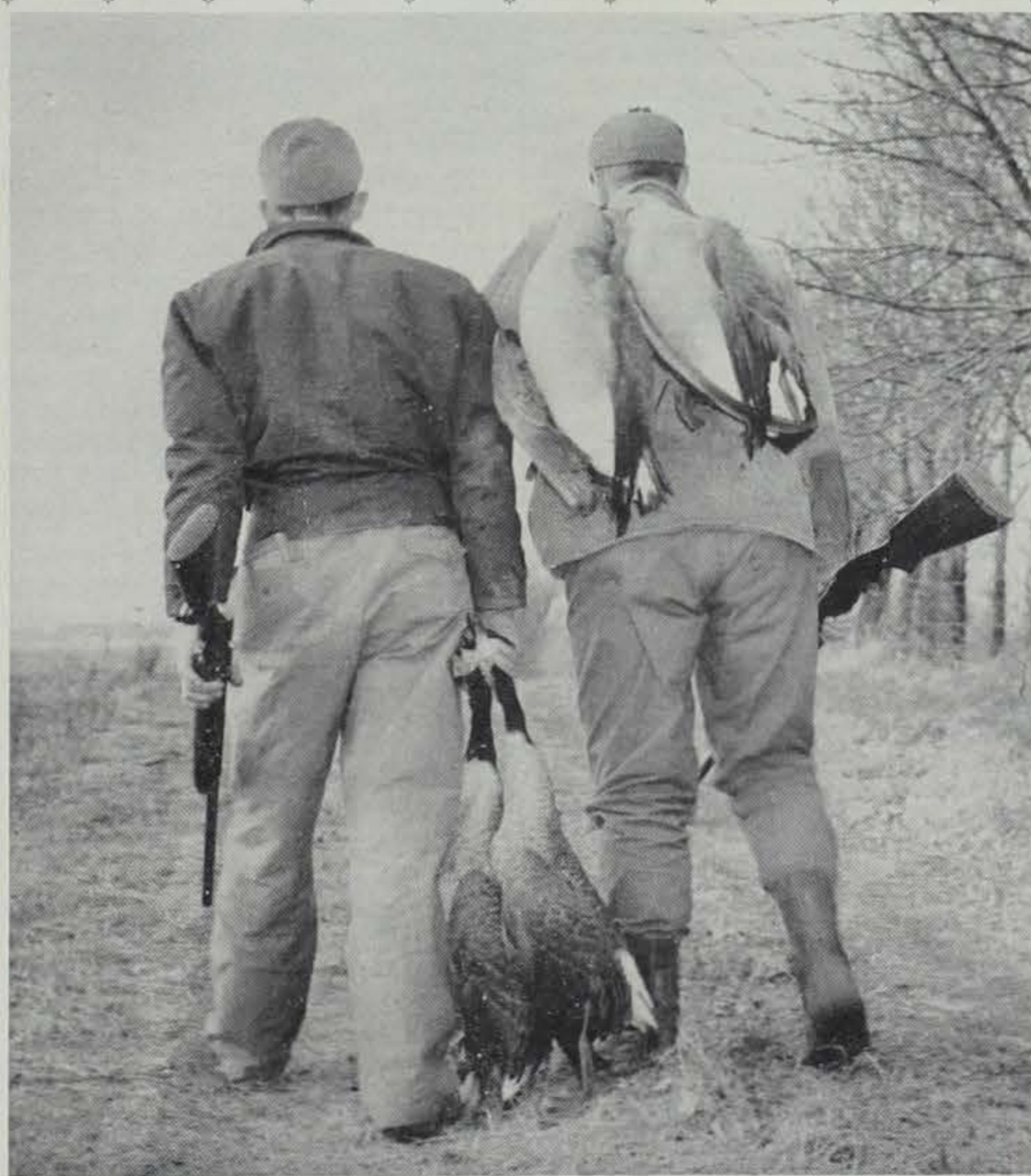
to be. In the natural lakes of northwestern Iowa ice fishing has become an increasingly popular sport since beginning in 1950. Many people would rather fish in the winter than in the summer because of the added enjoyment of actually seeing the quarry duped into taking the bait. Most ice fishing effort in this area centers on yellow perch and walleye.

However, this does not mean we must drive to northwestern Iowa for winter fishing because most of us have it available in our backyards: for the ever-popular crappie and bluegill. Until last year ice fishing in southern Iowa, artificial lakes and farm ponds was seldom tried, but after it was demonstrated that favorite winter fish feed during the winter, many people are replacing off-season dreams with fish in the

Winter Tackle

Any type of terminal tackle used in summer can also be utilized in ice fishing, but most of the anglers regard such equipment as cumbersome for winter use. The typical ice fishing gear in northern Iowa consists of a broomstick or round dowel with a sharp nail placed in one end. Two crews attached to the dowel approximately six inches apart on a six-pound test monofilament line is wrapped around the broomstick for storage. The line is lowered into the water and the end of the pole stuck in the ice near the hole. This prevents the fish from pulling the pole into the hole and helps keep the line from becoming tangled by the

Other popular pole is a short
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October closed on memories of the best Iowa goose hunting in many years. Hundreds of Iowans killed their first geese last month, and it was a season to remember.

BOWHUNTER'S PROGRESS

Although Iowa's bow and arrow deer season started slowly, hunting success gathered momentum through October, and by press time a total of 29 bow kills had been reported to the Conservation Commission.

Seven of the kills had been made in Pottawattamie County, which

ranked highest in reported deer hunting success. Comparatively open, rolling timbers and deer range evidently made bowhunting more ideal in that area than in the heavier forests of eastern and northeastern Iowa where the bulk of the gun kills are usually made.

By October 30, known successful bowhunters were:

Hunter	Home	County of kill
Mrs. Ernal Olson	Whiting	Monona
Dane Shipp	Chariton	Pottawattamie
Ray Webb	Chariton	Pottawattamie
Jack Rannels	Chariton	Pottawattamie
George Hoyt	Cherokee	Cherokee
Robert Bohnsack	Dysart	Tama
Gerald Schinagel	Hampton	Pottawattamie
Robert Bungam	Forest City	Hancock
Cletus Weitert	Lansing	Allamakee
Robert Keeley	Maquoketa	Jackson
Ralph Lansing	Perry	Dallas
Wallace Johnson	Red Oak	Pottawattamie
Calvin Harris	Oakland	Pottawattamie

(Continued on page 86)

By John Madson

October is the month when goose hunters have a right to expect the big birds to move through Iowa in strength, but they're sometimes disappointed. Some years the flight is a slow trickle, prolonged for many weeks and furnishing thin, spotty shooting. In other years it's a flash-flood of migration, gone almost as soon as it arrives and fooling the gunners who aren't ready for it.

Last month, however, in spite of drought, low water, poor crops in many areas, and other obstacles, the goose hunting was just about all anyone could ask.

The main impact of the flight was felt along the Missouri River, where thousands of "gooserpated" gunners killed countless geese from the open fields and "wet bars."

Limit Kills

From mid-October until early November, big flights of geese moved down through the state, tarrying on streams, farm ponds, fields and major rivers. Many geese of all species were killed, but the majority were blue geese, snows, Hutchin's, and Canadas. Most were killed from blinds over big stools of decoys, and in one two-day period 40 geese were shot on one bend of the Missouri River. Single blinds—running hunters in relays—were tallying up to 15 birds a day, many of them Canadas. One blind totalled 47 goose kills during October.

One veteran Missouri River hunter reported a single flock of blue and snow geese alighting on a sandbar that "numbered at least a thousand birds." He said, "It looked like part of the spring flight, and I can't recall ever seeing a fall flock that large before."

Hissed at Hunter

With the excellent hunting came the stories that indicate that some geese are less than brilliant.

A Missouri River hunter had a big Canada gander land in his goose decoys and refused to fly even when the hunters yelled "Shoo!" The hunter, gun in hand, climbed out of the pit and approached the gander, which re-

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HUNTING IN IOWA A HUNDRED YEARS AGO

Iowans have not always hunted for sport. Back in early pioneer days settlers hunted to provide food for their families. If the hunter came home empty-handed in those days, it often meant that the family would go hungry. Fortunately woods and prairies abounded with game, while the streams were plentifully supplied with fish. Among animals valued for food were deer, turkeys, prairie chickens, ducks, geese, quail, rabbits, and squirrels.

One Iowa pioneer woman, whose husband was away on a trip, found that the family provisions were exhausted. There was no food for her children and her for the noon meal. After a few moments of hesitation, she took her husband's fishing pole and line, went to a nearby stream and soon had more fish than her family needed for that day.

A hundred years ago hunters in Iowa found a number of animals that were more or less ferocious and dangerous. These included bears, wolves, wildcats and even panthers. A black bear was killed in Warren County as late as 1865. The presence of this bear was not known until it began to feast on some hogs that roamed the country near Bevington.

In 1868, R. J. Graham of Indianola went squirrel hunting in the woods on the Middle River, about five miles northwest of Indianola. There he found a lynx and killed it. The lynx measured five feet in length from the tip of the nose to the end of the tail.—*Indianola Tribune*.

The little band around the body of the earthworm is actually an egg case. It moves forward along the worm's body and receives eggs and sperm, and eventually slips off over the worm's "head," closes at each end, and is deposited in soil as a cocoon filled with fertilized eggs.

NEW CONSERVATION BILLS TO BE PRESENTED TO GENERAL ASSEMBLY

Several new bills will be presented for approval of the 57th General Assembly by the State Conservation Commission.

Asked will be salary boosts for the director and state conservation officers, deer licenses for farmers, a special trout fishing stamp, a change in women's fishing licensing, and other changes in regulations.

The coming legislature will be requested to increase the salary of the State Conservation Director from the present \$6,000 to \$9,500. The salary request will include state conservation officers, raising their salary from the present top figure of \$3,600 to a possible \$4,500. Commission officials recommended establishing a rating system for officers under which salaries could be raised \$90 each year based on ability and experience until the maximum of \$4,500 was reached.

The salaries of the director and state conservation officers are established by law, and the pay of other regular conservation employees is scaled to the two established salary figures.

Also asked will be a regulation requiring farmers and other landowners to obtain licenses to hunt deer on their lands. It has been pointed out that allowing farmers to hunt deer without a license has created a problem during the deer season, and that it would clarify many complaints and problems if farmers were required to have a license to hunt deer on their own land.

A request will also be made for a special trout stamp and a change in women's fishing license regulations. The legislature will be asked for authority to issue a trout stamp to persons 16 years of age and over at a fee of \$2, similar to the duck stamp now required. It will also be asked that the requirement of a fishing license for

women which now applies only to state-owned lakes be changed to include all waters of the state, just as the regular men's fishing license.

Commission officials said that the trout stamp will be requested in an effort to make trout fishing pay its own way. Since the present Iowa trout program is essentially "put and take" and is relatively expensive, it is believed that the trout fishermen should enter to a greater extent into this special expense, rather than financing the trout program out of regular fisheries funds.

The primary purpose of a general women's fishing license would be to provide additional revenue, but Commission spokesmen added that many requests for the licensing change have come from fishermen themselves.

Another request for legislation will pertain to the use of trotlines south of Highway 30. Under present law, all such trotlines must be constantly attended. It has been indicated that the main purpose in using trotlines is that they can be set and left unattended for a period of time, and a requested amendment will provide that such trotlines may be left unattended.

In an effort to pay the greatly increased costs of boat registration, the legislature will be asked to set a fee of \$1 to register or transfer registration of outboard and inboard motor boats in use on state-owned waters. There is no fee for such registration at present. The Commission indicated that such registration fees are not unusual in other states, and the greatly increased boating on Iowa waters now justifies such a fee. During the license year of 1955-56, about 13,000 new boat registrations were processed in the Commission's offices, as compared to

only 11,000 registrations for previous years.

The legislature will also be asked to amend Section 732.3 of the Code of Iowa which is an act to "prohibit placing of refuse material in or near a stream or lake upland subject to overflow." The amendment would be an insertion of the words "waste, deleterious materials, or refuse of any kind."

SEES IOWANS AS LOSING RIVER SHIFTS

Iowa fishermen and hunters are being deprived of free access to the Missouri River more and more as the Iowa-Nebraska boundary along the river continues to shift to the west much of the river in Nebraska, Iowa Conservation Commission said recently.

Many of the shifts have been caused by work on the channel by army engineers, Commission Director Bruce Stiles said.

Stiles said, "The situation should be presented to the legislatures of both states, and congress."

No Problem

"We don't have that problem on the Mississippi River because the boundary continues to be the center of the main channel."

Stiles said Iowans must now get Nebraska fishing, hunting and dock-building permits in many locations, because the river is completely in Nebraska in those spots.

"In 1943, the Iowa and Nebraska legislatures agreed to a land transfer and congress concurred. All to the east of the river became Iowa, and all to the west became Nebraska, except that Carter Lake, west of the river, remained a part of Iowa," Stiles said.

Changed Channel

"The boundary was established as the center of the main navigable channel, as established by the army engineers. It was presumed that the channel would be permanent, but the engineers did not stay by that, and made a lot of change afterward," he added.

Stiles said, "Now there are many areas of the river that do not form the boundary. At the time the Iowa and Nebraska legislatures agreed, it certainly was the belief that engineers stabilized the river and the boundary would remain in the middle of the river, and each state would have access to it, at equal rights to it."—*Evening Tribune, Des Moines, Iowa*.

After they are caught, fish should never be packed in ice without some protective covering. No fish should ever be immersed in water for any length of time. "Fish boxes" may be packed with dry ice, but if ordinary ice is used, either the ice or the fish should be packed in cans, plastic bags, or in separate compartments in the ice chest.



Under present laws, Iowa women need licenses only for fishing in state-owned lakes. The legislature will be requested to change this law, requiring women's fishing licenses for all state waters.



1958, Lake Macbride in Johnson County will be Iowa's biggest artificial lake with most 1,000 water acres. Part of the future lake's outline is marked in white. Not shown is an extensive arm in the upper right part of the picture.

OUR BIGGEST ARTIFICIAL LAKE

Changes being made in Lake Macbride in Johnson County will increase its size to nearly 1,000 acres and make it Iowa's biggest artificial lake. A planned 29-foot increase in the height of the lake's dam will enlarge the present 150-acre lake to an estimated 934 acres.

Conservation Commission officials said the dam is being rebuilt in order to prevent high levels of the nearby Coralville Dam impounding from inundating Lake Macbride State Park.

Lake Macbride is formed by a dam across Mill Creek, a tributary of the Iowa River. This structure separates the lake from the Iowa River and the future conservation pool of the Coralville Dam. At its present height, the dam would not prevent high waters of the flood pool from flooding Lake Macbride and the surrounding park area, and park officials said the Macbride dam will be rebuilt in order to protect the lake and park. The higher dam will add about 800 acres to the present lake.

New Facilities

The park's bath house, boat dock, sewer system and other facilities will be relocated to conform with lake changes. The new road and park entrance will be in the north side of the park. Contracts for construction of the dam and allway have been let by the U. S. Army Engineers to the Concrete Materials and Construction Company of Cedar Rapids.

Land acquired in the Lake Macbride area by the Army Engineers will probably be turned over to the Conservation Commission, park officials said. They added that these lands will be administered under present state park regulations which prohibit construction of private docks and cabins in state park areas.

The completion date for the Lake Macbride dam is December 1, 1957, and access roads must be completed by August 31, 1957 under the contract.

The increase in size of Lake Macbride, coupled with completion of the Coralville Reservoir, will turn Johnson County into a virtual land of lakes. It has been estimated that the conservation pool of the Coralville Reservoir will contain nearly 1,700 acres of water, extending above the dam for almost 17 miles.

DIVING DUCK BOAT DUNKS DUCK HUNTERS

George Spicer, George Zalesky and Ed Houck, all of Cedar Rapids, got a ducking in Lake Odessa as the duck season opened.

Their boat loaded with hunting equipment capsized right after 5 a.m. as they and other hunters were converging on the lateral ditch in Lake Odessa.

The boat carrying the Cedar Rapids men hit the wash of another boat in the darkness and nose-dived into the lake. All of the men's equipment went into the water, which is about six feet deep at the site of the mishap.

They succeeded in reaching shore with the assistance of other hunters and suffered no injuries other than being chilled by the water. They were not wearing life preservers.

They probed the lake bottom for their lost equipment and it was reported that they had recovered all their possessions except one shotgun.

Dan Nichols, state conservation officer, attributed the accident to "too small a boat and too big a load". He advised duck hunters not to overload their boats and to wear life preservers.—*Wapello Republican*.

HOW MANY PHEASANTS KILLED?

In the past, Iowa's game managers have made wistful estimates of the number of pheasants killed during a given season. But although such estimates were interesting to make, the wildlife men also knew that reasonably accurate estimates were difficult to make with the data available.

Not that an exact kill figure of Iowa ringnecks would be of great value, but it would be of interest. Generally, Iowa's game management is based on trends rather than concrete population or kill totals. Such trends can be computed with confidence, and hunting laws are backed up with "ups" or "downs" of game and animal populations.

But just the same, a lot of us have wondered about the total gun harvest of pheasants.

About 10 years ago, using bag checks obtained by conservation officers and multiplied by the estimated total of pheasant hunters, a figure of over 1,000,000 was obtained for the total kill of one season. However, the total number of pheasant hunters was a relatively unknown factor.

With statistics supplied by the Iowa Hunting and Fishing Survey, Conservation Commission officials believe a more accurate estimate can be made. Survey results show that the average Iowa hunter spent 3½ hours last fall on each pheasant hunting trip. The survey also showed that about 1,346,000 pheasant hunts were made.

In other words, about 4,711,000 hours were spent afield last fall in pursuit of John Ringneck.

Hundreds of bag checks made by conservation officers and game biologists led the Biology Section to estimate 2.9 hours of hunting spent last fall for each pheasant

killed.

The rest is simple arithmetic. With these figures, we reach an estimate of over 1,600,000 pheasants shot in 1955. In anyone's book that's a lot of poultry.

But even this massive kill wasn't enough to seriously deplete Iowa's pheasant population. Adult pheasant counts early in the year indicated a good winter carryover and a large number of breeding adults. Even in spite of the lowered brood success last spring, this fall's pheasant crop emerged as a large one.

There are several reasons for this ability of our pheasants to lose over 1½ million adult males with no injury to the population. First, pheasants are polygamous, and one rooster is sufficient for as many as 10 hens. If no hens are shot, over one-half of the roosters can be killed and still provide enough breeding adults to sustain the population or even increase it, depending on weather and other factors.

Second, Iowa's rich soil provides high-energy food, with particular thanks to the mechanical corn picker.

Third, the ringneck is a tough, hardy bird, and as smart as they come. Given decent nesting and wintering cover, he does a good job of holding his own against wild and human predation.

At present, Iowa pheasant hunting ranks near the top, and Iowa hunters are the envy of about 44 other states. Keeping it that way depends on farmers and sportsman, wise use of soil, vital nesting and wintering cover, and survival of the hens.

To keep your metal spoons and spinners shiny at home, use silver polish or jeweler's rouge, but when out fishing, try rubbing them with a wet rag and ashes from your cigar or cigarette.



Jim Sherman Photo

This scene occurred over one and one-half million times last fall, according to recent estimate. But although over half our adult rooster pheasants may be shot off during a season, the hardy population usually bounces back under protection of hens and good cover conditions.



There's a hunter here, though distant ducks might never know it. Bill Aspelmeier of the Colyn Game Area demonstrates cornstalk camouflage with a half-dozen stalks. A few stalks break his outline; many stalks would provide a solid mass that might frighten ducks.

FEEDER FIELDS AND THE FAT MALLARDS

By John Madson
Education Assistant

By mid-November, the big pushes of waterfowl migrations are usually over. A lot of ducks have gone on through but many remain, resting and preening safely on big lakes and reservoirs while frustrated hunters rage along the shorelines.

This is the part of the duck season that separates the men from the boys. The weather is growing cruel, the plush shooting of the early season has faded, and the resident birds have grown amazingly wise.

But there's a weak link in their daily habits. As long as they stay on the big water they are safe, but sooner or later they must head for open cornfields to feed. A patient hunter can be there when the birds come to dinner.

Late-season cornfield hunting for ducks has grown in recent years, and some hunters have given it a lot of thought and effort. We sat down with three of them recently and talked over their methods.

Early and Late

One of the Conservation Commission's finest hunters is Glen Yates of the Federal Aid Section. A veteran waterfowler, Glen has killed many ducks in open cornfields and has some ideas about it.

In fair weather, late mallards usually go out to feed early in the morning and again in the evening. Although they are unpredictable, they may return to the same fields several days running. Glen usually spots these feeder birds in the evening, following them in a car until he locates the fields they are using. He believes that if they use a particular field in the evening, they'll more than likely work the same field the next morning.

He also believes that some ducks do their "scout feeding" in the

evening, and their serious eating the next morning. This is especially true if the field they used the night before had plenty of waste corn. The barer and cleaner of weeds the field is, the better Glen likes it. So do the ducks. These late mallards seem to be leery of weedy, well-covered cornfields.

Heavily used fields are invariably broad and flattish, but sometimes with a slight rise of ground for a vantage point. Once Glen has pinned down such a feeding field, he is there the next morning well ahead of shooting time. He makes a thin nest of cornstalks with his back to the wind, and may or may not use decoys. However, he usually takes a call which sometimes pulls in suspicious birds.

Settled in a likely cornfield, Glen lies absolutely motionless. The birds may land downwind, and if they do he doesn't try to sneak them. Many times Yates has had feeding mallards work up to him and surround him before he went into action. If the birds are feeding away from the hunter, they will probably be boiling up over each other in a rolling motion that is faster than the hunter can sneak.

Yates also believes that if one flock of ducks starts out in a particular direction from the "mother lake", most of the other ducks in the area may head in the same general direction. Often the birds go off a lake against the wind, and drift back on the wind.

All Day Long

Later in the season, on lowering, gloomy days that hold promise of snow, ducks may feed in fields the entire day. In such weather they seem to lose some caution, and the gunner can have excellent day-long shooting in a single field. New arrivals may also tend to feed throughout the day, Yates com-

ments, and they do not usually venture too far from the main body of water. As they put on fat and learn the country, they venture farther away.

Another of Glen's prized shooting times is just before the final freeze-up. Ducks may throw caution to the winds then, and feed all day before heading south. A lucky hunter, hitting such a situation, can have a field day.

Yates doesn't get too excited about trying to sneak on those late mallards. "Cornfield mallards can be mighty touchy," he explains. "Now and then they will boil up out of a field for no apparent reason, and then settle down again. Or they may swing the field a couple of times, as if to look it over." So Glen advises against sneaking as a general practice, and advises hunters to be in the field when the birds settle in.

Watches Feeding Patterns

Frank Heidelberg, the Commission's special officer and pilot, agrees with Glen.

Best of all, he believes, are those sleety, windy, or snowy days of late November when mallards may feed in cornfields all day.

The Flying Dutchman advises keeping the general feeding patterns of the ducks under observation, and when bad weather comes, be on hand!

Frank has a personal suspicion that when flocks of ducks keep stringing into a field in the evening, chances are they'll be there again in the morning. If big single flocks come during the evening, Frank thinks that they may not return in the morning in ordinary fall weather. If the weather is dirty, that's another story...

Heidelberg likes the center of a big "feed field" on the downwind side of a small rise if possible. He throws a few cornstalks over himself to break his outline, and if there is snow he dresses in white. Then, if the ducks land downwind from him, he's ready for them.

Frank will lie on his belly, facing downwind, with one leg drawn up under him. When action comes, he can jump quickly to a crouching position and handle his gun easily.

Two-Man Job

Jack Musgrove of the State Historical Building is an experienced duck hunter who doesn't like to work fields early in the season, but prefers to wait until bad weather and snow.

Like other cornfielders, Jack follows the birds out in the evening to mark them down and is there the next morning when they return. The night before, if the ducks are working a new field, Jack finds that they may swing over it repeatedly as if watching for food and enemies. If they've used the field before, they seem to come in with few circles.

Jack regards duck trailing as a two-man job, one driving and one carefully watching the ducks. He keeps his eye peeled for milling flocks, a sign that the birds may be dropping into a field. Keeping track of moving birds isn't too hard in flat counties that are evenly marked off in section roads.

The next morning—if the wind is in the same direction—Jack is in the field. If there's snow, he's in white, maybe with a few cornstalks over his back to help the effect. He keeps low and motionless at all times. That's one thing that all these cornfield hunters stress. Musgrove uses heavy shot as a rule, for some of the gunning is at extreme ranges.

According to Musgrove, cornfield mallards will invariably feed upwind. If you must stalk them, Jack cautions the hunter to come up on the birds from the side, *crawling*, rather than from behind or head-on.

Well, there's a few tips on hunting the feeder fields. There's not much more to be said, for this sort of thing is compounded of luck, skill, acute observation and infinite patience. At best, late season field

(Continued on page 86)



Late cornfield mallards are fat, heavy and succulent. They get that way by being cautious. The birds may swing a field many times before landing, often zooming in power-dives that shake up the most experienced hunter.

THE IOWA HUNTING AND FISHING SURVEY-1955*

Since the end of World War II, outdoor recreation has soared in Iowa, following a national trend that startles veteran fish and game workers.

America has gone outdoors to play, and the impact of an increased demand for more hunting and fishing has been felt in all state fish and game departments. The reasons are known: a nation on wheels, more money available to more people, improved "fool-proof" sporting equipment, more leisure time, and an overwhelming urge to relax business and social pressures.

But even as Iowans turned their faces to the fields and rivers, conservation officials faced a quandary. They were in the unhappy position of heading a multi-million dollar operation without knowing what the customers were spending, or even how many customers there were. Sportsman increase is partly reflected in hunting and fishing license sales, but thousands of Iowans are not required by law to be licensed.

Little-Known Customer

A careful inventory is kept of the stock—our fish and game populations—by the various biologists, but what about the consumer? What was he doing? Who was he? How much was he spending? And above all, what did he expect and want of Iowa's hunting and fishing?

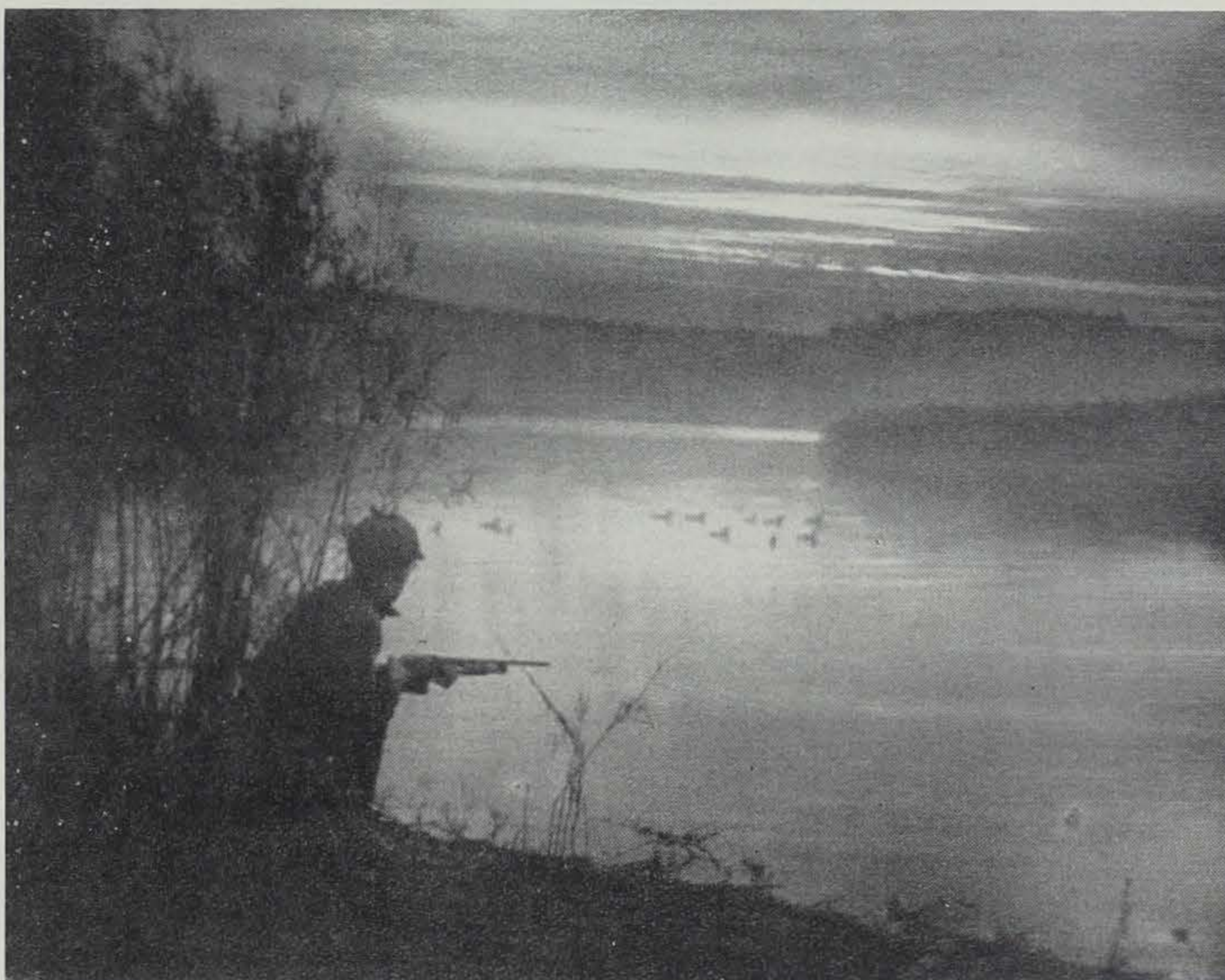
Early this year a national hunting and fishing survey was sponsored by the U. S. Fish and Wildlife Service at the suggestion of the International Association of Game, Fish and Conservation Commissioners.

The Service had appointed Crossley, S-D Surveys, Inc. of New York City, an independent survey group, to conduct the extensive study in all states. The survey findings were on a national level, with only limited information of specific states. The Iowa Conservation Commission contracted with the agency to conduct a concurrent Iowa survey at the time the national study was being made. This involved asking Iowans about Iowa hunting and fishing in an effort to aid in Iowa fish and game programs. The questions concerned the activities of hunters and fishermen during the calendar year of 1955.

Broad Highlights

In early October, final results of the survey were sent to the State Conservation Commission, and in a summary of the highlights of the study, it was revealed that:

48.9 per cent of the households in Iowa (418,000) have at least one fisherman or hunter.



Though Iowa is not ranked as a resort state or outdoor paradise, thousands of Iowans keep too busy hunting and fishing to worry about it. In snow and in sun they take their share of game and fish, and it's impossible to put a price tag on the value received.

2. In these households, 647,000 persons aged 12 or over fished or hunted in 1955.
3. 525,000 Iowans fished, 359,000 hunted during 1955. 525,000 fished in fresh water, 1,000 in salt water. 355,000 hunted for small game, 9,000 for big game, 72,000 for waterfowl. (Due to those who did more than one, these total more than the net numbers of hunters and fishermen.)
4. In rural territory, 23.9 per cent of Iowans fished and 17.6 per cent hunted.
5. While 35.5 per cent of adult males fished, the figure is 14.6 per cent for adult females. And while 33.3 per cent of adult males hunted, only 1.2 per cent of females hunted.
6. Young people as a factor in Iowa hunting and fishing are shown by age comparison. 33 per cent of those aged 12-17 fished, compared with 31.4 per cent for the age group 25-44. 21.5 per cent of those aged 12-17 hunted, compared with 23.6 per cent for the age group 25-44.

***COMPILED BY CROSSLEY, S-D SURVEYS, INC., NEW YORK CITY**

7. 77.3 per cent of the fishermen and 82.7 per cent of the Iowa hunters were licensed.
8. The total spent for fishing and hunting in Iowa during 1955 was \$42,407,000; for fishing, \$28,498,000; and for hunting \$13,909,000.
9. The average expenditure per fisherman 12 years of age and over was \$54.28, and for each hunter aged 12 or over, \$38.74.

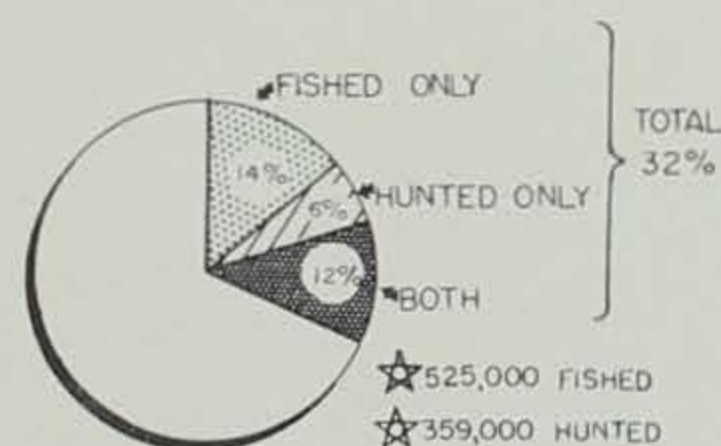
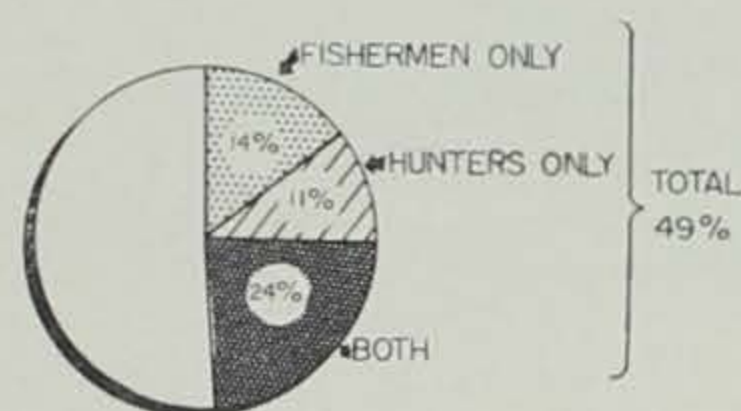
The People Who Hunted and/or Fished

Their total number:

The results show the following numbers and percentages of households with fishermen and/or hunters in 1955 (aged 12 and over), and the number of individuals represented. The number of individuals is in thousands.

	Fishermen and/or Hunters		Fishermen Only		Hunters Only		Both	
	Number	%	Number	%	Number	%	Number	%
Households	418,000	48.9	123,000	14.4	90,000	10.5	205,000	24.0
Individuals	647,000	32.0	288,000	14.3	122,000	6.0	237,000	11.7

The median number of days spent partly or wholly fishing or hunting in 1955 was 12 days. Of the total man-days spent hunting or fishing in 1955, 92.8 per cent were spent within the state and 7.2 per cent outside of the state.



Sex and Age Characteristics

Fishermen and/or hunters represented these percentages by sex and age groups:

Of Total Adults	Total %
Males	47.3
Females	15.1
Of Total Aged	
12-17 years	38.2
18-24 years	34.5
25-44 years	39.1
45 years and over	23.9

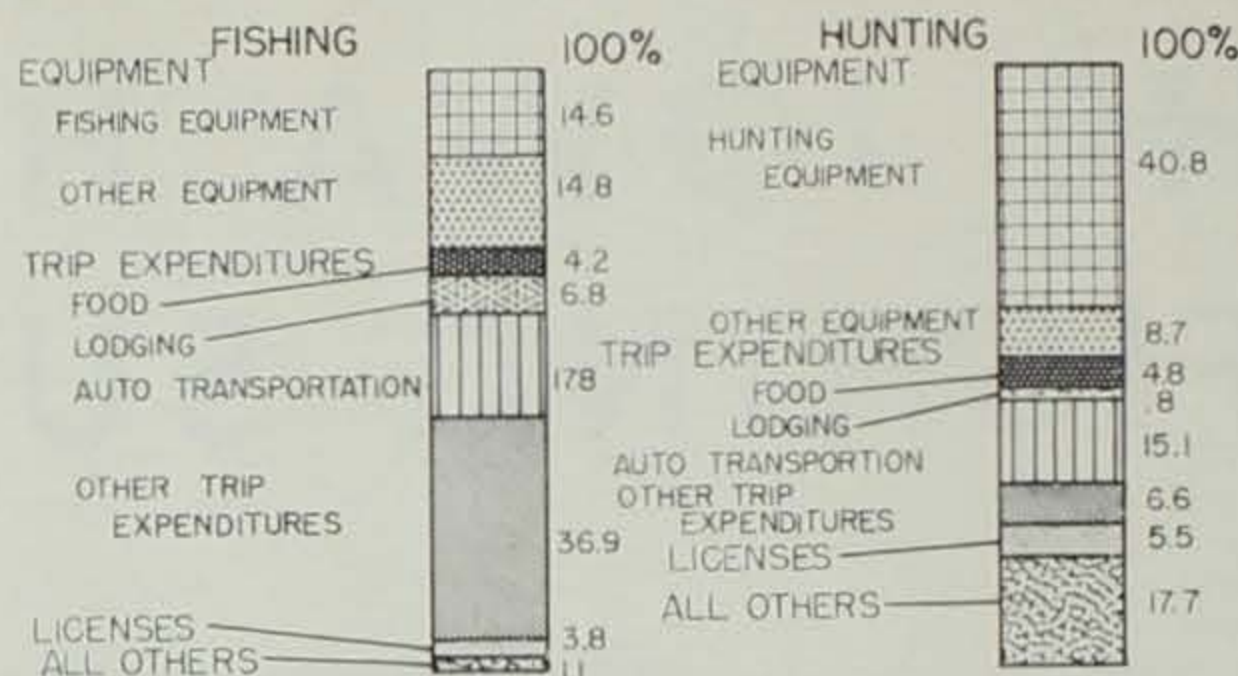
(These age groups raise a much-argued question. Why the slight lag in the 18-24 year age group? Maybe young sportsmen made temporary concessions to love, and resumed their outdoor sports after marriage in the 25-44 years age group.)

Where They Live

The variation in incidence of fishermen and hunters by population density groupings is as follows:

Households With Fishermen and/or Hunters	Total %
Suburbs, small metropolitan centers	47.1
Small Cities	55.4
Rural Territory	46.6
Individuals Who Fished and/or Hunted	
Suburbs, small metropolitan centers	30.9
Small Cities	36.6
Rural Territory	30.3

DIVISION OF EXPENDITURES



TRANSPORTATION, LODGING, FOOD AND REFRESHMENT COSTS EXCLUDED WHEN TRIP NOT PRIMARILY FOR FISHING OR HUNTING OTHERWISE, AUTOMOBILE COST COMPUTED AT 3.5 CENTS PER MILE FOR FUEL ETC. AND MEALS AT EXCESS OVER 31 CENTS BASIC HOME COST. EQUIPMENT RESTRICTED TO 1955 PURCHASES IN U.S. USED PRIMARILY FOR FISHING OR HUNTING.

Iowa showed a remarkably uniform grouping in these "population density groupings". In the national hunting and fishing survey, most sportsmen came from rural territories, probably because of easy access to fishing and hunting areas. In Iowa, about as many hunters come from metropolitan centers on a percentage basis as from rural territories, indicating a uniform interest in hunting and fishing in metropolitan centers and farm communities alike, and also a uniform accessibility to hunting and fishing areas. This is true because Iowa has no large metropolitan centers, and is essentially a rural and small town state where no one is far from open country.

Number Who Acquired Hunting and Fishing Equipment in 1955:

Shown are the percentages of total individuals who bought or received some kind of equipment primarily for fishing or hunting in 1955; also separately the percentages for equipment made purposely for hunting or fishing together with upkeep expenses incurred, and the percentages for general types of outdoor equipment used primarily for hunting or fishing together with upkeep.

Percentages of Individuals Who Bought or Received Equipment in 1955

	Total %
Some equipment primarily for hunting or fishing	23.0
Equipment made purposely for hunting or fishing, and upkeep	22.7
General types of outdoor equipment primarily for hunting and fishing, and upkeep	6.2

Hunting and Fishing Expenditures

In this table the amounts spent by fishermen and/or hunters in 1955 apply to persons aged 12 and over engaged in one or both of these sports for recreation only. All figures are in thousands of dollars.

	Total
Total Expenditures for Hunting and Fishing	\$42,407,000
Average per person	65.54
Equipment and Maintenance	\$15,270,000
Average per person	23.60
Specifically used for fishing or hunting (1)	9,829,000
General equipment used primarily for fishing or hunting (2)	5,441,000
Trip Expenditures	22,526,000
Food	1,861,000
Lodging	2,058,000
Automobile transportation	7,191,000
All other trip expenditures (3)	11,416,000
License Fees and Duck Stamps	1,841,000
Leases and Privileges	
All Other Expenditures (4)	2,770,000

- (1) Rods, reels, ammunition, etc.
- (2) Tents, boats, etc.
- (3) Non-auto transportation, refreshments, bait, guide fees, rentals, entrance fees, charter fees, pack-trip fees, etc.
- (4) Dogs and dog care, club dues, magazines and a variety of miscellaneous expenses.

THE FISHERMEN

Fishing Expenditures

Amounts spent by fishermen, aged 12 and over, in 1955 according to adopted definitions for recreational expenditures:

	Total
Total Expenditures for Fishing	\$28,498,000
Average per fisherman	54.28
Equipment and Maintenance	8,387,000
Average per person	15.97
Specifically for fishing (1)	4,154,000
General equipment used primarily for fishing (2)	4,233,000
Expenditures	18,730,000
Food	1,199,000
Lodging	1,941,000
Automobile transportation	5,087,000
All other trip expenditures (3)	10,503,000
License Fees	1,076,000
Losses and Privileges	
Other Expenditures (4)	305,000
Total for fresh water fishing	28,448,000
Total for salt water fishing	50,000

- (1) Rods, reels, lines, lures, hooks, nets, etc.
- (2) Sleeping and cooking equipment, special clothing, packs, boats, motors, etc., and maintenance.
- (3) Non-auto transportation, refreshments, bait, guide fees, rentals, entrance fees, charter fees, etc.
- (4) Club dues, magazines and a variety of miscellaneous expenditures.

	Total
Total Number	
Total 12 years of age and over	525,000
Percentage of total population of 12 years of age and over	26.0%
Number of households with one or more fishermen	328,000
Percentage of total households	38.4%
Number of fishermen per fishing household	1.6
The median number of days spent partly or wholly fishing in 1955	9 1/2 days.

Fishermen represented these percentages by sex and age groups:

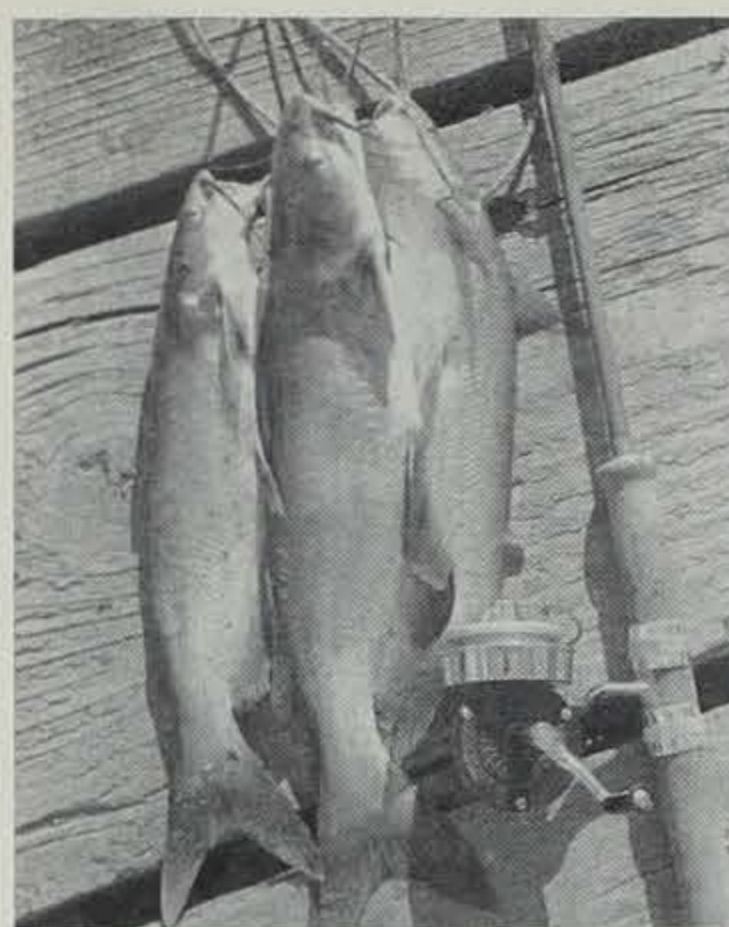
Of Total Adults	Total %
Males	35.5
Females	14.6
Of Total Aged	
12-17 years	33.0
18-24 years	20.7
25-44 years	31.4
45 years and over	20.8

Where They Live

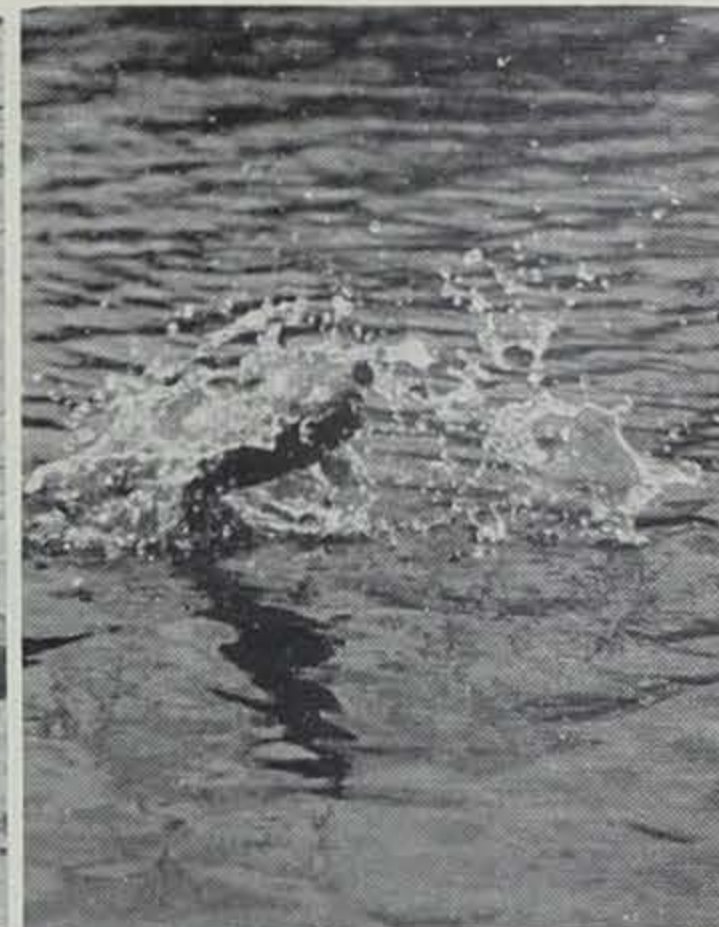
The variation in incidence of fishermen by population density groupings is as follows:



Iowa's favorite fish is the panfish group, which includes these crappies or "calico bass."



Channel catfish placed second in the survey, surprising many who believed catfish were at the head of the list.



A leading member of the "predator group" was the battling largemouth bass, common in many Iowa lakes and ponds.

Households With Fishermen

	Total %
Suburbs, small metropolitan centers	39.8
Small Cities	44.1
Rural Territory	35.1

Individuals Who Fished

Suburbs, small metropolitan centers	27.1
Small Cities	29.5
Rural Territory	23.9

Their License Status:

Percentages who fished with and without licenses:

Total Fishermen

	Total %
With	77.3
Without	22.7

Fishermen Not Hunters

With	70.8
Without	29.2

Number Who Acquired Fishing Equipment in 1955:

	Total %
Equipment made purposely for fishing, and upkeep	15.8
General types of outdoor equipment used primarily for fishing, and upkeep	4.5

Types of Fish Fished For and Types of Fish Preferred:

60.8 per cent of the fishermen fished for the pan fish group in 1955 and 41.7 per cent ranked this group as first choice. 36.8 per cent fished for catfish and 21 per cent reported this fish as first choice.

THE IOWA HUNTING & FISHING BILL 1955

FISHING



\$28,498,000
TOTAL

HUNTING



\$13,202,000
TOTAL

FAVORITE FISH AND GAME SPECIES



Carp ranked low as Iowa game fish in spite of their abundance and great fighting ability.

27.8 per cent were reported as fishing for the predator group, and 21 per cent ranked this group first. The "predator group" includes walleye pike, northern pike, and largemouth bass. The "panfish group" includes bullheads, perch, crappies, bluegills and sunfish, and yellow and silver bass. The "rough fish group" includes carp, buffalo, dogfish, and other rough fish that can be taken by angling.

Preferred Fishing Activity

	First Choice		Second Choice	
	Number	%	Number	%
Total Fishermen	525,000	100.0	525,000	100.0

Type of Fish Preferred

	Number	%	Number	%
Trout	23,000	4.4	18,000	3.4
Catfish	110,000	21.0	58,000	11.1
Smallmouth Bass	28,000	5.3	37,000	7.0
Predator Group	110,000	21.0	30,000	5.7
Panfish Group	219,000	41.7	67,000	12.8
Rough Fish Group	23,000	4.4	12,000	2.3

Preferred Fishing Locations for Different Types of Fish:

Types of Fish	Total Fishermen		Lake		Stream	
	Number	%	Number	%	Number	%
Trout	55,000	100	5,000	9.1	50,000	90.9
Catfish	193,000	100	33,000	17.1	159,000	82.4
Smallmouth Bass	87,000	100	39,000	44.8	48,000	55.2
Predator Group	146,000	100	128,000	87.7	18,000	12.3
Panfish Group	319,000	100	238,000	74.6	81,000	25.4
Rough Fish Group	51,000	100	12,000	23.5	39,000	76.5



An angling minority fished trout last year. Although small in numbers, trout fishermen may fish for nothing else.

Typical Hours Spent by Fishermen on Trips for Different Types of Fish

Types of Fish	Median Hours Spent
Trout	3
Catfish	3½
Smallmouth Bass	4
Predator Group	5½
Panfish Group	4
Rough Fish Group	4

Where They Fished:

Type of Fish	Total Fishermen		Natural Lakes		Artificial Lakes		Farm Ponds		Streams	
	Number	%	Number	%	Number	%	Number	%	Number	%
Trout	55,000	100	5,000	9.1	3,000	5.5	47,000	85.4
Catfish	193,000	100	25,000	13.0	24,000	12.4	3,000	1.6	172,000	89.0
Smallmouth Bass	87,000	100	35,000	40.2	3,000	3.4	3,000	3.4	58,000	66.7
Predator Group	146,000	100	124,000	84.9	3,000	2.1	4,000	2.7	28,000	19.3
Panfish Group	319,000	100	203,000	63.6	23,000	7.2	18,000	5.6	124,000	38.8
Rough Fish Group	51,000	100	11,000	21.6	3,000	5.9	42,000	82.5

PERCENT OF FISHERMAN
PREFERRED

PAN FISH 41.7 %



CATFISH 21 %

PREDATOR GROUP
PIKE & ETC 21 %

TROUT 44 %

ROUGH FISH 4.4 %

PERCENT OF HUNTERS
PREFERRED

59 % PHEASANT

13.4 % COTTONTAIL
RABBIT

9.2 % SQUIRREL



8.1 % WATERFOWL

3.6 % RACCOON

2.8 % FOX

1.7 % QUAIL

Types of Fish Fished in 1955:

	Number	%
Total Fishermen	525,000	100

Types of Fish

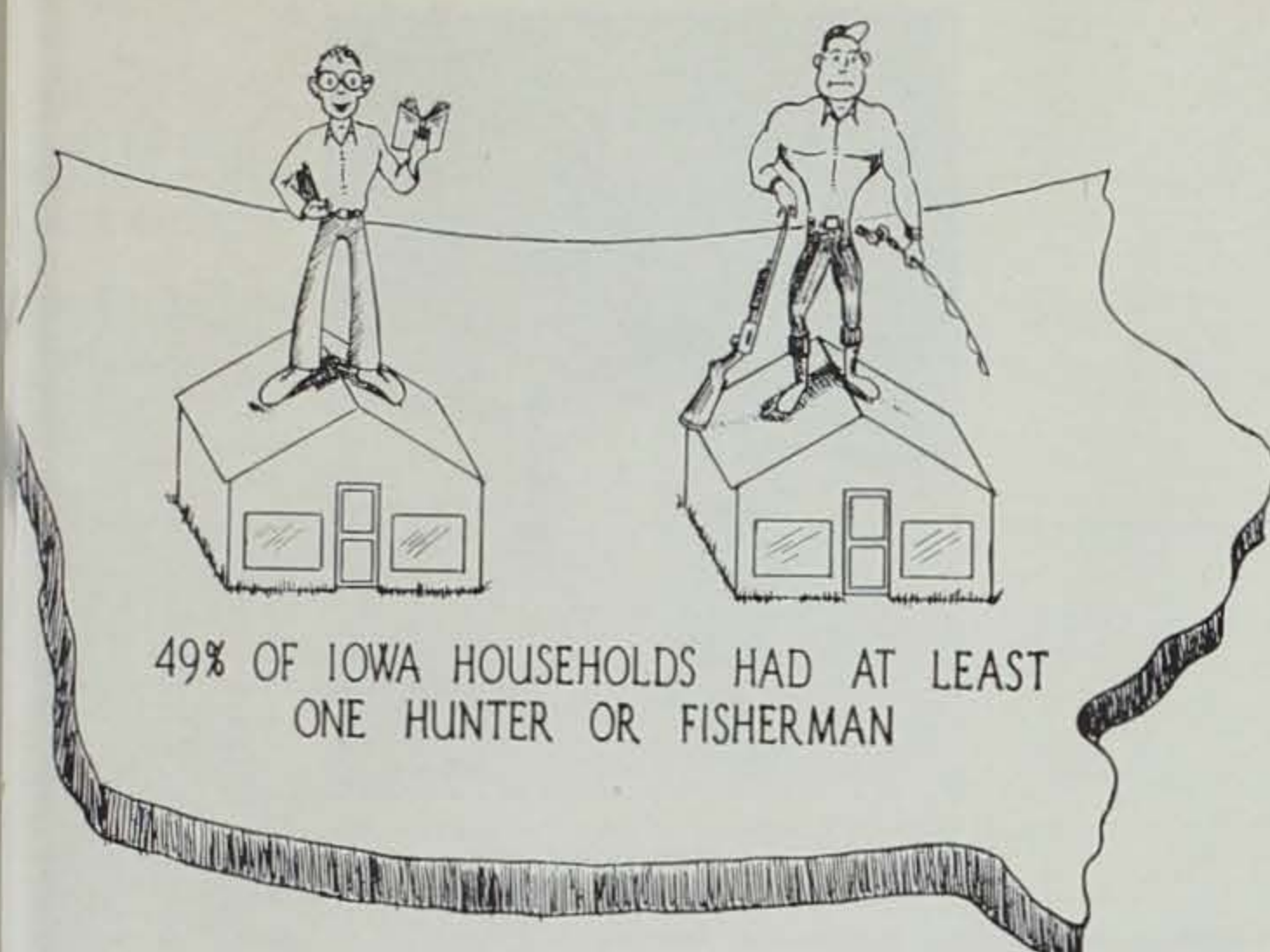
	Number	%
Trout	55,000	10.5
Catfish	193,000	36.8
Smallmouth Bass	87,000	16.6
Predator Group	146,000	27.8
Panfish Group	319,000	60.8
Rough Fish Group	51,000	9.7

Number of Fishing Trips for Different Types of Fish:

	Number	%
Total Trips	8,538,000	100

Types of Fish

	Number	%
Trout	607,000	7.1
Catfish	2,128,000	24.9
Smallmouth Bass	626,000	7.3
Predator Group	1,632,000	19.1
Panfish Group	2,824,000	33.1
Rough Fish Group	721,000	8.4



THE HUNTERS

Hunting Expenditures

Amounts spent by hunters, aged 12 or over, in 1955 according to adopted definitions for recreational expenditures.

	Total
Total Expenditures for Hunting	\$13,909,000
Average per hunter	38.74
Equipment and Maintenance	6,883,000
Average per hunter	19.17
Specifically for hunting (1)	5,675,000
General equipment used primarily for hunting (2) ..	1,208,000
Trip Expenditures	3,796,000
Food	662,000
Lodging	117,000
Automobile transportation (3)	2,104,000
All other trip expenditures	913,000
License Fees	765,000
Leases and Privileges	
All Other Expenditures (4)	2,465,000
Total for big game hunting	567,000
Total for small game hunting	10,818,000
Total for waterfowl hunting	2,524,000

- (1) Rifles, shotguns, cartridges, decoys, etc.
- (2) Sleeping and cooking equipment, special clothing, packs, boats, trailers, etc., and maintenance.
- (3) Non-auto transportation, refreshments, guide fees, rentals, entrance fees, pack-trip fees, etc.
- (4) Club dues, magazines, taxidermy and a variety of miscellaneous expenditures.

\$134,000 was spent for duck stamps (included in license fees).

\$2,154,000 was spent for dogs and their maintenance, including purchase, board, food for the year, training, veterinary services and all other expenses (included in all other expenditures).

Their Total Number	Total
1955 total, aged 12 or over	359,000
Percentage of total population of age 12 and over	17.8%
Number of households with one or more hunters	295,000
Percentage of total households	34.5%
Percentage of hunters who fished	66.0%

The median number of days spent partly or wholly hunting in 1955 during the year was 8 days.

Hunters represented these percentages by sex and age groups:

Of Total Adults	Total %
Males	33.3
Females	1.2
Of Total Aged	
12-17 years	21.5
18-24 years	27.6
25-44 years	23.6
45 years and over	9.7

Where They Live

The variation in incidence of hunters by population density groupings is as follows:

Households With Hunters	Total %
Suburbs, small metropolitan centers	27.7
Small Cities	40.9
Rural Territory	34.4
Individuals Who Hunted	
Suburbs, small metropolitan centers	13.6
Small Cities	21.7
Rural Territory	17.6

Their License Status:

Percentage who hunted with and without licenses:

Total Hunters	Total %
With	82.7
Without	17.3
Hunters Not Fishermen	
With	78.7
Without	21.3
Big Game	
With	88.9
Without	11.1
Small Game	
With	82.5
Without	17.5
Waterfowl	
With	88.9
Without	11.1

Number Who Acquired Hunting Equipment in 1955:

	Total %
Equipment made purposely for hunting, and upkeep	14.8
General types of outdoor equipment used primarily for hunting, and upkeep	2.8

Types of Game Hunted and Types Preferred:

81.9 per cent of the hunters were reported as having hunted pheasants; 47.9 per cent cottontail rabbits; 40.1 per cent squirrels; and 20.1 per cent waterfowl. As first choice, 59 per cent chose pheasants; 13.4 per cent chose cottontails; 9.2 per cent chose squirrels; and 8.1 per cent chose waterfowl:



Waterfowl hunters may be outranked, but they are usually specialists with much invested in time and equipment.



John Ringneck, the king of Iowa hunting. About 294,000 Iowans hunted him last year and voted him their favorite.



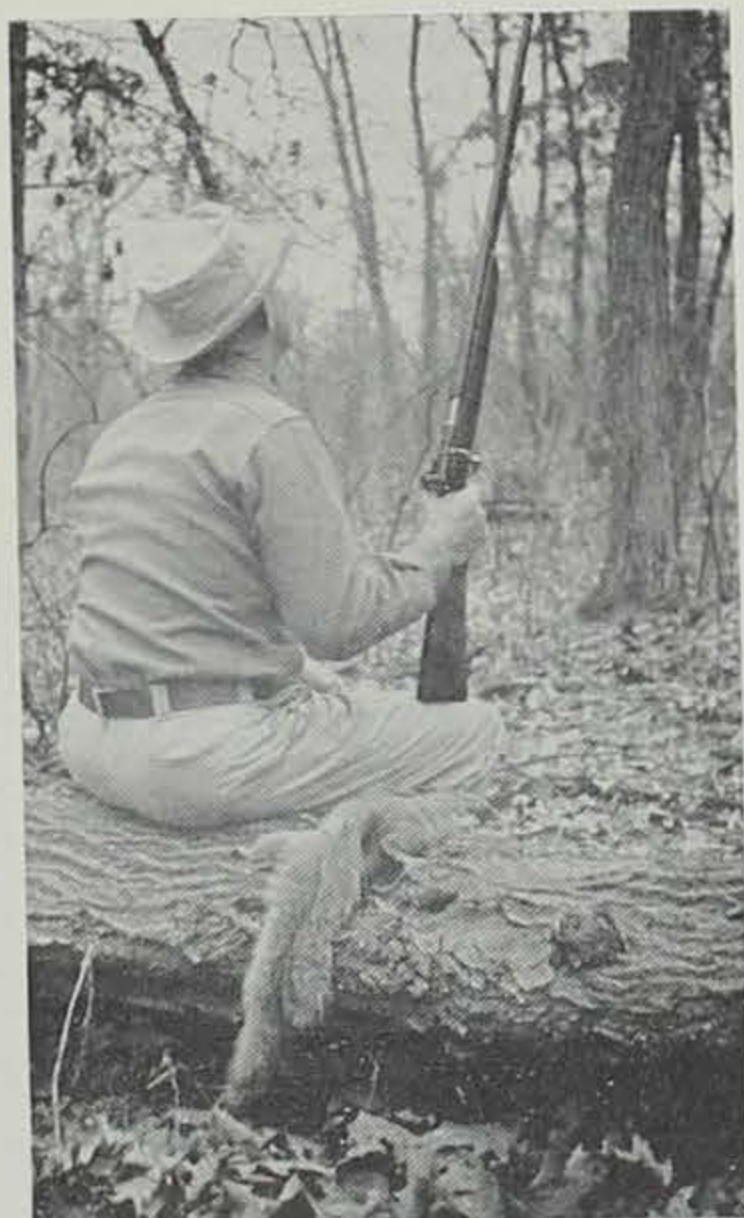
Cottontail rabbits — the "giants of the weedpatch"—ranked second in the list of favorite game species.

Types of Game Hunted in 1955.

Types of Game	Total	
	Number	%
Total Hunters	359,000	100
Pheasant	294,000	81.9
Quail	41,000	11.4
Cottontail	172,000	47.9
Squirrel	144,000	40.1
Raccoon	29,000	8.1
Fox	38,000	10.6
Waterfowl	72,000	20.1

Number of Hunting Trips for Different Types of Game:

Types of Game	Total	
	Number	%
Total Trips	4,752,000	100
Pheasant	1,346,000	28.3
Quail	139,000	2.9
Cottontail	1,010,000	21.3
Squirrel	889,000	18.7
Raccoon	376,000	7.9
Fox	375,000	7.9
Waterfowl	617,000	13.0



Squirrels ranked high in the list of favorite game. The first to be hunted each fall, they are abundant and widespread.



The red fox surprised game managers with its popularity. It ranked above quail and just below waterfowl as a game species.

Typical Number of Hours Spent by Hunters on Trips for Different Types of Game

Types of Game	Median Hours Spent
Pheasant	3½
Quail	3
Cottontail	3
Squirrel	3
Raccoon	3
Fox	4
Waterfowl	4

Preferred Type of Hunting Activity:

Type of Game	First Choice		Second Choice		Third Choice	
	Number	%	Number	%	Number	%
Total Hunters	359,000	100	359,000	100	359,000	100
Pheasant	212,000	59.0	62,000	17.3	17,000	4.8
Quail	6,000	1.7	10,000	2.8	8,000	2.2
Cottontail	48,000	13.4	52,000	14.5	49,000	13.7
Squirrel	33,000	9.2	54,000	15.0	38,000	10.6
Raccoon	13,000	3.6	2,000	.6	1,000	.3
Fox	10,000	2.8	9,000	2.5	7,000	1.9
Waterfowl	29,000	8.1	19,000	5.3	10,000	2.8



Although quail was a minor game species last year, it is still "The Bird" to thousands of Iowa hunters.

PARKS AND LICENSES

Included in the survey were special questions to determine the average attitude of persons queried toward increase in hunting and fishing license fees and expansion of state parks and means of financing such expansion.



About 75 per cent of the sportsmen contacted favored an increase in license fees if the additional revenue was used to buy and manage more public hunting and fishing grounds.

An average of three-fourths of the hunters and fishermen questioned favored an increase in hunting and fishing license fees if the additional revenue was used to furnish more hunting and fishing areas and to manage such areas. Of the total heads of households queried, 57.3 per cent expressed a willingness to pay increased license fees for revenue to open and develop more hunting and fishing grounds. About 34 per cent were unwilling to pay such fees and 8 per cent gave either qualified approval or were undecided.

Among the 81 per cent of heads of households who favored the expansion and improvement of state parks, 51 per cent felt that

such projects should be financed by part of the state tax, 34 per cent through a small admission fee, and 11.4 per cent by an annual use stamp.

About 34 per cent of the heads of households indicated familiarity with the state's program of fish, game and forest management.

For simplicity, the survey figures are given in round numbers, although calculations did not necessarily result in round numbers.

Survey officials stated that "the sample is subject to a possible 5 per cent sampling error of numbers of hunters and fishermen, man-days spent and money expended, and up to 20 per cent on some other categories." The officials added that "every effort was made to keep well within permissible limitations, and these were held to a minimum through widespread publicity about the survey, memory aids, guarantees of anonymity, and highly meticulous interviewer training."

Biggest Sports

Hunting and fishing are our greatest sports, outstripping all others. They are unique, and particularly valuable because they have no age limits. Long after a man's football days are past he can gain exercise and personal excitement in active sport if he is a hunter or angler. This is true on a national scale, and studies indicate that fishing—not baseball—is the great America game.

Although complete figures on Iowa's football, baseball and basketball are not available, they are probably eclipsed by hunting and fishing expenditures. During 1955, Iowa's hunters and anglers spent more on their sports than they spent on clothing. The outdoor bill was \$42,407,000, and according to the Iowa Development Commission total men's clothing sales were about \$40,000,000. The total hunting and fishing bill almost matched the total spent in all Iowa dairies, bakeries and delicatessens combined, and is more than one per cent of the total personal income of all Iowans last year.

Placing a price tag on a state's hunting and fishing activities is a poor yardstick of total values, and show a superficial picture. There are no ways to scale the deeper values of the field sports and survey teams are necessarily limited to graphic and tabular measurements of man-days, dollars and general preferences.

In this resume of the Iowa hunting and fishing survey, only these obvious measurements can be indicated. This is probably sufficient, for if a sportsman knows the meaning of fishing and hunting there is no need to measure or explain it. If he does not feel the basic values of fish and game, he could not understand them even if they were measurable.

Such values lie within the motives of the sportsman, and can be surveyed and measured only by himself.

But the concrete figures and statistics provided by the survey are infinitely useful to the Iowa Conservation Commission. For the first time, a concerted effort has been made to analyze the wants, needs and activities of the Iowa sportsman, and future park, fish and game programs will be scaled to those needs and desires.



Heavily used by millions of visitors, state parks suffer from inadequate maintenance and facilities. Too-small parking lots, picnic areas and beaches are the bottlenecks of weekend park enjoyment. Over half of the Iowans contacted favored financing of improved facilities by part of the state tax; 34 per cent advocated a small admission fee to foot park bills.

Christmas Is Coming



And for your favorite sportsman, farmer friend, or fishin' buddy, no gift could be more useful and welcome than *Iowa Fish and Fishing*.

The new 377-page edition has been hailed by sportsmen, scholars and fisheries workers throughout America as one of the finest books on freshwater fishing. Written by a fish and game department for beginner and expert alike, it includes both popular and technical information, vividly presented and beautifully illustrated.

Sixty-three full-color illustrations of fish by Maynard Reece, one of the nation's outstanding fish and wildlife painters.

Packed with fishing lore, life histories of fish, and where, how and when to fish in Iowa. It includes descriptions and locations of all major Iowa fishing waters, and chapters on natural baits, equipment, and the fine points of angling for all Iowa game fish.

For only \$2.50, it's a wonderful Christmas bargain. Order now! Send cash, check or money order to the State Conservation Commission, East 7th and Court, Des Moines, Iowa. We'll mail it to whomever you wish, postpaid, with a gift card bearing your name.



See how Iowa deer hunters reverse their squirrel season tactics and hunt from trees. It enables the hunter to see movement over a wide area, but he must remain motionless himself.

Rex Peadary Photo

GUN SEASON FOR DEER: DECEMBER 8 AND 9

Iowa's fourth gun season for deer will get under way early next month, with shooting allowed on December 8 and 9, both dates inclusive. The entire state will be open.

Regulations are about the same as last year, with deer of any age or sex allowed, and daily shooting hours from 8 a.m. to 4 p.m.

Lawful weapons will be 10-, 12-, 16- and 20-gauge shotguns shooting rifled slugs only. Rifles will not be allowed.

The use of dogs, domestic animals, automobiles, aircraft, or any mechanical conveyance, salt or brine is prohibited. All hunters required to purchase licenses must possess a 1956 Iowa deer license and wear a red license number and insignia provided while hunting deer. A metal locking seal bearing license number of licensee and year of issuance must be affixed to the carcass of each deer between

the tendon and bone of hind leg before the carcass can be transported.

The Iowa deer season will be open to Iowa residents only. Owners or tenants of land and their children may hunt, kill and possess one deer without a deer license, provided it is not removed from said land whole or in part unless tagged with a locking seal. Such seals are available from local conservation officers after the deer has been killed.

A hunt report postal card provided with each license must be mailed to the State Conservation Commission in Des Moines within three days after close of the season, stating whether a deer has been killed or not. Licensees failing to return this card may be refused licenses for subsequent deer seasons.

Officials of the Biology Section of the Conservation Commission

said that three checking stations will be set up to weigh and age deer for hunters.

These stations will be located at:

Lansing: At the Standard Oil Station on Main Street.

Cherokee: At the Quinn Brothers Mobil Oil Station in the 300 block of East Main Street, near the junctions of Highways 3 and 5.

Hamlin: At the Anderson Service Station at the junctions of Highways 71 and 64.

Although hunters are not required to have deer checked at checking stations, biologists stated that it would be greatly appreciated. Accurate weights, measurements and age estimates enable biologists to determine the condition of the deer herd, age and sex ratios, and to set seasons with better knowledge of Iowa deer.

Commission officials estimate the present Iowa deer herd at about 14,000 animals, much the same as last year's population. Bowhunters have reported seeing good numbers of deer, with 24 successful hunters sighting a total of over 200 deer.

A drawing for gun licenses will not be held this year, for total gunhunting deer license sales were under 6,000. A total of 5,416 gun licenses were issued. However, this represents an increase over last year's license sales for a total of 1,280 bowhunting licenses were sold, bringing total license sales to nearly 7,000.

However, a provision for a special drawing for gunhunting ap-

plicants was set only in case gun license sales exceeded 6,000, which they did not. There was no limit on the number of bow licenses available.

WARDEN'S TALES

Ward Garrett, veteran officer of Pottawattamie County, brought a couple of warden's tales to the state fair.

He told of once checking a fisherman's license at Carter's Lake, an area that lies partly in Iowa and partly in Nebraska.

The angler asked to see Ward's "sticker," and Ward showed him his Iowa badge.

The man looked it over and said, "You're gonna have to dig deeper than that. I think I'm fishin' in Nebraska."

So Ward produced his U.S. Fish and Wildlife Service badge.

The man took a long look and gasped, "Man, that's one of them 'Us' badges! You didn't have to dig that deep!"


Ward also told of a Council Bluffs resident who shot a dog after it had bitten a small child. Playing safe, the man sent the dog's head to the University of Iowa for rabies examination.

Several weeks later he received a long letter from the University, explaining that no trace of rabies had been found in the dog's brain. "However," the letter concluded, "it might be wise to tie the animal up for a few weeks for observation."

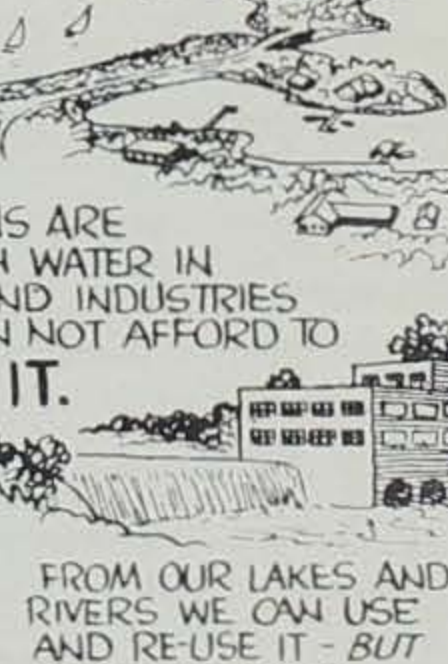
WATER

we have in abundance

But—




WE AMERICANS ARE USING SO MUCH WATER IN OUR HOMES AND INDUSTRIES THAT WE CAN NOT AFFORD TO WASTE IT.

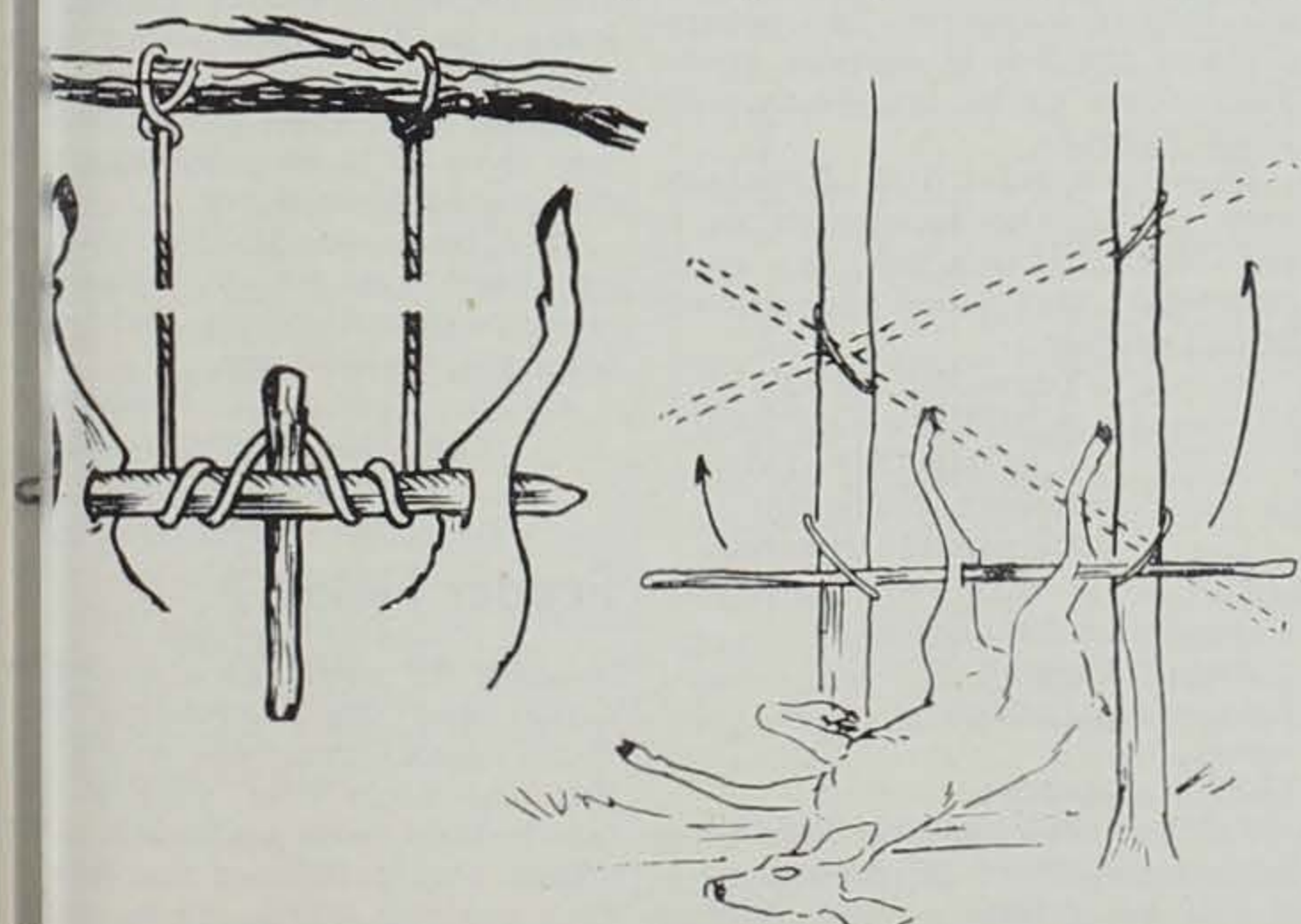


FROM OUR LAKES AND RIVERS WE CAN USE AND RE-USE IT - BUT ONCE THE WATER REACHES THE SALTY OCEAN, IT IS LOST TO US

WATER CONSERVATION IS A PROGRAM — TO MAINTAIN LAKES AND RIVERS FOR THE PRODUCTION OF FISH AND AQUATIC LIFE; — TO RESTORE WATER SUPPLIES IN SWAMPS AND THUS HELP REPLENISH UNDERGROUND RESERVOIRS.



BUILDING SMALL DAMS ON THE FARMS WILL CATCH THE RUN-OFF WATER FOR LOCAL USE AND HELP PREVENT FLOODS DOWNSTREAM.



By a pole through the hocks, a deer can be hoisted with an improvised windlass. At a certain height, the vertical stick can be shoved down against deer to lock it in place. Another method, the deer can be hoisted by lifting one end of a long pole at a time. The loops have some slack, and weight of deer will cause them to "bind" against the trees.



George Hoyt's big buck was the largest taken early in the season. The large deer was taken with one arrow, and was said to have weighed 200 pounds field dressed.

Bowhunters Progress . . .

(Continued from page 81)

Hunter	Home	County of kill
Howard Fosse	LaPorte City	Black Hawk
Norman Weis	Sibley	Lyon
Max Sheeler	Ames	Pottawattamie
Marlo Bohannon	Rock Valley	Sioux
George Davis	Lake City	Calhoun
Steve Sass	Davenport	Clinton
Clarence Witt	Clinton	Clinton
Dr. R. C. Stewart	Lamont	Delaware
R. E. Motzko	West Des Moines	Polk
Dale Nelson	Cedar Falls	Black Hawk
Arthur Dyer	Eldora	Hardin
Harvey Busch	St. Olaf	Clayton
Mrs. Harvey Busch	St. Olaf	Clayton
James Blaine	Moorhead	Monona
L. L. Hummell	Essex	Pottawattamie
Charles Craig	Shenandoah	Fremont

Many deer hunters predicted a rise in total bow kills as the season approached its November 12 closing. Earlier in the season, the woods were generally dry and noisy, and warm weather kept some hunters at home. One successful bowhunter commented on his report card: "Could the season be made later? It's still too hot to hunt." But as the season wore on temperatures dropped, and local rains in many parts of Iowa quieted the cover and improved cover conditions.

The most spectacular developments of the bow season were two deer kills made by women.

Mrs. Ernal Olson of Whiting is believed to be the first Iowa huntress to ever kill a deer with bow and arrow. Mrs. Olson, accompanied by her husband, killed her deer near the willow slaps of the Missouri River in Monona County.

Her feat was later duplicated by Mrs. Harvey Busch of St. Olaf, who killed a 110-pound buck near Elkader in Clayton County. Using a 45-pound bow, Mrs. Busch killed the deer with two shots. This made a clean sweep for the Busch family, for her husband, Harvey Busch, had killed a 160-pound buck a week earlier.

The largest kill reported in the first half of the season was by George Hoyt of Cherokee, who made a one-arrow kill of an 8-point buck on October 13. The deer reportedly weighed 200 pounds after it was field dressed. Runner-up in the big buck division of the early season was Cletus Weitert of Lan-

ging, who killed a 15-point buck that weighed 190 pounds field dressed.

Judging from the few detailed reports reaching Conservation Commission offices, successful hunters had little trouble in killing the deer. Although most kills involved some trailing, several required only one arrow, indicating the lethal power of a broadhead hunting arrow.

By November 1, a total of 1,280 bow and arrow deer licenses had been issued. This cannot be compared to last year, for no special bow licenses were issued in 1955. The 1956 Iowa bow and arrow season for deer extended through November 12.—J. M.

When boiling water outdoors on an open fireplace, a green twig across the pot will keep it from boiling over and putting out the fire.



Wyoming Wildlife



Jim Sherman Photo

MIRROR CARP

Iowa State Conservation Commission

Des Moines, Iowa

Gentlemen:

Please identify the following fish for me. I have been unable to find it in my copy of "Iowa Fish and Fishing" and I might add that this is the first time that such an event has occurred.

Apparently this fish is not uncommon in northeast Iowa, but I have caught four or five in my life, all in the Shell Rock River.

In appearance the fish closely resembles a carp. All specimens have weighed between 1½ or 2 pounds and have small whiskers or barbels on each side of the mouth, which is definitely of sucker conformation. The big difference between this fish and german carp is in the distribution of scales. It has two rows of large scales running the full length of his backbone, one row on each side of the spine. There are a few of these large scales near the gills and the tail area is well covered with these large scales. The rest of the body seems to be skin with the exception of a few scattered scales about one inch in diameter. The general color of the fish is coppery green. They seem to be terrific fighters when caught.

There is a great deal of controversy among the sportsmen as to the identity of this fish. We would appreciate very much your answer in this matter.

s/ Yours very truly
SCHIELD BANTAM
COMPANY, INC.
Robert C. Hickie
Personnel Director

Department Zoology &
Entomology
Iowa State College
Ames, Iowa

Dear Mr. Hickie:

The fish referred to in your letter is undoubtedly a mirror carp. It is a breed of carp in the same way that a Hereford is a breed of cattle. Carp in America are essentially domesticated animals that

have gone wild. Carp were domesticated in China by the fifth century B.C. A "Treatise on Fish breeding," describing carp culture was written about that time by Fan-Li, probably a court adviser to the Chinese emperor Tao Ching. Legend has it that Marco Polo brought carp to Europe, but carp apparently had been introduced into southeastern Europe even earlier for Aristotle described it in Greece. The U. S. Fish Commission brought carp from Europe in 1877 and the first introduction in the Mississippi valley were in 1879.

In the centuries of domestication and selective breeding, several races or breeds of carp were developed. Two of these were the leather carp, a scaleless variety, and the mirror carp with three or four rows of unusually large scales along the side. In Europe and Asia these races are kept separate and breed true, but in America they have become inter-mixed and most carp have reverted to the original scaled form. Forms with irregular scalation are often due to the intermixture.

Most of the carp originally stocked in the Midwest were of the leather or mirror variety. In some localities these varieties are still fairly common, but their abundance in most places is much less than 50 to 60 years ago when the stocks were purer.

In Europe, the leather and mirror carp are usually considered superior in taste, vigor, and growth than the scaled form.

s/ Dr. Kenneth D. Carlander
Associate Professor of
Zoology

Feeder Fields . . .

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hunting for mallards is a chance thing, and you'll probably draw more blanks than you will duck. But the birds that you do take late in the season are worth all the effort. Fat, full-bodied and corn-fed they are the cream of our waterfowl.

Good hunting. Use your head but keep it down!



There's more to goose hunting than shooting; there's the endless picking. Louis Hoffmeyer of Estherville (left) watches his sons Jerry and Ronald dress a canuck. By November 1, Hoffmeyer and his three sons had reportedly killed 50 geese in the Estherville area.

Goose Hunting . . .

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used to take off and furnish a near shot. Instead, the great crooked its neck and hissed at the hunter. Only when the man's dog ran up did the game take to the air, and the hunter topped him.

Another hunter, returning from the Missouri River with a near-lit of blues and snows, passed highway intersection. His companion looked up the rain-wet blacktop highway they had just passed and gasped: "Turn around! There's a goose sitting in the middle of that highway!"

The hunters backed up, turned the other highway and drove within 100 yards of a big snow goose that squatted on the paving. The hunters got out of the car, added their guns, and walked to within 30 yards of the goose before it flew.

The good goose hunting was restricted in most other portions of the state, and gunners in inland Iowa limited out as big flocks of Canada geese, blues and snows in on farm ponds and small rivers. Although many central Iowa streams were quite low, this is evidently to the geese's liking. The waning rivers furnished big sandbars for resting and lookouts, and river-walking hunters who few their business tapped the loose flocks for Thanksgiving and Christmas dinners.

Two Hunters: 50 Geese

For a time, it seemed that almost every edition of many northern and northwestern Iowa newspapers featured photographs of hunters proudly holding limits of

Canada geese "shot in a local field" or "shot 4 miles up Powder Creek." Two Emmet County hunters were reported to have killed 50 geese during October.

Mississippi River gunners didn't have the heavy snow and blue goose shooting enjoyed in westerly portions of the state since those species of geese are comparatively rare on Iowa's eastern boundary. Most of the big birds moving down the Mississippi were Canadas that took a lot of hunting—but many Mississippi hunters gave them a lot of hunting. More Christmas dinners.

Until fairly recently, there wasn't much blue and snow goose shooting even along the Missouri, as the geese usually migrated south high over the Mississippi. In recent years this habit has changed, and great flocks of blues and snows furnish shooting on the Missouri, possibly because of the broad bottomland fields that are littered with waste grains from mechanical harvesters.

Because of the nature of his sport, the goose hunter almost has to be an optimist. But even so, some of them make dismal summaries of the average goose season even if shooting has been fair. But nearly all goose hunters, whether optimist or pessimist, agreed on one thing this year: the last half of October furnished shooting that was something to remember.

It is said that before the white man came to America, a squirrel could have traveled through the trees from the Atlantic Ocean to the Mississippi River without ever touching the ground.

ENEMIES IN NATURE

By Irston R. Barnes
from *Atlantic Naturalist*

Many natural history books, in discussing predator-prey relations, sometimes use a verbal shorthand and refer to predators on a species as its natural enemies. The word "enemy" suggests the need for a scrutiny of our natural vocabulary, for words carry false connotations from other fields and influence both our own thinking and our ability to communicate with other people.

If the prey species is a desirable song bird or game bird, as the bob-white, and the Cooper's hawk is its "enemy," then those who are for the bob-white are likely to be against the Cooper's hawk. Thus a word barrier is created to a popular understanding that both the bob-white and the Cooper's hawk are equally good citizens of the woods-margin community.

When predator-prey or other natural relations are seen in true perspective, the enemy concept is clearly inaccurate. Naturalists using the "enemy" figure of speech mean only some other form of life which is dependent in a particular way on the species in question. A robin may die of old age, starvation, disease or the strike of a hawk; yet only the last is designated as an enemy. Surely it is not reasonable to prefer the parasite, the maggot or the vulture to the hawk. The robin, if capable of a choice, might prefer the hawk. Nature knows no such preference, but finds opportunities in every form of life to support other life. From such interspecific relations, or food chains, come much of the infinite variety of life which we know.

The robin that eats the worm,

(Continued on page 88)



The tiny saw-whet owl lives by beak and talon, but does not pose a threat to the creatures he eats. Man, says the author, is a "true enemy"—one who destroys the elements of wildlife food and shelter.

the hawk that takes the robin, and the bob-cat that sometimes surprises the hawk are not severally the enemies of their respective food supplies. Neither the robin, the hawk nor the bobcat, although it takes the life of an individual, poses any threat to the species. The hunter takes what is readily available, and when the abundance of one food diminishes, it turns to another food or moves to other hunting grounds. In general, man is the only predator so relentless in his hunting that he extirpates or extinguishes a species.

The true enemies of a species are those life forms, or inanimate forces, which destroy the essential elements of its environment or that by competition drive it from its habitat or from access to food and shelter. Sometimes an introduced species, such as the rabbit in Australia, destroys plant life and alters the nature of a habitat. Sometimes an introduced predator—such as the mongoose in the Caribbean Islands—finds native species that are unprepared, by powers of escape or by reproductive capacity, to withstand its attack. Sometimes introduced competitors usurp the place of the native species, as has happened with the Hawaiian birds. More often, however, it is the unchecked multiplication of a species in the absence of normal predation that creates disastrous competition. The deer of the Kaibab Plateau were a prosperous population so long as mountain lion and wolf preyed on them, when when the predation was removed, the explosion of numbers destroyed the food resources and wholesale starvation resulted. Robins, if unchecked, could be their own destroyers; the hawk is their protector.

Frostbitten Panfish . . .

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piece of lath with the line simply wrapped around the end. The lath is laid on the ice some distance from the hole. Several makes of short, specially designed, fibreglass ice fishing poles can be purchased from sporting goods stores, but are no better than the equipment described above. Many members of the regular ice fishing fraternity take added pleasure in a personally designed ice pole.

There are as many different types of lines used in ice fishing as in any other angling. Some experts prefer to use a large diameter braided nylon and linen casting or fly lines, because of the ease in which it can be taken in, hand over hand, with heavy gloves on. Other anglers like a heavy nylon monofilament spinning line, since it will not freeze and become stiff like a braided line. Regardless of the type of line preferred it is most essential that a leader be attached to the business end. A small cork bobber, some split shot, and a few pan fish hooks (size 6 or 8) should be included to complete the rig.

Spuds and Schools

An important tool of the ice fisherman is the ice chisel or spud bar, for although it is possible to cut a hole through the ice with an axe or hatchet, it's doing it the hard way. A good inexpensive ice chisel can easily be made by your local blacksmith by welding a sharp, hard tempered steel blade to a four foot length of gas pipe. Commercial ice chisels are available at sporting goods stores, but are usually much more expensive. For most southern Iowa ice fishing the spud bar does not have to be heavy because ice cover rarely exceeds twelve inches.

Like summer fishing, fishing through the ice is done with natural or artificial baits, or a combination of both. Natural baits include a long list of larval insect

forms and small live minnows. The minnow is used almost exclusively for crappie. Hooked lightly through the back and carefully lowered around a crappie bed, the catch is often more rewarding than in the summer. However, make sure the minnow is hooked very lightly, without damage to the spine.

Cornstalks

To catch winter bluegills, stop in a cornfield first and dissect some cornstalks. The larval stages of the corn borer are considered by many the finest bait for winter pan fishing. Other popular baits include weed worms, golden-rod grubs, meal worms, maggots, wood worms, and hellgrammites. Most of these are easily found after the first frost in the fall and are excellent bait.

Artificial baits are generally either small, brightly colored flies or spoons. Ice flies can be made by crimping a small split shot just below the eye of a bluegill hook. The shot is then painted a bright color by dipping it in laquer. Marabou feathers are then tied just below the shot and clipped evenly at the bend of the hook. By raising and lowering the fly in the water, the marabou creates a curious "fluffing" action that is very attractive to fish. The ice fly is also often used with natural baits; the addition of a corn borer to the fly will add that "little something" that often pays off.

Another widely used artificial lure is the small willow leaf spoon. The lure is simply made by soldering a long shank hook to a brightly colored willow leaf spinner blade. As a result this combination produces a darting, fluttering action. Although these "killers" are usually "jigged" by themselves, try a corn borer for further attraction.

Finding Fish

During the winter months and ice cover, crappie and bluegills are usually found in large "schools."



A good winter fishing pole can be made from a length of wood with a spike in one end. Line is wrapped around two spools, and spike is stuck in ice while the angler awaits bobber action.

You'll rarely find a single fish by itself. It is also not uncommon to find mixed schools of these pan fish. Thus, to be successful in your venture you must first locate a school of fish.

Probably the quickest and most widely used method is to start in a shallow bay and fish toward deeper water. Usually the fisherman will fish 10 minutes in each hole, and if he is not successful, will move fifty yards in a straight line toward the center of the lake, and repeat this process until fish are located. Once the fish are found, stay at this hole until the school has moved. Then try your best to relocate the fish again, or if you prefer try to find a new school. Most ice fishermen agree that the bait should be kept within two feet of the bottom regardless of the depth fished.

The most important part of ice fishing is to enjoy yourself and the angler must stay warm and comfortable. Clothing should be of good quality and warm, but not heavy and cumbersome. Many experts build small enclosed sleds in which they install a gas lantern. The top of the sled is then used for a seat while fishing, and a small compartment in the front used as a fish box. One merely lights the lantern, places it in the "sled box" and sits on the lid. This won't serve as a furnace, but at least it keeps out the chills. On warmer, thawing days waterproof footwear is a must.

When going ice fishing always exercise the utmost caution when walking on ice of unknown thickness. A good rule to follow is always test the thickness with your ice chisel before walking very far on the ice. Above all, don't be foolish. A pair of ice creepers is also convenient but not necessary.

Golden Rule

An unwritten rule of ice fishing is courtesy to your fellow fishermen. Nobody wants a hole chopped in the ice right next to his, especially when the fish are in and bit-

ing. Treat your fellow angler as you would want him to treat you. Companionship and friendship can be at its highest in ice fishing, but this can also be reversed if courtesy is not maintained.

Since the beginning of ice fishing in Iowa, winter doldrums have passed for many anglers. It is certainly a sport we can all keep and enjoy and its popularity has been steadily climbing for several years. It can be the bitterest day in January, but when "ol' stump-nocker" starts hitting, the coldest man on the ice will warm in body and soul. For a little while, at least, it's summer again.

MORGAN RETIRES AS PARK OFFICER

The retirement of a long-time park conservation officer, Harold Morgan of Oak Grove State Park, has been announced by the Conservation Commission.

A park officer since August 10, 1938, Morgan was originally appointed game warden in 1934 by the State Fish and Game Commission. He became a park officer in 1938, when he was assigned to Heery Woods State Park near Clarksville. In June, 1939, he was assigned to Maquoketa Caves State Park and was later transferred to Oak Grove State Park near Hawarden where he served until his retirement.

His retirement was effective October 1, and he plans to make his residence in Maquoketa.

Sign in a Council Bluffs boat store:

"The earth's surface is two-thirds water. It's obvious to us that the Good Lord meant man to spend twice as much time fishing as he does plowing."

One of nature's strangest antics is the sight of a civet cat or spotted skunk dancing on his front feet with its body and hindquarters raised high in the air. The reason for this funny dance is not known, but is thought to be a sign of nervousness.

Keep a small bottle of clear nail polish in the tackle box. It's ideal for quick repairs to chipped plugs, loose rod windings, flies, etc. A drop of nail polish on a mosquito bite will stop the itching almost immediately.

Enemies in Nature . . .

(Continued from page 87)

Man is the great destroyer of habitats, the great force which by changing the patterns of land use, has brought some species of wildlife to extinction and opened the way for explosive expansions by others. Man is the nearly omnipotent enemy of wildlife, yet even here the word is misleading. Much of the harm that man does is unnecessary, unintentional and unwanted, but this is another subject.



Icefishing gear is simple: a short rod, long leader, bobber and a baited hook fished near the bottom. Holes may be cut with an axe, but an ice spud is better for thick ice.