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# KANSAS FISH AND GAME

VOL. XII

JANUARY, 1955

No. 3



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# KANSAS FISH AND GAME

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

H. M. GILLESPIE, *Chairman*

DAVE LEAHY, *Director*  
HARRY LUTZ, *Editor*

FRANK YOUNG, *Secretary*

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## • • Retrospect

It is appropriate at the beginning of a new year to look back upon the record of the past year, the outstanding accomplishments, and those to whom credit is due for the results.

As far as the Kansas Forestry, Fish and Game Commission is concerned, there has never been a year since the establishment of the commission, that can approach the favorable results attained during the past twelve months. Genuine progress has been made in every phase and division of work.

This ambitious program, some of it in the first year or two of development, was accomplished by comprehensive planning and consistent driving toward objectives by the eight divisions of commission personnel, the administrative, fisheries, game, state lakes and parks, federal aid, habitat improvement and cover restoration, law enforcement and public relations. Each contributed notably to the achievements of the twelve-month period.

Here briefly, are a few of the major accomplishments of 1954:

**New State Lake Program**—One aspect of the Commission's work which is of utmost importance to the people of Kansas is the state lake program. Funds were accumulated carefully over the years for the construction of new state lakes. Starting with the Montgomery County State lake in May, 1953, the Commission approved the locations and construction contracts for ten new lakes before June 30, 1954, end of the fiscal year. Many sites over the state were studied and many engineering surveys were conducted before these ten locations were chosen. Construction contracts were obtained at a reasonable figure in a favorable construction market.

Contracts were let for new state lakes in Montgomery, Brown, Cowley, Grant, Logan, Jewell, Pottawatomie, McPherson, Chase and Barber counties. All but the Chase and Barber county lakes were completed by the end of 1954.

When these new lakes are opened to the public, they will increase from twenty-two to thirty-two, the number of state lakes under commission supervision; will add more than 2,220 acres to the total park area, and brings to more than 50,000 acres the amount of lands that the state now owns in its state park and game preserve system. The ten new lakes will add more than 690 acres of new fishing waters in the state. Installation of such picnic facilities as fireplaces, tables, camping areas, as well as sanitary units will be made at each of these new parks. The new lakes will be stocked with fish for the benefit of Kansas anglers.

In addition, the Commission, in November, authorized the construction of two more new lakes—one in Osage county and one in Wilson county. The Commission also authorized further engineering studies to be made on new sites in several other counties.

The Commission has sufficient funds on hand to build at least five or six more new lakes before June 30, 1955. Under current management practices, the Commission plans to continue its lake building program.

**Marais des Cygnes Wildlife Refuge**—Another extensive project which was brought closer to realization in 1954, was the Marais des Cygnes wildlife refuge in Linn county. During the year, the Commission completed acquisition of 6,254 acres of land in the river valley necessary for the project. A contract was let in October for the first phase of development in the refuge—the construction of a reservoir of slightly more than 600 acres in size. This reservoir is but one of several to be built in the area. Further development of the area—as a waterfowl refuge, fishing and general public recreation spot, and as a forest—will be pushed as rapidly as conditions permit.

**Strip Mine Development**—Next in magnitude was the development by the commission of strip mining pits in southeastern Kansas into public fishing waters. Many strip pits heretofore valueless are being turned into useful fishing waters through the work of the commission's fisheries personnel and the co-operation

of the owner coal companies. These strip pits offer tremendous fishing possibilities.

**Cover Restoration Work**—The Commission made every effort to keep pace with the ever-increasing demands made on this program. Co-operation with the Soil Conservation Service, Kansas State College extension service, 4-H clubs, Boy Scout troops, sportsmen's clubs, as well as individual landowners was continued and intensified. Co-operative projects were established with all of these organizations through which a great amount of badly needed game bird food and cover has been restored to Kansas farm lands. More selectivity and better designing will be used in 1955 to produce more effective plantings.

**Game Farm and Fish Hatchery Work**—The Commission's three game bird farms and two fish hatcheries continued to operate at maximum capacity. Production of quail at the two quail farms this year totaled more than 32,000 birds. Eight thousand adult quail were released in the spring of 1954 in an effort to boost the quail population by fall, and with fine results. More than 27,000 pheasants were produced at

the Meade pheasant hatchery this year. Experimental work continued on new game bird species.

More than one million fingerling fish, raised at the Pratt and Meade hatcheries, were released in new and rehabilitated lake and pond waters throughout the state. New species of fish, such as the walleye and white bass, were planted in some of the larger impoundments in the state. Approximately 400,000 walleye fry were planted in each of the Fall River and Cedar Bluff reservoirs.

**Fisheries Improvement Work**—The Commission's service of analyzing and helping remedy "sick" lakes was increased during the year. Rehabilitation work was carried out on seventeen lakes, having a combined area of 1,509 acres. In addition, numerous farm ponds underwent similar treatment.

**Improvement of Commission Properties**—The carrying out of a continued improvement program in the state park system. New picnic tables and other camping facilities were erected at the state parks. Some of the lake dams were repaired and routine maintenance work was continued at all properties.



Members of the Kansas Forestry, Fish and Game Commission. Seated, left to right: Hugh Miller of Olathe, Commissioner, First District; Ross Beach, Jr., of Hays, Commissioner, Third District; Howard Gillespie of Wichita, chairman, and commissioner, Fifth District; Dave Leahy of Pratt, director; C. E. Kaup of Manhattan, Commissioner, Second District. Standing, left to right: Vern Mayo of Garden City, Commissioner, Sixth District; Noel Mullendore of Howard, attorney; Frank Young Chanute, Commissioner, Fourth District.

**Qualification for Federal Funds**—Finances were managed so that the commission was able to have sufficient money on hand to qualify for the full amount of federal funds available through the Pittman-Robertson and Dingell-Johnson aid to wildlife and fisheries acts.

**Continued "Good Business" Policy**—The Commission retained its policy of using its revenue, obtained from fishing and hunting license sales and from federal allocations, in a business-like fashion with the over-all aim of providing better hunting and fishing for the sportsman and, at the same time, conserving the state's wildlife resources.

The complicated financial records of the Commission have been taken care of by the accountant in a most satisfactory and accurate manner.

Director Leahy with his immediate staff has skillfully directed and co-ordinated the entire program. With all divisions functioning smoothly, prospects are bright for achieving the projected program for 1955.

These solid accomplishments could not have become a reality without the support of the sportsmen themselves, the state legislature and the Kansas press. The Commission gratefully acknowledges this interest and aid.

## Cover Picture

Now that the Kansas pheasant, quail, waterfowl, and dove seasons have ended, many hunters turn in midwinter to rabbits, such as the well-camouflaged cottontail shown on the front cover, for sport. Rabbits are second to no other game as a source of sport here in Kansas.—*Photo by Clyde Graham, Courtesy Texas Game and Fish Magazine.*

## A New Kind of Fishing

From Tennessee comes word of a new kind of fishing—fishing for plugs instead of plugging for fish.

Any caster or troller is well aware that lures often catch on snags or other underwater obstacles and are lost. In time, a good quantity of plugs builds up at favored fishing locations. Some Tennesseans are capitalizing on this.

A sizable water-logged timber is wrapped in sacking material and permitted to sink to the bottom. By towing slowly from a power boat, the log rolls over rocks and snags and the plug's hooks catch in the sacking. When retrieved, the log's owner has a nice array of plugs for future use.—*Missouri Conservation News.*

## Attention—Duck Hunters!

At the close of the duck hunting season, the game division of the Forestry, Fish and Game Commission sent several thousand questionnaires to Kansas sportsmen regarding this year's waterfowl kill. These sportsmen are asked to complete a questionnaire on their duck hunting success this year.

According to Jim Coats, game biologist for the Commission, the co-operation of those receiving the forms is important to supply the state information on kinds of ducks and geese killed, periods in which most ducks were killed, and what counties support most waterfowl hunting. Such data is an important component of the factual information used in managing waterfowl and, especially, in determining annual regulations.

The fish and game commission is hopeful that those hunters receiving the questionnaires will fill them out and return them promptly.



Despite the smiles on the faces of the two boys, it is not the conclusion of a successful deer hunt as the picture would indicate. Rather, they are holding a deer that was killed when struck by an automobile, near Hanover. The boys, Joe Gydusek of Marysville, on the left, and Milford Drinkgern, of Bremen, dressed out the animal. State Game Protector Wallace Ferrell gave the meat to the St. Vincent's Orphanage at Topeka. With deer becoming more numerous in the state, many get killed along the highways.

## Fisheries Highlights of 1954 . . .

Despite severe drouth conditions which continued to plague Kansas for the third successive year, 1954 saw many steps taken by the Forestry, Fish and Game Commission to improve fishing conditions in the state.

Major emphasis was placed on expansion of new fishing waters to meet the increasing sport-fishing pressure. Under its lake-building program, the Commission completed ten new lakes during the year of 1954. These lakes vary in size from forty-three surface acres to 109 acres, and will add more than 693 acres of new fishing waters in the state. Three of the new lakes have already been stocked with fish and the others will be stocked as rapidly as sufficient water is impounded.

The Commission also has sufficient money on hand to build five or six, and possibly eight more new lakes during the present fiscal year. Just recently they authorized the construction of a new 130-acre lake in Osage county, and a 125-acre lake in Wilson county. Construction contracts will be let just as soon as the Commission acquires the necessary right of way at both sites.

Engineering studies are being made on new lake sites in at least three other counties. If the sites prove feasible and not too expensive, construction contracts will be let early in 1955.

The Commission's fisheries program in the strip-mine lake region of southeastern Kansas has made excellent progress toward the goal of improving and expanding fishing in the area. As a result of the cooperative agreement between the Commission and the coal companies, this program which originally covered only state-owned waters, has been extended to include additional areas of strip-mine lakes controlled by the coal operators.

The biologist assigned to this project has been busy with fish populations surveys and subsequent rehabilitation of those lakes where investigations indicated were in need of improvement to restore satisfactory fishing conditions. This has involved chemical eradication of the old fish populations and re-stocking with desirable species. It has also included the initial stocking of several new lakes which have recently filled with water. As a result, the Kansas Commission has stocked approximately 52,535 fingerling bass, channel catfish, crappies and bluegills in 160 acres of new or rehabilitated strip-mine waters during 1954.

The walleye-stocking program was continued in 1954 with the planting of approximately 500,000 fry in Fall River reservoir, and a similar number being

stocked in Cedar Bluff reservoir. Clark County State lake, having an area of 337 acres, also received several thousand walleye fry. With the exception of this lake, where walleyes are being stocked periodically on an experimental basis, the use of this species has been limited to the larger federal reservoirs where habitat conditions are believed to be best suited to its requirements.

Several thousand white bass were produced from eggs spawned by adults held in brood ponds at the commission's hatchery, and have been planted in Fall River reservoir and various other lakes in the state.

The lake and pond rehabilitation program was greatly expanded during the year. The severe drouth conditions continued to be the most serious fisheries problem in Kansas and as a result, the water-levels of numerous lakes and ponds became low. Taking advantage of this opportunity, Commission personnel removed the entire fish populations through seining and chemical eradication, so that the waters can be properly restocked when normal water-levels are restored. Rehabilitation work was carried out on seventeen lakes, having a combined area of 1,509 acres. In addition, numerous farm ponds (with surface area of five acres or less) have undergone similar treatment.

Other fisheries highlights:



Rough fish such as these are a detriment to any fishing impoundment. More than 154,000 pounds of buffalo and carp were cleaned out of Fall River reservoir, El Dorado City lake and the Butler County State lake in recent months through seining operations.

Continuing inventories were conducted on many of the state lakes, city and county lakes to ascertain the abundance, species composition, condition and distribution of the kinds of fishes. Many streams and farm ponds were also sampled, where such studies were requested. These continuing inventories provide the Commission with information upon which to base its fisheries improvement program.

Fishing regulations were liberalized last spring for the benefit of the angler. The closed season on bass was eliminated and size limits on channel catfish removed.

### Impoundments Cleaned of 91 Tons of Trash Fish

Sportsmen who have been wondering why fishing has been on the decline in such impoundments as the Fall River reservoir, El Dorado City lake, and the Butler County State lake had their answers this summer.

Richard Holcom, a commercial fisherman, using nets only, removed more than 183,162 pounds of trash fish from the three impoundments.

In a report of his seining activities at Fall River reservoir, submitted to the Corps of Engineers, Tulsa District, Holcom said the following amounts of fish were taken from the reservoir in the period between May 10 and July 11:

| Kind        | No.   | Weight |
|-------------|-------|--------|
| Buffalo     | 9,143 | 64,000 |
| Carp        | 551   | 5,831  |
| Gar         | 3,818 | 21,445 |
| Turtles     | 297   | 1,158  |
| Carp sucker | 91    | 728    |

Seining operations by Mr. Holcom are continuing at the Fall River reservoir but no records beyond July 11 were available.

In addition to seining operations at Fall River, Holcom also removed trash fish from the El Dorado City lake and the Butler County State lake. He removed more than 60,000 pounds of fish from the El Dorado lake, ninety-nine percent of which were buffalo.

In operations at the Butler County State lake, he removed about 30,000 pounds of fish, most of which were buffalo. Very few carp or game fish showed up in the nets.

Fisheries personnel of the Forestry, Fish and Game Commission went to the El Dorado City lake after Holcom had completed the removal of trash fish and transferred the game fish from the lake into the new Bluestem lake. More than 6,000 channel catfish and a few bass and crappie were transferred in the operation.



Just a few of the gar that were removed from the Fall River reservoir this past summer and fall through seining operations conducted by Richard Holcom, commercial fisherman from Oklahoma.

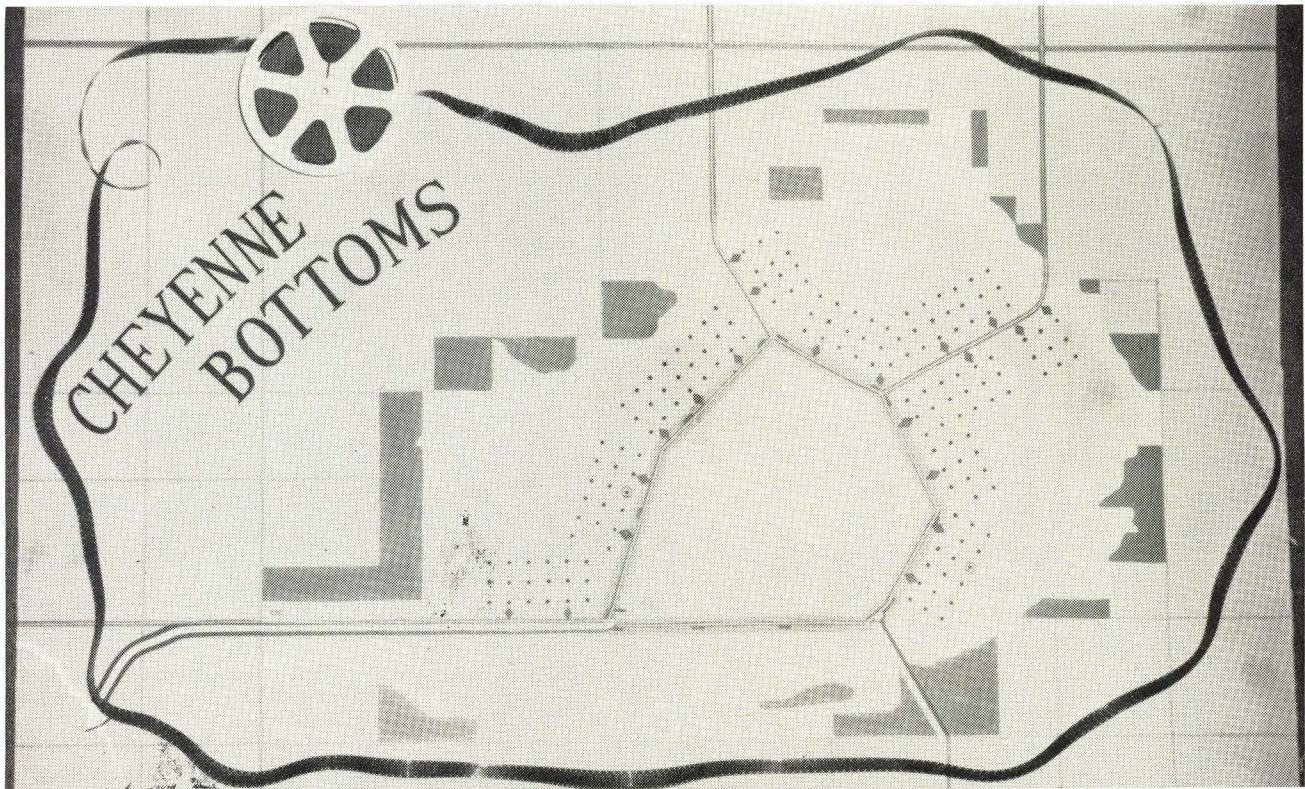
### Walt Disney's Films Available in 16 mm.

BEAVER VALLEY, one of Walt Disney's "True-Life" Adventure motion picture series is now available to non-theatrical users. Disney's studios recently placed several of the True-Life Adventure nature films into 16 mm. distribution on a national basis in order that schools, churches, youth organizations and other non-theatrical film audiences might make use of them.

Beaver Valley is not a collection of animal pictures shot in chase and capture, but a connected and exciting account of communal animal and bird life in all its life and death activities, photographed by some of the foremost naturalist-cameramen in America, in natural setting and in natural color during months of patient observation.

Like the first of the series, SEAL ISLAND, the beaver picture is an academy award winner and goes far off the beaten paths to eavesdrop on its subjects catching them unposed and unaware in exciting and spectacular entertainment plus information.

BEAVER VALLEY runs 32 minutes and SEAL ISLAND'S length is 26 minutes. Both films are in Technicolor and can be rented for \$10 per day through Lewis Film Service, 1425 E. Central, Wichita. These subjects are available only to audiences who desire to screen them when no admission is charged, and will therefore be attractive to sportsman clubs and other groups interested in conservation of wildlife.



"The Cheyenne Bottoms Story," a new 16 mm. film, in sound and color, is now available from the Fish and Game Commission's film library. The film is an excellent medium for acquainting Kansans with the work that has been done in creating the vast 19,000-acre waterfowl refuge and public recreational area. The picture above shows the layout of the Bottoms as it is today. Shown are the dikes, inlet and outlet canals, duck blinds, five pools, etc. The shaded areas are those planted to crops which provide food for the migrants attracted to the area.

### New 16 mm. Sound Film Added To Commission's Library

"The Cheyenne Bottoms Story" is the latest addition to the Fish and Game Commission's film library. The 16 mm. film, in sound and color, is the third to be authorized and produced for the Commission. Photography and script are by Steve Smith Pictures, Inc., of Topeka. Optical, sound and musical tracks were done by the Calvin Company of Kansas City, Mo.

It's the story of the development and planning of what will eventually be the largest migratory waterfowl refuge in the United States, a great natural basin, more than 19,000 acres in area and located almost in the center of the state in Barton county. When the job is finished, man will have created one of the greatest areas for attracting birds along the entire Central Flyway.

Superb photography, plus the scenic effects found in such a giant undertaking, make it an excellent medium for acquainting Kansans with what has been done in the Cheyenne Bottoms.

The picture has a running time of 11 minutes. Five prints will be available and application for bookings can be made through the Fish and Game Commission's offices at Pratt.

### Trumpeter Swans Gaining In Survival Fight

The rare trumpeter swans, nearly extinct in this country fifty years ago, now show a population of 642 birds, according to the U. S. Fish and Wildlife Service. This represents a net gain of 65 over last year's count of 577.

Federal refuges and parks, chiefly in Wyoming, Montana, Idaho and Oregon, sheltering the species accounted for the majority of this year's swans.

The swans were given limited Federal assistance in 1907, when small flocks were discovered at Red Rock Lakes and Yellowstone National Park. Federal protection by a law, which imposed penalties, became effective in 1924. In 1935 Red Rock Lakes refuge was established and the protection program was stepped up. Only 73 trumpeters were accounted for at that time.

Snakes almost literally walk on the ends of their ribs. The ribs are attached to broad, special scales on the under side of the body. Through a forward and backward motion of the ribs, these scales move the snake along the ground.



# Fish Conservation Fundamentals

By R. W. ESCHMEYER, Sport Fishing Institute

## Stocking—

First in a Series

There is one basic fact that needs to be understood if we are to properly determine the role of stocking. Fish are prolific—much more prolific than most animals we deal with.

We can't give accurate figures on egg production because a big female lays far more eggs than a small female of the same species. However, in general, a trout may lay 1,000 eggs, a bass 10,000, a bluegill 20,000, a walleye 50,000, and a big carp might lay a million. Under suitable conditions, a big percentage of these eggs hatch. One study on a fourteen-acre lake showed that the number of fry produced naturally by four species (large-mouth bass, bluegill, common sunfish, rock bass) was slightly over 500,000 per acre. The water would support only a few hundred adult fish per acre.

We have had instances where the limited brood stock present in the original river was more than adequate to provide all the young fish needed to stock big impoundments.

A big female bass in a one-acre farm pond could produce enough progeny so that if all eggs hatched and all fish survived for three generations, there would be enough fish, at one pound each to replace the water in the pond, and to make a heap, one acre in area, extending over 700 feet above the pond.

Obviously, fish are prolific. We can understand the picture if we will think of cows each having thousands of calves per year. If each cow had only 10,000 calves, adding a truck load of calves wouldn't increase the cattle population of a pasture very appreciably.

There's an added item. Fish need food—lots of it. Their food chain tends to be long. The average acre of water in the United States probably supports not more than a hundred pounds per acre. This may range all the way from a very few pounds in some waters to a thousand pounds or more in some small highly productive waters.

It is easy to see why, during the days of the hatchery "craze," many of our hopes were unrealized. We can understand, now, why much of the stocking was ineffective or even harmful. During those days the public was quite willing to accept the belief that stocking was the panacea to all our fishing ills. We fishery workers believed it, too, and advocated it. The job of selling the stocking idea was an effective one. It

was later that we learned more about fish being prolific and about the food needs.

The job of "unselling" has not been an easy one. For instance, a year or two ago we talked with a farmer about his farm pond. He had decided to start fishing it but then he observed an immense crop of bluegill fry—"millions of 'em." "We decided to wait until they grow up before starting the fishing," said the farmer. The man had a well-managed farm. He had only a limited number of cows in his pasture. He understood about carrying capacity and overgrazing on the land. But to him the farm pond was quite different.

There's the case, too, of sportsmen being delighted when a federal or state fish truck delivered bass fry for distribution in the rather extensive bass waters of one county. The supply consisted of 5,000 fry, less than half the potential output of one female!

Though there are still exceptions, more and more sportsmen recognize the fact that stocking has limitations. In general, the public still looks on stocking as a cure-all only in those states where the top fishery people (some ex-hatchery men or politicians) have been disinterested in public enlightenment, for obvious reasons.

Stocking does have major limitations. But, it's one of our important fish conservation tools. Properly used, stocking plays an important role in improving our fishing.

## WARMWATER FISH

For warm waters we must rely in planting small fish. Raising game fish to adult size in hatcheries costs a fortune. Rearing a bass to twelve inches would cost an estimated two to four dollars. Not over half the planted fish can be expected to be recaptured. This raises the average price of each bass creel to four to eight dollars—more than the average price of a fishing license. So far as we know, only Virginia still carries on this expensive practice.

Planting warmwater fingerlings serves a good purpose in a number of instances:

1. To stock new waters, especially farm ponds and new public fishing lakes.
2. Reintroduction of fish in lakes depleted by winterkill.
3. Introducing species not already present, where such introduction is desirable.

4. Restocking of waters from which existing fish populations were removed through use of chemicals or by draining.

5. In some instances stocking will help fishing in waters where the fish are already present, but where conditions for spawning are inadequate. For example, Minnesota has been able to provide walleye fishing in some kinds of waters by stocking them heavily with walleye fingerlings. The situations where stocking of this kind is helpful seems to be rather limited; the need for the stocking should be determined by the professional fishery worker.

### COLDWATER FISH

The stocking picture for warmwater fish and coldwater fish differs rather decidedly. Trout can be raised to catchable size at a much lower cost than would be needed to raise bass or other game fish to a size where they would be attractive to anglers.

In numerous waters we can now have good trout fishing only by planting catchable-size fish. The cost is high. A single legal limit costs more than the price

of a license. But, such stocking is justified if the trout fisherman is willing to pay the bill. In many trout waters, the question is one of having put-and-take stocking, or having no fishing at all. Of course, such stocking is justified only on heavily fished waters where a big percentage of the planted fish will be re-taken by the angler.

Since Kansas has no coldwater fishing, there is no need to go further into the subject of coldwater fish.

### INTRODUCTIONS

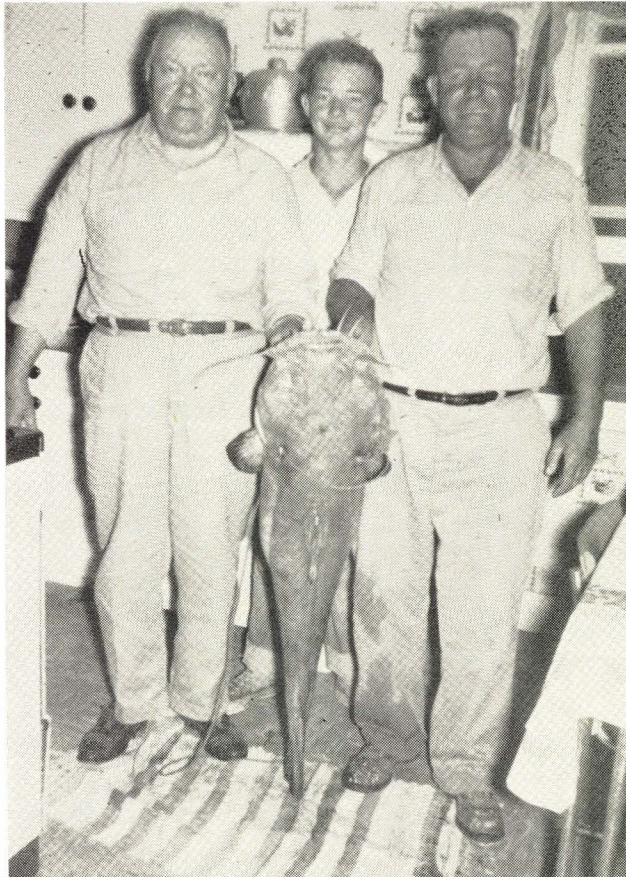
Introductions have been both beneficial and harmful. For example, trout fishing has been created in many waters by introducing trout; fishing in some waters has been destroyed by introducing carp.

Often sportsmen tend to want those species introduced which are not already present. If these succeed, they must generally do so at the expense of native species. Carrying capacity is limited. If we add horses, sheep and mules to a pasture, the pasture will necessarily support fewer cows than it could support before the other species were added.

### IN GENERAL

Stocking isn't a cure-all. For a while its value was greatly overemphasized. It's only one of the various fish management tools. However, it is still a very important tool. Its value will depend on how intelligently the tool is used. The need for stocking should be definitely established before we stock. It should be established not by the man who raises fish or by the sportsmen, but by competent trained fishery personnel through a study of the habitat and fish populations already present.

(Next: REGULATIONS.)



Late fall fishing is profitable for those "hardy" fishermen, who fish regardless of the time of the year. Roy Lumpkin, on the right in the above picture, caught this 35-pounder while fishing at Shady Bend, near Lincoln.

## Channel Catfish May Become State's Official Fish

Kansas' famed channel catfish would be named the state's official fish if recommendations of the fish and game commission are carried out.

In connection with a move by each state to select an official state fish, as they have designated state birds and flowers, Governor Edward F. Arn asked the commission for its recommendations. The commission favored the channel cat because it is undoubtedly the state's most popular fish and thrives well in Kansas waters.

The official designation would have to be approved by the Kansas legislature, according to Dave Leahy, director of the commission. Kansas now has the sunflower as the state flower, the meadowlark as the state bird, and "Home on the Range" as the state song.

## Pheasants Weighed Less This Year

Not only were pheasants seemingly harder to find during the past hunting season but they were also not as plump as in former years. At least that is the data obtained from a novel contest sponsored by the Hilton's Firestone Store at Ulysses.

The store offered worth-while prizes during the 1954 pheasant season for the heaviest bird killed; the first pheasant brought in to the store, and for the longest tail feather.

According to the *Ulysses News*, the heaviest bird brought to the store during the season weighed three pounds, four ounces. This was four ounces less than the 3½-pound bird which won last year's contest, conducted by the same store. Three hunters, Buddy Worm, Bill Elliott and George Black, tied in this year's

contest, all bringing in birds weighing three pounds, four ounces.

Philip Shorter won a box of ammunition offered as a prize for the first bird brought in. Shorter brought his pheasant to the store at 12:40 on opening day.

Tail feathers, taken from downed birds were longer this year. The prize winner measured 23¾ inches, and was brought in by John Carter, a high-school student. His prize was a picnic ice chest.

In most cases wildlife is just an accidental byproduct of land used for other objectives. Where farm wildlife can fit in with existing developments on farms it thrives. Where it cannot it dies out.

Contrary to common belief, raccoons do not wash all the food they eat.



Although many hunters were disappointed in the 1954 pheasant season, there were those who did enjoy some good shooting. The above picture shows a limit kill for a party who hunted in Cheyenne county.

# Study of the Lesser Prairie Chicken in Southwest Kansas

By MARVIN SCHWILLING, Game Biologist

## History, and Why Study Is Being Made:

In its native prairie state, lesser prairie chickens were probably found throughout southwestern Kansas. Early writers failed to differentiate between the lesser and the greater prairie chicken; but by use of collected specimens and conversation with old-time residents, we believe the native range of the lesser prairie chicken would probably extend as far north as the Smoky Hill River, and as far east as Harper and Kingman counties. The range of the two species overlapped and both could be found in some areas.

Early market hunting, and later, illegal hunting and illegal devices, took great numbers of the lesser prairie chicken. But, nothing can be found to indicate any great reduction in their numbers before the drought of the 1930's. During this drought period, there was little water, food or cover available over large areas. Wind erosion and dust storms were unbearable. Prairie chickens were reported found dead in large numbers, with their throat and nostrils clogged with dust. Game Protector Eddie Gebhard tells that he believes that there were only two small flocks that survived in Kansas, one in Meade county and one in Seward county. Since these drought years, these two small flocks, and possibly some migrants from Oklahoma, have made a considerable comeback in Kansas.

In the fall of 1953, a study was begun by the Kansas Forestry, Fish and Game Commission in an effort to find what could be done to assist this bird in its comeback efforts. Very little is known about the life history of the lesser prairie chicken, and we hope in this work we can learn much about their private lives. To do this, we have to be in contact with them almost daily.

## Spring:

Starting in the spring of the year, the cocks are on the booming grounds and the hens are busy with their nesting activity. Later, the hens bring off their broods. There are many of their activities we will want to follow closely.

A number of the booming grounds have been located in three separate counties and the number of cocks using each area are counted. Such a census taken from year to year on the same grounds will give us an index showing increase or decrease of the cock

population. By observing a single booming ground day after day in the very early morning, we can learn the number of hens that come to that certain ground and how often they return during the breeding season. From this, we also see the peak of the mating and can predict the approximate hatching date of most of the nests. We are quite sure that lesser prairie chickens are a polygamous bird, but we also believe that most of the mating is done by a few dominant cocks on each booming ground. It is not certain just what role the extra cocks, that are near the bottom of the peak order, play or if they are at all needed. We think we could trap cocks on the booming grounds, but of course, would not want to trap hens after nesting activity has begun.

We would like to know if hens tend to concentrate their nests near the booming grounds or if they are evenly distributed over large areas. We would also like to know if the sex ratio is near 50-50 or if we have an abundance of cocks or hens.

As the hens hatch their clutches, we will need to know their degree of success or failure and why they hatched good, fair, or bad. We'll want to learn what average brood number would indicate a poor, normal, or good hatch, and what is needed to maintain or increase the population. This ratio of young to old has been searched out and used successfully on other game bird species. Knowing the main predators on nests and birds, and their effect on the total population, is important.

## Summer:

As the young develop, we are collecting a series of young so that we will have a complete series that will show the condition of the moult from hatching to adult stage (at 12-14 weeks). The crops and gizzards of these young are preserved for a food habits study to learn what constitutes their diet. Also, the food habits study has been broadened to cover adult birds during each month of the year. This will be worked out in co-operation with the Fish and Wildlife Service Food Habits laboratory. This phase of the study must be extended over a period of years to avoid the possibility of certain plants or insects being unusually abundant one season, and so, appearing too often in their diet.

As the young develop and reach an age of five to

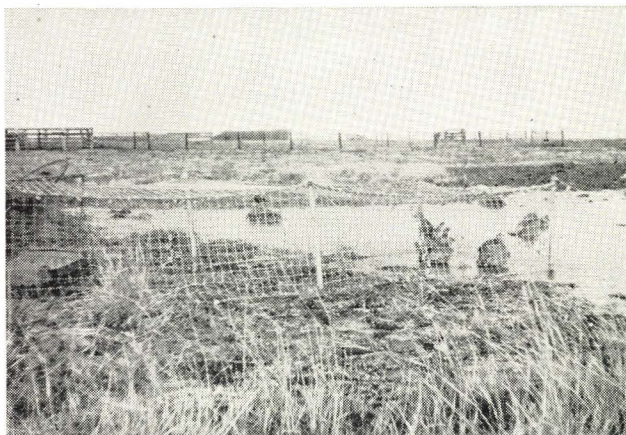
eight weeks, they seem to frequent water holes with some degree of regularity during hot, dry periods. This may present an opportunity for brood trapping young in areas where production is heavy.

#### Fall:

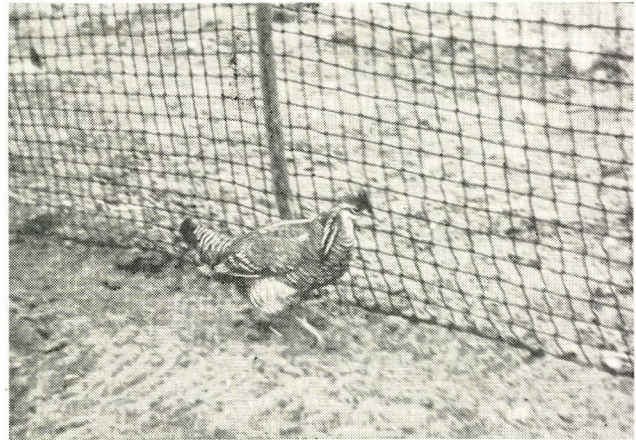
Later in the summer, as the young near maturity, they seem sometimes, but not always, to group into sex and age groups. It appears that there may be a tendency for the birds to break up into flocks of all young cocks, young hens, old cocks, or old hens. Still other flocks may consist of both sexes of all ages. It is a period of much uncertainty as to where and in what habitat the birds can be found as they undergo a seasonal shift from summer to winter range, and from a diet of insects, seeds, and vegetable matter to grain and vegetable matter.

#### Winter:

Following the fall shuffle, the birds seem to establish a more definite pattern of activity. They will sometimes follow a definite feeding pattern, returning morning and evening to a grain field, and may water after feeding at waterholes, often overflow from a stock tank. It is at these watering places that trapping is the most successful. We have experimented with a variety of traps of different material and design, but have received best results from a trap designed after that of J. Stokley Ligon with a few modifications. The trap is made of netting to prevent injury to trapped birds; therefore, it cannot be left set overnight as rodents can cut and damage the netting badly. Watering during these winter months varies with the weather conditions, so a constant check must be kept. The return to summer range and the early booming of the cocks in the spring may still find them



Net traps such as the one shown here are used by game biologists in trapping live prairie chickens. This water hole in Clark county is a favorite watering place for prairie chickens. Birds live-trapped here are moved to areas of good chicken habitat, in an effort to establish new breeding flocks.



This prairie chicken seems a little startled at having its movement restricted. Through live-trapping activities fish and game commission biologists hope to spread seed stock and hasten the comeback of this once majestic game bird.

returning to the watering places, and it seems that possibly, late winter trapping may net more hens.

#### Discussion:

The purpose of our trapping and transplanting program is to remove surplus birds from an area of concentration and move them to areas that appear to be good chicken habitat, in an effort to establish new breeding flocks. These plants will be supplemented for at least three years by additional trapped birds. Periodical checks will be made to see if the birds stay in the desired areas, and if not, where they move. We suspect old birds may return to their original areas more frequently than juvenile birds, so we hope to be able to make separate plants of juvenile birds and separate plants of adult birds to test this homing instinct. The area in which we release trapped birds is picked by the condition of the habitat and if prairie chickens were there before the 1930's. We have many areas that could very well support a prairie chicken population, but are so isolated that birds have not returned to them since the drought years. Then, too, we have many fringe areas where birds appear at their cyclic peaks, but disappear first when good reproduction years are missed.

We hope our trapping and transplanting will spread out seed stock and bring the birds back more quickly, as it seems that good areas must reach a saturation point before surplus birds spread out. In other situations, the area may be so large and bird numbers so low that they need additional birds to bolster their numbers and speed the occupation of the total area.

Being able to trap reasonably large numbers of birds is a primary necessity in this study. We must be able to recognize individual birds when they are encountered in the field. Our birds trapped during the winter of 1952-'53 were simply banded. In 1953-'54,

trapped birds were separated as to sex by banding the males on the right leg and the females on the left. This still did not mark birds individually. We hope this year to individually mark birds. To do this, we plan to use neck tabs modified from a type described by Richard Taber in an article entitled "A New Marker for Game Birds," which appeared in the April, 1949, issue of *"The Journal of Wildlife Management."* This type marker has been used successfully on quail, pheasants, Chukar partridge, and band-tailed pigeons, by the California Department of Game and Fish.

We must become well enough acquainted with the chickens and their habits to learn the preference of habitat for nesting, roosting, loafing, and winter cover. This, in turn, will show us what degree of utilization for agricultural purposes results in too great a reduction of cover for prairie chicken use. We want to know what species of the native vegetation are missing from the range when chickens are forced out. It seems that the birds prefer and need some sage or other shrub in their range, to be used during extremely hot weather as sun cover. We hope to be able to reseed areas to see if chickens might prefer such areas for nesting or winter cover. This may be done on our Garden City Buffalo Preserve. We hope, too, to be able to test gallinaceous guzzlers also in this area to learn their preference for areas with a year-around water supply.

Many people have given up hope of the prairie chicken ever becoming abundant enough again to be a harvestable and manageable game bird. Truly the range of this bird will always be limited. However, in recent years, land-use tendencies and farming practices are creating larger blocks of suitable prairie-chicken habitat in southwestern Kansas. Existing grassland areas are being better managed. Much re-seeding to grass of marginal farmland is taking place each year. These reseeded areas are of a better quality and afford excellent chicken habitat.

We realize prairie chickens show a very definite tendency to fluctuate widely in numbers. It seems that the peak of the recent cycle was reached in 1951 or 1952. Possibly they were abundant enough then to have allowed a controlled harvest by the hunters, had we known their true status.

We hope through this research project to develop management practices that can be adopted by the Commission to benefit the future hunters of this majestic game bird.

The squirrel monkeys are not specially intelligent, yet are the possessors of a braincase which is proportionately larger than man's.



A black and white watercolor featuring three blue geese in flight, passing over a cattail marsh, has been chosen for the 1955-'56 duck stamp.  
—Fish and Wildlife Service Photo.

### 1955-'56 Federal Duck Stamp Will Feature Blue Geese

A black and white opaque watercolor featuring three blue geese in flight, passing over a cattail marsh, has been chosen as the design for the 1955-'56 Migratory Bird Hunting Stamp, according to John L. Farley, Director of the Fish and Wildlife Service.

Stanley Stearns of Binghamton, New York, is the artist who drew the winning design for the sixth annual "duck stamp" competition. This will be the twenty-second stamp to be issued in the federal duck stamp series.

A panel of waterfowl experts judged Mr. Stearns' design as the best of the ninety-three designs submitted in the competition. Twenty-six states, including Kansas, and the District of Columbia were represented among the entries.

The duck stamp has become familiar to all migratory waterfowl hunters and to philatelists and conservationists throughout the country since the first issue in the series went on sale in 1934. A new stamp is issued each year by the Post Office Department which is in charge of its distribution and sale. It goes on sale July 1 and expires on the following June 30. Nearly twice the size of a special delivery stamp, it sells for \$2. Everyone over sixteen years of age who hunts migratory waterfowl is required to have one of these stamps in his possession, in addition to his state hunting license. More than two million stamps are sold annually. Duck stamp revenues are used to supplement other funds appropriated to the Fish and Wildlife Service for the purchase, development, administration, and maintenance of waterfowl refuges throughout the country.

The bald eagle was adopted as our national emblem by act of congress on June 29, 1782.

### KANSAS COMMISSION HOSTS TO ANNUAL GREAT PLAINS HABITAT CONFERENCE

The Kansas Forestry, Fish and Game Commission were hosts for the Fifth Annual Great Plains Habitat Conference during the latter part of September. The Baker Hotel in Hutchinson was headquarters for the three-day conference whose main topics of discussion were sharing mutual problems and the improvement of wildlife habitat planting programs.

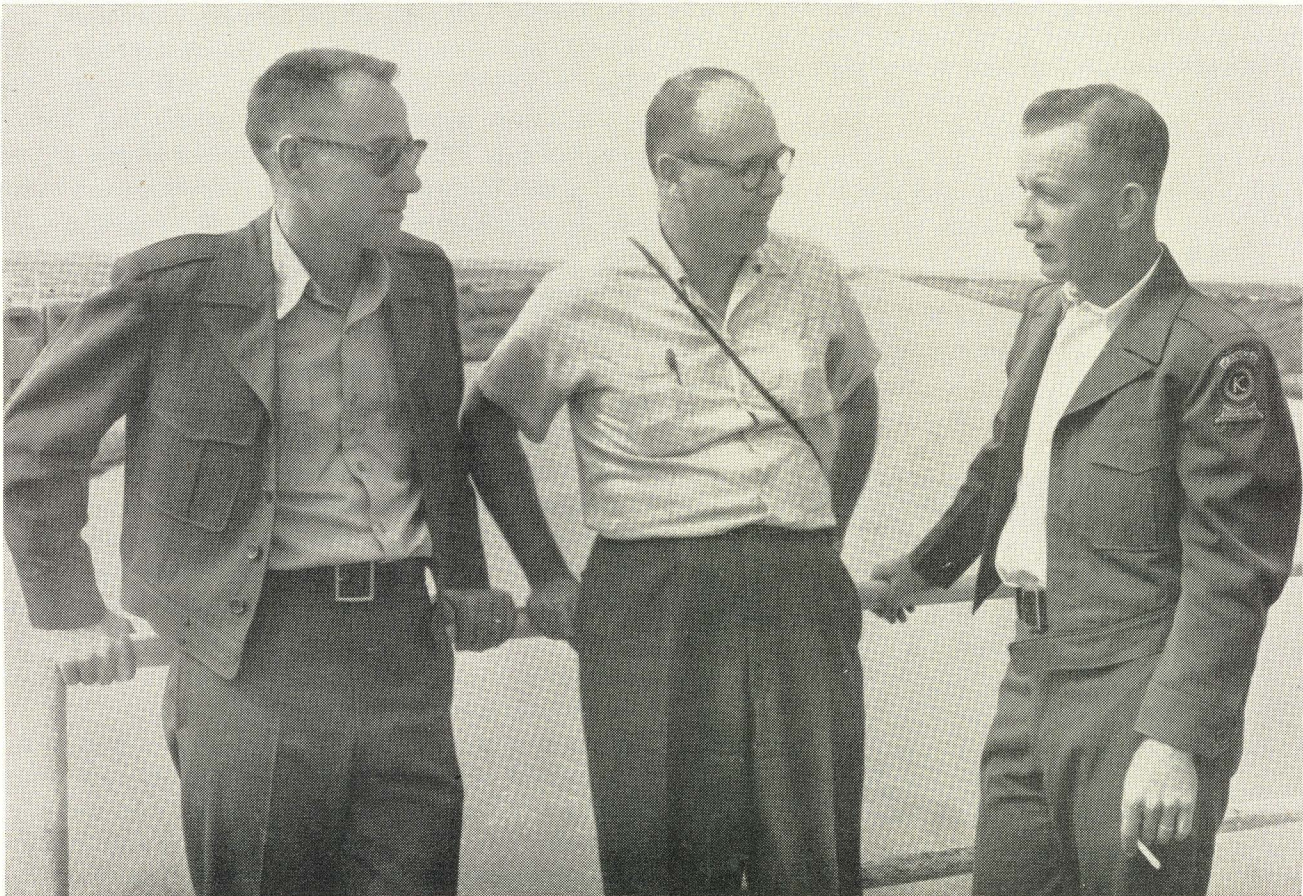
Eighty-two persons registered for the meeting, representing eleven states and interested agencies. North Dakota sent the most representatives of any visiting state with 11. Nebraska followed with 8, and then came Oklahoma with 6; Colorado, 6; Iowa, 5; Minnesota, 5; South Dakota, 4; Montana, 2; New Mexico, 1; Missouri, 1; Toronto, Canada, 1; Washington, D. C., 1. Many other individuals interested in wildlife habitat improvement attended the sessions but did not register. Among the interested agencies represented were the Soil Conservation Service, the Clark-McNary program, Wildlife Management Institute, Missouri River Basin Studies, U. S. Forestry Service, Federal Aid Branch of the U. S. Fish and

Wildlife Service and the Kansas Association for Wildlife.

Through a series of panel discussions the group was striving for the development of techniques in evaluating wildlife habitat programs, and to determine how much value could be placed on the results of such a program.

Highlight of recommendations by committee groups was the proposed "Blue Print For Upland Game Habitat Development Projects." The conference adopted the proposal and appointed a committee to further study the project and advance its basic ideas. The Committee will report next year at the sixth annual conference which will be held in Oklahoma.

Nowadays fisheries workers can predict fishing results in new reservoirs that have received careful initial stockings of fish. It's common knowledge among all the rod-and-reel clan that artificial waters usually produce well for several years before falling into mediocrity, and the average angler is perfectly willing to enjoy the peak years before second guessing the decline.—Erwin A. Bauer, *Fisherman Magazine*.



Tom Gatie, State Game Management Supervisor, on the right, discusses the lack of water situation at Cheyenne Bottoms with Dave Coleman, also a state game management supervisor, and John Langenback, representative of the U. S. Fish and Wildlife Service, Washington, D. C.

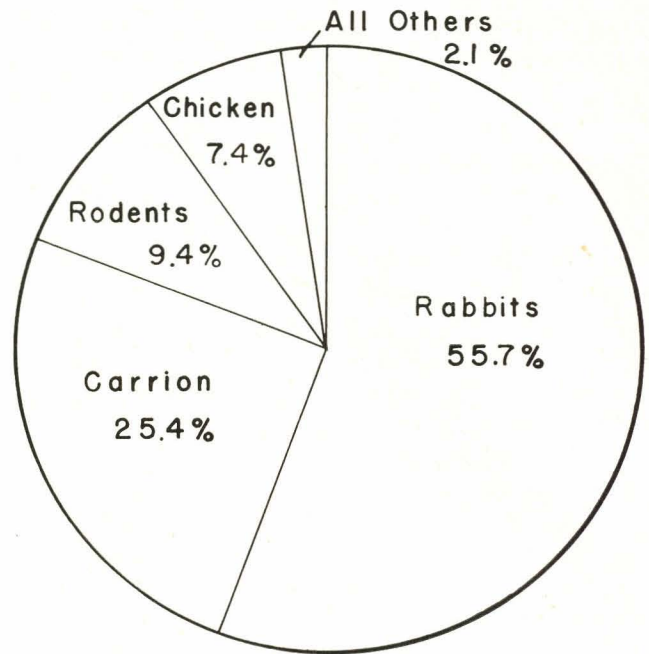
## Winter Foods of Kansas Coyotes

By OTTO W. TIEMEIER

A six-year biological study of Kansas coyotes has just been completed at Kansas State College. One purpose of this study was to analyze the stomach contents to determine what the coyotes had eaten. This study included the years 1949 to 1953 and nearly all the coyotes were obtained in December, January, February, and March. A total of 1,250 coyotes were examined of which 871 of the stomachs contained food material.

The results of this study definitely indicate the diet of coyotes for the winter months and give some indications of the food eaten during the other months of the year. Food material not available in the winter would be taken in season during other periods of the year but the percentage of these seasonal foods would not be great.

The "pie" shows that the coyote is almost entirely a meat eater during the winter months. The greatest bulk and the most frequent item was cottontails at 51.3 percent and jack rabbits at 4.4 percent or a total by weight of 55.7 percent of the entire diet consisted of rabbits. Even young rabbits were found and eaten by the coyotes during the winter months and undoubtedly cottontails are the main item in the diet for the entire year.

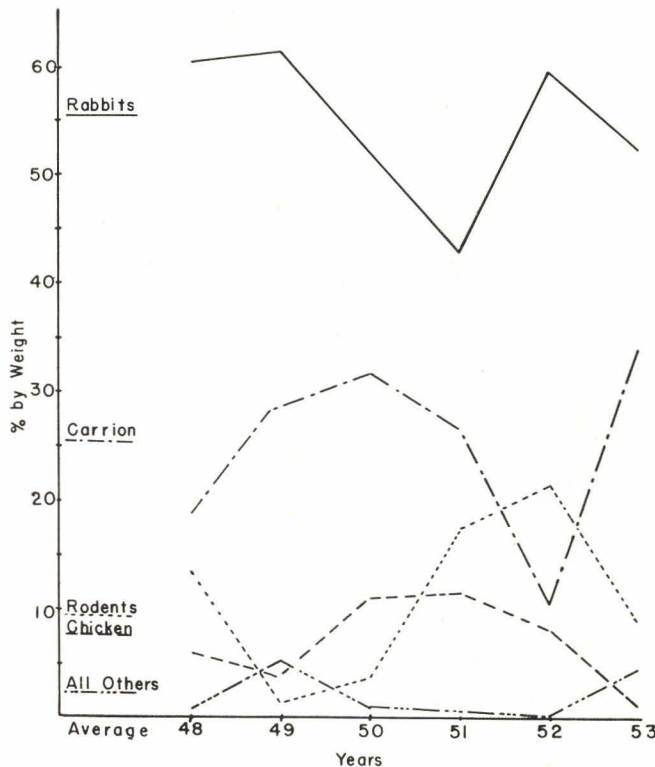


Percentages by weight of principal coyote food items

Carrion at 25.4 percent was the second most abundant item. Carrion is dead animal material upon which the coyotes feed such as beef remains, parts of pig, and rarely, wool or flesh of sheep. By far the most abundant was beef. It is quite certain that the coyotes did not kill these animals so we must assume that farmers and ranchers left the animal carcasses where coyotes had access to them. We feel that coyotes learn to eat these animals when carcasses are left in fields and for this reason occasionally kill and eat calves, lambs, chickens, and turkeys when they are available in the spring and early summer.

Rodents, mostly various kinds of field mice, made up an average of 9.4 percent of the food of the coyotes. More than one-fifth or 21.6 percent of the coyote's food was rodents in 1952 but only 1.4 percent in 1949. Nine different kinds of field mice and rats were found. In many cases it appeared that the coyotes had bitten the mice in the head two or three times and then swallowed it. One coyote had 16 meadow mice in its stomach and it was not uncommon to find 10 or 12 mice in a stomach. Rodents are an important item in the diet of Kansas coyotes.

Chickens were on the coyotes' menu and made up 7.4 percent of the winter diet. Probably most if not all these chickens were those which had died and been discarded by the farmers because most chickens are kept inside during the winter months. There is no way to determine from the stomach contents whether the chickens had been killed by the coyotes.



Percentages by weight of coyote food by years. Note fluctuations



Sportsmen will be interested to know that coyotes do not kill and eat many of our quail, pheasants, and prairie chickens. All three of these birds were found in the coyote stomachs but they averaged only 0.6 percent of the total amount of food material. We feel that the coyotes are not responsible for destroying many of our game birds. Usually other food would be much easier to find than these elusive birds.

Other food material consisted of meadowlarks, blackbirds, pieces of leather and paper, and even some snakes. It would be interesting to know where the coyotes found snakes in December and January. Vegetable material such as hackberries, persimmons, corn, and apples were found in small amounts.

Our studies seem to indicate that coyotes eat anything, particularly any animal material, that is available and that in Kansas this is usually rabbits, dead carcasses of cattle, field mice and rats, and chickens. The illustration indicates that the amounts of these items vary from year to year and our investigations show that this variance corresponds with the abundance or scarcity of these animals. When rabbits are numerous more of them are eaten and when they are scarce rodents or carrion form a greater part of the coyote's diet. Our field studies showed that field mice and rats were abundant in 1952 and we notice that 21.6 percent of the coyote food was mice and rats, the opposite situation occurred in 1949.

We feel that coyotes serve as a check on rabbits and rodents and tend to keep their numbers down lower than might occur if there were no coyotes. The destruction of rabbits and rodents could be a distinct advantage to the farmers and ranchers who are adversely affected when these animals become too numerous.

We do not advocate the eradication or elimination of all coyotes in Kansas; it would not be desirable even if it were possible. If coyotes become too damaging they should be destroyed but a sincere effort should be made to destroy the "evil-doers." Proper disposal of dead farm animals and garbage should do much to cut down coyote damage because coyotes come into the backyards as well as roam the back eighty in their search for food.

The nutria, a furbearer native of South America and introduced into the United States, has mammary glands on its sides instead of the belly. In this way, the aquatic animal can nurse its young while partially submerged in water.

Lobsters, which were once thought to do little ocean traveling, drift hundreds of miles as tiny, spider-like lobsterlings before settling down to the sea bottom.

## Audubon Camp of Wisconsin Will Open Next June

The National Audubon Society announced recently that the Audubon Camp of Wisconsin, which will serve as a nature and conservation training center for the entire midwest, will open next June and that its director will be Walter W. Engelke of Madison, Wis.

The Audubon Camp is located on Devil's Lake near Sarona in northwestern Wisconsin. Its establishment was made possible by the generosity of Miss Frances E. Andrews of Minneapolis in giving the property to the National Audubon Society in memory of her mother and brother.

Five two-week sessions will begin on June 26 and conclude September 3. Teachers, principals, superintendents, youth group leaders, and anyone else eighteen years of age or over who is interested in nature and conservation may attend the sessions. The charge for board, lodging, tuition, and scheduled field trips for the two-week period will be \$95. A prospectus giving full details of the camp program may be obtained from the National Audubon Society, 1130 Fifth Avenue, New York 28, N. Y.

John H. Baker, president of the Audubon Society, said, "We are confident that the Audubon Camp of Wisconsin will be a powerful force in that state and throughout the midwest in the promotion of conservation education which is so important to the future progress of our nation. We anticipate that youth leaders and others from all over the continent will be attracted to the new camp."

You will get out of fishing just about what you put into it. Skill at handling your outfit brings pleasure in so many ways that you can hardly afford to be "just another fisherman."



In between sessions of the Great Plains Habitat Conference at Hutchinson, found C. R. Tilt (center), habitat biologist from Toronto, Canada, discussing mutual problems with wildlife specialists Clyde Scott (left), Kansas Fish and Game Commission, and Dave Vesall (right), from the Minnesota Conservation Commission.

## Outdoor Notes

By JOE AUSTELL SMALL

### Snake Lore

Rattlesnakes breed in the fall of the year. They do not have young but every other year.

When snakes come out of their dens, females that are not having young that year will lie around the den a week to ten days. The females that are going to have young will lie on flat rocks that are from two to six inches thick until they shed their skins and grow new ones. After these new skins become toughened up, the snakes will leave and feed up on gophers, small birds, mice, frogs and blackberries. Then they return to the flat rock and have their young.

### "Stop, Thief!"

The common baldpate is often called "thief duck." Because it is a surface-feeding bird, it cannot dive for wild celery roots, its favorite food.

Rather than miss out on this delicacy completely, the baldpate keeps company with redheads and canvasbacks, carefully watching while they dive for celery roots in deep water. When the ducks break surface, the baldpate is there waiting. Snatching a juicy mouthful of celery roots from the diver's bill, he gets to heck away fast.

The baldpate's social standing among redheads and canvasbacks is not high. . . .

### Weatherby Imperial

When Roy Weatherby came out with his new line of Imperial scope sights, he really hit something new in scope design. Some of the boys are saying that it is the greatest scope advancement in 30 years. With as much as 47½ feet in field of view at 100 yards, it offers the shooter a new experience in this line.

The Dual-Dial feature, however, is what really appeals to us. On top of the scope there are both windage and elevation controls. You just dial what you want and that's all there is to it!

The tube is strong, light and will fit nearly any standard mount. It is dust-proof, air-tight and fogless.

There are three models and they are all described in detail in the new folder Roy has out. Drop a card in the mail and it is yours for free. Write Weatherby, 2793 Firestone Blvd., South Gate, Cal.

### They Gotta Have That Wiggle

It is plumb important to keep those worms alive and wiggling—and that's hard to do during hot weather. Just get you a hunk of florist's moss and dampen it. Don't get it wet. Pack it in a clay flower pot. When carrying your worms for a long haul, wrap the pot in damp burlap and evaporation will keep them cool and in hep shape.

### Rod Grips

Don't let your fishing rod get in a state of degredation like most fishermen. The dirt and discoloration of a cork rod grip can be removed with acetone. Apply with small sponge and wipe off with cloth. Keep it up until clean. It sure helps the looks, and feel, of a rod.

### Flashy

For a long time fishermen who have used them know that red minnows attract more bass than natural-colored ones. But getting hold of red minnows has been the trouble.

Well, chum, lend your good ear to the wind and listen to this. Take along a bottle of mercurochrome and a little brush. Put your minnow on the hook, then give it that bewitching look with the paint brush. It works!

### Things You May Not Know

The crow is the wiliest of all birds. In olden times, the crow was termed a bird of evil omen because of its black plumage.

When roasting game birds, try wrapping them in aluminum foil. Basting is not necessary, and the juices are sealed in the meat. This works well with all game birds, but particularly with pheasant and quail.

Termites live for thirty years or more.

Ducks, geese and swans raise only one brood per year, with the possible exception of the ruddy duck, which has been known to raise two broods.

The woodcock has its ears located in front of its eyes.

An Irish Wolfhound on Columbus's ship is believed to have been the first dog of a recognized breed to set foot on American soil.

A good team of Arctic sled dogs, pushed by an expert driver, can cover 100 miles a day with a light load.

There are small teeth present on the tongue of the white bass that are not present in the yellow bass.

**KNOW YOUR FRIEND--THE GAME PROTECTOR**



Fred Anderson

Fred Anderson made the transfer from commercial fishing to the game protector department of the Kansas Forestry, Fish and Game Commission 26 years ago. He was first a local game warden, then became a district game warden September 1, 1930.

He lives in Doniphan (population 125) and works in Doniphan county. He also conducts all seining operations for the fish and game commission. Drawing on his commercial fishing experience, he directs the commission's activities in ridding ponds and lakes of such rough fish as carp and buffalo. He also aids in recovering bodies of any victims of accidental drowning in the state lakes, a job he doesn't like, but feels "somebody has to do."

Anderson has lived in Doniphan all his life, with the exception of 2½ years. Atchison is the mailing address for the small community.

Mr. and Mrs. Anderson are the parents of five children, Joe, who lives two miles north of Doniphan; Mrs. Charles Young of California; Frederick of California; Mrs. Bus Peterson of West of Horton; and Anna Marie Anderson of California. They have six grandchildren. One son was killed in France in World War II.



Henry (Hank) Byrne

A life-long interest in guns, hunting and fishing has stood Henry (Hank) Byrne in good stead in his job as game protector of Cloud, Republic, Jewell and Mitchell counties. He took over the job June 15, 1937, after serving 8½ years as sheriff of Cloud county.

Byrne, 49, was born at Clyde, also in Cloud county. His wife, Charlotte, is a native of near-by Jewell county.

Byrne is handy with a gun and loves to try his luck at hunting and fishing. During his term as sheriff, he won a second place in pistol shooting at a Kansas Peace Officers meeting. Now he goes in mostly for trap shooting.

He is a charter member of Ducks Unlimited in Kansas. A few years ago he was awarded a chapter founder button of the Isaak Walton League.

During the 16 plus years he has been a game protector, Byrne has watched the attitude of the public change from one of resentment of hunting and fishing laws to one of co-operation. He believes more and more people are realizing the importance of conservation to the fish and game of the state.

In order to make a tablespoonful of honey, a bee must visit about 2,000 flowers.

## Water From Arkansas River Will Be Diverted Into Cheyenne Bottoms

One of the major projects of the Forestry, Fish and Game Commission in 1955 will be to start work on the final phase of the Cheyenne Bottoms project—that of the construction of a diversion dam in the Arkansas river and a canal from that river into the existing canal leading from Wet Walnut creek into the huge basin.

Location of the dam and canal, which will feed a more adequate water supply into the Bottoms, has been determined and negotiations are already under way to acquire needed right of way.

The canal will be slightly more than seven miles in length. It will start at a point approximately one mile south of Dundee where a diversion dam will be located across the Arkansas river. The canal curves northeasterly and then goes north along the east side of the section line for a distance of about 6½ miles to the north fork of the Dry Walnut creek. Water from the canal will then travel in the creek channel about two miles northeast to a point where another dam will be constructed and from there the canal will extend east northeast under highway K-96 and the Santa Fe tracks for a distance of about a mile to the Wet Walnut creek channel.

The location of the proposed canal and diversion dams is shown in the accompanying map, elsewhere on this page.

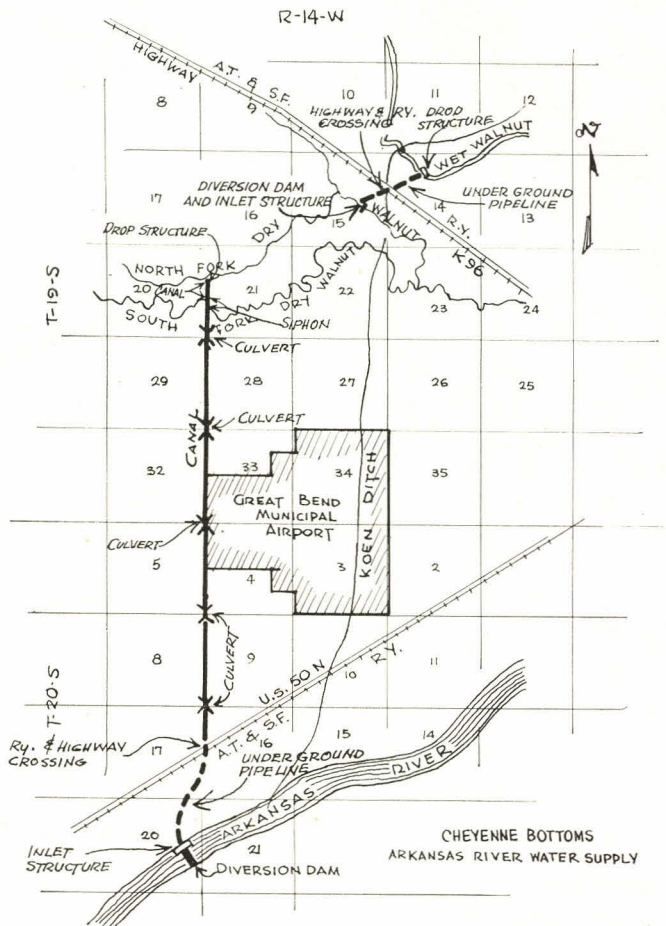
The canal will be of two types. Part of it will be an open ditch and the remainder will be closed conduit on that portion from the intake structure at the north bank of the Arkansas river to a point immediately north of U. S. Highway 50N and the Santa Fe tracks; through the flood plains area north of the Great Bend municipal airport, and again for that portion of the route between the Dry Walnut creek and the Wet Walnut creek. The canal passes under crossroads through culverts.

The open ditch part of the canal will amount to approximately 14,000 feet and the closed conduit portion will be approximately 25,000 feet. According to the design engineers, the closed conduit will consist partly of 60-inch reinforced concrete pipe and the remainder will be 72-inch diameter cement pipe. The route of the water from the river to the creek will include 10,000 feet of travel in the Dry Walnut creek channel.

The diversion dam in the Arkansas river will have a total length of 270 feet, of which 120 feet will be gated with six radial gates. The rest of the dam will be an overflow concrete section. The dam is designed in

such a manner as to leave the stage-discharge relationship of the river unchanged. The diversion dam proposed for the north fork of the Dry Walnut creek will consist of a concrete structure with three radial gates that can be lifted above the high water level at flood stage.

Engineers who have designed the Cheyenne Bottoms project figure that the additional water which



will move from the Arkansas river into the Bottoms will be enough to keep the five lakes full. It was never contemplated that the Walnut creek would provide enough water to fill the Bottoms because of the exceedingly high rate of evaporation. The capacity of the proposed canal pipe will be 80 cubic feet per second which is enough to cover 20,000 acre feet per year, according to the engineers.

Estimated cost of the final phase of the work will be from \$800,000 to \$1,000,000.

Upon completion of this work, the total expendi-

tures on the Cheyenne Bottoms wildlife refuge will be in the neighborhood of \$3 million. Three-fourths of the entire costs were paid for from funds made available to the fish and game commission from the Pittman-Robertson Federal Aid-To-Wildlife Act. Such funds are derived from an 11-percent excise tax on sporting arms and ammunition. The other 25 percent was paid from state fish and game funds. No direct ad valorem tax money was used on the project.

The Cheyenne Bottoms has been a continuing project of the fish and game commission for the past 13 years. When the project is completed, it will be one of the biggest attractions in Kansas and of vast worth and importance to the people of the state.

## Teaching Conservation

By PAUL A. HERBERT, Director, Division of Conservation,  
Michigan State College

The natural resources are essential to life. Their conservation is necessary if man is to improve, or even retain, his present social status. Conservation is basically a pattern of human behavior applied to these natural resources. This pattern is established by adherence to one cardinal principle—the principle that the natural resources belong to all men for all time. To implement this principle in reference to the renewable resources, it is only necessary that the consumers of today in their use avoid practices that impair the future productivity of the resources. However, when this principle is applied to the non-renewable resources, it is unfortunately impossible to prevent the gradual depletion and eventual exhaustion of these resources. So human behavior in reference to such non-renewable resources should limit their use to those needs essential to the progress of civilization. The consumer in any generation or any century would be obligated morally to use the utmost care to avoid needless waste of all resources.

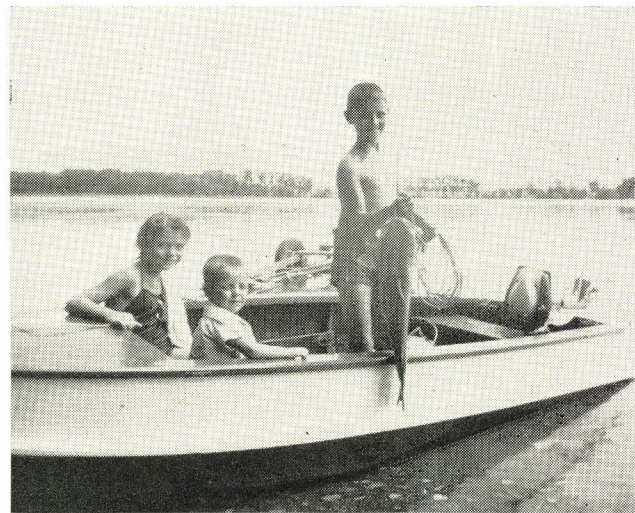
With the acceptance of this philosophic basis of conservation, the utilization of both the renewable and nonrenewable resources must be based upon planned use. Such planning would endeavor to provide the maximum of present satisfaction with the minimum of future dissatisfaction. Certainly posterity could not complain if we now utilize the lands, forests, waters, and wildlife so that these resources would be available in the same, or even greater, quantity and quality in the future, and that mineral depletion is kept to a minimum in the furtherance of the world's economy.

Conservation as here described affirms its importance to the well being of man. It must, therefore, be included in a sound educational program. For the

acceptance of the necessary human behavior pattern, the teaching of conservation finds its roots in the humanities and the social sciences. In the implementation of this pattern, an understanding of the social sciences must be correlated with pertinent facts from the physical and biological sciences to establish wise use practices for individual resource consumption and production in each community from specific sites and at a specified time.

It would seem that all schools, whether they be urban or rural, are able to supply the social, physical and biological science background necessary to conservation instruction. A rural or a suburban school may be more effective in teaching some applied biological phases of conservation. However, this advantage is offset by more diversified illustrative material in the social sciences readily available to urban schools. Thus it would seem that city schools are able to present the basic concepts of conservation to their pupils about as readily as rural schools. In fact, there is a greater chance of rural schools teaching biology under the guise of conservation, because of the experiences of the students and because of the school environment.

This brief exposition also suggests the desirability of presenting the principles of conservation to pupils as an integral part of all school activities rather than as a separate subject. Such separation, perhaps, is desirable as a culminating course in high school, and certainly specific intensive instruction on the college level is necessary for those who would teach or guide others in the practice of conservation.



Fishing the Meade County State lake was productive for Ted Swanson, son of Mr. and Mrs. Arthur C. Swanson of Dodge City. Ted landed this 11¼-pound channel cat all by himself. Shown with Ted is his sister, Donna, and brother, Mark.

## News of Sportsmen's Clubs

### Carlos Crabb Elected President Of McPherson Fish, Game Club

At a meeting of the McPherson County Fish and Game Association held the latter part of October, Carlos Crabb, prominent businessman of McPherson, was elected president of the club.

Other officers elected included Tib Anderson, vice-president; Milton Clemens, secretary, and Deloss Hultberg, treasurer. Elected to three-year terms as directors were: Chester Murrey, Conway; Tony Voshell, McPherson; Clifford Cox, Windom; and Ed Nelson, Lindsborg. R. W. Hayden, of McPherson, was elected to a one-year term as director to fill out an unexpired term of another director.

Membership in the McPherson county club has been 350, but a goal of 550 members was set for the coming year. Over \$100 in merchandise prizes will be awarded in the membership contest; first prize in the contest being a Winchester pump rifle and case.

The club members voted to start work on cleaning up the ten-acre grove of trees on the west shore of the new McPherson County State lake. A large number of the members gathered at the site with tractors, trucks and other equipment and really went to work on the grove. Through these efforts, the new lake will have an excellent picnic and recreational area.

### Harry Hans Re-elected President Of Allen County Wildlife Club

At a meeting of the Allen County Wildlife Association held in November at La Harpe, Mr. Harry Hans of Iola, was re-elected president of the association for the ensuing year.

Other officers elected were A. A. Peterson, La Harpe, first vice-president; C. B. Shepard, Humboldt, second vice-president; Dean Seaton, Iola, secretary, and Lewis Drake, Humboldt, treasurer.

Members of the board of directors are M. L. Brown of Humboldt, Buford Welch of Moran, Roscoe Kimberling, Humboldt, E. P. Ericson, Moran, Lee Maloney, Iola, and Leland Sanders, Elsmore.

One of the experimental projects of the Allen county group was the setting up of a game preserve in the county. Eighteen sections of land were included in the preserve, which will be closed to hunting. The association went to considerable expense in stocking the area with game birds and spent much time in setting up the preserve.

As Mr. Hans puts it, "We want it known that this preserve area is in no way to be restricted for the exclusive use of members of the Allen County Wildlife Association. When it is opened up in two years, it will be opened to all hunters. If it works out the way we hope it will, after two years we will open the area, and start another elsewhere in the county."

The game preserve is but one of many experimental projects being made by the association, whose aim is to improve outdoor recreation in Allen county.

### Cowley County Sportsmen Form Permanent Organization

A new sportsmen's club, known as the Cowley County Sportsmen's Association, was organized recently at a meeting held in Winfield. S. C. Thompson of Arkansas City was named president; Lawrence Christenson, Winfield, vice-president; T. J. Werner, Winfield, treasurer; Elmer Morris, Arkansas City, secretary.

Named on the board of directors were Joe Warren of Maple City, Howard Elrod of Burden, Wilburn Dicken of Winfield, Dick Moore, Frank G. Theis and Ralph Wahlenmaier of Arkansas City.

Dues of the new club are \$2 a year, except for farmers, whose dues will be 50 cents a year.

Better sportsmanship and a more friendly attitude between sportsmen and farmers are among objects of the new organization.

Adopted as one of the first projects of the club was the providing of better native habitat for fish in the new Cowley County State lake, before it is filled with water.

### Brower Re-elected President Of Shawnee Sportsmen, Inc.

Harold Brower was re-elected president of the Topeka Shawnee Sportsmen, Inc., at a recent meeting of club members.

Other officers elected were Roy Clark, vice-president; R. A. Seem, secretary; and George Henney, re-elected treasurer.

Named to the board of directors were Al J. Kieninger, Al Marlatte, Seem and Clark.

The Topeka sportsmen are actively planning their annual buffalo feed which will be held sometime in the spring.

Skunks sometime eat bees. They thump their feet at the entrance of the hives and eat the bees as they emerge.

## Karl Hugos New President Of Riley County Sportsmen

Karl Hugos is the new president of the Riley County Fish and Game Association, according to the *Manhattan Mercury*. He replaces Bob Meinhardt, who had served so ably in that capacity.

Dr. H. T. Gier was re-elected vice-president and Don Workman continues as secretary. Pearl Bottger and R. O. Lundquist were elected as new members of the board of directors.

## Hot Stove League For Sportsmen

The closing of the hunting seasons does not necessarily mean that sportsmen have to completely abandon contact with the outdoors or the hunting activity for the time being. In fact, instead of a period of inactivity, that lull between the hunting and fishing seasons can be made quite pleasant and profitable, too, by sportsmen who enjoy allied outdoor activities all year round.

"There are a lot of things to do to keep the active sportsman's minds and hands occupied," says Gail Evans, assistant director of sales, Remington Arms Co., Inc. "Emergency winter feeding of wildlife in critical periods of ice and snow is good insurance for another game crop and better hunting next fall. Many thousands of game birds and animals are saved from freezing and starvation each winter by the helping hands of sportsmen, in both organized feeding programs and through individual efforts in favorite covers. This sort of activity, when the going is tough, is highly essential to a continuing game crop in numerous sections and the sportsman participating finds that it is real fun to do his part."

If one is mechanically inclined, he can engage in the fascinating hobby of building nesting homes and feeding boxes for wildlife and thus make a substantial contribution to the future of his sport.

Field trips for animal and bird study can be a lot of pleasure and can be combined with outdoor and wildlife photography. For those who do not want to bother with a camera on a hunting trip, right now is a good time to have some real photographic fun afield.

Cold weather time is a good time to go visiting among the farmers on whose land you hunt. It is during this period that they have a little leisure and would welcome company. And now is the time to interest the farmer in a feed and cover planting program to combat erosion and provide more food for wildlife at the same time, all with your help, of course.

This is a good time for sportsmen's clubs to get together with the local power company and plan a project of planting perennial wildlife food on the power line right of way. And stream improvement plans can be worked out among the club members. And you can always keep your shooting eye in at skeet, the traps, with a hand trap or on the rifle range.

No, there is no reason for sportsmen to be inactive during this period. But if you do want to take it just plain easy, there are lots of fine magazines and books on hunting and fishing, conservation, natural history and similar subjects that will allow you to while away your spare time profitably and pleasantly.

## Nature Is Thrifty

"Nature is the most thrifty thing in the world; she never wastes anything; she undergoes change, but there's no annihilation, the essence remains—matter is eternal."—*Binney in Virginia Wildlife*.



Among the fine entertainment at the Great Plains Habitat conference at Hutchinson, was a lecture on antique guns given by Lt. (j. g.) Tom Ray, of Hutchinson Naval Air Station.

## ARRESTS—AUGUST, 1954

| Name and address                       | Offense  | Date of offense | Fine   |
|--|--|-----------------|--------|
| Aubrey Baty, Chanute                   | No fishing license   | 8- 9-54         | \$5.00 |
| V. L. Castor; Leavenworth              | No fishing license   | 7-31-54         | 5.00   |
| Ray G. Cline; Hutchinson               | No fishing license   | 4-24-54         | 10.00  |
| Jimmy C. Cook; Hutchinson              | No fishing license   | 8-22-54         | 5.00   |
| Ralph Lee Finley; Wichita              | No fishing license   | 8- 7-54         | 10.00  |
| Don Frye; Fredonia                     | No fishing license   | 8- 5-54         | 10.00  |
| James O. Fulcher; Arkansas City        | No fishing license   | 7-29-54         | 5.00   |
| Wesley Ikenberry; Quinter              | No fishing license   | 8-12-54         | 10.00  |
| Kendall Jameson; Phoenix, Ariz.        | No fishing license   | 8-12-54         | 10.00  |
| Jay Martinez; Copeland                 | No fishing license   | 8-22-54         | 5.00   |
| Leo Martinez; Dodge City               | No fishing license   | 8-22-54         | 5.00   |
| William Martinez; Dodge City           | No fishing license   | 8-22-54         | 5.00   |
| Henry Moore, Jr.; Kansas City          | No fishing license   | 8-21-54         | 5.00   |
| Clarence J. Noonkester; Wichita        | No fishing license   | 8-19-54         | 5.00   |
| J. I. Pitts; Jetmore                   | No fishing license   | 8-28-54         | 5.00   |
| Frank C. Ramares; Coffeyville          | No fishing license   | 8- 7-54         | 5.00   |
| Frank P. Ramares; Little Rock, Ark.    | No fishing license   | 8- 7-54         | 5.00   |
| Harold Ruffner; Salina                 | No fishing license   | 8-15-54         | 5.00   |
| Duane Sand; Hutchinson                 | No fishing license   | 8- 1-54         | 5.00   |
| Ivan L. Sharp; Thayer                  | No fishing license   | 8-22-54         | 10.00  |
| James A. Shofner; Wichita              | No fishing license   | 7-31-54         | 10.00  |
| Roy VanLoenen; Bogue                   | No fishing license   | 8-29-54         | 10.00  |
| Patricia Ann Wade; Topeka and Stockton | No fishing license   | 8- 8-54         | 5.00   |
| Ralph E. Wade; Topeka and Stockton     | No fishing license   | 8- 8-54         | 10.00  |
| Walter Watson; Kansas City             | No fishing license   | 8-21-54         | 5.00   |
| Earl Eugene Whitlow; Guthrie, Okla.    | No fishing license   | 8-26-54         | 5.00   |
| James F. Willis; Platte City, Mo.      | No fishing license   | 7-31-54         | 10.00  |
| Larry Groom; Leavenworth               | Use of motorboat on state lake for purposes other than fishing   | 7-25-54         | 5.00   |
| C. K. Elsworth; Leavenworth            | Operate motorboat on state lake without permit   | 7-25-54         | 5.00   |
| Elmer Braun; Leavenworth               | Take and possess black bass measuring less than ten inches   | 7-31-54         | 5.00   |
| Al G. Caldwell; Kansas City            | Take and possess black bass measuring less than ten inches   | 8- 3-54         | 10.00  |
| Boyd Davie; Everest                    | Take and possess black bass measuring less than ten inches   | 7-31-54         | 10.00  |
| Willia O. McCord; Kansas City          | Take and possess black bass measuring less than ten inches   | 8-21-54         | 10.00  |
| Janice Yanez; Kansas City              | Take and possess black bass measuring less than ten inches   | 8-21-54         | 10.00  |
| Paul Smith; Kansas City                | No fishing license and take and possess black bass measuring less than ten inches in length  | 8- 8-54         | 15.00  |
| Patrick Caldwell; Kansas City          | Have set and operate trotlines in state lakes  | 8- 3-54         | 5.00   |
| Gene Martin; Olathe                    | Have set and operate trotlines in state lakes  | 8- 4-54         | 5.00   |
| Leo Harding; Liberal                   | Drunk and disorderly conduct in a public place and drinking or consuming alcoholic liquor upon property owned by the state of Kansas | 8- 8-54         | 55.00  |
| Walt Emerson; Kansas City, Mo.         | Hunting bullfrogs without a nonresident fishing license  | 8- 3-54         | 5.00   |
| Robert Runyon; Kansas City, Mo.        | Hunting bullfrogs without a nonresident fishing license  | 8- 3-54         | 5.00   |
| Robert Cook; Great Bend                | No fishing license and use of fish spear   | 9-20-54         | 15.00  |
| John J. Sheil; Great Bend              | No fishing license and use of fish spear   | 9-20-54         | 15.00  |
| Richard A. Boone; Parkville, Mo.       | No fishing license; no hunting license; use of illegal minnow seine  | 7-24-54         | 30.00  |
| Herman Frey; Kansas City, Mo.          | Misrepresentation  | 8-21-54         | 10.00  |

## ARRESTS—SEPTEMBER, 1954

| Name and address                    | Offense  | Date of offense | Fine   |
|-------------------------------------|--|-----------------|--------|
| Alton Atkins; Wichita               | No fishing license   | 9- 5-54         | \$5.00 |
| George J. Bartkoski; Kansas City    | No fishing license   | 9-18-54         | 5.00   |
| John Burris; Salina                 | No fishing license   | 6- -54          | 5.00   |
| M. G. Busby; Kansas City, Mo.       | No fishing license   | 9- 5-54         | 10.00  |
| M. J. Cross; Abilene                | No fishing license   | 8- -54          | 5.00   |
| William R. Darris; St. Louis, Mo.   | No fishing license   | 9-12-54         | 5.00   |
| A. F. Dyche; Kansas City            | No fishing license   | 8-21-54         | 5.00   |
| Rollin Gordon; Grenola              | No fishing license   | 9-22-54         | 10.00  |
| Norman L. Cossell; Kansas City      | No fishing license   | 9-18-54         | 5.00   |
| Ray Henry; Salina                   | No fishing license   | 9-20-54         | 10.00  |
| Kenneth Jones; Grenola              | No fishing license   | 9-16-54         | 10.00  |
| Rolland Jordan; Grenola             | No fishing license   | 9-16-54         | 10.00  |
| Jennings Keith; Salina              | No fishing license   | 9-21-54         | 10.00  |
| F. G. Liebou; Grenola               | No fishing license   | 9-16-54         | 10.00  |
| Joseph B. Ray; Norman, Okla.        | No fishing license   | 9-11-54         | 10.00  |
| Richard Schmidt; Saint Peter, Minn. | No fishing license   | 9-11-54         | 10.00  |
| J. R. Spence; Abilene               | No fishing license   | 8- -54          | 5.00   |
| Melvin H. Lewis, Jr.; Topeka        | Hunt, shoot, kill, and have in possession game birds in closed season, | 10-21-54        | 10.00  |
| John Fay; Larned                    | Hunt, shoot, kill, and have in possession game birds in closed season, | 10- 5-54        | 10.00  |



| <i>Name and address</i>             | <i>Offense</i>  | <i>Date of offense</i> | <i>Fine</i> |
|-------------------------------------|---|------------------------|-------------|
| John D. Stewart; Parkville, Mo.     | No fishing license  | 9- 5-54                | 5.00        |
| Herbert Stradford; Kansas City, Mo. | No fishing license  | 9-21-54                | 10.00       |
| James Carter; Kansas City           | Operating more than the legal number of rods and reels and pole lines   | 9- 5-54                | 10.00       |
| John H. Carter; Kansas City, Mo.    | Operating more than the legal number of rods and reels and pole lines   | 9- 5-54                | 10.00       |
| C. J. McClendon; Kansas City        | Operating trotline containing more than twenty-five hooks   | 9-18-54                | 10.00       |
| H. P. Bartlett; Wichita             | Possession of illegal length bass   | 9-25-54                | 10.00       |
| Jessee Jacobs; Kansas City          | Possession of illegal length bass   | 9-16-54                | 10.00       |
| Clifford Laidler; Pittsburg         | Possession of illegal seine   | 9-26-54                | 10.00       |
| L. E. Maichel; Carbondale           | Possession of illegal seine   | 9-12-54                | 20.00       |
| Carl Turner; Kansas City, Mo.       | Taking bullfrogs with a .22 rifle   | 9- 5-54                | 10.00       |
| Glenn Brown; Garden City            | No hunting license  | 8-29-54                | 10.00       |
| Delmar Dunham; Garden City          | No hunting license  | 8-29-54                | 10.00       |
| Oscar Hall; Salina                  | No hunting license  | 9-16-54                | 5.00        |
| Glen Zimmerman; El Dorado           | No hunting license  | 9-25-54                | 5.00        |
| Hilary Esaw; Kansas City            | Failure to produce hunting license  | 9-17-54                | 5.00        |
| J. D. Dean; Kansas City             | Failure to produce hunting license  | 9-17-54                | 5.00        |
| Will Carroll; Kansas City           | Hunting on game sanctuary   | 9-18-54                | 5.00        |
| Ed Green; Kansas City               | Hunting on game sanctuary   | 9-18-54                | 5.00        |
| Doyleson Mosley; Kansas City        | Hunting on game sanctuary   | 9-18-54                | 5.00        |
| Harlan Taylor; Liberal              | Shoot, kill, and have in possession one pheasant; no hunting license  | 9- 6-54                | 50.00       |
| Joe E. Young; Liberal               | Shoot, kill, and have in possession one pheasant; no hunting license  | 9- 6-54                | 50.00       |
| Clyde Tunnell; Chanute              | Shooting rabbit after dark; no hunting license  | 9-13-54                | 10.00       |
| Herman Eden; Liberty                | Attempt and take a dove while not in flight   | 9-12-54                | 10.00       |
| Hurbert Willett; Topeka             | Hunt, shoot, and kill 2 teal ducks in closed season   | 9-16-54                | 30.00       |
| Jim Robinson; Plains                | Disturbing the peace at Meade County State Park   | 8-29-54                | 15.00       |
| Leonard Oberle; Dodge City          | Drinking or consuming alcoholic liquor on state property; throwing tin cans upon state property and into state lake | 6- 5-54                | 10.00       |
| Emil L. Haar; Dodge City            | Use of vile language and use of alcoholic beverages on state property   | 9-24-54                | 17.50       |
| Willis B. Hoagland, Jr.; Lawrence   | Swimming in restricted area of a state lake   | 9-24-54                | 5.00        |

## ARRESTS—OCTOBER, 1954

| <i>Name and address</i>        | <i>Offense</i>  | <i>Date of offense</i> | <i>Fine</i> |
|--------------------------------|---|------------------------|-------------|
| Robert Allen; Kansas City      | No fishing license  | 9-19-54                | \$5.00      |
| Oscar Brittain; Scott City     | No fishing license  | 10-22-54               | 10.00       |
| Mrs. Eugene Colby; Beloit      | No fishing license  | 10-17-54               | 5.00        |
| Wayne Gaulte; Manhattan        | No fishing license  | 10-12-54               | 5.00        |
| Kenneth Hanson; McPherson      | No fishing license  | 10-14-54               | 5.00        |
| Mathew Miller; Hutchinson      | No fishing license  | 8- -54                 | 5.00        |
| Leroy Powell; Paola            | No fishing license  | 9-19-54                | 5.00        |
| Donald Smith; Hutchinson       | No fishing license  | 10-12-54               | 1.00        |
| Wayne Walker; Arkansas City    | No fishing license  | 10-26-54               | 25.00       |
| Orie L. Walton; Carthage, Mo.  | No fishing license  | 10-10-54               | 10.00       |
| Lyle Yankee; Hutchinson        | No fishing license  | 9- -54                 | 5.00        |
| William Littrel; Ellinwood     | Handfishing   | 10-17-54               | 10.00       |
| Larry Ravenstien; Ellinwood    | Handfishing   | 10-17-54               | 10.00       |
| Dick Wolfe; Ellinwood          | Handfishing   | 10-17-54               | 10.00       |
| Alvin Galyardt; Ellinwood      | Pitchforking, handfishing, and no license                             | 10- 3-54               | 75.00       |
| Leo Galyardt; Ellinwood        | Pitchforking, handfishing, and no license                             | 10- 3-54               | 35.00       |
| Richard Meyers; Ellinwood      | Pitchforking, handfishing, and no license                             | 10- 3-54               | 35.00       |
| Bernard N. Weber; Ellinwood    | Pitchforking, handfishing, and no license                             | 10- 3-54               | 35.00       |
| Chester C. Vannocker; Gridley  | No hunting license  | 10-30-54               | 12.50       |
| Virgil Kemp; Wellington        | No hunting license  | 10-27-54               | 5.00        |
| Virgil Leon Olson; Chanute     | No hunting license  | 10-23-54               | 5.00        |
| W. W. Clark; Kansas City       | Hunting on game sanctuary   | 10-16-54               | 5.00        |
| Robert Copeland; Kansas City   | Hunting on game sanctuary   | 10-16-54               | 5.00        |
| George Curry; Kansas City      | Hunting on game sanctuary   | 10- 8-54               | 5.00        |
| R. F. Freeman; Bethel          | Hunting on game sanctuary   | 10-16-54               | 5.00        |
| Wilbert Gibson; Kansas City    | Hunting on game sanctuary   | 10-16-54               | 5.00        |
| B. L. Hurd; Kansas City        | Hunting on game sanctuary   | 10- 8-54               | 5.00        |
| C. A. Jones; Kansas City       | Hunting on game sanctuary   | 10-16-54               | 5.00        |
| Fred Thomas; Kansas City       | Hunting on game sanctuary   | 10- 8-54               | 5.00        |
| James L. Williams; Kansas City | Hunting on game sanctuary   | 10-17-54               | 5.00        |
| Harold Shepard; Lawrence       | Hunting squirrels without a license                                   | 10-17-54               | 5.00        |
| John Shepard; Lawrence         | Hunting squirrels without a license                                   | 10-17-54               | 5.00        |
| R. K. Berry; Oskaloosa, Iowa   | Taking hen pheasants in closed season; no hunting license             | 10-23-54               | 15.00       |
| C. L. Mason; Norton            | Taking hen pheasants in closed season; no hunting license             | 10-23-54               | 20.00       |
| Clinton L. Ketter; Topeka      | Hunt, shoot, kill, and have in possession game birds in closed season | 10-17-54               | 20.00       |
| Leo Lewis; Topeka              | Hunt, shoot, kill, and have in possession game birds in closed season | 10-17-54               | 20.00       |

| Name and address               | Offense   | Date of offense | Fine              |
|--------------------------------|---|-----------------|-------------------|
| Gail Hawk; Larned              | Hunt, shoot, kill, and have in possession game birds in closed season,  | 10- 5-54        | 10.00             |
| Elmer Scott; Leavenworth       | Hunting rabbits during closed season  | 10-16-54        | 10.00             |
| Hartwell Spencer; Leavenworth  | Hunting rabbits during closed season  | 10-16-54        | 10.00             |
| Norris Keeler; Fredonia        | Shooting game birds while not in flight   | 10-10-54        | 10.00             |
| Wilford R. Pritchett; Fredonia | Shooting game birds while not in flight   | 10-26-54        | 10.00             |
| David Field; Alma              | Taking pheasants in closed season and using gun larger than 10-gauge  | 10-17-54        | 20.00             |
| George Buss; Bogue             | Shooting pheasants on the set during closed season from a motor vehicle   | 10- 9-54        | 10 days and 30.00 |
| James Smith; Larned            | Shooting game animals from motor vehicle  | 10-31-54        | 10.00             |
| Bill Taylor; Lincoln           | Shooting game animals from motor vehicle  | 10- 3-54        | 10.00             |
| E. W. Looker; Emporia          | Possess and carry firearms in state park  | 10-23-54        | 5.00              |
| E. R. Spoelbush; Emporia       | Possess and carry firearms in state park  | 10-23-54        | 5.00              |
| George L. Massey; Great Bend   | Possess and discharge firearms in state park, and shoot and attempt to take wild game birds, to-wit: ducks and coots in closed season | 10-13-54        | 50.00             |
| Leonard Crawford; Dayton, Ohio | Misrepresentation   | 10- 9-54        | 5.00              |
| B. J. Lewis; Kansas City       | Illegal hunting methods   | 10-24-54        | 10.00             |

### Why Boys and Girls Want to Shoot

When a boy tells his dad or mother that he wants a rifle for Christmas, or for his birthday, or for some other occasion, the answer is often an explosive "No—Never," or an indifferent "Yes . . . I suppose it's all right."

Either of these answers may be wrong. What, then, determines when the answer should be "Yes" and when it should be "No."

It's easier to decide this question if we understand why most people like to shoot, and why so many millions do shoot. All the aspects of the shooting sports cannot be covered in this article, but let's review the phases which prompt the typical American youngster to say, "Pop, can I have a gun?"

When the Pilgrims landed on our shores they brought firearms with them for protection and to obtain food. Firearms were as essential to them as hammers, shovels, or hats.

Our forefathers placed such high value on firearms that they wrote into our constitution a provision that the right of the people to keep and bear arms shall not be infringed.

The great saga of the winning of the West, of the pioneers and trail blazers, of the fight against wild animals and hardship perils spells part of the great tradition and romance that is the heritage of our children.

While our food supply no longer normally requires firearms, millions of Americans supplement their supply by annually taking about forty million pounds of wild game during the hunting season.

There is a priceless tradition in America's attitude toward firearms. It represents a freedom which few nations enjoy. It lives in our history books and our literature. We find it in the movies, television, radio, and in the active participation by millions of Americans in the shooting sports. This tradition influences our sons and daughters to want to take an active interest in real guns as they grow up.

They want to know how to handle firearms so they

can, in greater measure, appreciate the exploits of Dan'l Boone and Sam Houston, and Buffalo Bill, and the thousands of other heroes who helped carve our nation out of the wilderness.

This interest can develop into a desire to enjoy the modern types of shooting sports—target shooting, plinking, hunting—or into a desire to know all about how a gun works and what makes it shoot. It's an intriguing subject, and a youngster whose interest is aroused will someday find himself with a gun in his hands. For his safety and that of his associates, it is your duty, as a parent, to be sure that he knows enough about guns to handle one safely.

### Jonas and the Beasts

Whether you are a frost-bitten Alaskan trapper, an African pigmy or just a plain old United States outdoorsman trying to fill out a limit of ducks or game fish, you've heard of Jonas Brothers' world-famous taxidermy studies. We know this because we've seen pictures of African natives, with eyes bulging, taking a gander at one of Jonas' colorful catalogues.

The catalogue is called "Game Trails" and every single one of its fifty-two pages is jammed full of eye-busting photos of fish, game, hunting and fishing. In between, there are thousands of words that any hunter and fisherman will find interesting and downright valuable.

There are sections devoted to hunting and fishing hints, another discussing guns and ammunition, a batch of fish and game recipes, and more pictures. Then there are some more pictures and dope on world's record game trophies and how to keep and preserve trophies of all kinds.

The book doesn't cost two or three bucks like you'd expect. It's just twenty-five cents from the Jonas headquarters at 1035 Broadway, Denver, Colorado. And you'll be surprised to find how little it costs to have your own game or fish converted into one of Jonas' taxidermy masterpieces.

# Magazine Questionnaire

**You are Invited** to express your opinions on **KANSAS FISH AND GAME** magazine

In an effort to keep the magazine in line with readers' interests, we submit the following Questionnaire. Please give your reactions to the following ten questions and mail to **KANSAS FISH AND GAME MAGAZINE**, P. O. Box 581, Pratt, Kansas.

- |   | YES   | NO    | FAIR  |
|---|-------|-------|-------|
| 1. Do you like the size of the magazine and general appearance? ... | _____ | _____ | _____ |
| 2. Is the magazine type (the printing) to your liking? .....        | _____ | _____ | _____ |
| 3. Are the articles varied enough each month? .....                 | _____ | _____ | _____ |
| 4. Is your magazine coming to you in good shape? .....              | _____ | _____ | _____ |
| 5. Do you scan or read:   | YES   | NO    | SOME  |
| Feature Articles .....  | _____ | _____ | _____ |
| Short Articles .....  | _____ | _____ | _____ |
| Outdoor Notes .....   | _____ | _____ | _____ |
| Know Your Friend—The Game Protector .....                           | _____ | _____ | _____ |
| News of Sportsman's Clubs .....                                     | _____ | _____ | _____ |
| Arrests .....   | _____ | _____ | _____ |

6. What parts of the magazine do you like best now? (See list in 5.)

Write in \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7. How many persons in your family read **KANSAS FISH AND GAME**? \_\_\_\_\_

Do you pass it on to others? .....

|  |           |          |
|--|-----------|----------|
|  | Yes _____ | No _____ |
|--|-----------|----------|

8. Do you preserve your **KANSAS FISH AND GAME** for future reference? ...

|  |           |          |
|--|-----------|----------|
|  | Yes _____ | No _____ |
|--|-----------|----------|

9. What type of articles or reading matter would you like to see? (Please write in) \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

10. Lastly, what else would you like to say about **KANSAS FISH AND GAME**? \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



*Conservation Pledge*

I GIVE MY  
PLEDGE AS AN AMERICAN  
TO SAVE AND FAITHFULLY TO  
DEFEND FROM WASTE THE  
NATURAL RESOURCES OF  
MY COUNTRY - ITS SOIL  
AND MINERALS, ITS  
FORESTS, WATERS,  
AND WILDLIFE

PRINTED BY  
FERD VOILAND, JR., STATE PRINTER  
TOPEKA, KANSAS



25-6835