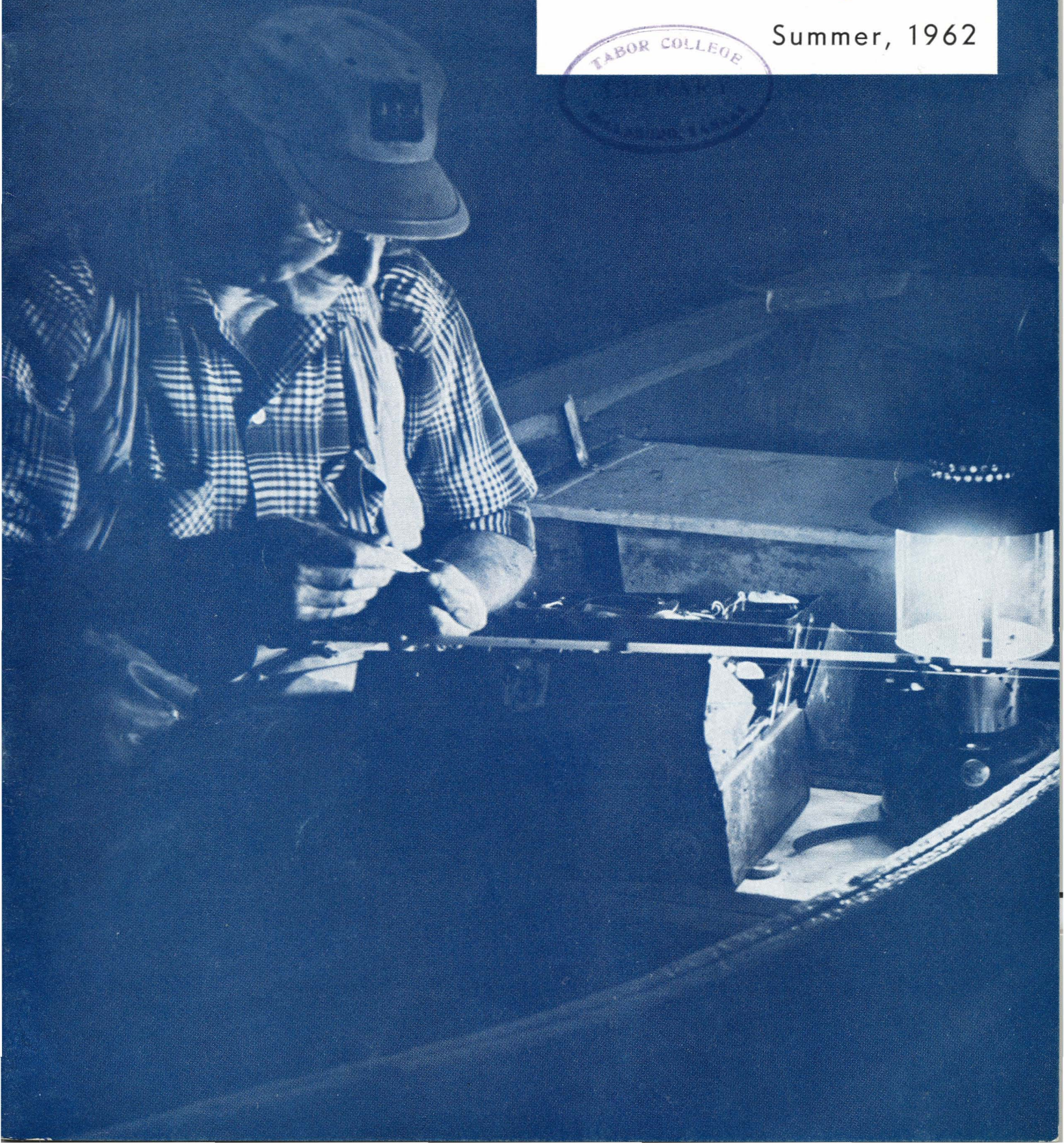


KANSAS

Fish and Game

Summer, 1962



Summer

1962

Published Quarterly
by the
**KANSAS FORESTRY,
FISH AND GAME
COMMISSION,**
Pratt, Kansas

Color on the Cover

As you have undoubtedly noticed by now, unless this is your first issue of KANSAS FISH AND GAME, the magazine no longer comes to you in a drab, black and white cover.

This is the first issue of KANSAS FISH AND GAME to use color in the twenty-two year history of the magazine. The reason for adding color to the cover is primarily an attempt to make the magazine more attractive, and as a result (we hope) more widely read. The process used on this issue's cover is known as a duotone in the printing trade.

We cannot justify or afford a full color cover at this time. But this process produces the effects we want and is considered superior by many to four color processes in visual effect.

In keeping with the use of color, the nameplate was changed to provide a more attractive appearance and leave more space for the cover picture. As you might imagine, the rectangle in which the nameplate appears can be moved to most any position on the cover page from issue to issue to take advantage of the "bare spots" in the photo.

These two changes are forerunners to another change which will probably be the most important change so far as you, our readers, are concerned. In the near future, as soon as sufficient funds are available, it is planned that KANSAS FISH AND GAME will be issued 10 or 12 times a year instead of on the present quarterly basis. This increase will enable us to keep you, the hunting and fishing public, informed of the progress and problems of this Commission in maintaining and improving the hunting and fishing you enjoy.—*Bob Todd.*

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Magazine Editor

BOB TODD

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Explosive New Fish in Kansas

Some Facts About the Northern Pike

by BOB TODD

The stocking of 3¼ million small northern pike in Tuttle Creek Reservoir last spring marked the entrance of a new game fish and a new family of fish to Kansas. To be more clear in explaining and describing this fighting fish, however, we need to look at some of the other fish currently present in Kansas.

First of all, the largemouth black bass and his cousins, the smallmouth and spotted bass, are not really members of the bass family, but members of the sunfish family. Crappie are not members of the bass family although they are sometimes called calico bass. They too are members of the sunfish family. The same holds for the rock bass, goggle eye and warmouth bass. They are all sunfish.

The white bass, referred to as sand bass, striped bass, silver bass, etc., is the only true bass in Kansas. It is related to the sea bass family while most of the fish we call bass are related to the sunfish family.

Now then, the fish we most commonly refer to as sunfish, the bluegill, green sunfish, long eared sunfish, etc., are true sunfishes, but are generally referred to as just plain perch. But the fact is they do not belong to the perch family.

Actually we have two important members of the perch family in Kansas. The ring or yellow perch is fairly abundant in a few city and county lakes. Another perch is most frequently called a pike and that's why all this explanation is necessary. The walleyed pike, wall-eye, or jack salmon, depending on your area, is really a perch. (The sauger and darters are other members of the perch family.)



The northern pike is a hard fighting, fine flavored, beautiful fish. Although it is native to only Canada and the northern part of the United States, it has been successfully stocked as far south as Maryland and as far west as Colorado. Kansas biologists say it has a good chance here and have stocked more than 3¼ million in Tuttle Creek Reservoir. Now it is up to the fish.

(Photo Courtesy of Nebraska Game, Forestation and Parks)

The Forestry, Fish and Game Commission has for several years preferred the name walleye since it definitely identifies the fish without suggesting that it is a pike or a salmon, which it ain't. Nevertheless, the name "pike" has become quite common among fishermen when they refer to walleye. This of course did no harm since there were no members of the pike family in Kansas and it was easily understood which fish the angler was talking about.

But with the coming of the northern pike, which is also commonly called a "pike," confusion loomed ahead. The northern pike is a true pike and a member of the family in good standing. Of course the northern pike could be called simply a "northern," but people would always wonder which fish was being discussed when the name "pike" was used. So to keep the record straight and to avoid confusion, the Forestry, Fish and Game Commission is going to refer to them as northern pike or perhaps northerns, but only seldom will it refer to them as simply pike. We doubt that all fishermen will adopt this rule, but at least we can say we tried.

Now that we have the name straightened out, let's take a look at this new fish, representing the pike family in Kansas for the first time.

★ ★ ★

The pike family is common to the northern latitudes of Europe, Asia and North America. These fish have both small species and some that grow rather large. The pickerel is one of the smaller members of the family while the muskellunge grows to weights in excess of 67 pounds. Northerns have been taken over 45 pounds.

The northern pike is shaped more like a gar than any other common Kansas fish. It, like the gar, has sharp teeth and only a single fin on top, located far back. However, at this point the similarity ends for the northern pike is a fine flavored, hard fighting, beautiful fish. The color of the northern is variable, depending on water conditions. It is usually bluish-green to gray on the



If the northerns become well established here, winters as severe as the one just past may be looked forward to for the ice fishing that will be possible. The northern pike is favored by ice fishing enthusiasts in more northerly states.

(Photo Courtesy of Nebraska Game, Forestation and Parks)

back and sides, having regular rows of light yellow or gold spots. Its snout is broad and shaped somewhat like a duck's bill.

On the North American continent, the northern was originally common only in Canada and the northern part of the United States. This limited distribution is attributed largely to geographic obstacles by several writers.

However, in recent years stocking of northerns has been attempted in many parts of the United States, as far south as South Carolina. Generally speaking though, the most southerly location for successful stocking of northerns has been Maryland. To the west, Colorado has had some success in stocking northerns, and Nebraska, to the north, has been getting good results from their stocking efforts.

At this point it is well to remind

the reader once more that this spring's stocking of northern pike in Tuttle Creek Reservoir was the first large scale attempt to get this fish in Kansas. Since the northern is not native to Kansas and has never been here in significant numbers, the information presented here is necessarily the findings of other states with a natural or stocked population. Northerns in Kansas may deviate somewhat from the behavior patterns they have shown in other states. They might survive and thrive here even if we cannot offer the exact type of habitat that they apparently require. On the other hand they may not survive in even those areas most like their native habitat.

First of all, other states are quick to point out that the northern is rarely abundant anywhere, but may be common in weedy lakes and

streams with overflow or partial marsh areas. In rivers, they prefer sluggish water areas. Minnesota claims the fish is fond of somewhat warm, murky waters of shallow, weedy areas. However, Minnesota's definitions of "warm" and "murky" and "shallow" may be quite different from those in Kansas.

Nebraska has found that while the northern is a good predator and quite valuable in holding down rough fish populations, the fish cannot be stocked successfully in areas that already have a dominant rough fish population. (For this reason they were stocked in Tuttle Creek as soon as possible after water was being impounded.)

The fish begin moving out of deeper water for spawning before the ice leaves. They migrate to flooded meadows or marshes with 1-3 feet of water. As the ice goes out, they begin spawning. Generally a large female, accompanied by several smaller males, swims into the shallow water and spawns at random. The males likewise deposit their milt in a random manner as they follow the female. The eggs are adhesive and stick to vegetation or other submerged objects. In Michigan, they have found the average female scatters about 32,000 eggs. In 12-14 days the eggs hatch and the young stay in shallow water for a few weeks before moving into the main body of water.

This requirement for a flooded marsh or meadow in which to spawn is probably the most critical factor to the success of northern pike in Kansas.

The food of young northern pikes consists of the tiny, microscopic organisms that normally flourish in shallow water. However, even if all other conditions for young northern pikes are right, a change in weather can destroy the tiny organisms and leave the small northern pikes to starve.

As the young northern pikes grow, they begin eating insects, small frogs, crawfish and other small animals. But by the time the northern pikes reach 6-8 inches they are on a

nearly complete fish diet. A 6-8 inch northern will eat any fish, including another pike an inch or less in length. As the northern gets larger and larger, it turns to a more and more strict fish diet. The northern normally reaches sexual maturity and breeds in its third year.

While northern pikes can be hatchery bred and raised, the experience of other states shows that it is a doubtful business and the supply of northern pikes for stocking is thus uncertain.

So, you say, how soon can we expect to begin taking northern pikes in Kansas? First of all, it is highly possible that some northern pikes may be taken from Lovewell Reservoir this year. Part of the water reaching Lovewell comes down the Courtland Canal from Harlan Reservoir in Nebraska. Harlan Reservoir has been stocked with northern pikes for some time and no doubt a few northern pikes have migrated down the canal to Lovewell.

Tuttle Creek, on the other hand, received only the very young, small, northern pikes. It is doubtful that many of these CAN be taken this year.

According to growth studies in Nebraska, the northern pike attains a length of 14.5 inches by the end of its first year. By the end of the third year, they are 26 inches in length. By comparison, the walleye grows to 6.5 inches its first year and 14.5 by its third year. The largemouth bass reaches 5 inches its first year and 12.5 in its third year.

It is generally good practice to prohibit or severely limit fishing in a lake or for a particular species until the fish have had a chance to spawn once. For this reason, you may expect that fishing for northern pikes, if permitted at all, will be under tight restrictions for the next three years. And at this point it is well to remind the reader once again that this stocking in Tuttle Creek Reservoir is experimental. Fishery biologists of the Forestry, Fish and Game Commission find that Kansas apparently has habitat suited to the northern pike and the species has a very good chance to thrive here. On the other hand, there may be unknown

factors and the fish may see Kansas differently.

So how do you catch a northern pike? If the northern pikes in Kansas act the same way as northern pikes in other regions, the best bet will probably be to work the edges of weed patches or other submerged vegetation.

Northern pikes are tackle busters and generally they are pursued with fairly heavy equipment. States to the north recommend lines in the 18 pound test range. Wire leaders are suggested by some since the northern pike may cut the line with its sharp teeth. Nearly any artificial lure will work for northern pikes, including surface plugs. Authorities point out, however, that the rule of "big bait for big fish," applies very much to northern pikes. Spoons and spinners are favorites of devoted northern pike fishermen.

Generally speaking, northern pikes can be taken in daylight around weeds, lily pads, cattails and other submerged objects in water which is generally not more than 10 feet deep.

For the bait fisherman, the old and reliable cane pole is probably the best bet. A man who handles his boat quietly in weed patches and fishes in the small patches or "holes" in the weeds with large minnows can expect a fair return for his labor.

In recent years, the popularity of fly fishing and spinning has grown and fishermen in northern pike waters have taken many of these fish on light tackle. However, the hard and powerful fighting characteristics of this fish makes light tackle a real handicap in the hands of newcomer to the sport.

Another method of taking northern pikes besides casting with artificial lures is to troll with either bait or lure. But again, fishermen should work fairly shallow water. Frequently the northern pike is taken by fishermen pursuing another species.

In northerly waters, the sport of ice fishing for northern pike has long been popular. In winters such as the one just past, this sport could become popular in Kansas.

A Management Barometer—

“Check Your Bag Please?”

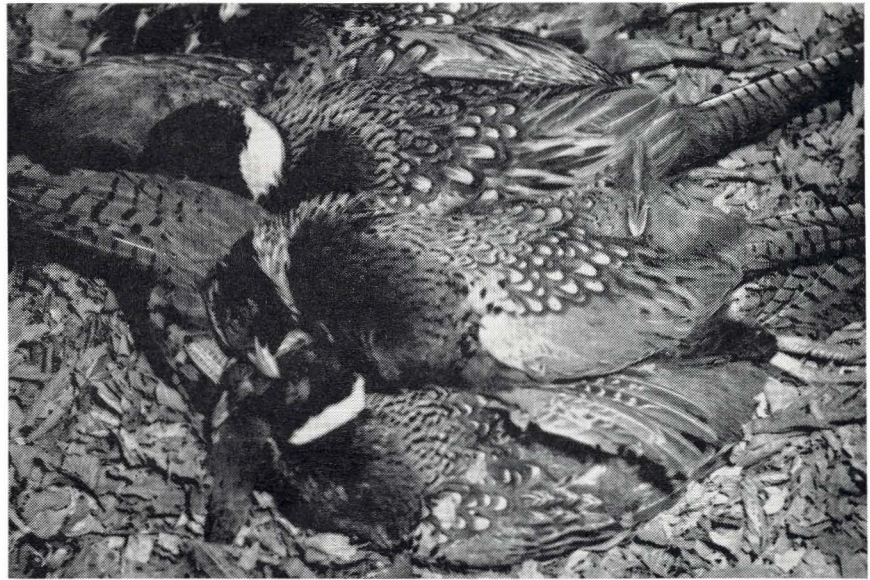
by DAVE COLEMAN
Chief, Game Division

The above title may sound like an invitation to a weary traveler to leave his luggage with an eagerly awaiting Red Cap, but in this instance it has reference to an entirely different subject.

This past fall, game protectors, biologists and other personnel of the Kansas Forestry, Fish and Game Commission made hundreds of “bag checks”—inspections of the game bagged by hunters in the field. The information provided by these records has been summarized in a report by Bob Wood, one of the Commission’s game biologists. Some of the highlights from this report are touched upon in the paragraphs which follow.

To begin with, the 1961 game bird seasons saw large numbers of hunters afield and reasonably good harvests of the major game species. A compilation of license sales figures by the Accounting Division shows that resident hunting and combination (hunting and fishing) licenses were purchased by 192,634 Kansans. In addition, nonresidents bought 13,111 hunting licenses. The fact that most of the purchasers of Kansas hunting licenses go after some species of upland game bird was shown by the sale of 179,344 upland game bird stamps among less than 206,000 hunters. By combining the data from the hunter bag checks, the license sales, and the hunter-success surveys (mail questionnaires) we are able to make the estimates of hunter activity and success for the 1961 season that appear below the picture to the right.

These figures represent one of the best pheasant harvests ever enjoyed by Kansas hunters, and the biggest pheasant season ever, from the standpoint of hunters afield. The figures for quail and prairie chickens indicate that we experi-



Species	Percent of Licensees Hunting Species	Estimated Total Hunters	Estimated State-wide Kill
Pheasant	70%	144,025	699,443
Quail	45%	92,587	1,383,700
Prairie Chicken	22%	42,265	46,007

enced only average seasons for these species, since both total numbers of hunters and total kills are down considerably from the peaks of the late fifties. Considered as a whole, these figures combine to show emphatically that Kansas is a top game bird state. When we consider that in addition to the three top resident game birds, Kansas hunters also harvest three-quarters of a million doves or more each fall, it becomes apparent that our state offers upland game bird shooting matched by few other states.

Many more details about the past hunting season were revealed by the bag-check study. For instance, we know that the pheasant harvest of approximately 700,000 birds was made up of roughly 29 percent hens, or about 200,000. While this is an impressive number, it is but a minor portion of our huge pheasant population and will have little effect on the number of birds present next fall. As always, the fall popu-

lation of pheasants (and other upland game) will depend largely on the success of the breeding season. A good hatch will mean an excellent season; a poor one will result in only fair hunting. Aging studies of pheasants in hunters’ bags the last two falls have shown that more than 70 percent of the birds were hatched only the summer before. This means that young birds in the bag outnumber old ones by nearly 3 to 1. Our quail last season averaged nearly 5 to 1.

Hunter bag check information is more than “interesting” to the game manager. It is one of the main barometers used in determining the amount, distribution and composition of the game harvest, and in judging how well the season is accomplishing its purposes.

We’ll be looking forward to “checking your bag” next fall. We know that we’ll be interested in what you’ve bagged, and it’s our guess that you’ll be too.

Chase County State Lake

Sixteenth of
A Series on

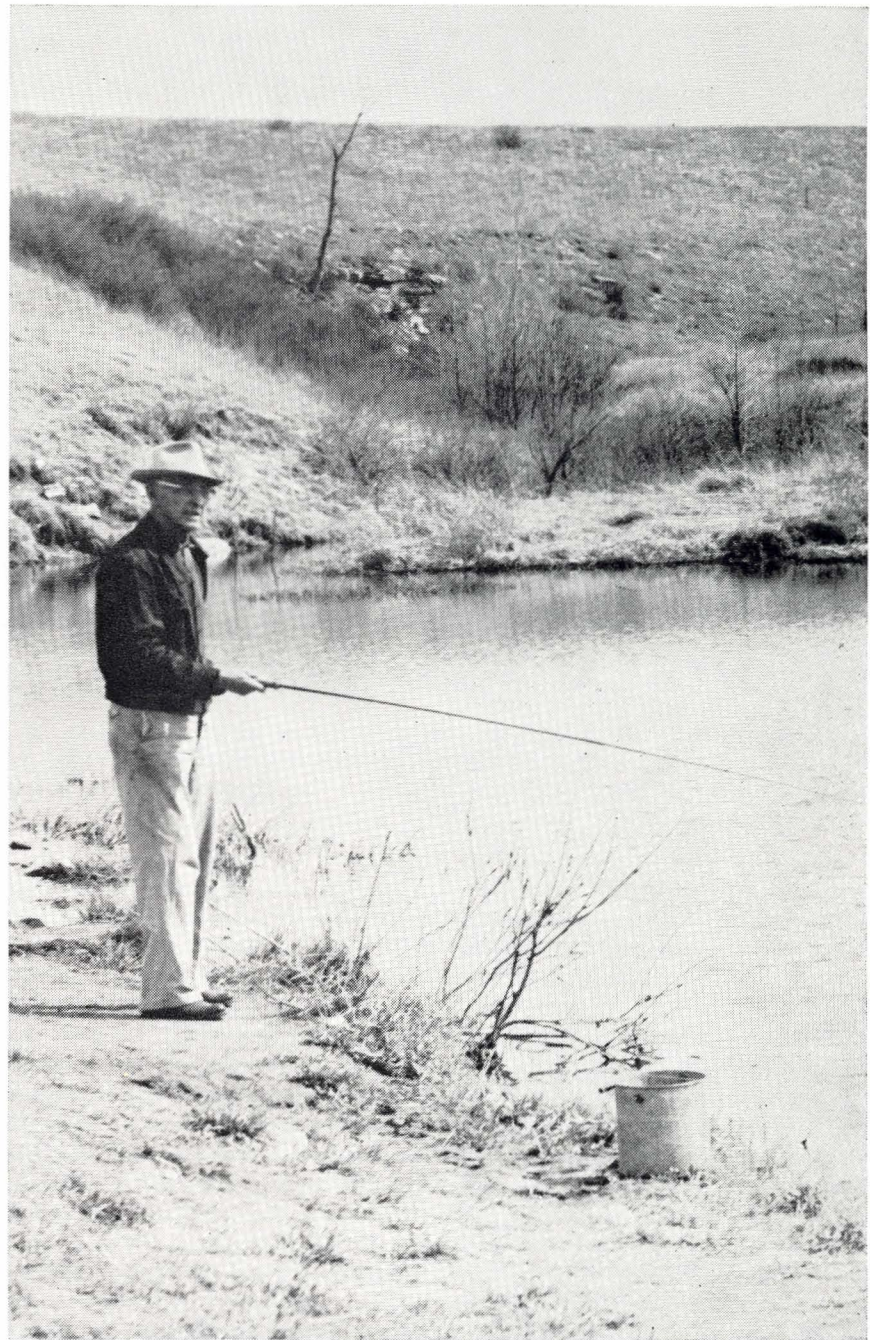
The State Lakes Of Kansas

by GEORGE VALYER

Did you ever fish in a place where you knew there were plenty of big ones and yet, despite your every effort, you couldn't get a thing to hit. Well, if you are an average fisherman, you have probably had this happen many times. Such was my experience the last time I visited Chase County State Lake. I knew they were there because I had seen the tabulation on the last test netting by the fishery division of the Kansas Forestry, Fish and Game Commission and I had certainly had my share of good fortune there in the past. Still, not a one could I get to take a bait.

Frankly, I'm a little suspicious of those who claim to catch fish every time they go fishing. Not that I would boast of being an expert; there are many better fishermen. But still, there seem to be those days when even an expert just can't seem to get a strike on anything. I can assure you that I wasn't in the least unhappy with this lake.

Chase County State Lake is a beautiful bit of water regardless of what point of view you have. Its 109 acres hold the promise of fulfilling the angler's desire for big bass, crappie and channel catfish. Its cool, opalescent waters originate in springs higher up in the hills to the southwest of the lake and, even during times of heavy rains, the water is clear and free of a significant amount of silt due to the fact that the drainage area is all in grass. Located in the heart of the Flint



Hills, this lake is truly a gem of unmatched beauty.

Originally, Chase County State Lake was surveyed and planned back in the late 30's. It was the desire of the residents of Chase county to make the lake site available for construction by the Public Works Administration which built

several other lakes during that time. A formal request was made to the U. S. Department of Interior but, before any action could be taken, World War II signaled an end to such developments.

Title to the 360 acres of land was transferred by the county to the Kansas Forestry, Fish and Game



Chase County State Lake is a beautiful bit of water located in the heart of the Flint Hills. It is truly a gem of unmatched beauty. The rocky bluffs on either side of the lake hold interest for those who like to hunt for geological specimens. Channels up to 9 pounds and bass up to 6 pounds and large crappie can now be taken from the lake.

Commission in 1954 following a decision by the Commission that a lake should be constructed on the site. The dam was completed in April of 1955 with a total cost of \$81,500. However, it was not until nearly two years later that enough water was impounded for the stocking of fish. By the summer of 1959, the lake was full to capacity and tests revealed that fish growth had been excellent. On November 10 of that year when the lake was opened to fishing, channel catfish up to three pounds were taken in large numbers.

During the past 2½ years, continued good growth has been noted on all species and channels to 9 pounds, bass to 6 pounds and some large crappie can now be taken from the lake. The bluegill population is also good and a flyrod in the hands of a fisherman can produce a lot of sport. Bullheads also are present in Chase County State Lake

although they are not caught in the numbers they were during the first year of fishing. Because of the clearness of the water, adult bass keep the young bullhead fry thinned down.

Early spring fishing seems to be best in the old stream channel now hidden by the lake waters. In general, the old water course followed the rocky bluffs at the southeast side of the lake. Since there is no road on this side, many persons use a boat for fishing during the months of March and April and others walk around below the dam to fish from the bank. As soon as the water warms sufficiently, fish can be caught in any part of the lake.

Incidentally, the stream which feeds Chase County State Lake was a favorite location in the past for the seining of minnows for use in other areas. Old timers who live in the area say that it was no trouble at all to take a good supply of bait

with only one or two sweeps of the net. At least one such individual, Roy Park of Cottonwood Falls, now fishes the lake consistently and considers it one of his favorite spots.

Visitors who come to Chase County State Lake usually arrive by heading west out of Cottonwood Falls for a distance of three miles. This county road continues on west and eventually hits U. S. Highway 50 at Elmdale. Persons arriving from the west can leave the highway at this point, travel east crossing the Cottonwood river, and wind up at the entrance to the lake.

Chase countians are quite proud of their lake and have made substantial contributions to its facilities. A large metal sign spanning the entrance was built and erected by a group of local citizens. The Cottonwood Falls Lions Club, with the assistance of other interested individuals, has built an excellent

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Taking Stock of—

Your Responsibilities

In the spring issue of KANSAS FISH AND GAME, George C. Moore, director of the Kansas Forestry, Fish and Game Commission, wrote a short piece entitled "Taking Stock of Our Responsibilities." In it, he described mainly the responsibilities of the Commission. The paragraphs below describe some of the responsibilities of the hunting and fishing public. They are taken from a speech delivered by Moore at the annual convention of the Kansas Association for Wildlife.

by GEORGE C. MOORE

"I am sure some of the things I say won't please you nor will the actions of the Commission please all of you. I would not be honest with myself if I stood here and told you only things you want to hear when some of them are contrary to good administration, effective game management and even illegal. I do hope that when I get through you will have a little better understanding of the problems facing us and with a frank discussion you will be more tolerant.

"We welcome constructive criticism but we deplore ruthless and unethical denunciation of the Commission or an individual associated with the Kansas Fish and Game Commission. The latter usually results from the rejection of selfish or unethical demands made upon the Commission or upon an employee of the Commission.

"The Commission and every member of the Kansas Forestry, Fish and Game Commission has only one desire and that is to do the best job they can to maintain, improve and see that the maximum fish and game crop possible can be produced and harvested in Kansas.

"Most of us choose this profession because we are genuinely interested in the work and we derive a deep

satisfaction in trying to manage fish and game. No doubt some of you think we are only interested in exploiting our resources by permitting over hunting and do too little replacing of certain animals after harvest has taken place. Do you think that anyone of us would deliberately work ourselves out of a job by permitting such to happen if we feel that our recommendations were detrimental to our game fish and fish supply?

"The Commission intends to develop its program on a sound scientific footing and carry out its functions as economically as possible. To do so we must have a staff of biologists who will get the facts on which the management tools will be based. No doubt some of you consider scientists as 'screw balls,' and in some cases you are right. But where would industry, agriculture and John Glenn be if we had no scientists? I know some of you don't think the airplane is here to stay and that we should go back to the horse and buggy and the only thing we need to manage game and fish is more law enforcement. Well, we can't go back to the horse and buggy days in our travel and we must get out of the horse and buggy era in our game management. If we are not ready to accept it we are not ready to assure a continuing supply of fish and game animals, much less an increasing supply to satisfy the growing demand. We must face these facts.

"The Commission plans to improve and manage the native game and fish to its fullest potential. We do not intend to overlook other potentials if by careful studies they look promising. I can assure you, however, that no exotic or extinct species of game or fish will be introduced until it has been carefully studied to determine if it has a reasonable chance to succeed. Past

history shows the futility, plus the waste of millions of dollars, in trying to introduce new species without thorough studies. If, after thorough investigation, something looks promising, it will be tried on a small scale in the field before much expenditure is made to get it stocked in numbers.

"We must face the fact that the face of Kansas is quite different in 1962 than it was in 1862. . . . Although we cannot expect the return of some species which once flourished on the Kansas prairie and in her streams, we know that those factors that destroyed some animals have been beneficial to others. It is these species which we can develop to the maximum.

"We have both fish and game bird hatcheries. They were one of the popular ideas advanced for correcting our decreasing fish and game populations. It was only after other popular yet just as frustrating ideas failed that stocking was tried. Since the real culprit was the deterioration of the habitat, stocking was doomed to fail, yet this tool is still in use in Kansas. Don't misunderstand and assume that I contend that all stocking is useless. Where would we be if the pheasant had never been introduced? Where would we get fish and game animals for stocking new or suitable uninhabited new range if we did not have a source of stock? I only want to impress on you the utterly ridiculous practice of throwing game and fish in an environment in which they couldn't possibly live. We are doing just that in continuing our quail and pheasant hatcheries. We are doing the same thing if we stock small fish fry in ponds and streams where fish are already present. We must use our resources and efforts in improving the habitat for our fish and

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A Report from— 1961 Banding Study

by DAVE COLEMAN
Chief, Game Division

The year 1961 marked the beginning of a banding program for game birds produced on the Commission's game farms and stocked across the state. This initial project was aimed at banding only a representative sample of the released birds, primarily quail, not the entire production of the game farms. Totals of 10,000 quail and 2,500 pheasants were banded. Intermittent banding had been done in the 1940's, but no records were compiled of the recoveries. Detailed and complete record keeping is an essential part of the banding program now underway. A summary of the band recoveries to May 1, 1962 reveals some interesting facts, briefly discussed below.

The first banding of 1961 was carried out on 5,000 adult bobwhites released in late March and early April. Only seven bands have been recovered from these birds. This amounts to 0.14 percent, or 1.4 recoveries per 1,000 birds. These birds were typical of those which are held over on the two quail farms each winter for stocking in the spring.

The second phase of the 1961 banding operation was directed at young quail, about 7½ weeks of age, which have made up the bulk of the Commission's stocking program in the past. During August and September, 5,000 of these young quail were banded and released. As in the spring phase of this project, an attempt was made to place most of these quail on areas where they could be hunted during the fall sea-



son. Only 1.44 percent, or 1.44 birds per hundred were recovered from the 10,000 banded quail which were released in the 1961 stocking program. This year, all quail released by the Commission will be wearing bands, and a comprehensive study will be made to determine how many of the stocked quail actually find their way to a hunter's bag.

From these releases 2.74 percent of the bands, or 137, were recovered. This amounts to about 27½ birds per 1,000. The total recoveries from the 10,000 banded quail released in spring and late summer added up to 144, or 1.44 percent.

From the pheasant farm, 2,500 banded cock birds were released on

public hunting areas around federal reservoirs and on one state wildlife management area. These pheasants were nearly full-grown, having been held over at the pheasant farm several weeks longer than the young birds released under previous stocking programs. These 2,500 banded birds were repre-

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Release Area	Number Birds	Bands Recovered	Percent Recovered
Cedar Bluff Reservoir	1,333	165	12.38%
Lovewell Reservoir	500	102	20.40%
Sheridan County Wildlife Management Area	244	35	14.34%
Webster Reservoir	384	57	14.84%
	2,461	359	14.59%



Walleyin' time means long hours, hard work and about a month of it to fishery biologists and game protectors. But sleeping in machine sheds or whatever else is handy, and the hard work are welcomed by the biologists who have spent the winter inside offices and laboratories.

Pursuit of the Walleye

In early spring, when the water temperatures on the larger reservoirs begin to rise, walleye start moving into shallow water in preparation for spawning. Unlike so many of the fish in Kansas, the walleye is a fish that does not build a nest. It merely scatters its eggs over a broad area of gravel beaches or rocky shorelines.

Due to this habit, which is called random spawning, no efficient way has been devised by man to successfully breed walleye in captivity. If the fish are confined in a small area, they seldom spawn. If a large enough area is provided, it is al-

most impossible to recover the young.

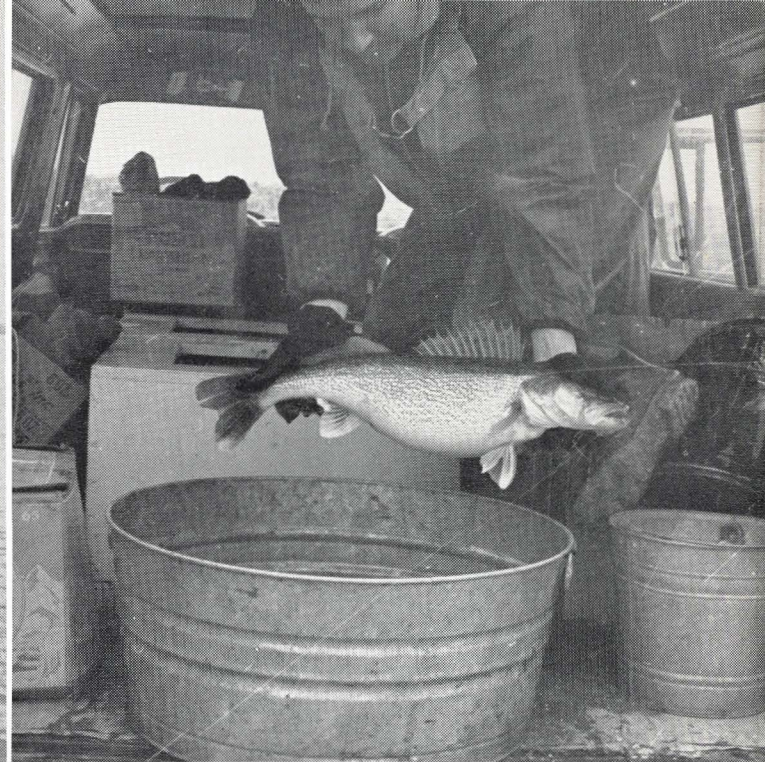
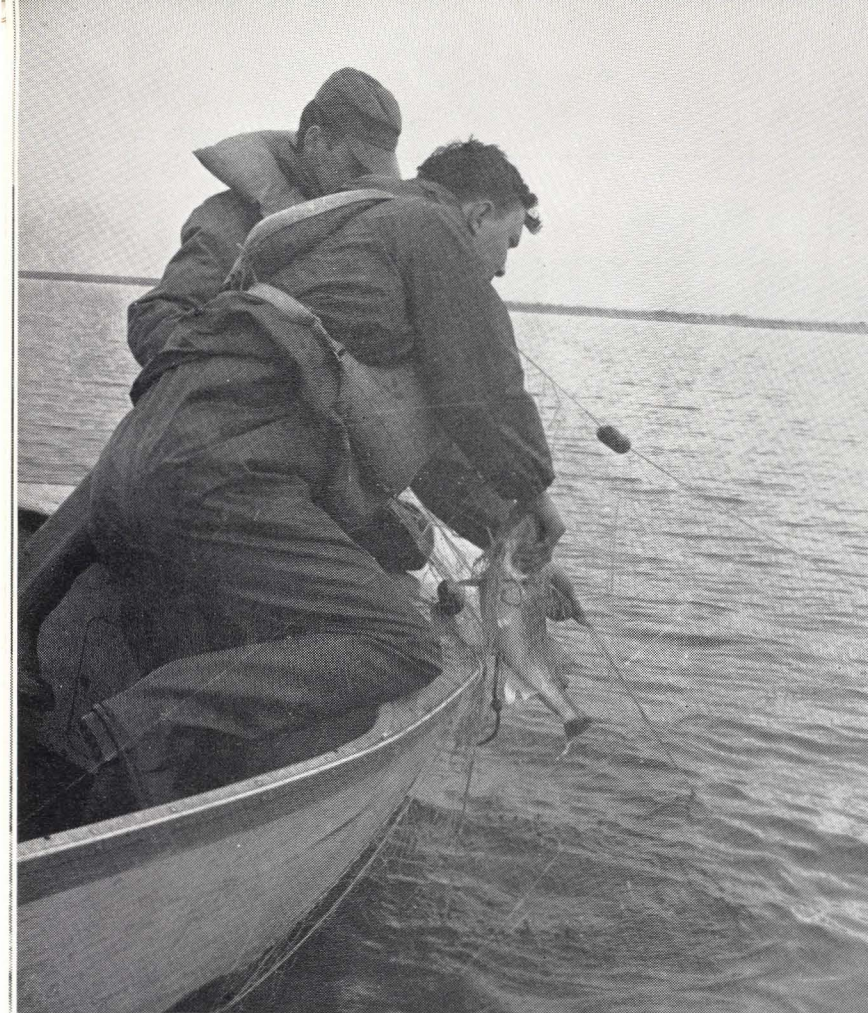
And thus it is that to date, the only successful and efficient way to go about producing hatchery walleye is to catch the fish just before they spawn and strip them of their eggs and milt. And as you might imagine, this involves a terrific amount of work when you are dealing with the proposition of collecting several million eggs.

So when spring rolls around, fishery biologists of the Kansas Forestry, Fish and Game Commission pack their equipment in their fish

truck and head out for our reservoirs. They can expect to be spending about a month at the task and sleeping in machine sheds or whatever else is handy. The hours will be long and the work will be hard.

Nevertheless, the biologists and game protectors who will assist them, look forward to walleyin' time. For the biologists it is probably the first work they have had outside the office and laboratory since the preceding fall.

The pictures on the following page illustrate the walleyin' operation.

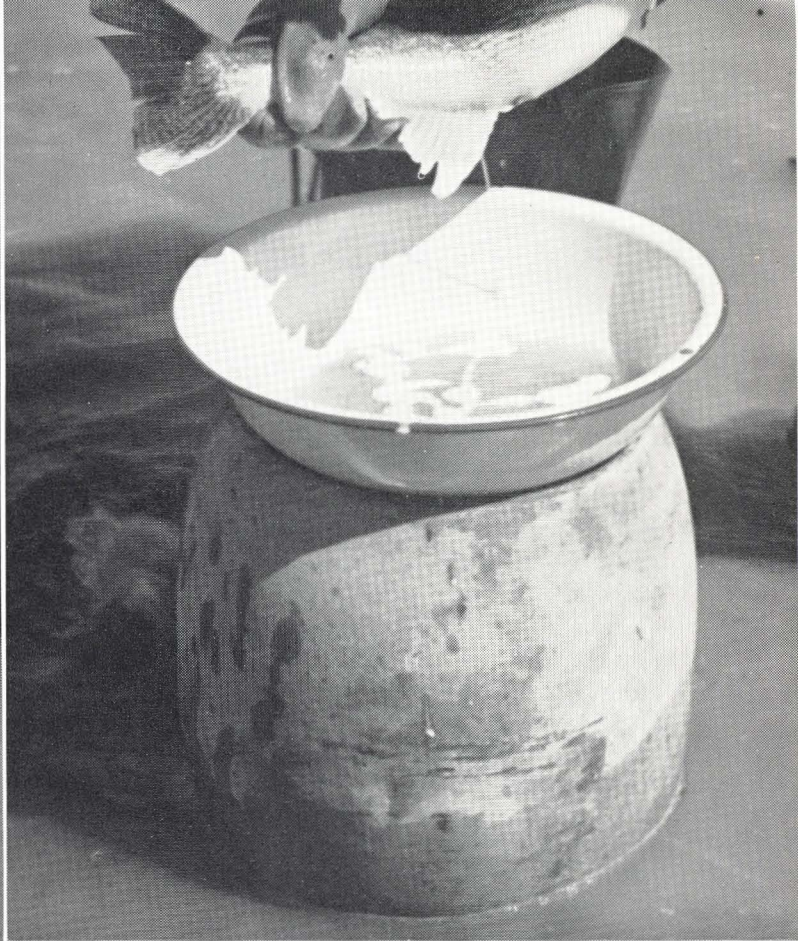
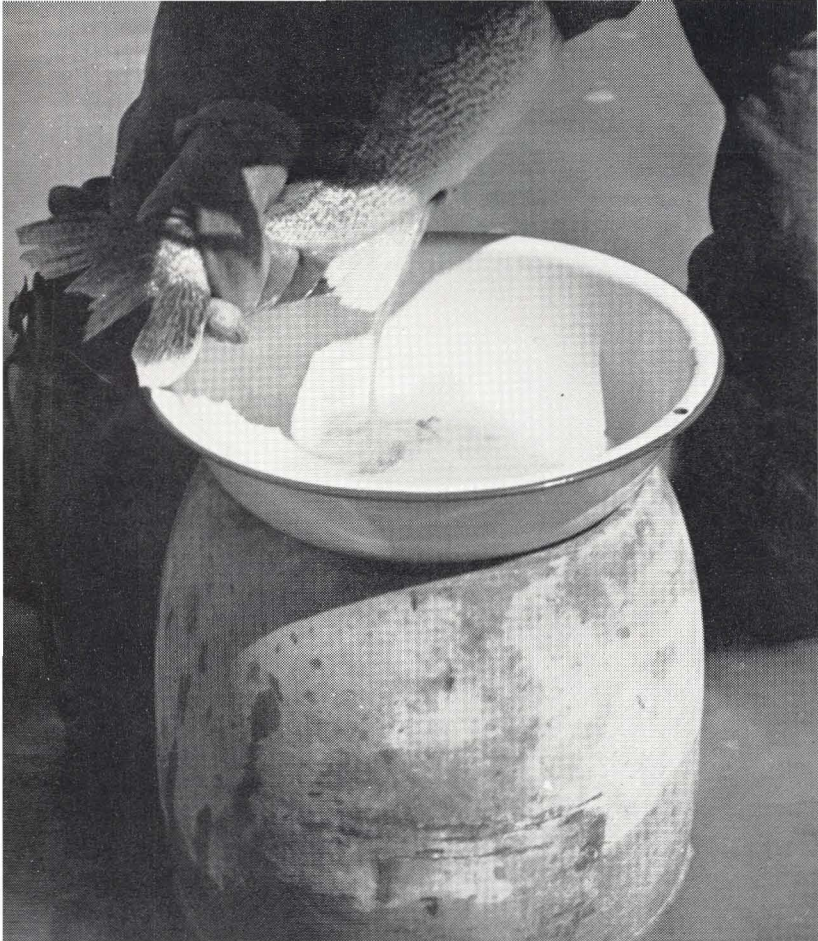


ABOVE—When the fish are taken from the nets, they must then be transported to the fish hatchery for stripping. Portable fish holders, such as those in the background, are used to carry the fish. These tanks are equipped with aerators and agitators to keep oxygen in the water during the trip.

Gill netting is one of the most successful methods used by the Kansas Forestry, Fish and Game Commission in collecting spawner walleye for use in hatchery operations.

BELOW—Fish traps are another type of equipment used to take walleye. Generally, both traps and gill nets are placed in the evening and run the following morning. During spawning time, walleye frequent the shallow, rocky or gravelly beaches. However, most of their movement in shallow water takes place at night.

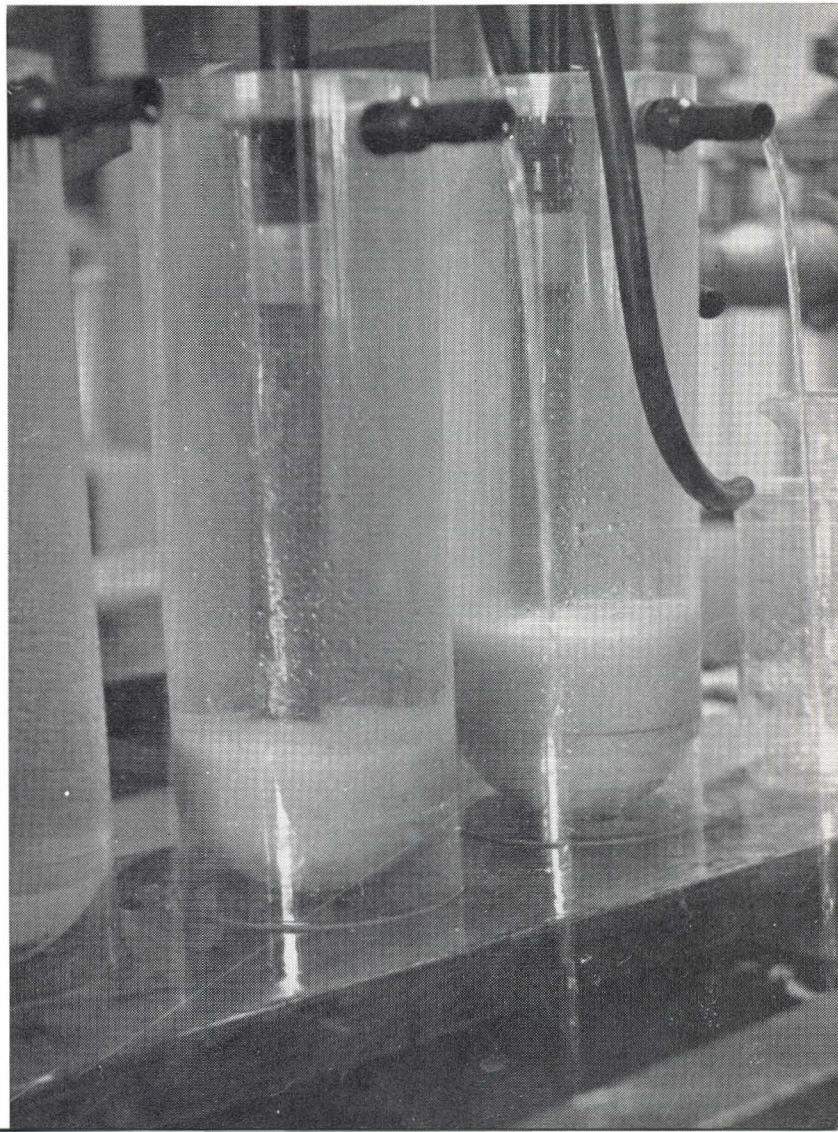




The two pictures above show how walleye are stripped of their eggs and milt. In the picture above, eggs are gently squeezed out of a female walleye. A rather slight pressure along the sides of the fish is all that is needed to start the eggs flowing. In the wild, the eggs spray out at random as the female swims over rocky and gravelly areas.

The picture in the right hand corner shows the milt, or sperm, being taken from a male walleye. This is sprayed into the pan with the eggs. Pressure along the sides of the male is all that is needed to bring forth the milt. In the wild, the males follow a spawning female and distribute their milt in the same random manner.

After mixing of the milt and eggs, a clay solution is added to remove the stickiness from the eggs. Then after a thorough washing, the eggs are placed in hatching jars, such as those at the right. Water is forced down a pipe in the center of the jar and flows upward and out a drain nozzle. The eggs are thus kept in gentle circulation until they hatch.



Public Hunting at *Lovewell*

Lovewell Reservoir is located in the north central part of Kansas near the Nebraska border. Situated on White Rock creek in Jewell County, the lake is located three miles northwest of the town of Lovewell and 12 miles northeast of Mankato. Access to the reservoir can be by K-14, to the upper end or by numerous gravel and dirt roads to other parts of the lake.

This spring, many of the roads to the lake were soft in wet weather, making access difficult. However, improvements are being made in the area which should result in easier access during rainy periods.

The water area of the lake is 2,986 acres, which is all open to public fishing. In addition, about 2,000 acres of land around the lake is managed by the Kansas Forestry, Fish and Game Commission for public hunting. The area generally has heavy concentration of waterfowl during the spring and fall migration periods and provides excellent hunting for these birds. Other hunting is generally good for pheasants, quail, rabbits and squirrels.

In all, the lake is about six miles long with a 44-mile shoreline. Hunting of waterfowl is allowed all along the shoreline where indicated as public hunting areas on the attached map. However, hunting from boats or boating is permitted only in zones A and C during the spring and fall migration periods. This provides a degree of refuge for the birds in zone B.

Lovewell Reservoir was completed in 1957 as an irrigation project by the U. S. Bureau of Reclamation. The management plan for wildlife at the reservoir is carried out by the Kansas Forestry, Fish and Game Commission and includes providing both food and cover for wildlife.

Food for wildlife is provided by leasing agreements with local farmers whereby the farmer gets two-



Duck Hunting at Lovewell Reservoir

thirds of the crop and the Commission gets one-third. This one-third may be left standing for utilization by wildlife during severe winter weather. In addition, some food plots are created in areas of heavy cover.

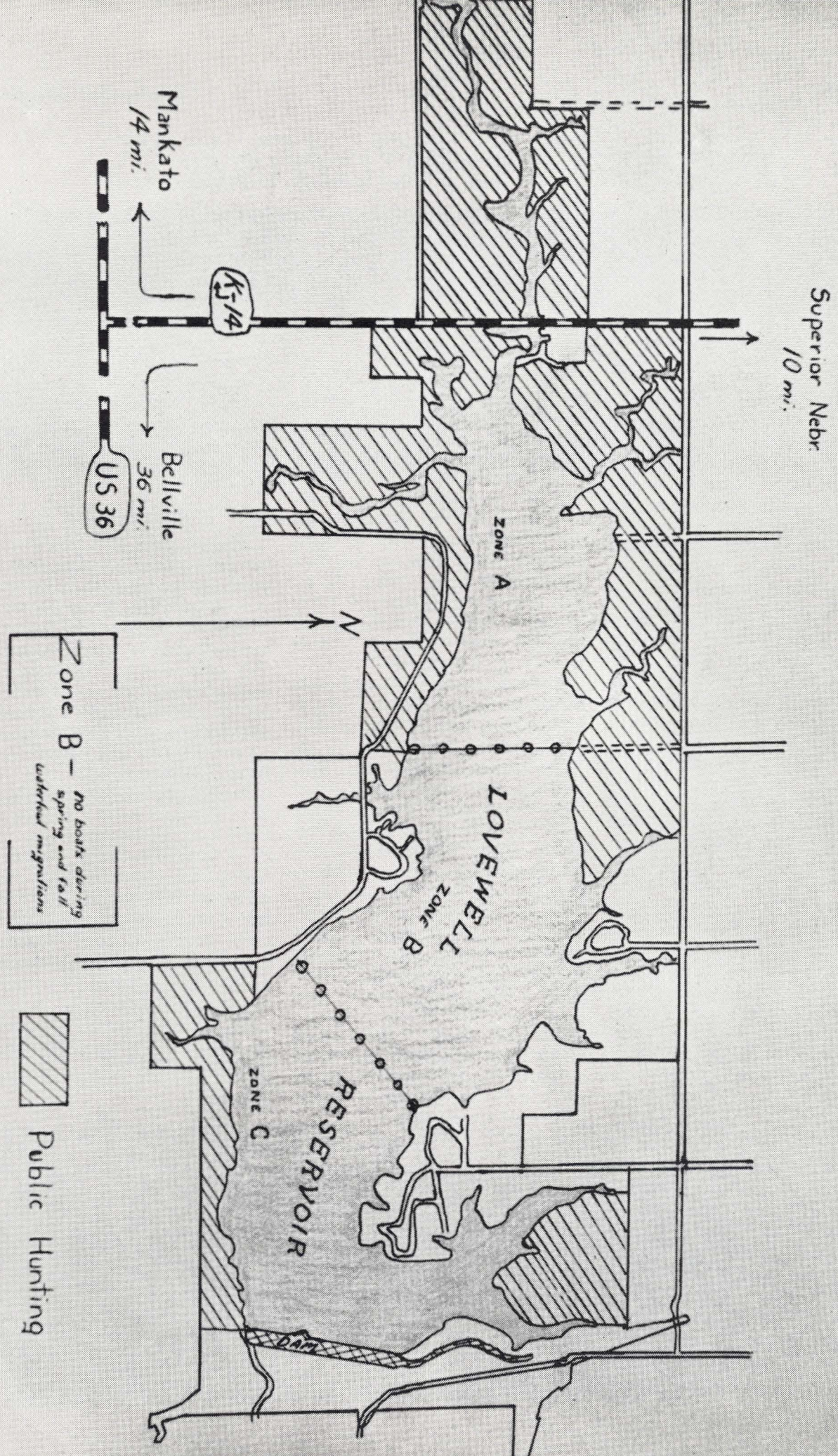
Cover plantings include grasses, shrubs and other wildlife plantings. Wildlife shelter plantings are designed to provide sturdy cover that will not be damaged by snow and ice. They differ from regular shelter-belts in that they are not designed to grow tall and block the wind. Instead, they provide thick, sturdy underbrush with some berries for wildlife.

While the boundaries of the public hunting lands are not completely marked, the areas are generally posted as open. Some areas in addition to those shown on the attached

map may be opened to public hunting in the future and will be posted accordingly.

There are some special rules for hunting on reservoir lands under the control of the Kansas Forestry, Fish and Game Commission. However, they are mostly rules of good sportsmanship, safety and common sense. In regard to waterfowl hunting, though, there are two regulations that should be mentioned here. First of all, the refuge area is subject to change from year to year and a hunter should be sure he does not take his boat inside the marked area. Generally the zones are marked by buoys.

Secondly, blinds must be constructed on a temporary basis from natural materials found at the site of the blind. The digging of holes or pits is prohibited.



FLATHEAD *Catfish*

The largest game fish on record in Kansas, up to May, 1962, is a flathead catfish. It was taken from the Neosho River on a trotline with a one-pound carp used for bait. The fish weighed in at 64½ pounds.

The flathead, also called yellow cat or mud cat, is considered one of the best eating fish in the state. As for its sporting qualities, fishermen disagree; some saying flatheads hardly fight at all and others say they struggle right down to the last. Both are probably right, depending on conditions. But in any event, the size of the flathead makes it a worthy competitor for the angler's time.

Identification

There is seldom any doubt about identifying the flathead when it is 12 inches or more in length. The flattened head, protruding lower jaw, slender body and mottled slate or brown color quickly separate it from the other Kansas catfish. In smaller fish, however, the flathead may easily be confused with the stone cat or even some of the small bullheads and madtoms. The stone cat can be distinguished from the flathead by the fact that its fatty fin, on top and just ahead of the tail, is not free of the body. The fatty fin on a flathead separates from the body as do its other fins.

Bullheads can usually be distinguished from flathead young by the fact that they are heavier bodied and their lower jaw does not protrude. The madtoms and other small species of catfish come in a variety of shapes and colors, but

seldom are more than three inches long. Thus about the only time they may be confused with the young flatheads is when a fisherman captures them while seining for minnows.

Life, Habits

The flathead's breeding habits are similar to those of the channel catfish. They prefer a protected nesting site, under rock ledges or in holes in the bank. The life history of these fish is not well known, but they apparently select a home-site where they rest during the day and journey out to feed at night. Flatheads seem to prefer the same type resting areas as they do for nest building. However, in lakes or ponds where such areas are not available, they will rest in the mud wallows at the bottom.

The young flatheads feed mainly on insects and gradually begin feeding on larger animals such as crayfish, minnows and snails. As the flatheads reach a good size, they turn more and more to a strict fish diet. They will also feed on worms and other animals, but they live primarily on fish. Thus minnows, small sunfish and worms are favored baits used by rod and reel fishermen. Trotline fishermen, who account for a great many large flatheads each year, seem to prefer large minnows, sunfish, carp and goldfish for baits.

Distribution

The flathead is distributed in most of the larger streams of the state and is occasionally taken in even the smaller streams. It is pres-

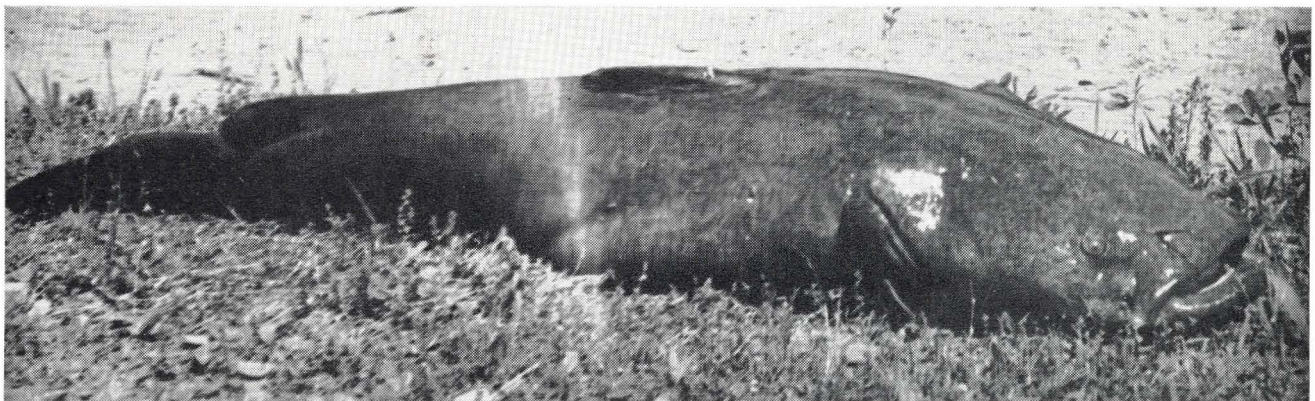
ent in a great many of the state's lakes, but is not so widely distributed as the channel cat. Flatheads thrive in large, fairly quiet water, but may also be found in the deeper holes in our swifter streams.

They seldom reproduce in ponds and are difficult to raise artificially. For these reasons they are not stocked by the Kansas Forestry, Fish and Game Commission. They do not require clear water, but as with most fish, they grow faster when the water is not turbid.

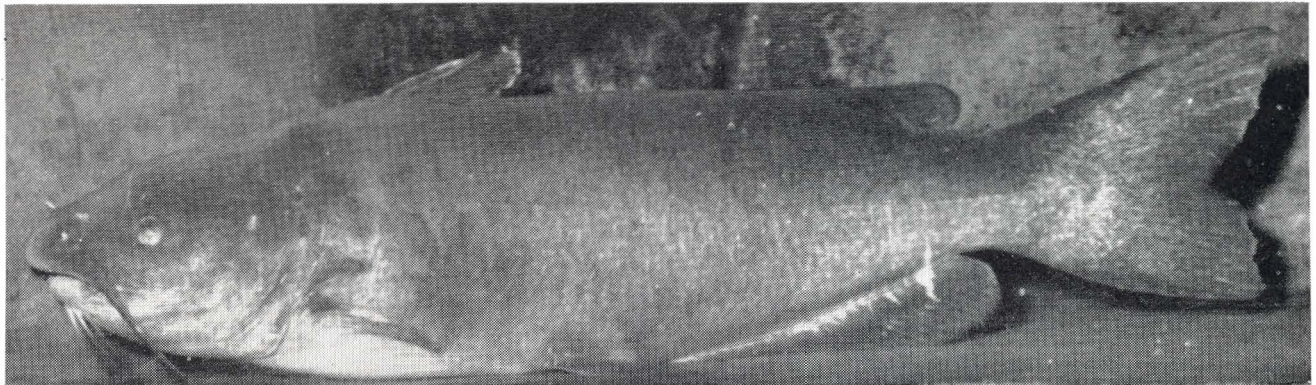
Management

Managing for flatheads involves the same basic steps as management for channel cats. Preventing erosion and the siltation it would cause helps to protect the spawning and resting areas as well as keeping the water clearer. This applies to both streams and impoundments. Water pollution destroys this fish as it does many others and we must strive to make our streams and lakes cleaner.

In 1962, the limit on flatheads was 10. This limit helps distribute the harvest among more fishermen. Another restriction that applies to all Kansas fish provides that hand fishing or "noodling" is illegal. This restriction came about largely because the flathead (and channel cat to some extent) is very vulnerable to this type of activity when nesting or resting in bank holes or under stumps and ledges. The fish has very little chance to escape and it is an unsporting method from that standpoint.



The Channel Catfish



The channel catfish is probably the most widely distributed game fish in Kansas. The fish occurs naturally in virtually all the streams and has been stocked in nearly every lake or pond in the state. It is an extremely hardy fish and is widely acclaimed for both sport and eating quality. In Kansas, this fish is the closest competitor to the largemouth bass in terms of the number of fishermen pursuing the species. And not too many years ago, many Kansas fishermen considered the channel cat to be the "state fish."

Identification

The channel cat is frequently confused with the blue catfish in Kansas. There is little chance of confusing the younger fish, since the young channels generally are spotted. In larger fish, however, the channel cat loses its spots and at first glance looks almost identical to the blue catfish. The most reliable way to determine which fish is which is to count the rays in the anal fin, the long fin on the underside of the body. If the fish has fewer than 30 rays, it is a channel. If it has 30 to 35 rays it is a blue catfish.

Generally speaking, the blue catfish is found only in the Missouri River, Kaw River and Marais des Cygnes River. The blue is a large river fish and is common in the Missouri River, but occurs only occasionally in the Kaw and Marais des Cygnes.

Life History

Channel catfish spawn in June and July in most of Kansas, depending on the water temperature. They generally make a nest in a hole in the bank, underneath submerged stumps or other secluded places. The male guards the nest and keeps the water in circulation around the eggs so that silt doesn't settle on them. In seven or eight days the eggs hatch and the young remain in the nest for about a week.

The young channels feed almost exclusively on aquatic insects at first and gradually turn to other foods as they grow larger. Adult channels will eat almost anything, which accounts for the great variety of baits that will take channels. The channel cat is a swift swimmer and has rather good eyesight for a catfish. This accounts for his being taken occasionally on artificial lures by bass fishermen. Generally, however, minnows, worms, crawfish and various stink baits and dough balls are the most productive channel cat baits.

Habitat

Although the channel cat occasionally feeds by sight, it is not a requirement and the fish thrives very well in turbid water. Its habit of selecting secluded and protected places to nest, however, prevents it from spawning in many ponds and lakes that do not offer such cover. In turbid water, the fish will sometimes nest with only a minimum of protective cover. Most of the larger

Kansas streams have the desired nesting sites readily available for channels and as a result, channels are abundant in them. Generally speaking, though, preferred channel habitat includes clear water. In turbid water the channels will frequently overpopulate and become stunted in their growth.

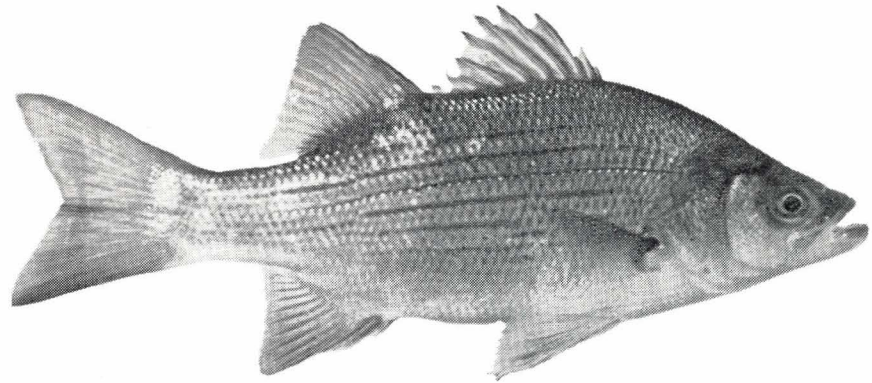
Management

Management for the channel catfish, as for all fish, consists of providing the best possible habitat. That means encouraging sound soil conservation practices that will hold down the siltation in our streams. Pollution abatement is equally important. In ponds and lakes, the above practices should be encouraged. The limit on channel catfish in 1962 is 10. While the fish is abundant, and perhaps underharvested in small areas of the state, this limit is needed to help distribute the harvest among a greater number of fishermen.

Hatchery, Stocking

The Kansas Forestry, Fish and Game Commission operates one of the largest fish hatcheries in the United States and annually produces several million small channels for stocking purposes. The methods used at the Pratt hatchery were pioneered there and have since been copied elsewhere. The channels, as well as other species raised there, are used to stock the new lakes and the many new farm ponds that are built each year.

The WHITE Bass



The white bass is getting to be one of the most important fish in our reservoirs. This species, which is a true bass and not related to the largemouth, was first stocked in Kansas in 1950 at Fall River Reservoir. Since that time, it has been stocked in most of our reservoirs and has been providing good fishing. The white bass, which is also called striper or sand bass, has spread to some of the major streams of the state, but generally shows up most abundantly in our reservoirs. The original range of this fish in the United States was from Minnesota through the Great Lakes and down the Ohio and Mississippi River valleys.

Identification

There is hardly any possibility of confusing the white bass with other Kansas fish. The white bass has a rather flat body with a high back. Its dorsal fins, those on top, are completely separate from each other, which is not the case in a largemouth bass. The white bass, as its name implies, is white or silvery on the sides with the belly being yellow in some individuals. Their sides are divided by six or more black lines running from their gills to their tail. They resemble their salt water relatives, the striped bass very much, which leads to the theory that they came originally from the striped bass, but were landlocked and developed characteristics of their own.

Life, Habits

The habitat needed by white bass generally consists of deep, clear water, in either river or impound-

ment. The fish live out most of their life in these deep waters, but in the spring, about April in most of Kansas, the white bass has a tendency to travel upstream to spawn in rocky and weedy places along riffles. White bass living in lakes frequently seek out stream inlets, however, a large amount of spawning is done in rocky or sandy areas of the lake itself.

The female lays up to a half million eggs, but makes no attempt to build a nest or guard the eggs. The young white bass stay in the shallow water for a time, feeding on insects and other small aquatic animals. But they soon move to deeper water and their diet begins to include minnows and small fish as they grow large enough to handle them.

White bass generally travel and feed in schools (as a group) and may be seen chasing minnows and shad along the top of the water in spring and summer.

This fish seldom lives beyond four years of age, but may reach four pounds in that time if food is plentiful. To put on this weight so quickly, the white bass feed very often and very hard. The adults eat some insects and crayfish, but seem to prefer minnows and small gizzard shad when available.

Their habit of feeding as a group and their liking for gizzard shad, makes them fairly easy to locate when they are feeding. Gizzard shad travel as a school and when a group of feeding white bass finds such a school, the shad can be seen jumping and skipping out of the water to avoid the white bass. At

these times an angler attempts to get in range and follows the school of shad. By casting almost any kind of lure into the school of shad, he is often able to get in on some fast and furious action. The white bass fights hard and will take almost any lure. However, many devoted white bass fishermen claim the best color is white. And this seems to be borne out by the fact that a high percentage of the white bass taken are tempted by a white lure.

White bass are frequently taken by crappie fishermen on minnows, and night fishing with small minnows under a lantern is said to be a productive way to catch this fish.

Management

Management for the white bass consists mainly of providing the kind of habitat needed by this fish. Being a sight feeder, it must have clear water, so sound soil conservation practices should be encouraged. Pollution, likewise, is a threat to the white bass.

Due to the white bass' need for an abundant supply of small forage fish, it may be deemed necessary at certain times and places to introduce a forage fish species, such as the gizzard shad, to provide a food supply.

Due to the fact that the white bass lives only a short time and reproduces in abundance, limits and restrictions on taking them can be relaxed. In 1962, there is no limit to the number of white bass a fisherman can take and the restrictions on methods of taking this species are no more strict than for other species.

The Crappies

In terms of numbers of fish taken in Kansas each year, the crappies rank near the top. Although the crappies are seldom "tackle breakers" or spectacular aerialists, they have a wide following among fishermen. They are easily caught at times and have flavorful meat. There are two kinds of crappie in Kansas, the black and the white, and both are members of the sunfish family.

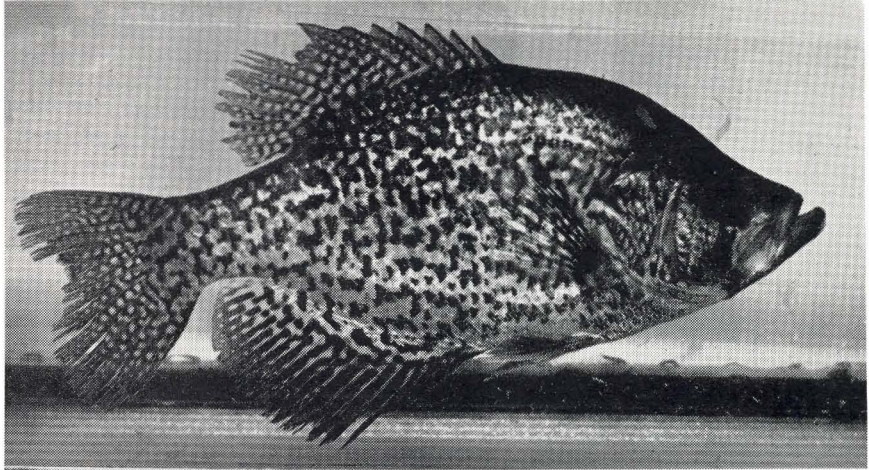
Identification

The crappies, and other sunfish, are distinguished by their two dorsal or top fins. In the sunfish family, these fins do not separate, but are attached. The front fin has protruding spines while the back fin contains rays. The crappies are distinguished from the other sunfishes by their flat, tall bodies, white or silvery sides with black spots which are scattered haphazardly or in loose bars. Generally the white crappie can be identified from the black crappie by the fact that its black spots tend to form bars, whereas the black crappie's spots are scattered haphazardly. A more reliable way to tell the difference between the two is to count the number of spines in their top and forward fin. The white crappie generally has six spines whereas the black crappie has seven or eight. (White and black crappie may crossbreed, resulting in hybrids with characteristics of both species.)

Life, Habits

The crappies were originally native to Kansas' streams, but due to their popularity, they have been stocked for many years in most ponds and lakes. Research indicates, however, that while crappie are easily established in small bodies of water, such as small ponds, they rapidly overpopulate, resulting in stunted fish with little value.

Crappie habitat can be quite varied, from deep still lakes to fairly swift rivers. However, they gen-



The Black Crappie

erally prefer rather quiet water. The black crappie prefers very clear water, with gravelly or rocky bottom, but the white crappie will tolerate a certain amount of murkiness and does not mind a mud bottom.

The crappies, like the other members of the sunfish family in Kansas, build nests. When the water reaches about 68 degrees, the crappies seek out nesting sites in fairly deep water. The male builds the nest and protects the eggs until they hatch.

Young crappies feed on insects and gradually begin including minnows and small aquatic animals such as crayfish in their diet. The crappies, like the white bass, are fish which prefer to stay together as a group or school. They prefer to stay around submerged vegetation or sunken trees and brush piles. They, too, are short-lived fish, with a four year old being an old-timer.

As the crappies reach adulthood, they continue to eat a varied diet, but for fishermen, minnows are the prime bait. Although studies indicate that minnows make up only a small part of the crappies' diet, they seem to be irresistible to this fish.

Due to the fact that crappies prefer to stay in groups, stay around brush piles, and can't resist a minnow, fishermen can find plenty of action by locating a good spot and

allowing a minnow to dangle in the water.

Artificial lures work quite well for crappie also. Small plugs, spoons, spinners and flies are good baits when presented properly. Bluegill fishermen frequently catch crappie when working a fly-rod popping bug across the surface of a state lake in late evening.

Management

Management for the crappie consists of providing good habitat. This, to the crappies, means good water and plenty of it. Sound soil conservation practices should be encouraged and pollution discouraged to provide an increased crappie population in Kansas.

The stocking of crappies by the Kansas Forestry, Fish and Game Commission is limited to larger impoundments such as the state lakes, federal reservoirs, and larger ponds. As mentioned earlier, they almost always overpopulate small bodies of water.

Since the crappies are short-lived and very abundant in Kansas' major waters, restrictions on taking them can be liberal. In 1962, the limit on crappie is 30 pounds, a good catch for any sport fisherman. There are no restrictions on the way crappies may be taken that do not apply to other Kansas game fish.

Responsibilities

(continued)

game and then nature will replenish the numbers much more effectively than man can possibly do through artificial methods.

"It is impossible to develop a sound program by trying to follow the suggestion of all hunters and fishermen. . . . These may not occur at every sportsmen's meeting, but I can assure you that they are frequently offered by well meaning sportsmen. Judge for yourself if they can be followed. These are: Do away with all game wardens, we had more game before there were laws; do away with all biologists, all you need is more law enforcement; give us more pen-raised birds; let's close the quail season for 10 years; what we need is to hunt quail longer and shoot them so they will breed; kill all foxes; kill all hawks; protect hawks, they eat rats and snakes; and many others.

"It takes very little effort to get suggestions similar to those above, all supposedly beneficial in solving the wildlife problems in any state."

(The Forestry, Fish and Game Commission is supported solely by hunters and fishermen through the sale of licenses. Keep this in mind as you read this last paragraph.)

"Because your facilities are attractive to all kinds of outdoor enthusiasts they are being heavily used. That is fine insofar as they do not conflict with the primary purpose for which they were built. If this occurs the hunting and fishing must come first. Naturally many fishermen and hunters like to camp, picnic, water ski and just sight-see. At the same time, many more non-fishermen use the facilities built and maintained by fishing license money. We welcome this but when they interfere or become too costly, changes must be made. We cannot spend your license money for building facilities or maintaining facilities which have little or no value to those who foot the bill. This, in my opinion, is illegal.

History and Reasons For Boating Laws

Perhaps you have just purchased a boat or are thinking about buying one. Naturally, as a thoughtful person, you are probably wondering what rules and regulations you must comply with before putting your boat in the water and during the time it is in operation. And you may be wondering just what these laws and regulations mean and why they were enacted in the first place.

Just what is the State Boating Act? What is the Federal Boating Act? Must I comply with both state and federal boating laws? These are a few of many questions asked the Forestry, Fish and Game Commission, the agency responsible for the administration and enforcement of the Kansas Boating Act. This article therefore is aimed to those persons taking up boating for the first time and will give a brief history of boating legislation and the reasons behind its enactment.

by FRED WARDERS
Chief, Law Enforcement

Boating is one of America's fastest growing forms of sport and family recreation. Its spread and increase in popularity has been astounding. From a total of about 15,000 craft in 1904, the number had grown to 1.5 million in 1930. By 1947, the total number reached 2.4 million and in 1960 approximately 7.5 million. Undoubtedly the total number of pleasure craft now stands in excess of 8 million. According to the Outboard Boating Club of America there was one pleasure boat in use for every 24 Americans in 1960.

Because of the great increase in boating activities, a number of boat manufacturers and owners realized in the early 1950's that boating legislation then in effect was rapidly becoming inadequate. A boat registration law dating from 1918 was a relic of the premotor days and

was not geared to cope with the millions of watercraft now in operation. The OBC, a national organization of outboard boating enthusiasts and the outboard boating industry, took a leading part in conferences with the U. S. Coast Guard early in 1956, attempting to modernize the boating statutes. One of the most significant developments resulting from these conferences was the passage of the Federal Boating Act in 1958. This act is basically a boating-safety bill which provides for a numbering system for identification of motorboats.

It also does much to assure uniformity of numbering laws throughout the country. Previously it had been all but impossible for a state to establish a workable numbering system which would not be in conflict with federal requirements on navigable waters or with the numbering system of another state. Now, as provided for in the Federal law, a state could assume jurisdiction for numbering motorboats on all waters of the state with the passage of a state boating law complying with standards listed in the Federal Act. These standards required the state to use the appropriate block of numbers of a series set up for the entire country. In addition, the state must provide for the collection of accident reports and the furnishing of the resulting statistical information to the Federal Government. Most important, the state must agree to grant reciprocity for a minimum of 90 days to all motorboats numbered in another state with an approved numbering system, or by the U. S. Coast Guard. Such a state law must be Federally approved before the state could take over the numbering responsibility.

Although participation in water sports has been popular in Kansas only a few years, the increase in

popularity has been amazing. This increase is undoubtedly due to the fact that Kansas has become a state with many large areas of water that can be used for the enjoyment of water skiing, surfboard riding and boating in general. Kansans also realize that water sports are a means of relaxation and healthful recreation.

All of us should stop and think about the dangers as well as the pleasures involved in this form of recreation. If carried on properly with due precautions, water recreation is both safe and enjoyable; if done recklessly, it is dangerous.

In the interest of public safety in general, and to implement the Federal Boating Law of 1958, the State of Kansas by its 1959 Legislative Session enacted the existing State Boating Act with administration and enforcement charged to the Forestry, Fish and Game Commission. The law is, in fact, a boat-safety law and provides for a uniform numbering system. It was not designed to be a revenue measure, nor is it a cure-all for every type of problem that might exist. It was also not enacted to restrict any individual in the enjoyment of the sport but rather to protect the careful person from the dangers created by the careless. The boating act and regulations prepared pursuant thereto is generous enough to enable everyone to enjoy water sports to the fullest degree, but has strict requirements in regard to uniform numbering of a certain class of boats and proper operation of all vessels. The law also applies to all water sports related to boating.

The numbering system of the Kansas Boating Act received formal approval by the proper federal agency in November of 1959 and became effective in full on January 1, 1960. Kansas boaters are now entering the third season of operation under the new law. As a means of acquainting the boating public with the provisions of the law and regulations, the Forestry, Fish and Game Commission prepared for distribution a pamphlet entitled *Kansas Synopsis of Boating and*

Water Safety Laws. This publication is designed as a service to boaters and is not intended to be a complete summary of the various provisions of the State Boating Act and regulations relating to boating. It does supply information concerning the more important provisions of the legislation and regulations and is provided for the information of interested boaters. All boat owners or prospective boat owners are urged to obtain a copy of this pamphlet, if they have not already done so, in order to become fully aware of the procedures they must follow when afloat on Kansas waters. It is available at all Marine Dealers and other business places where boats and boating equipment are sold. It can also be obtained by writing to the Kansas Forestry, Fish and Game Commission, Pratt, Kansas.

Chase County Lake

(continued)

swimming beach complete with diving tower and raft. Trees have been set out along the lake shore and in the various picnic and recreation areas.

The facilities maintained at the lake, although not elaborate, are adequate for satisfactory day-use. Picnic tables and grills are located at intervals along the northwest lake shore, sanitary units have been installed and a boat ramp has been constructed along with adequate parking space for trailers and cars. These facilities provide comfort for the many fishermen who annually use the lake.

The rocky bluffs on either side of the lake hold an interest for some who visit this location. A quarry, from which rock was used to face the dam, is a favorite location for those who like to hunt for geological specimens. Fossils from ages past are to be found in the limestone formations which jut forth from the sides of hills.

The shadows lengthen early in the evening at Chase County State Lake. The hills rise sharply from the water near the dam and the resulting shade is a welcome addition to the cool breezes of evening-time. Small fish dimple the surface of the water and peace seems to envelop the world. Here, you can feel the stillness and serenity which are characteristic of the rolling prairies at the beginning of night. Here, one can forget the worries of the world and relax amid a different atmosphere. As night draws closer, the wail of a coyote sends a chill down your spine and, out on the lake, a large bass smacks the surface in pursuit of a minnow.

A Pollution Control Plan

A fish-minded recreationist, Dr. Morris M. Cohn, proposed a very simple pollution control plan, according to the February issue of *Wastes Engineering*.

His plan is simply, "Require every city and industry that is now dumping wastes into streams to take their water from an intake located **below** their wastes outfalls!"

Book Review

OUR WILDLIFE LEGACY by Durward L. Allen—422 x pages. Illustrated with black and white photographs. Published by Funk & Wagnalls Company, 360 Lexington Avenue, New York 17, New York; 1962 (Revised Edition). Price \$6.50.

OUR WILDLIFE LEGACY is an acknowledged classic in the literature of natural resources conservation. It is one of the few books available to the layman that provides a clear-cut, highly readable, and convincing explanation of what modern wildlife management is and how the objectives are to be attained.

Banding Report

(continued)

sentative of the age-class of birds that will be stocked in 1962. Recoveries of bands from these banded pheasants showed the following totals for the four areas:

From the four releases a total of 359 bands were recovered. This makes up 14.59 percent of the total release of 2,461 live birds (39 birds out of the 2,500 were dead at release time). This is an average of about 146 birds recovered per 1,000.

In summary, then, we have recovered the following numbers of bands from the three categories of releases for each 1,000 banded birds released: spring quail (adults)—1.4; summer quail (7½ weeks old)—27.4; fall pheasants (young birds nearly full-grown)—146.

The obvious conclusion to be drawn from the findings of this preliminary banding study is that recovery rates are low for birds released into the wild from our game farms. We certainly will not accept these initial findings as the final answer to the question, however. This year all released birds will be banded, and in July a full-time biologist will be assigned to study the results of our quail-stocking program. Only after the results of a thorough study covering two or more years are available will the Commission be ready to form its final opinion. We intend to gather facts not only on how well birds survive when released at various ages and various seasons, but also on the reproduction that we can expect from these released birds. Furthermore, we expect to test the survival of birds hardened in large flight pens against that of those released directly from small wire-bottomed pens.

The small-scale banding study of 1961 did afford additional proof of one fact of which we already were convinced. This is that in every case there is an inverse relationship between the length of time between releases and harvest and the percentage of birds recovered—the

more days that elapse between release and hunting, the smaller will be the recovery rate. This has been proved in many other states, of course, and it has been shown conclusively on our Controlled Shooting Areas (shooting preserves) here in Kansas. The operators of these shooting areas have learned through costly experience that in order to make a profit, or at least to break even on expenses, they must hunt their birds soon after release. Most commercial operators now release their birds on the same day that they are to be hunted. Even so,

few of them achieve the 70 percent recovery that the law allows. Operators who release their birds one or more months in advance of the season seldom recover more than 10 to 20 percent. One disgruntled operator released over 800 birds in the spring, summer and early fall of 1961 but was not able to find a single bird on his area when the shooting season rolled around.

The evaluation of our stocking program has just begun. As more facts come to light they will be presented in this magazine and through other news media.



The Commission found that state-wide releases follow the same trend as do releases on private shooting preserves. The operators of these preserves have to release their birds the same day they are to be hunted in order to get a decent return. And even then it is a rare occasion when 70 percent of the birds are taken.

Seven Eligible for—

JULY RETIREMENTS

Seven employees of the Kansas Forestry, Fish and Game Commission become eligible for retirement July 1 under the new Kansas Public Employees Retirement System.

Albert M. Sprigg, Yates Center, is the oldest employee of the Commission (but by only four days), being born August 4, 1879. He began his work as park superintendent at Woodson County State Lake on April 15, 1938, and has worked at the same location for the past 24 years.

Joseph Concannon, Lansing, is nearly the oldest employee, being born only four days after Sprigg, August 8, 1879. However, Concannon has been a Commission employee for 40 years, longer by far than any other employee.

He began as a game protector in 1923 and worked until 1937. He became actively engaged in law enforcement for the Commission again in 1939. Actually, the story has it that Concannon has been associated with the enforcement of fish and game laws since the turn of the century. His work began back in the days when "game warden" was an apt description of the work required. There was no Commission as it is today, and law enforcement was frequently carried out by deputy wardens who were paid according to the number of arrests made.

Ora Johnson, Pratt, began work for the Commission October 4, 1952, and has held the position of groundsman for the past 10 years. He was born in 1890 and has contributed much to the beautifica-

tion of the Commission headquarters area at Pratt.

Rolley Hall, Medicine Lodge, began working for the Commission in 1956 when Barber County State Lake was completed. He has worked as park superintendent there for the past six years. Hall was born on August 31, 1891.

James Carlson, Salina, began working as game protector for the Commission in 1933 and served until 1937. After a two year interval, he was back on the staff and has been a game protector ever since. Born in April, 1894, Carlson has a total of 27 years active service behind him. He, like Joe Concannon, is said to be one of the old time "game wardens." And both he and Concannon were important figures in the development of the Commission.

Harvey Tompkins, Pratt, became a groundsman for the Commission in 1955. He was born in 1895. He originally worked outside most of the time, helping make the Commission headquarters at Pratt one of the beauty spots of Kansas, but in recent months he has been largely in charge of the mail and maintenance of the headquarters building.

Carl Suenram, Moundridge, became a game protector for the Commission June 11, 1939, and worked in that capacity for 22 years, up to March 13 of this year when he resigned. His retirement goes into effect July 1. Suenram was born January 26, 1897, and worked out of Moundridge in recent years.

S. L. Loewen,
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Hillsboro, Kansas



“Now don’t start hogging all the credit when we get in. Remember, I baited the hook for you.”

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