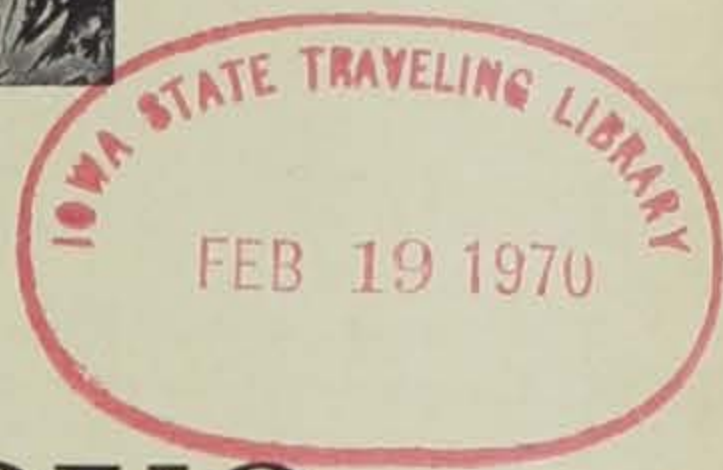


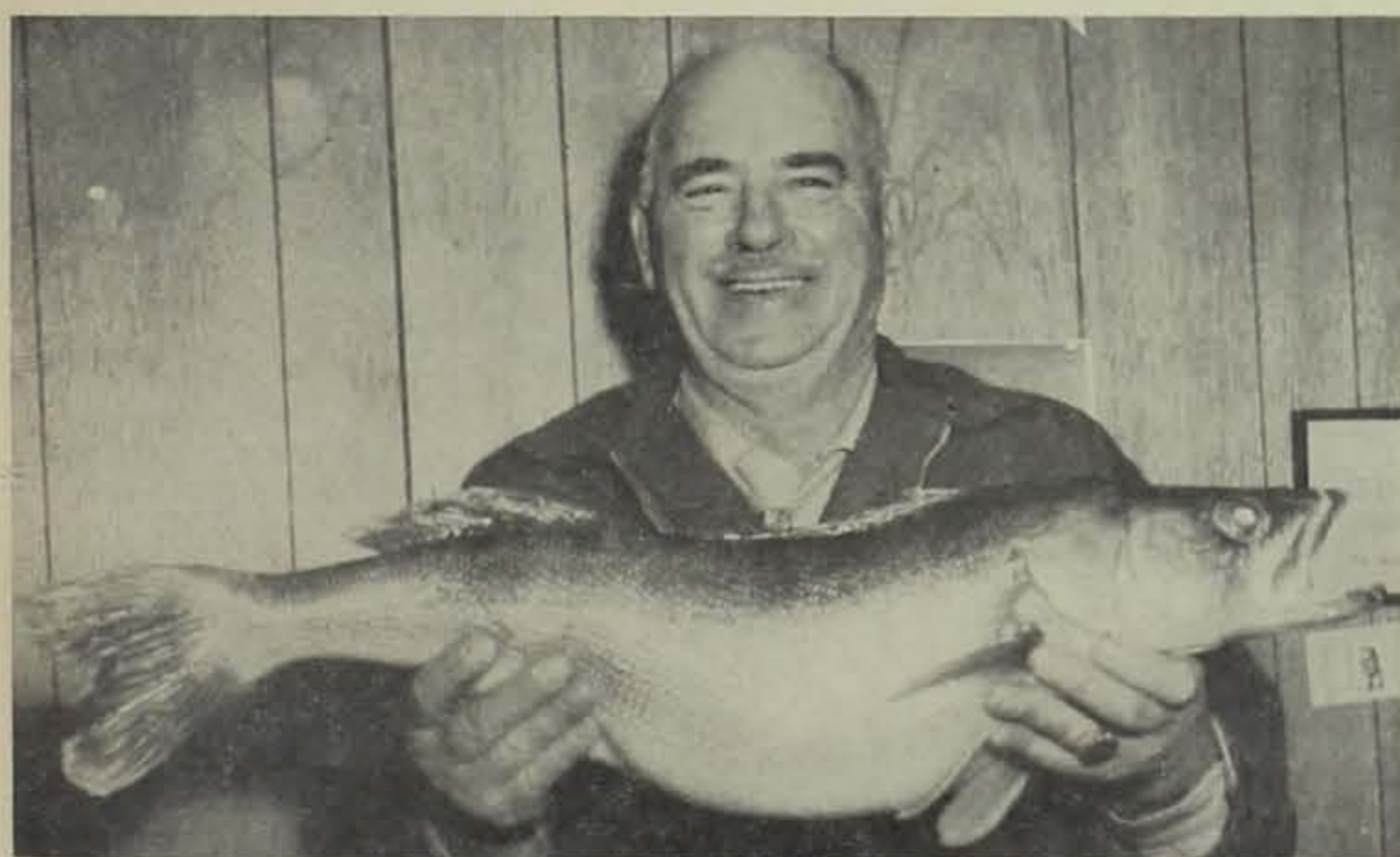


**FEBRUARY  
1970**



*Two State Records Caught*

# Would You Believe . . .



← "Cap" Kennedy's  
11-lb. Walleye

John Lenhart's  
4-lb. 1-oz.  
State Record  
Crappie →



Richard Long's  
8-lb. 11-oz.  
Largemouth Bass  
↓



Rupert Cabellero's 7-lb. 14-oz. Brown Trout.



Alfred Houglund's 50-lb. State Record Carp.

**By Julius "Sonny" Satre**

Iowa anglers fared quite well in 1969—setting two new state records in the State Conservation Commission's annual Big Fish Records registry. Thirty-five entries were received with the fish representing most sections of the state. Two of the lucky anglers were from out of state.

John Lenhart of Tama caught a new official state record crappie which tipped the scales at four-pounds one-ounce. The 19¼ inch crappie was taken from a farm pond in Tama County. An artificial jig

type lure with a worm trailer was much too convincing for the slab sized crappie. The old state record crappie was an even four pounder.

A 50 pound carp produced a whale of a battle for Alfred Houglund of Glenwood. The 44 inch fish set a new state record in this specie category, topping the old record by three pounds. Houglund landed the huge carp from Glenwood Lake in Mills County with a spin-cast rod and a 20 pound test line.

There were entries for each month except January, March and October. The

month of May led the way with 12 excellent catches. Bluegill, crappie, channel catfish, northern and carp all had eager appetites for this spring-time month.

The month of June followed with five entries—including the 1969 record largemouth bass. Richard Long of Keokuk topped the largemouth statistics with a nice eight-pound 11 ounce specimen. The 22¼ inch fish was taken with a Rapala artificial lure from a Lee County farm pond.

(Continued on page 4)

**Iowa Conservationist**

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CIRCULATION .....70,000

**COMMISSION MINUTES**

December 2, 1969  
Des Moines, Iowa

Authorized the director to sign and forward the letter of intent on the Saylorville Reservoir—Big Creek Lake acquisition program to the Nature Conservancy.

Authorized that the Gitchie Manitou Monument in Lyon County, the Merritt Forest Tract in Clayton County and the Bluffton Balsam Fir Site on the Upper Iowa River in Winneshiek County be dedicated and established in the State Preserves System.

David Jagnow and Tom Hruska, University of Iowa geology students, discussed their discovery of a cave lying behind Cold Water Spring east of Kendallville in Winneshiek County. The Commission took the stand that no exit will be made to the cave other than current known access and exploration will be controlled. Exploration should be limited to geological or scientific purposes and entrance authorized by the State Conservation Commission.

The following land purchase options were accepted: Badger Creek Watershed, estimated 50 acres. Walters Creek Watershed, estimated 185 acres.

The following Bureau of Outdoor Recreation projects and amendments to existing projects were approved for submission to the BOR: State Conservation Commission—Honey Creek State Park, development (first phase); Henry County Conservation Board, Mud Creek Recreation Area, land acquisition, 52 acres; LeMars Park Board, West Floyd Park, acquisition, 10.7 acres; Monona County Conservation Board, Whiting Woods, development; City of Ottumwa, Ottumwa Park, development.

The following County Conservation Board projects were approved: Henry County Conservation Board, Mud Creek Recreation Area, acquisition of 52 acres; Lee County Conservation Board, Pollmiller Park Addition, acquisition of

# Longer Seasons and Game Birds SHOOTING



By David Evans

It was late in February as the hunter moved cautiously through a brush patch with his dog. Suddenly a rooster pheasant clattered into the gray sky and just as swiftly the hunter brought it down with one shot. A few minutes later he scored on a quail.

**MINUTES (continued)**

26.70 additional acres; Lee County Conservation Board, Werner Memorial Forest, acquisition of 80 acres.

Approved the use of budgeted funds from the Fish and Game Capital Improvement Account to design and construct by contract a modern latrine and to make sewer and waterline improvements and extensions required to service the new facility on the Emerson Bay Fishing Access Area.

Accepted an option on 652 acres, Cedar River Access, Muscatine County.

Accepted a \$10 gift from Dr. and Mrs. Paul E. Gibson, Des Moines, for the conservation of wildlife in Iowa, subject to approval of the State Executive Council.

Authorized the chairman and director to sign an agreement between the State Conservation Commission and the Clayton County Board of Supervisors for the repair of the Bixby State Park Road.

Approved the preliminary development plan for the Red Rock Reservoir Recreation Area for submission to the Corps of Engineers.

Something wrong with this February hunting scene? Not really. You see, this man was hunting on one of Iowa's privately owned shooting preserves where there is a seven-month season.

Presently there are 12 shooting preserves licensed by the Iowa Conservation Commission. They provide hunting opportunities for a large number of resident and non-resident sportsmen who are willing to lay down cash for preserve hunting.

Because the shooting preserve concept was not generally accepted in a hurry by sportsmen, it has led to a few misconceptions about their operation. To some people shooting preserves conjured up visions of "fee" or "put and take" hunting and easy killing of tame birds.

Actually most shooting preserve operators work hard to establish quality hunting. They must to survive. But, let's start in the early years of American history. During the colonial period private game preserves existed. They were usually set up for the protection of wild game and not the propagation and release of pen-reared birds. However, pen raised birds were sometimes turned loose to supplement wild stock.

Today a shooting preserve is defined as an area privately owned or leased for the purpose of releasing pen-reared game birds during a certain period and under license of a state conservation commission or department. There are nearly

# Abundance on Iowa's . . . PRESERVES

3,000 shooting preserves in the United States today.

Preserves can either raise their own birds for release or purchase them from other sources. Methods of release should be directed toward providing a sporting opportunity that gives the hunter only a "chance" for the kill whether he is going after a recently released quail or ducks zooming down from a flight tower.

The Iowa preserve law went into effect July 1, 1957, establishing a shooting season from September 1 to March 31. During that first full season (1957-58) eleven individuals started shooting preserves. But, attrition soon cut down the number. Of the original 11 there are only two now in operation.

Shooting preserves must operate under certain standards set by the Iowa Conservation Commission. All are subject to inspection at any time by the commission director or his authorized representative.

Minimum standards deal with such factors as age and condition of birds, the shooting course or field, duck flight areas, hunter safety, transportation tags and reporting procedures.

"An operator who manages his preserve at a substandard level is a liability to the entire concept and to sport hunting," points out Charles "Butch" Olofson, shooting preserve officer for the Commission. "By setting standards the people can be assured of a certain type of hunting at the preserves."

Just what do shooting preserves have to offer? Depending on the preserve, its possible to shoot pheasants, quail, chukar partridges and ducks. The cost for hunting on one varies with the preserve, its services and facilities. Some charge by the birds released, some have club memberships or combinations. Other activities are often offered such as field trails and dog training areas, hunting and shooting seminars and fishing opportunities.

Obviously a shooting preserve has one primary purpose: To make a profit for the owner or owners. Well run preserves will provide quality shooting in pleasant surroundings. Owners agree that the success or failure of the project depends on this. However, there is a great deal more to running a shooting preserve than meets the eye.

"Some people have the idea that all they have to do is put out some birds then stand behind a cash register and watch the money roll in," says Olofson. "Nothing could be further from the truth."

It's definitely not a "get rich quick" scheme, emphasized one successful owner. An operator has to buy land, lease land, maintain a clubhouse, buy and keep dogs and hire help. The initial investment is high. There are many hazards including disease, drought, cannibalism, and bad weather during the main part of the season.

Most operators have a sideline for supplementary income such as farming and boarding or training dogs. One survey indicated that most preserves require about three years to become a profit making enterprise.

Owners are quick to point out the benefits of their operations. Increased hunting pressure and lack of wildlife feed and cover emphasize the need for preserves to provide hunting for the sportsman of average means, maintains one operator.

Preserve operators usually farm their land for wildlife . . . and as a result some excellent examples of wildlife habitat can be found. Conservation measures are a must.

Perhaps the most obvious contribution to the wildlife scene is the "spill over" of birds. Naturally, not every bird released on a preserve is going to be shot on that area. These birds will populate the surrounding areas.

Preserve operators are justly proud of a hunting safety record that is outstanding.

Iowa preserve operators call attention to the fact that they host many hunters of moderate means. In other words their preserves are not just for the "rich" who come for an easy hunt with all services provided.

As might be expected, shooting preserves are more numerous in the eastern states with large urban population centers. Actually, some Iowa preserves attract more non-residents than Iowans.

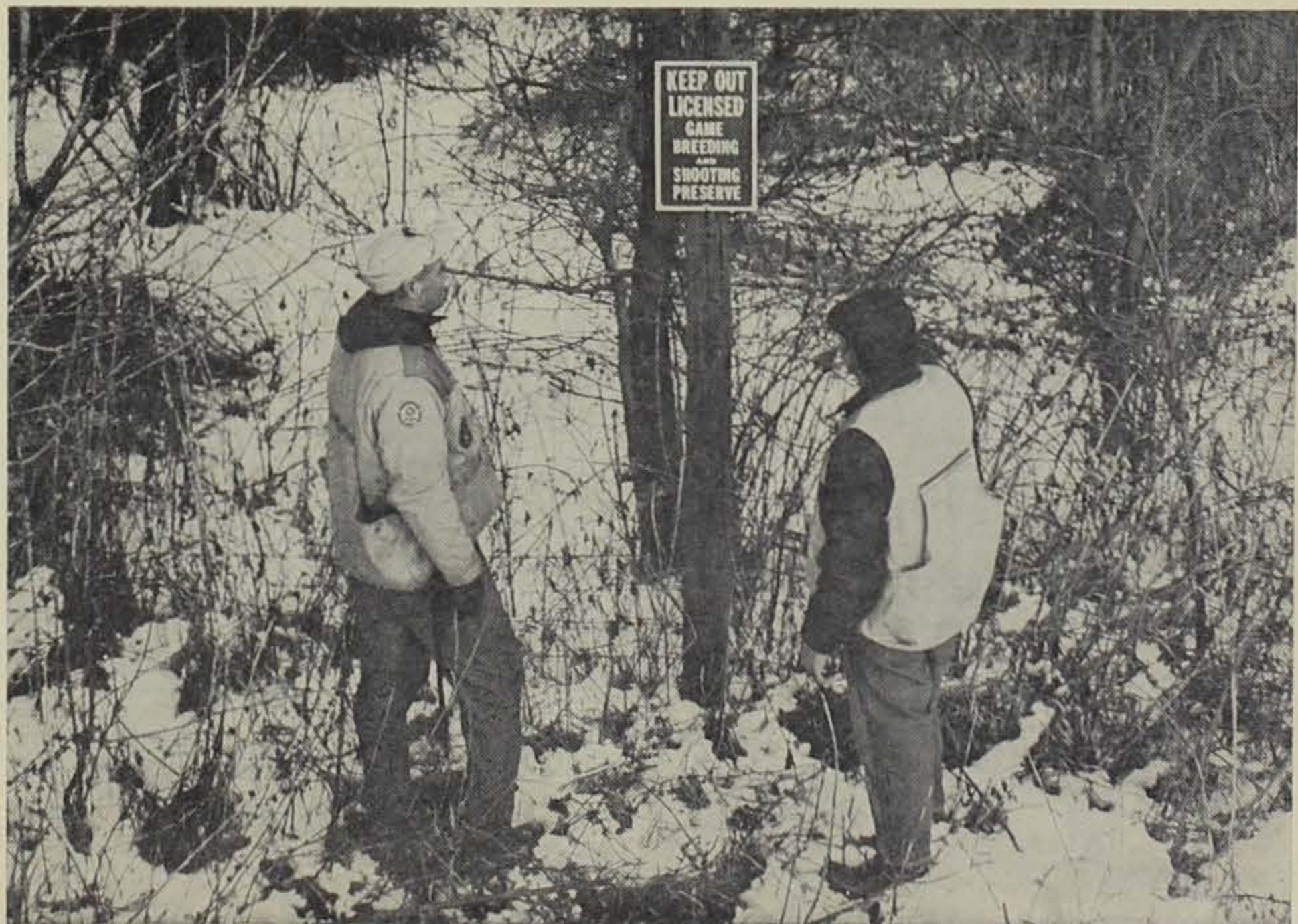
A resident hunting license is required for Iowans hunting on preserves in the state. A non-resident shooting preserve license is \$5 for the seven-month period. Naturally, the non-resident with this license is restricted to hunting on the preserve.

Obviously hunting on a preserve is not entirely the same as hunting on other private or public land. And there are many sportsmen who will never hunt preserves. In the book "Shooting Preserves Management—The Nilo System" its points out: "There are over 15 million hunters in the United States, but less than a million have ever shot on preserves."

Regarding the history and future of preserves the book notes: "The early development of the shooting preserve concept was slow. Wild game was relatively abundant and a large portion of our population was rural. But as the nation grows and metropolitan areas expand, the need for shooting preserves becomes more apparent."

Most operators agree that the future looks good for the efficient operator. They feel that preserves do indeed offer additional shooting for those who haven't the time or opportunity for other types of hunting.

A list of Iowa Shooting Preserves and other information can be obtained by writing to: Charles "Butch" Olofson, State Conservation Commission, 300 4th Street, Des Moines 50319.



**BIG FISH** (continued from page 1)

The months of April, August and December had 4, 3, and 3 entries respectively. February, September and November followed with two entries each.

Man-made bodies of water such as artificial lakes, farm ponds, reservoirs and gravel pits led the entry field with 18 catches. The 1969 record smallmouth bass and channel catfish were enticed from man-made waters.

Iowa's inland rivers and streams had a total of eight entries including the 1969 record flathead catfish, brown trout, and rainbow trout. Six entries were received from Iowa's northern natural lakes. Spirit Lake in Dickinson County produced the 1969 record bluegill, walleye and northern pike. The Mississippi River yielded three entries including the 1969 record yellow perch.

**1970 Entries Now Being Accepted**

Entries for the 1970 Official Big Fish Records are now being accepted by the State Conservation Commission. Any species of fish commonly taken by hook and line and caught in state or boundary waters is eligible. There are, however, minimum weight limits on certain species. Crappies must be over two pounds; channel catfish over 15 pounds; largemouth bass over seven pounds; smallmouth over four; walleyes over nine pounds and flathead fish over 20 pounds. Entries of other species not mentioned are encouraged, such as the sauger, yellow perch, white bass, bullhead, bluegill, buffalo or sheepshead.

A new legal species which the State Conservation Commission is anxious to establish records on is the Muskellunge.

A state law length limitation of 30 inches or longer must be attained in order to be a legal catch. Therefore, any muskie which is 30 inches or longer will be accepted in the 1970 Official Big Fish Records. The muskie has been stocked in Clear Lake, East and West Okoboji Lakes.

Any potential 1970 or state record fish must be weighed to the nearest ounce on scales legal for trade. The weighing must be witnessed by two persons. The fish's total length should also be recorded.

The angler must fill out an official entry blank or a facsimile and send it and preferably a black and white photo of himself and the fish to Official Big Fish Records, State Conservation Commission, 300 Fourth Street, Des Moines, Iowa 50319, by January 1, 1971.

The entry blank includes the angler's name and address, the species of fish being entered, date caught, where caught, county, total length, method of catch and the witnesses' signatures and addresses.

Any fish that surpasses the state official record will be publicized through the Conservation Commission's weekly news letter. All state records and the 1970 record fish will be published in composite form in the February 1971 issue of the IOWA CONSERVATIONIST and in the news letter.

**1969 RECORD FISH**

Species	Weight	Length	County Where Caught	Date	Angler
Bass (Largemouth)	8 lb. 11 oz.	22 $\frac{1}{4}$ "	Farm Pond Lee Co.	June 6, 1969	Richard L. Long Keokuk
Bass (Largemouth)	8 lb. 2 oz.	23"	Farm Pond Lee Co.	June 21, 1969	Duane Dietsch Rock Island, Ill.
Bass (Largemouth)	8 lb.	23"	Red Haw Lake Lucas Co.	November 1, 1969	Dwight L. Oliver Chariton
Bass (Largemouth)	7 lb. 15 $\frac{1}{4}$ oz.	24"	Farm Pond Muscatine Co.	April 2, 1969	Bob Mindock Taylor Ridge, Ill.
Bass (Largemouth)	7 lb. 4 oz.	22 $\frac{1}{4}$ "	Farm Pond Des Moines Co.	August 23, 1969	Everett Clover Sperry
Bass (Smallmouth)	4 lb. 12 oz.	21"	Rock Quarry Linn Co.	August 4, 1969	Thomas Wehmeyer Cedar Rapids
Bass (Smallmouth)	4 lb. 4 oz.	20"	Wapsipinicon R. Jones Co.	April 26, 1969	Earl Fisk Cedar Rapids
Bluegill	1 lb. 8 oz.	10 $\frac{3}{4}$ "	Spirit Lake Dickinson Co.	July 4, 1969	Adrian Runge Estherville
Bluegill	1 lb. 1 oz.	10"	Mississippi R. Allamakee	May 25, 1969	Steve Stock Waukon
*Carp	50 lb.	44"	Glenwood Lake Mills Co.	May 3, 1969	Fred Houglund Glenwood
Carp	30 lb.	36"	Dale Maffitt Reservoir Polk Co.	May 18, 1969	Don Mortimer Des Moines
Carp	26 lb.	35"	Dale Maffitt Reservoir, Polk Co.	May 31, 1969	Ray Budrevich Des Moines
Catfish (Channel)	24 lb. 4 oz.	36"	Lake MacBride Johnson Co.	May 16, 1969	Jack Melsha Cedar Rapids
Catfish (Channel)	20 lb.	31"	Red Haw Lake Lucas County	July 3, 1969	Gene Gregory Chariton
Catfish (Flathead)	34 lb.	40"	Des Moines River Boone Co.	September 11, 1969	Gary Laird Woodward
*Crappie	4 lb. 1 oz.	19 $\frac{1}{4}$ "	Farm Pond Tama Co.	May 5, 1969	John Lenhart Tama
Crappie	2 lb. 10 oz.	17"	Afton Reservoir Union Co.	June 4, 1969	R. P. Gorman Afton
Crappie	2 lb. 9 oz.	16 $\frac{1}{2}$ "	Gravel Pit Franklin Co.	June 7, 1969	David Clark Clarksville
Crappie	2 lb. 8 oz.	16 $\frac{1}{2}$ "	Lake Manawa Pottawattamie Co.	May 24, 1969	Norman Devine Council Bluffs
Crappie	2 lb. 8 oz.	19"	Viking Lake Montgomery Co.	May 31, 1969	Ida Jones Braddyville
Crappie	2 lb. 2 oz.	15"	Lake Darling Washington Co.	June 24, 1969	Edith Yoder Wellman
Muskellunge	No Entries				
Northern	18 lb.	40 $\frac{1}{2}$ "	Spirit Lake Dickinson Co.	September 11, 1969	Keith R. Gillespie Estherville
Northern	16 lb. 8 oz.	41"	Spirit Lake Dickinson Co.	December 20, 1969	Robert Lyons Arnolds Park
Northern	16 lb. 6 oz.	40"	Center Lake Dickinson Co.	May 25, 1969	Leo Miller Odebolt
Northern	14 lb.	38"	Cedar River Bremer Co.	May 16, 1969	Fred Stifter Waverly
Northern	11 lb.	36"	Cedar River Bremer Co.	May 16, 1969	Fred Stifter Waverly
Northern	10 lb.	36"	Wapsipinicon River Bremer Co.	May 5, 1969	Walter Kappmeyer Tripoli
Paddlefish	No Entries				
Perch (Yellow)	1 lb. 7 oz.	13"	Mississippi River Allamakee Co.	February 1, 1969	Arthur Fudge, Sr. New Sharon
Sauger	No Entries				
Sheepshead	No Entries				
Trout (Brown)	7 lb. 14 oz.	24 $\frac{1}{2}$ "	Waterloo Creek Allamakee Co.	December 13, 1969	Rupert Caballero Waukon
Trout (Rainbow)	7 lb. 1 oz.	28"	Maquoketa River Delaware Co.	February 11, 1969	Don Campbell Cedar Rapids
Trout (Rainbow)	4 lb.	24"	Little Paint Creek Allamakee Co.	April 23, 1969	Bernard DeKazel Rock Island, Ill.
Walleye	11 lb. 2 oz.	29"	Spirit Lake Dickinson Co.	December 25, 1969	Harold Dexter Spirit Lake
Walleye	11 lb.	29 $\frac{1}{4}$ "	West Okoboji Lake Dickinson Co.	November 26, 1969	C. J. Kennedy Arnolds Park
Walleye	9 lb. 6 oz.	30"	Mississippi River Allamakee Co.	August 5, 1969	Robert Hansen Cedar Falls
Buffalo (Smallmouth)	15 lb. 4 oz.	30 $\frac{1}{4}$ "	Spring Lake Cherokee Co.	April 13, 1969	William Hirschman Cherokee

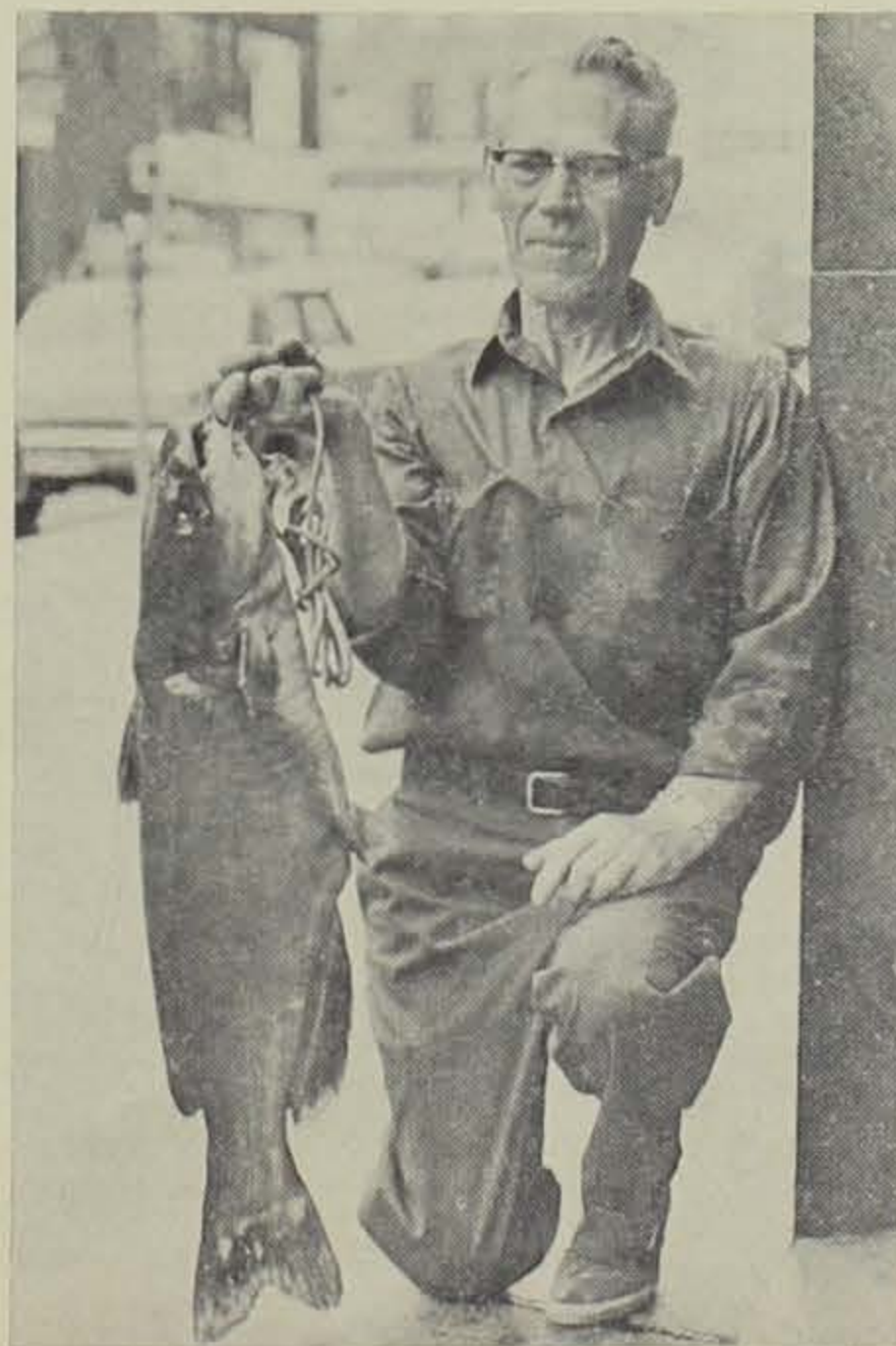
\*New state record fish.

# IOWA RECORD FISH

Species	Weight	Length	County Where Caught	Date	Angler
Bass (Largemouth)	9 lb. 15¼ oz.	24"	Cold Springs Cass Co.	May 1, 1968	Richard A. Milner, Sr.
Bass (Smallmouth)	6 lb. 3 oz.	21⅝"	West Okoboji Dickinson Co.	June, 1966	Council Bluffs Marvin Singer LeMars
Bass (White)	3 lb.	19"	Black Hawk Lake Sac Co.	September, 1967	Donald Cole Lake View
Bluegill	2 lb. 1 oz.	11½"	Farm Pond Wayne County	June, 1966	Chet Ryan Seymour
Carp	50 lb.	44"	Glenwood Lake Mills County	May 3, 1969	Fred Hougland Glenwood
Catfish (Channel)	25 lb. 3 oz.	35"	Rock Creek Jasper Co.	June, 1964	Lawrence Carpe Des Moines
Catfish (Flathead)	62 lb.	46"	Iowa River Johnson Co.	July, 1965	Roger Fairchild Coralville
Crappie	4 lb. 1 oz.	19¼"	Farm Pond Tama Co.	May 5, 1969	John Lenhart Tama
Northern	21 lb. 14 oz.	42¼"	Gravel Pit Buena Vista Co.	August 11, 1968	Lyle Hetrick Laurens
Paddlefish	58 lb. 13 oz.		Missouri River Pottawattamie Co.	October, 1965	Grace Holtzmann Ann Racobs Council Bluffs
Perch (Yellow)	1 lb. 13 oz.	14¾"	Mississippi River Allamakee Co.	September, 1963	Neal Palmer Maynard
Sauger	5 lb. 2 oz.	22½"	Mississippi River Dubuque Co.	November, 1963	Art Hurlburt Dubuque
Sheepshead	46 lb.	38½"	Spirit Lake Dickinson Co.	October, 1962	R. L. Farran Clarion
Trout (Brown)	12 lb. 14½ oz.	28"	Elk Creek Delaware Co.	November, 1966	Billy Lee Marion
Trout (Rainbow)	13 lb. 8 oz.	32"	Richmond Springs Delaware Co.	November, 1968	C. Melvin Vaughn Waterloo
Walleye	14 lb. 2 oz.	31½"	Spirit Lake Dickinson Co.	October 7, 1968	Herbert Aldridge Spirit Lake

Jack Melsha's 24-lb. 4-oz. Channel Catfish.

Keith Gillespie's 18-lb. Northern Pike.



It's time for your favorite afternoon sob-story serial . . .

**ANOTHER RABBIT** sponsored by the ICC cooking and corny writing dep't.

We pick up where we left off yesterday (and the day before, and the day before, etc.), when Bill says to Missy, "Missy," embracing her gently, "my liver's spotted."

"Oh no," Missy gasps, "you can't mean . . ."

"Yes Missy," Bill says, "I do mean . . . RABBITITUS!" Missy, obviously stunned by this crushing blow, sinks slowly into the divan and sobs. "The doctor told me," Bill continues quietly, "the cause is simple: I've eaten too many rabbits cooked in the same old ways."

"But darling," Missy whines, "I don't know any other ways."

"Don't worry lamb of my life, it's . . ." Bill is suddenly interrupted by a sharp knock on the door. John the milkman enters and yells, "Oh Missy, it's me John, and I'm . . . oh . . . hi, Bill, what are you doing home this afternoon?"

"My liver's spotted," blurts Bill.

"You don't mean . . ." John says.

"Yes, I do mean," Bill says, "RABBITITUS".

"Is there nothing we can do?" wails Missy.

"There may be," shouts John dauntlessly!

"You don't mean," cowers Bill, "a liver transplant!"

"No," John says, "merely a new rabbit recipe!"

"Oh John," Missy chokes, "you've saved the day," and overwhelmed, she rushes to John and kisses him lavishly.

Don't miss tomorrow's excitement on **ANOTHER RABBIT** when Bill says to John, "How can we ever thank you John; and by the way, what are you doing here at five p.m.?"

**JOHN'S BARBECUE RABBIT:**

Cut the rabbit into pieces and place them into a skillet with the melted butter and brown.

Mix the rest of the ingredients and pour over the rabbit. Cover the skillet and cook one and one half hours to two, or until tender. (You may want to bake for about two hours at 325 degrees instead).

- 3-4 tbsp. butter or bacon drippings
- 1 tsp. worcestershire sauce
- 1½ tbsp. vinegar
- 1 tbsp. sugar
- ½ C. chilli sauce
- 1 tsp. salt
- ¼ tsp. pepper

## Pesticides Pose a Threat:

# Spray Now . . .

By Earl T. Rose, State Wildlife Administrator

In Iowa, we have no data at this time to indicate that pesticide use has had direct major adverse effects on our total populations of fish or game animals. There is no definite evidence that pheasant reproductive capacity has been effected. Data has been available since 1954 which show no reduction in hens with broods or the number of young per brood. Declines in pheasants in northern Iowa have resulted primarily from reduction in nesting and blizzard cover. The bobwhite quail, one of our prime game birds of southern Iowa are abundant and any declines noted over the years are attributed to weather.

To be sure, however, incidents have occurred. Many songbirds, particularly robins, have been killed from consuming earthworms loaded with DDT drift from elm tree spraying, and one major fish kill was attributed to DDT drift. There have been a few cases of minor fish losses presumed due to chlorinated hydrocarbons entering streams from unknown sources.

Looking ahead, the State Conservation Commission is deeply concerned over the pesticide problem. This concern is evident in the annual grant to the State Hygienic Laboratory at the State University of Iowa to study pesticides and their effects on fish and game. This grant is from license fees of hunters and fishermen.

The wildlife profession is demanding drastic curbs on use of the persistent pesticides notably the chlorinated hydrocarbons; DDT, Aldrin, Dieldrin.

The International Association of Game, Fish and Conservation Commissioners has passed two resolutions since 1966 urging tighter controls on these organochlorine pesticides particularly. The proponents of increased pesticide use and sales invariably equate objections to emotionalism, or reaction against the "establishment". The hard fact is that objections from the wildlifer and ecologist are based on the danger signals he hears and observes. Reproduction failures of coho salmon in the Great Lakes, is attributed to DDT; fantastic residues of DDT in commercially marketed cohos, and decreased shell thickness or no shells in eggs of the peregrine falcon, eagles, ospreys and other raptors are attributed to pesticides. These cause us concern.

Run-off water, following a heavy rain, from an Iowa field treated with Aldrin at the rate of two pounds per acre showed vastly excessive amounts of Aldrin and Dieldrin present. The report on Water Quality Criteria by the National Technical Advisory Committee to the Secretary of the Interior cites the criteria permissible for marine organisms should not be permitted to exceed 50 parts per trillion. In the run-off water from the field treated with Aldrin, the creek contained 190 p.p.t. (parts per trillion) of Dieldrin (over three times the amount permissible) and over 150,000 p.p.t. of Dieldrin in the settleable solids.

In May of 1969, the University analyzed spawn of several species of fish from various areas of Iowa. The highest concentration found was .252 p.p.m. (parts per million) of Dieldrin in bluegill eggs from Shelby County. Other high concentrations were found in largemouth bass and crappie from Lake McBride, .192 and .121 p.p.m. Lake Darling's bluegill and crappie had .132 and .157 p.p.m. respectively. What do these statistics indicate?

A report from Dr. Schaetker, U. S.

Fish and Wildlife Service Pesticide Laboratory at Columbia, Missouri, confirmed that the Dieldrin found in the example cited above would certainly kill all the fish in the small stream. If spawn had been present, the eggs would probably hatch but upon absorption of the yolk sac, the fry would certainly die. His experimental work on the toxicity of Dieldrin of fish eggs shows for the most resistant species, the channel catfish, a maximum of 24 p.p.b. (parts per billion) is the limit. The analyses of Iowa fish eggs cited were as high as 252 P.P.B. or over TEN TIMES the lethal amount required for catfish. Likewise the amount of DDT in the fish eggs is far in excess of lethal amounts except for bullheads. For example, largemouth bass tolerance limits is 6 P.P.B. and our samples show 33 P.P.B. present, and 192 P.P.B. of Dieldrin. These eggs would hatch, but the fry would perish upon yolk sac absorption.

These analyses of spawn samples from Iowa waters were primarily exploratory and should not be considered "extensive research". Even so, it is interesting to note that lake surveys this



Ducks Show High Concentrates of Residues.

summer at Lake Darling indicated a low production of bluegills and no crappie production. We will explore this problem more intensively this spring including analyses of spawn from other sources.

Eggs tested from wild waterfowl were seemingly high in pesticides and their epoxide residues. For example, blue wing teal showed .445 p.p.m. of DDE and .684 p.p.m. of Dieldrin. Coot contained .187 p.p.m. of DDT, .451 p.p.m. of DDE, .177 p.p.m. of DDD and .083 p.p.m. of Dieldrin.

Pheasant eggs were high in Dieldrin, ranging from a low of 9 P.P.B. in Poweshiek County to 1400 P.P.B. in Union County.

Voluminous reports from the Bureau of Sport Fisheries and Wildlife, Patuxent Wildlife Research Center, Laurel, Maryland, are available concerning research on residues. Their findings to date show that pheasants, except in California, are apparently fairly immune to the organochlorine compounds normally used in agriculture. But, wild mallards and blackducks in laboratory experiments exhibit responses similar to the osprey, falcons, and eagles—a thinning of egg shells.

Intensive research is being conducted at various laboratories, both state and Federal, to answer some of the questions being raised all over the nation concerning the pesticide problems. All of us desire continued high production of agricultural crops and the pesticide promoters tell us it cannot be done without pesticides. Public reaction to high residues of DDT and its relatives has been terrific recently and has precipitated much soul-searching by the leaders of agriculture. As a consequence, elimination of DDT is being considered by many states and federal agencies. Research is being directed to determine less toxic chemicals. Also, research is proceeding at a rapid pace to discover the real effects of residues of the presently used pesticides on fish, wildlife and humans. In fact, over 3700 research projects on pesticides are currently underway, not counting those by the pesticide industry.

The advantages of pesticides are obvious. Yellow fever, malaria, typhus, spotted fever and some other insect vector diseases must be controlled. Food and fiber must be produced. But, man's application of these synthetic compounds to the ecology of this county, beginning



ENDANGERED!

in the 1940's and now at the rate of around 150 million pounds a year, is having repercussions. These pesticides have become a part of our environment including the living, non-living, the air, the rainfall, the rivers, lakes and oceans. Every tested living thing, whether it creeps, crawls, flies, walks or swims, now has residues of pesticides. Laboratory experiments have verified field observation of pesticide concentration from minute amounts in food chains linked to high magnification residues in the peaks of biological pyramids.

These residues cause alarm when such agencies as the Food and Drug Administration declare food items unfit for human consumption. They cause alarm when the public finds out about conflicts of interest in the federal regulatory agencies. They cause alarm when species

of wildlife are threatened with extinction. They cause alarm when no expert can assure safety to our total ecology from the continued use of pesticides. Proponents argue about the benefit/risk ratio and that we must take certain risks in every human endeavor.

No one knows for sure what modern pesticides are doing to the germ plasm of all living things on earth, nor can anyone predict their effect of future generations. With over 60,000 pesticide formulations involving more than 900 chemical compounds registered during the last two years, at a vastly growing, uncurbed use-rate, how can the answer be forthcoming? With mankind at the top of the ecological pyramid, dependent upon so many fail-safe systems in his environment, can he afford not to have answers?

. . . Pay Later?

# Snowmobiling: HAYDAY OR HEADACHE

By Roger Sparks

Have you got a problem snowmobiler? You say you paid \$1000 for a new toy and the mean old Highway Commission won't let you run it on their highways? And you say the mean old farmers keep building barbed-wire fences with those little signs reading "No Trespassing"?

To make things worse you were down on the river the other day breezing along, when you broke through the ice and nearly drowned? You say you nearly froze to death after you crawled out? Then it cost you \$100 to pull your snowmobile out, and \$200 more for engine repairs?

You say the salesman that sold you the machine didn't mention Iowa's geographical limitations? How about the extra expenses such as \$10 goggles, \$50 parka, and \$400 trailer to tow it? You say he did mention those items? Oh, after you bought the snowmobile he told you. And the gasoline? And the new tool box? Are these your problems snowmobiler?

Well you're not alone. The Iowa Conservation Commission has its share of headaches concerning the "dogless" dog-sleds. Mail and calls arrive with consistency, mostly asking where to run the machines. Although there seems to be some question over who must handle the situation, the State Parks section has designated certain parks and areas for snowmobile use.

This doesn't mean that snowmobiles are allowed to run over the entire park or area. Trails in these areas will be marked by two types of signs indicating where the 'mobiler may go. The "entrance" sign marks both the beginning and the end of the runs (they're not always the same). The triangular-shaped "guide" signs mark the way, particularly at possibly confusing points (lakes will not have the latter).

These public use areas allow the snowmobiler to forget about some of the hazards often involved, such as undercut creek banks and barbed-wire fences. However, good sense must be displayed to keep the privilege.

The number one no-no on any park officer's list would be failure to stay on the designated trails. They simply can't allow people to fly off in every direction, chasing wildlife, destroying seedlings and endangering lives.

It's always wise to get to know the trail slowly for those areas that have no "round trip" trails necessarily have two-way traffic.

Snowmobiling can be a great form of winter recreation and cooperation will help eliminate mutual headaches.



### DESIGNATED STATE PARKS FOR SNOWMOBILES

STATE PARK	COUNTY	DESIGNATED ROUTE
Backbone (Upper)	Delaware	From fish hatchery to residence at south entrance
Beeds Lake	Franklin	Limited to lake and portions of road system on south and west side of park
Dolliver Memorial	Webster	Marked trail route and portion of park roadway
Geode	Henry	Limited to lake
George Wyth	Black Hawk	Two mile of river channel
Lake Ahquabi	Warren	Limited to lake and camp road
Lake Anita	Cass	Limited to lake and camp road
Lake Darling	Washington	Limited to lake and camp road
Lake Macbride	Johnson	Limited to lake
Lake Manawa	Pottawattamie	Limited to lake
Ledges	Boone	Park roadway normally closed during winter months
Lewis and Clark	Monona	Limited to lake
McIntosh Woods	Cerro Gordo	Limited to lake and marked route in park
Pilot Knob	Hancock	Park roadway when closed by snow
Upper Pine Lake	Hardin	Limited to lake
Lower Pine Lake	Hardin	Limited to lake
Prairie Rose	Shelby	Limited to lake and beach area
Preparation Canyon	Monona	Park roadway when closed by snow
Rock Creek	Jasper	Limited to lake and beach
Stone	Woodbury	Marked roadway and designated trail route
Union Grove	Tama	Limited to lake
Viking Lake	Montgomery	Limited to lake
Waubonsie	Fremont	Seven miles of marked trailway

### DESIGNATED STATE AREAS FOR SNOWMOBILES

AREA	COUNTY	LOCATION	DESIGNATED ROUTES
Wilson Island	Pottawattamie	Near Missouri Valley	West of road, all off road trails as designated by area officer
Rand Bar	Harrison	Adjacent to Desoto Bend Refuge, about 60 acres	Entire area—access by river only
Rand Access	Harrison	Adjacent to Hwy No. 30, about 10 acres	Entire area—except public roadway
Tyson Bend	Harrison	4 miles west of Modale Interchange approx. 750 acres	Entire area—except public roadway
Ivy Island	Monona	Onawa—350 acres	Entire area, access by river only
Winnebago Bend	Woodbury	5 miles west of Sloan	Entire area, except public roadway
Dakota Bend	Woodbury	12 miles down river from Sioux City	Access by river only—entire area—120 acres
Tieville—Decatur	Monona	West of Onawa	400 plus acres—entire area except public roadway.
Yellow River State Forest	Allamakee	13 miles N.W. of McGregor	Designated walking and bridle trails only.
Shimek State Forest	VanBuren	Farmington, Iowa	Designated walking and bridle trails only