KANSAS FISH AND GAME

VOL. XIII OCTOBER, 1955 NO. 2

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ENTERED AS SECOND CLASS MATTER AT THE POST OFFICE AT PRATT, KANSAS

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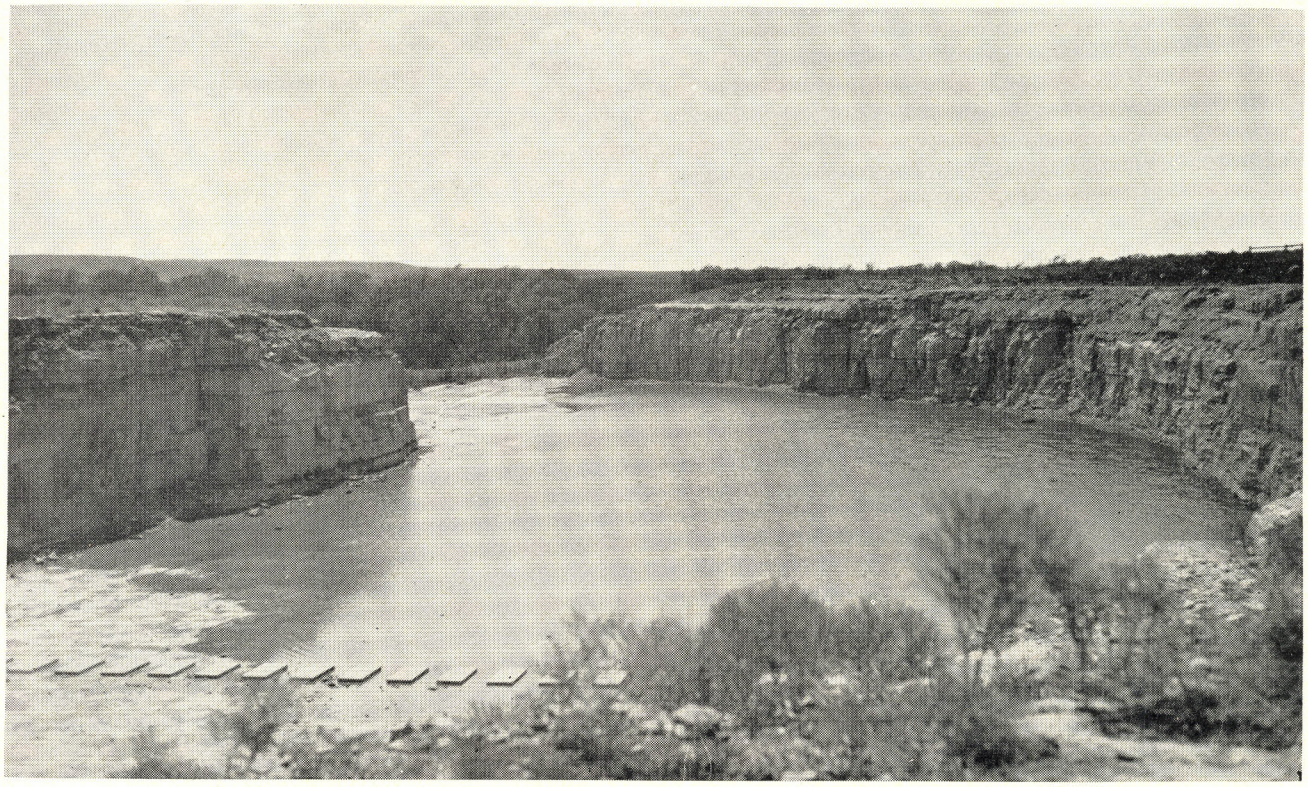


A view of the spillway at Cowley County State lake.

A LOOK AT THE NEW STATE LAKES

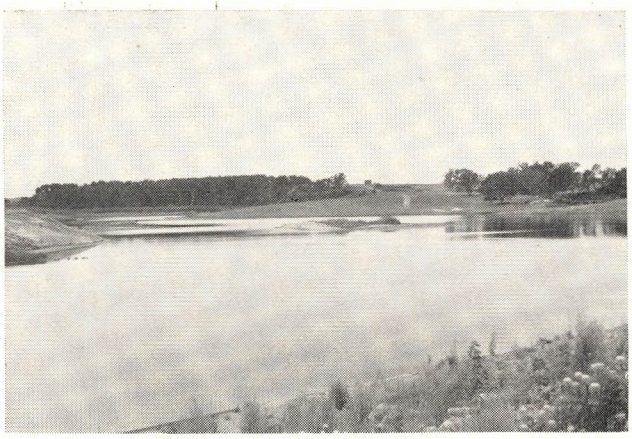
Construction work completed, several of the lakes in the current lake-building program of the Kansas Forestry, Fish and Game commission have reached the more time-consuming phase of fish stocking and fish growth.

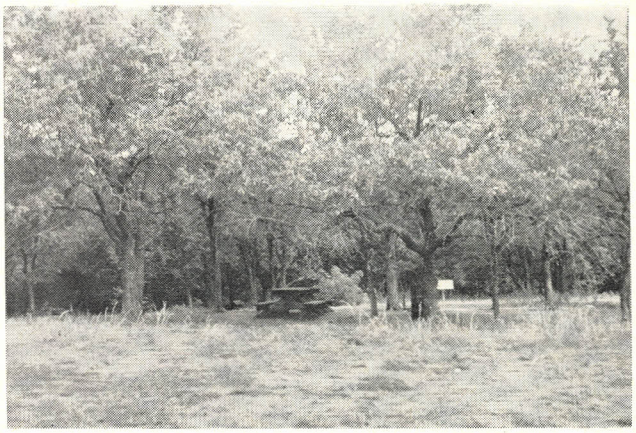
The lakes started first in the commission's program have received fish stock and some will receive more this fall when the annual distribution from the Pratt and Meade state hatcheries is made. Those stocked with all species of fish considered right for their waters are in the waiting period when the young fish are permitted to grow to catching size before the water is opened to fishermen and boaters.

The lake most advanced in this respect is Brown County State lake, southeast of Hiawatha, where the fish have had two summers' growth. Whether or not the lake can be opened to fishing in January will depend on tests to determine the numbers of fish of catchable size.

A comparable situation exists at Montgomery County State lake, south of Independence. The fish in the lake have had one growing season, but again the opening will depend entirely on seine tests showing the size of the fish.

The growth rate of fish varies from one lake to another, a fact that prevents setting a hard and fast rule





McPherson County lake scenes. At left, the lake is shown from the dam with the picnic grove at the far side. At right, is one of the picnic spots, with table, trash barrel and the picnic stove on a metal pipe.

on opening dates. A sampling of the size of the fish, however, gives the information needed to determine a time of opening.

At Cowley, Pottawatomie and McPherson County State lakes, where stocking is incomplete, the opening date probably will be delayed two summers.

At all these five lakes, preparations for the picnicker, swimmer, boater and sightseer have progressed at a rapid pace.

An outstanding concession stand at Montgomery County State lake opened September 1. The large lakeside building contains a restaurant with many windows overlooking the lake, a lunch counter with 12 stools, grocery and tackle counters. The building is of frame construction with a tile-covered concrete floor. A color scheme of light gray, charcoal and dusty rose is used in the dining room.

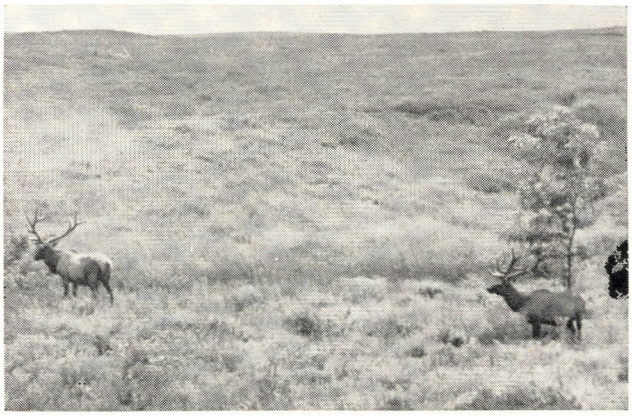
Other accommodations include a boat ramp with boat rental service, a roped-off swimming area, floating dock for winter fishing, bait sale and large parking area. Appliances in the concession building, owned and operated by Robert M. and Beulah Osborn, are electrically powered and the concession building is completely modern.

In addition, 18 picnic areas have been established at suitable spots around the lake by the fish and game commission.

The lake now is 25 to 35 feet deep and it extends almost two miles westward from the dam on Coal creek.

McPherson County State lake has an exceptionally scenic picnic area in a thick grove cleared of underbrush by the prodigious efforts of the McPherson County Fish and Game association. The tables, ovens and other facilities put in place by the fish and game commission are well-shaded and pleasantly spaced through the grove. This lake, which still is not completely filled, has the added attraction of its location on a part of the Maxwell Game preserve. Observers at the preserve lookout point can spot buffalo, elk and game birds on the preserve. A monument to the Maxwell brothers of McPherson who gave the land for the preserve is located in one corner of the preserve.

Cowley County State lake is located in a scenic can-



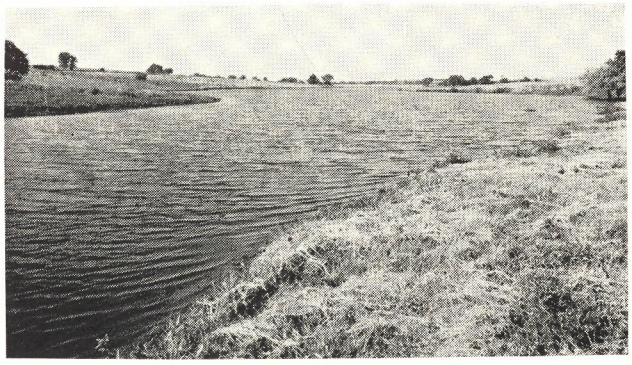
Elk and buffalo are numerous at Maxwell Game preserve, also site of the McPherson County State lake. An observation tower has been erected for visitors who would like to see these animals in their natural habitat.

yon of Panther creek. Features are the sheer red walls of the spillway and the bluffs around the lake. Still not completely filled with water, it is expected to be an excellent bass lake when opened to fishermen. Tree plantings have been made there by boy scouts and sportsmen.

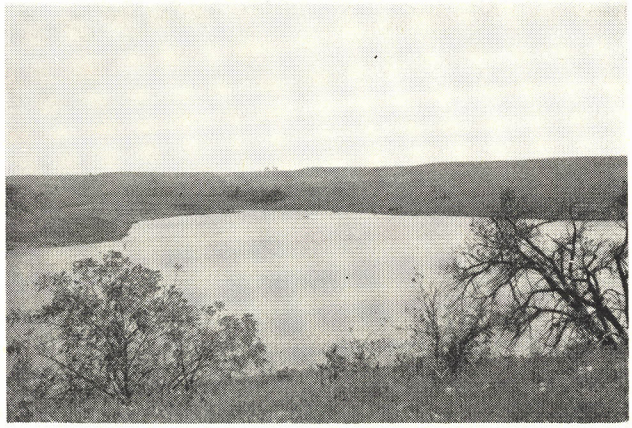
Perhaps least filled with water so far is the Pottawatomie County State lake. More rains are needed to increase the lake to its planned size. This lake, too, has had the benefit of clean-up and planting by local sportsmen.

Interested persons in the vicinity of Brown County lake have devoted much time to the clean-up and beautification of the grounds there.

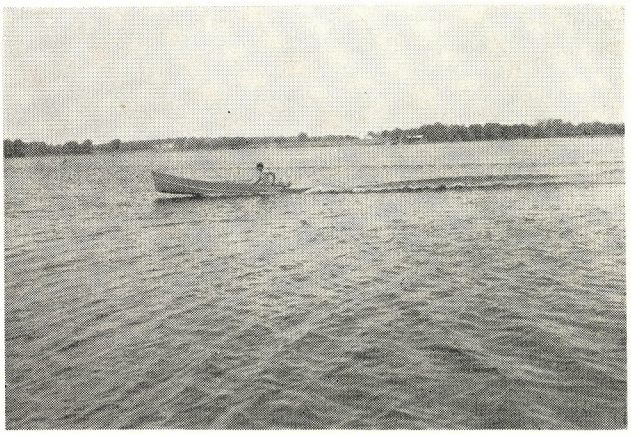
Water area of these five lakes will reach a total of 363 acres. As they arrive at the open fishing stage, other lakes in the commission's program of building 13 new lakes will be in the final fish-growth phase, others at the point for stocking with fish and still others in the final stages of construction. It is expected that, if the financial picture of the department remains the same, the program can continue at the rate of three or four new lakes a year, thus making perpetual the opening of new fishing waters to Kansans and visitors.

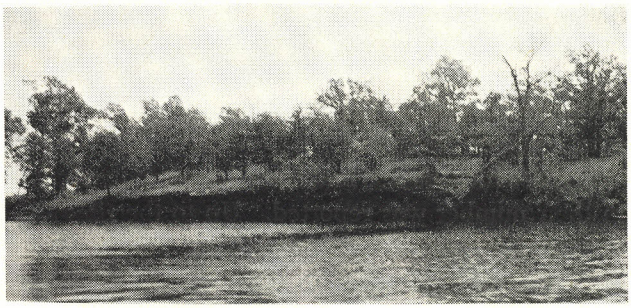


The water at Brown County State lake has appeal for the fisherman. This lake is expected to be one of the first of the new lakes opened for fishing.



Cowley County State lake is shown from one of the bluffs on the north side of the lake.





In the upper picture, an employee of the concession stand at Montgomery County State lake shows the type of boat that will be available for rent when the lake is opened to fishermen and boaters. The picture is taken from the dam end of the lake. The roof of the concession building may be seen through the trees at the far side of the lake. Below, one of the deepest holes in the Montgomery lake is pictured. The bluff drops off for about 35 feet making a good fishing spot.

Record Crowd Attends Wamego Fishing Derby

More than 900 boys and girls under the age of 16 registered to fish in the lake of the Wamego City park at the Funesta and Fishing Derby sponsored in August by the city of Wamego. It was the largest crowd yet for the annual event.

Besides fishing the young people enjoyed miniature train rides, pony rides, ice cream, pop and watermelon all afternoon. Awards were presented after a band concert in the evening and movies from the fish and game department were shown. The new exhibit truck of the fish and game commission also was on display.

Much of the organization work was done by Police Chief E. J. Hecker.

The Hunting Outlook

(EDITOR'S NOTE: Since the copy for this magazine had to be in the hands of the State Printer before the Fish and Game Commission set the upland game bird hunting seasons, we are unable to give Kansas Fish and Game readers those seasons and regulations. The following is a brief summary of the hunting outlook according to the preliminary observations which were made in August).

Kansas sportsmen and those from out of state who normally hunt in Kansas should find better hunting opportunities this fall. Preliminary observations of game bird populations warrant a rather optimistic outlook. Nesting success for pheasants and quail generally was good this year. Brood size is reported above average and much better than last year. Survival to date has been good and cover conditions are improved over much of the state.

Prairie chickens also had a good year and an increase in their number was reported. Up to the time this is written, however, the fish and game commission did not have sufficient data to make any decision as to whether there will be any open hunting season on this game bird this fall.

All these observations are based on preliminary findings and the whole state picture could change between now and the opening of the hunting season.

Here is a brief outlook on the game bird situation in many of the counties of the state, as indicated by the preliminary reports from field men:

SALINE COUNTY—Little change in bird conditions over last year.

ELLSWORTH COUNTY—Small increase in both quail and pheasants over last year.

RICE COUNTY—Good increase in quail noted along the Arkansas river and Cow creek. Small increase in pheasants.

MARSHALL COUNTY—Quail populations up as much as 30 percent. Hatches more numerous this year. Cover is going to be heavy. No material increase in pheasants to justify opening county to hunting.

WASHINGTON COUNTY—Quail population up 25 to 30 percent. Cover heavy. Pheasant population about the same as last year.

CLAY COUNTY—Quail population up, but only small percent. Cover spotted and is going to be heavy. No material increase in pheasants.

RILEY COUNTY—Lots of quail in county and cover will be heavy.

PAWNEE COUNTY—Pheasant population up about five percent over last year. Hatches were larger and more numerous early. Quail population shows good increase. Will be rough hunting everywhere because of heavy cover conditions.

RUSH COUNTY—Pheasant population up and a good increase in quail. Quail found only in limited areas. Cover will be heavy.

NESS COUNTY—Pheasant population up by at least 10 percent. Also increase in quail but limited areas suitable for quail. Cover will be heavy.

MONTGOMERY COUNTY—All around conditions for quail better this year than for past three years. Populations up and there are good cover, feed and water conditions.

WILSON COUNTY—Quail populations up and all around conditions good. Prairie chickens in this county have also increased.

BARBER COUNTY—Drouth conditions in this county make bird outlook uncertain. Some increase in both quail and pheasants but still below par. Lots of cover and sand burrs.

HARPER COUNTY—Quail more numerous this year but still below par over most of county. Lots of cover.

SUMNER COUNTY—Small increase in quail but still below par.

ATCHISON COUNTY—Quail population up 15 to 20 percent. Good hatch this year and water and cover conditions quite good.

BROWN COUNTY—Situation about the same as in Atchison county. Large carryover of brood stock and an excellent hatch this year.

DONIPHAN COUNTY—Quail populations up over last year.

NEMAHA COUNTY—Good increase in quail populations. Drouth conditions in county may affect bird populations by hunting season. Birds may be concentrated in areas where cover conditions are best.

MITCHELL COUNTY—Good populations of both quail and pheasants. Hatch was good this year with broods larger and more numerous.

LINCOLN COUNTY — Definite improvement in the pheasant hatch this year over last. Good quail prospects. Cover is only average.

OTTAWA COUNTY—Has more quail and pheasants, with average cover.

FINNEY COUNTY—Pheasant populations show good increase. More broods and more pheasants than last year. Lots of maize planted and cover will be heavy. Quail more numerous than year ago.

HASKELL COUNTY—The pheasant population shows nice increase but hail did some damage to birds. Quail population about the same as last year. There will be lots of cover and vast acreages of maize.

SHAWNEE COUNTY—The quail outlook the best in several years in this county. Populations up as much as 20 percent. Increase in prairie chickens also reported.

LEAVENWORTH, DOUGLAS and JEFFERSON COUNTIES—Quail populations in all three counties up generally from 10 to 20 percent. Hatches were larger and more numerous this year. Cover conditions much improved.

SCOTT COUNTY—Pheasant populations up over last year with larger hatches and a good carryover of adult cock birds. Cover is heavy and much maize seeded. A few quail in the county.

WICHITA COUNTY—A good increase of pheasants over last year. Cover only fair.

LANE COUNTY—Pheasant population up over last year, due to good nesting success and large carryover. Some areas in county had losses from heavy hail storms. Good quail hatch but not too many birds in county.

GOVE COUNTY—Pheasant populations up over last year but not as good carryover of adult cock birds as in other surrounding counties. Cover will be heavy. Northwest part of county received heavy hail storms with resultant loss of birds.

CLOUD COUNTY—Slight increase in pheasant population of about five percent. Quail about 10 percent better than last year. It has been dry in this county and cover will not be as good as in former years.

REPUBLIC COUNTY—Good increase in both pheasants and quail. Western part of county best for pheasants and entire county for quail. Cover will be about normal.

JEWELL COUNTY—Increase of both pheasants and quail noted in northern part of county where more rainfall was had. For county as whole, the outlook not too good because of drouth conditions.

SMITH COUNTY—Quail and pheasant populations about the same as last year.

MITCHELL COUNTY—Pheasants about the same as last year. May be increase of about five percent in quail. Outside of river bottoms, cover will be short this fall.

CHEYENNE COUNTY—Pheasant populations up 10 to 15 percent. Hatches much larger this year. Cover will be fairly light.

RAWLINS COUNTY—Pheasant populations up 25 to 40 percent in this county due to ideal hatching conditions. Cover will be heavy.

THOMAS COUNTY—A good increase in pheasants with ideal hatching conditions. There will be lots of cover.

DECATUR COUNTY—Good increase in pheasants this year. Upland cover will be light but will be heavy in bottom lands.

NORTON COUNTY—Pheasants should be up from 20 to 30 percent and hunting should be much better in this county this fall. Cover will be heavy.

KEARNY, GRANT, STEVENS, HAMILTON, STANTON and MORTON COUNTIES—The pheasant outlook is much improved in all these counties this year. Populations are up over entire area. Quail outlook not too good and birds in short supply, except in certain areas along Cimarron and Arkansas rivers. Cover will be heavy over all counties.

LYON COUNTY—Quail populations up by as much as 30 percent. Good carryover of old birds and larger hatches this spring and summer. Prairie chickens also show increase.

CHASE COUNTY—Quail populations show nice increase.

MARION COUNTY—Quail populations show increase of 10 to 20 percent. An increase in prairie chickens also noted. Cover conditions improved.

BUTLER COUNTY—Cover, feed, water, and game bird populations much improved over last year. Quail populations up as much as 15 to 25 percent. Good increase in prairie chickens.

SEDGWICK COUNTY—Definite shortage of cover, food and water over this county. No noticeable increase in game bird populations.

NORTH HALF OF COWLEY COUNTY—While cover conditions have improved over last year there is no noticeable increase in quail populations except for few scattered areas.

PHILLIPS COUNTY—There seems to be a decrease in pheasants this year due to small carryover of adult birds. Quail populations show good increase. Good cover conditions.

GRAHAM COUNTY—Pheasant populations show slight increase. Good carryover of old birds. Cover conditions good.

SHERIDAN COUNTY—Slight increase in both pheasants and quail this year, despite only small carryover of adult birds. Good cover conditions.

STAFFORD COUNTY—Pheasant and quail populations improved over last year, with good cover conditions. Hunters may find it difficult to get permission to hunt many places.

PRATT COUNTY—Good increase in both pheasant and quail populations reported. Hatches were good this year and brood size considerably above average.

KINGMAN COUNTY—Both pheasants and quail on increase. Cover conditions good.

CHEROKEE COUNTY—Quail outlook better than last year with good increase reported. Good cover conditions this year.

LABETTE COUNTY—Quail outlook improved over last year.

WYANDOTTE COUNTY—Lots of quail along the Missouri river and in the northwest corner of county.

JOHNSON COUNTY—Quail outlook improved over last year. Heavy cover reported throughout county.

JACKSON COUNTY — Quail outlook good. Good hatches with larger brood size. Cover and food conditions good. Prairie chicken outlook also improved.

POTTAWATOMIE COUNTY—Quail and prairie chicken outlook both good and cover good to excellent.

WABAUNSEE COUNTY—Quail and prairie chicken reported better than last year. Cover conditions good over much of county.

RENO COUNTY—Pheasant populations reported about same as last year. Early hatches were larger but late hatches seem to be small. Small increase in quail population.

HARVEY COUNTY—Quail population about same as last year. Drouth conditions have been quite severe.

MCPHERSON COUNTY—Pheasants reported about same as last year Small increase in quail. Cover conditions poor.

COFFEY, LINN, BOURBON, MIAMI and FRANKLIN COUNTIES—Good carryover of quail throughout these counties. Winter was mild and nesting success was good. Farmers and sportsmen report a lot of young birds. Cover is abundant. Should be good hunting season in all counties, with quail populations up an estimated eight to 10 percent.

NEOSHO COUNTY—Quail populations show definite increase. Cover conditions greatly improved over last year. No noticeable change in prairie chickens.

ALLEN COUNTY—Quail populations up over last year. Cover and feed conditions much improved. No noticeable change in prairie chickens.

GREENWOOD COUNTY—There was a good increase in quail this year, but many areas in county still not up to par. A good carryover of prairie chickens reported for county and an increase in populations this spring.

WOODSON COUNTY—Both quail and prairie chickens show increase. Still below that of other years.

SHERMAN, WALLACE, GREELEY and LOGAN COUNTIES —The pheasant outlook in all four counties definitely better than last year. Cover conditions better this year.

CHAUTAUQUA, ELK and SOUTH HALF OF COWLEY COUNTIES—A definite increase in quail populations throughout entire area. Cover will be heavy this year.

GRAY COUNTY—Both pheasant and quail populations show slight increase. Heavy hail through southwest part of county, heavy rains and flooding caused some losses to bird populations. Cover heavy.

MEADE COUNTY—Slight increase in both pheasant and quail populations reported. There will be many late birds. Hail, floods and heavy rains hurt bird crop. Cover heavy except in southeast part of county.

SEWARD COUNTY—Despite floods, hail in northeast part of county in early spring, pheasant populations show good increase. Quail outlook definitely better. Cover will be extra heavy.

OSBORNE COUNTY—Increase of both pheasants and quail reported, with quail showing most gain.

RUSSELL COUNTY—Small increase in quail with pheasants about the same as last year.

BARTON COUNTY—Moderate increase in pheasants and a good increase in quail. A good pheasant hatch in Cheyenne Bottoms, where there was no cover molestation.

Fishing Rodeo Sponsored By Kansas Rod and Gun

More than 1,000 boys and girls lined the banks of Big Eleven lake in Kansas City, Kan., for the annual fishing rodeo sponsored by the Kansas Rod and Gun club.

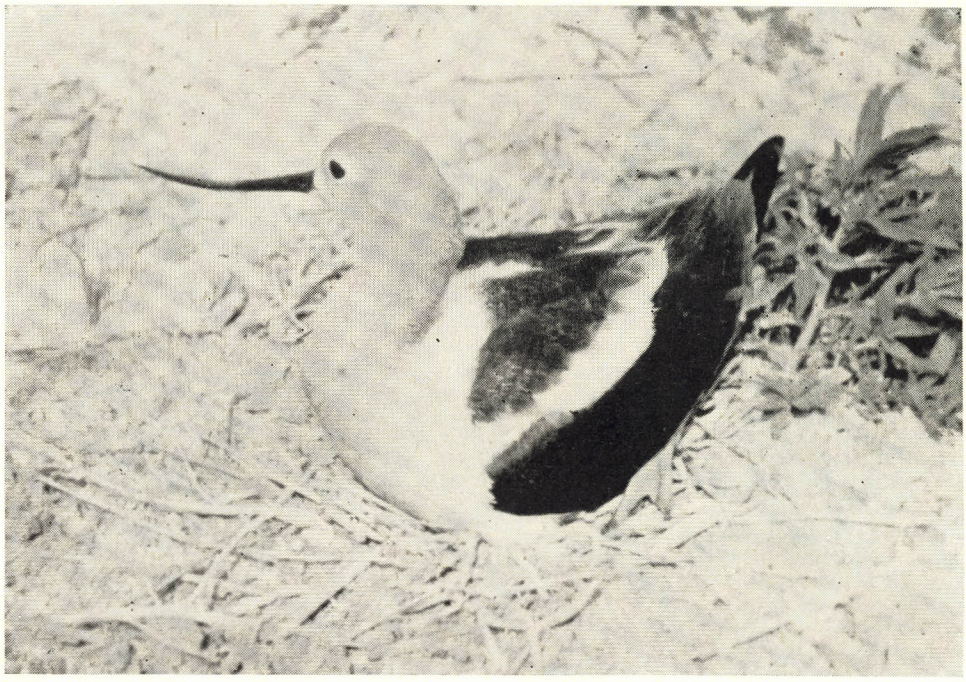
A two-pound drum landed by Sam Anderson, Jr., 12, son of Mr. and Mrs. Sam Anderson, Sr., was the largest catch. It was caught on a worm shortly after the fishing session started. The youthful angler was awarded a glass rod for his catch.

Prizes also were given for the first six fish landed, the smallest fish, the largest blue cat and the largest bluegill. In addition to the more expensive prizes, there were corks, sinkers, lines and other tackle awarded to just about every youngster who caught a fish. All were given by the Gateway Sporting Goods company. Ice cream bars were distributed after the fishing session.

Extreme heat cut down on the crowd at this year's rodeo somewhat, officials said, but still it drew many enthusiastic young fishermen.

Kansas Bird Life

No. 3 . . in a series—MARVIN D. SCHWILLING



AVOCET

Recurvirostra Americana

Where Found in Kansas—The avocet is now a common summer resident and nester, where suitable habitat is found, in about the western one-third to one-half of Kansas. It also may be seen on rare occasions in extreme eastern Kansas during migration.

Identifying Characteristics—The avocet is said to be the most showy of our shorebirds. It is about "teal" size. The body is largely white with wide contrasting black and white wing stripes. The head and neck are rusty, cinnamon brown. The bill is long and slender and curves distinctly upward. The avocet has long, "stilt-like" legs. He is often seen wading and feeding in shallow water. He has an odd habit of swishing the soft mud to and fro sideways as he feeds in the shallows. His feet are partially webbed and he is a good swimmer.

Similar Species—Practically none. Some could confuse it with the black-necked stilt, although the stilt is rare in Kansas. It is slightly smaller, but without the rust cinnamon brown head. The bill, too, is considerably shorter and not upturned. Essentially it is solid black above and white below.

Voice—A single noted "wheek" repeated constantly when scolding.

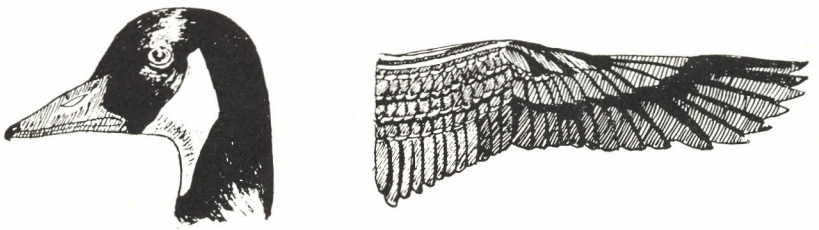
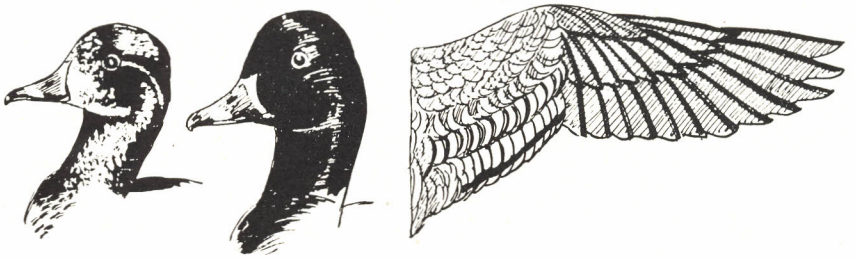
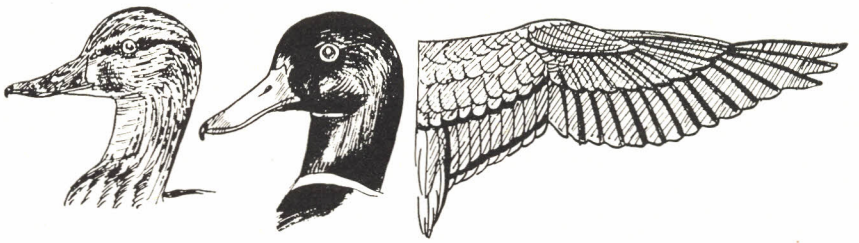
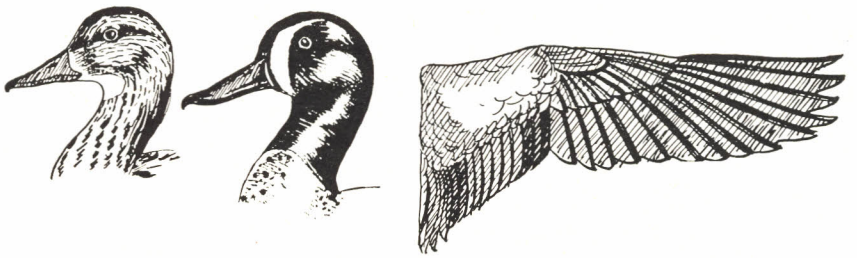
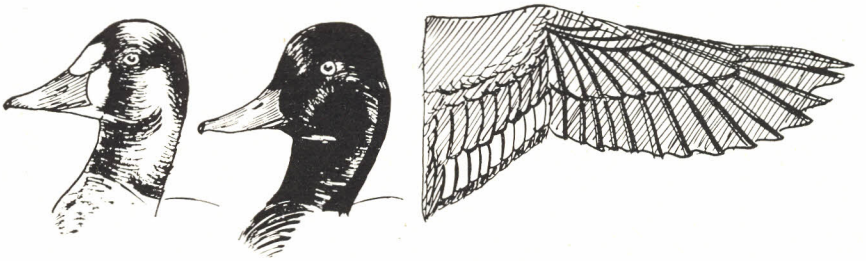
Habits—The avocet is a bird of the shallow, flat, pothole ponds of the prairie country. It nests close to water, usually in the edge of the first sparse grass along the wave-swept shore of these flat, often alkaline, potholes. In western Kansas, at least, it seems to show a definite preference for islands as nesting sites when they are available. Not much of a nest is constructed; grass, grass roots and weed stems are used. The eggs, normally four, are a buffy olive, thickly spotted with various shades of brown and are very pointed on one end.

Notes—Long-time residents of western Kansas tell me the avocet has nested here for some time. However, the first published record was apparently not until the spring of 1951 when I observed three nests a short distance north of Garden City. Since then I have seen nests each spring. The largest number of observed nests in a single nesting season is 23, recorded from several scattered counties in 1954.

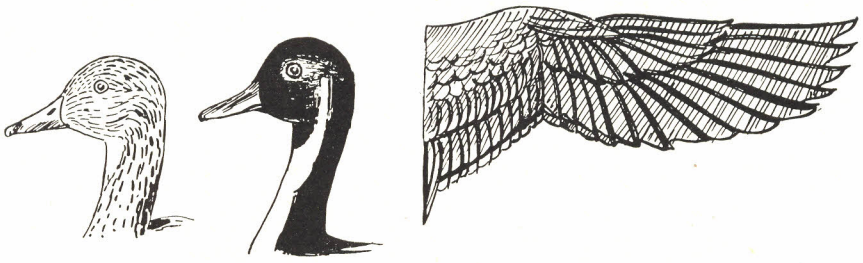
The snapping turtle never feeds out of water because it cannot swallow unless its head is submerged.

DUCK DEDUCER

A KEY TO SOME OF THE WATERFOWL COMMON TO KANSAS

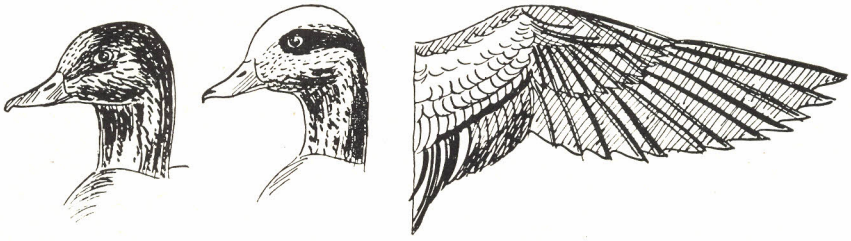
SPECIES		SPECULUM
Canada Goose *Branta canadensis* **(Honker, Canadian Honker)**		**No speculum.**
Ring-necked Duck *Aythya collaris* **(Bullneck, Bluebill, Broadbill)**		**Pearly gray usually bordered behind with narrow whitish band.**
Mallard *Anas platyrhynchos* **(Greenhead)**		**Iridescent purple - blue bordered front and back with black then white bands. Inner margin black.**
Blue-winged Teal *Anas discors* **(Bluewing)**		**Metallic green bordered in front with white and on inner and outer margins with black. Blue coverts.**
Lesser Scaup *Aythya affinis* **(Bluebill, Bullneck, Broadbill)**		**White bordered behind with gray brown. No white on primaries.**

Pintail
Anas acuta
(Sprig)



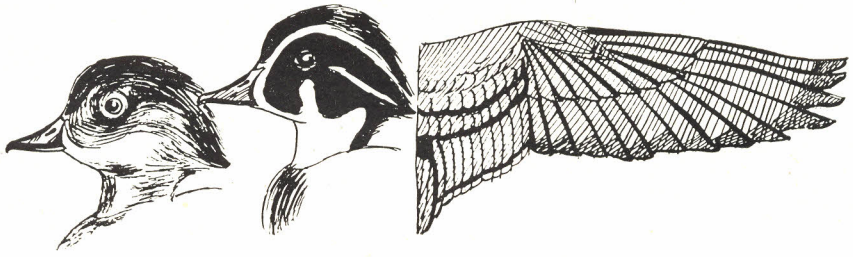
Iridescent green, violet, and bronze bordered in front by cinnamon buff bar and behind with black inner bar and white outer bar. Inner margin black.

Baldpate
Mareca americana
(Widgeon)



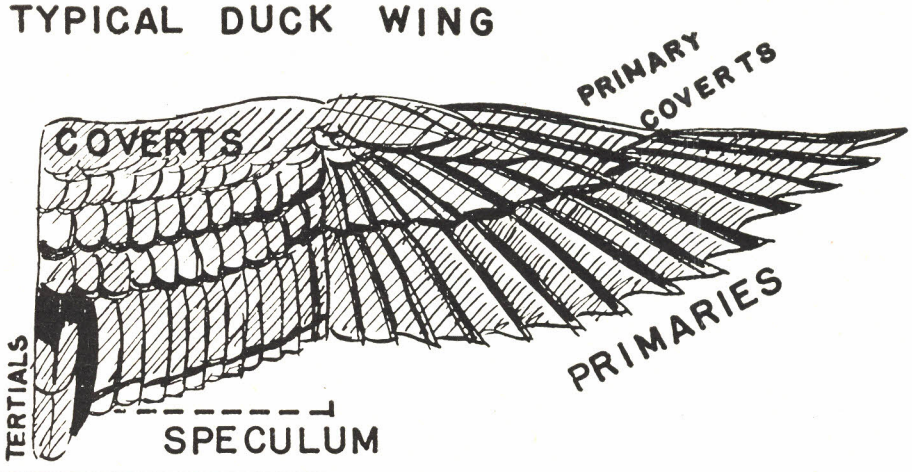
Glossy green shading into black; bordered with black bar in front and white inwardly. Prominent white coverts on male, grayish on female.

Wood Duck
Aix sponsa
(Summer duck, Squealer)



Iridescent bluish green with narrow black line tipped with white behind.

The wing patterns of waterfowl offer a means for readily identifying the various species. The speculum, the brightly colored area on the secondary wing feathers of most ducks, is an important identification characteristic.



Short Snorts

The javelina is the only truly wild pig inhabitating the U. S. It is found in Texas, Arizona, and New Mexico.

In a normal year over 69,000,000 pounds of wild rabbit are harvested in the U. S.

Powdered cloves or red pepper will keep ants out of the camp food box.

Contrary to popular opinion, an adequate harvest of a game species tends to stabilize its population, rather than reduce its numbers. Reasonable harvest tends to maintain nature's reproductive forces by removing competition and threat of disease which can become dangerously acute if large surplus numbers of a game species are allowed to carry over from year to year.

WHAT ABOUT OUR PHEASANTS?

(The cover photo is used through courtesy of the South Dakota Department of Game, Fish and Parks, Pierre, S. D.)

The life and times of the Ringneck Pheasant becomes an increasingly interesting subject with the approach of the new hunting season.

A great many Kansans can describe this exotic bird. But, as one fellow put it, "We want to know more. Kansas can boast of its name, the Sunflower State . . . of its tremendous wheat yields . . . of its aircraft production. We can talk pretty intelligently about these items. But we're noted for our pheasants, too . . . and I confess I'd like to know more about them."

Let's assume that you know nothing about the Ringneck Pheasant, save perhaps what it looks like and we'll take it from there.

In the first place pheasants are not native to Kansas. They are not even natives of this continent. They are native to Asian countries, and history tells us that Julius Caesar brought them to Great Britain. From there they were brought to the colonies as early as 1790. In 1905 the first pheasants were released in Kansas. By the mid-thirties they were established in most of the range-land and plains states.

There are many members of the pheasant family, but only the pheasant known as the Chinese Ringneck has adapted itself well to wild life, and that is the species that abounds so plentifully in the fields of our western and central counties.

Pheasants are polygamous; that is, the male has many wives. Each spring male pheasants fight for the hens and their own territory. The victor takes a number of hens as his "harem" and thereafter jealously guards them.

During hunting season in Kansas we allow only cock pheasants to be taken. By killing only brilliantly colored cocks, we assure plenty of breeding hens for the next season. It is not uncommon to find a cock with ten to twelve hens as his "harem." The ratio is not that high in Kansas, however. Usually it is about two or three hens to one cock. Cock pheasants weigh an average of three pounds whereas the hen weighs about two pounds. Nature has made the hen pheasant less colorful and she can melt into the landscape.

In March or early April the Kansas prairies are filled with the calls of cock pheasants. The male assembles his "harem." By mid-April the hen has started building her nest and soon she begins laying her clutch of about twelve eggs. This may take as long as fifteen days. Incubation does not start until the clutch is complete. In about twenty-three or twenty-four days the eggs hatch, all about the same time. Like baby chicks, pheasants are able to walk as soon as they hatch.

In a few days they begin to lose their downy covering and their juvenile feathers start growing. Two weeks later they are taking to the air fairly well and look like sparrows flitting in the grain fields.

The number of pheasants remaining in the fall depends on a complicated series of events which follow. From the original twelve eggs that hatch, averages show that only about six chicks will be left in the fall. Loss of the other six usually occurs when the chicks are very young and are most susceptible to predatory animals and exposure.

A hen never raises more than one brood each summer. She stays with her brood for 12 weeks after they hatch. Add to this the five weeks for laying and incubation, and that 17-week interval of time does not allow for another brood. Winter months are close at hand. A hen will renest if her nest or young brood

IF HER NEST IS DESTROYED, A HEN WILL RENEST SEVERAL TIMES.

are lost. A cock pheasant always remains aloof from the hen and her brood, though he stays nearby. If a hen is lost, her brood must shift for itself, for a cock pheasant shows little or no interest in raising a family.

During the summer a cock, his "harem," and their families remain in a relatively small area, usually less than 80 acres. Given proper food and cover, a pheasant can, and often does, live out his life span within such an area. Pheasants do not migrate, but they may move several miles to a better habitat. Most game farm pheasants move less than a mile from where they have been released.

Pheasants are essentially seed eaters. Young chicks start life on an insect diet. As mid-summer approaches, waste grain is more abundant and the birds become fat on it. Winter comes and food is more restricted. We find pheasants around and in corn fields which offer both food and cover. In the spring, the cycle starts over again with the season's first grasshoppers.

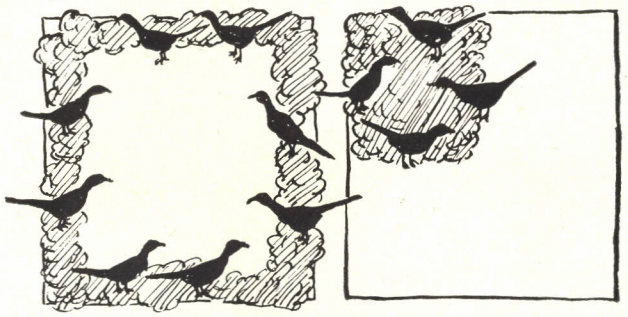
Few pheasants ever starve to death. Experiments have shown that they can go without food for nearly a month and suffer no serious ill effects. However, the

colder it is, the faster the birds burn stored body fat.

Winter months give pheasants a challenging time. They tend to streamline their feathers during the season by facing into the wind. Mouths and nostrils are exposed; if the snow or sleet is deep, they may freeze shut and the birds perish. Too, pheasants are vulnerable to heavy "sugar snows" which drift into drainage ditches where they roost. Such heavy snows prevent their escape.

Occasionally a pheasant may rest his tail in slush which may freeze during the night. Sometimes he cannot get free, but more often a short tug will result in loss of the tail feathers. The loss is only a temporary handicap, however. He can still fly. Feathers soon grow and he's as good as new.

Any sportsman hunter knows that he owes a lot to the farmer. Not only for using his land for hunting, but because the birds shot in the fall were born and raised on his land. Those we don't shoot still live with him until the next season. A pheasant, like wildlife in



DISTRIBUTION OF FOOD AND COVER IS IMPORTANT. TEN ACRES OF COVER SURROUNDING A FIELD IS MORE EFFECTIVE THAN A 10 ACRE SQUARE IN ONE CORNER.

general, benefits from good farm practices. The farmer who maintains or increases the fertility of his soil through proper crop rotations, return of manure to the soil and erosion control by strip cropping, cover crops, and forestation is doing much for pheasants.

Pheasants are susceptible to many of the diseases of domestic poultry. But diseases of chickens usually result from confinement and poor sanitation. The pheasant leads a life of freedom and therefore there is little chance of these diseases being important in his life. Pheasants have a remarkable tolerance to most poisons. Lead poisoning, often destructive to waterfowl, is unknown in upland birds. DDT can be injurious, however, and has been known to kill pheasants.

A pheasant's life span is not very long. Young birds produced each year make up the greatest portion of the kill the following fall. There are several ways of telling an old cock from a cock of the year. One way is to grasp the lower bill between the thumb and index finger, letting the rest of the bird hang. If the lower bill bends when the cock is supported in this manner, then it is a cock of the year. The bill of an old cock will support the weight. Observing the spur on the legs is another way of telling. An old cock will have a long, sharp spur, dark in color and high in gloss. A cock of the year has a short spur, light in color and lusterless.

Study tells us that pheasants can't be "shot out" during our pheasant hunting season. The suggestion that the pheasant season be closed for a few years to allow them to increase has often been made. It reflects the prevalent belief that game populations are directly influenced by hunting. Actually, cover, food and weather are many times more important than hunting in determining pheasant abundance.

Closed seasons are often supported by sportsmen in the belief that they represent good conservation. A closer look at the problem reveals that closing the season seldom accomplishes its purpose. It might be better conservation to have limited seasons and harvest the surplus cocks even in low populations rather than letting them go to waste.

To keep our present way of hunting, it is necessary, in the face of increasing hunters, that we bag a limited number of birds as prescribed by law. A sportsman realizes this and is content to take only his fair share.

Sportsmen's Club Holds Kid's Fishing Rodeo

Prizes were awarded to all 150 contestants in the Kids' Fishing rodeo at the Douglas county 4-H fairgrounds at the east edge of Lawrence the last day of July. The big event was sponsored by the newly organized Douglas County Sportsmen's club.

Two hundred fish were caught by the young contestants. The catches ran to bull heads, some of them nice ones, and sunfish. In fact, the fishing was so good that no one noticed the 100-degree temperature and lack of shade.

Free cokes and ice cream bars were furnished to all.

Be a Welcome Hunter

- **Ask permission before hunting on private land.**
- **Respect signs, fences, gates, and other property.**
- **Don't shoot from roads, or near livestock or dwellings.**
- **Follow fire safety practices religiously.**
- **Don't be a litter-bug.**

Conservation Goes to School

Conservation has been included in elmentary school classwork for a long time, but never in such a dramatic way as it is appearing at grade schools over Kansas this fall of 1955.

Students are hearing nature and conservation lectures and are viewing live Kansas birds, mammals and fish in a special education program launched in August by the Kansas Forestry, Fish and Game commission.

The wildlife exhibits are transported in a semi-trailer painted the gay red and cream colors of the commission's other vehicles. The semi-trailer contains five glass-sided fish tanks and fifteen cages for mammals and birds. Panels cover the cages and tanks while the truck is moving but they can be opened at a school to permit viewing the exhibits from the outside of the truck.

On its first run to county fairs over the state in August the cages contained such animals as coyotes, skunks, badgers, raccoons, snakes and opossums, but changes are made from time to time. Fish native to Kansas are stocked in the tanks.

On hand to explain the habits of the wild creatures and to point out interesting facts about them is H. A. (Steve) Stephens, conservation education representative for the fish and game commission.

Before conducting the children to the exhibit truck, Stephens presents a lecture on wildlife and conservation carefully adapted to the age of the children. Even before Stephens' appearance, the children have been prepared by their teacher who receives an explanatory pamphlet in advance and tells them in rough outline what to expect.

Stephens is well qualified to fill his special position. He received a B. S. in education and biology from Emporia State college and his master's degree in education from Columbia university. He has taught biology and general science at Atchison and Manhattan high schools and for the past two years has been in extension work for the biology department of Em-

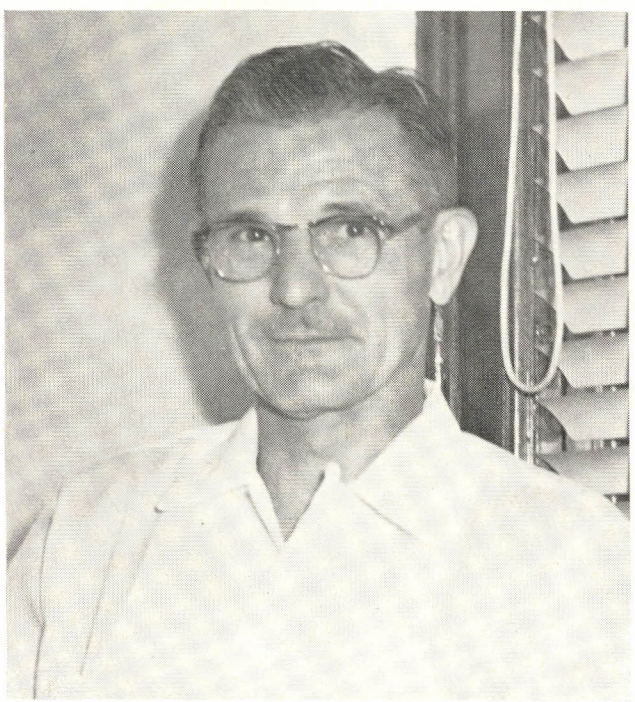
poria State college. In Emporia State extension work he presented lectures and demonstrations in science to students from the first grade through high school.

Pamphlets have been prepared for two age levels of pupils. The booklet for children from grades one through three is composed largely of pictures of the animals, birds and fish of the exhibit, with a minimum of text material. Older children will read descriptive material about the specimens and the basic ideas of conservation. Cartoons dot the reading material.

While primarily for elementary pupils, the exhibit also is used to present conservation and sportsmanship to grown-ups at county fairs and other special events.

The theme of the exhibit, painted on the side of the semi-trailer, is "Conservation Means Wise Use." The theme was selected to convey the fish and game department's philosophy of preserving and improving our natural heritage of wildlife for future generations while making the best possible use of it at the same time.

Wise management of our rich natural resource of wildlife includes providing improved habitat for our game birds and animals, more and better environment for our native fish, introduction of new species of both game birds and fish, protection by law of game species by prohibiting wrong shooting and fishing practices, establishing some size and bag limits and certain game seasons, and education of the people to take an active part in conservation.



H. A. (Steve) Stephens, special conservation education representative, who accompanies the new wildlife exhibit truck of the fish and game commission to elementary schools over the state.

In the department's interpretation, "wise use" does not mean denying ourselves completely of the food, recreation and income to be derived from this wonderful resource, although, in some cases, "wise use" may mean "no use" for a time. By managing our wildlife wisely, we can benefit from it and still leave it in an improved condition for future generations.

When Fish and Game Program Is Broadcast

Since the Kansas Forestry, Fish and Game commission began sending out weekly radio programs this spring, many sportsmen have written requesting the time of the program on their favorite station.

Below is an up-to-the-minute log of the program on stations over the state.

The many kind remarks about the program in the letters were appreciated. They are a source of encouragement for redoubling efforts to make the program one of interest to all who are concerned about the future of outdoor sports and conservation. Hearty thanks should go to the radio stations which are carrying the show. Without their co-operation a program of this type would be impossible.

We want you to feel that the program belongs to you and you are invited to participate through your cards and letters. The program is conducted by George Valyer.

Log

City	Call letters	Time and day
Arkansas City	KSOK	7:00 p. m. Thursday
Chanute	KCRB	5:00 p. m. Saturday
Coffeyville	KGGF	1:00 p. m. Saturday
Colby	KXXX	5:15 p. m. Saturday
Dodge City	KGNO	6:30 p. m. Saturday
El Dorado	KBTO	11:15 a. m. Saturday
Emporia	KTSW	6:45 p. m. Thursday
Garden City	KIUL	6:45 p. m. Saturday
Goodland	KWGB	9:00 a. m. Saturday
Hays	KAYS	7:30 p. m. Thursday
Hutchinson	KWHK	7:45 a. m. Saturday
Junction City	KJCK	6:00 p. m. Thursday
Kansas City	KCMO	Will begin when time is available
Lawrence	KLWN	8:00 a. m. Sunday
Liberal	KSCB	6:45 p. m. Friday
Leavenworth	KCLO	8:45 a. m. Saturday
McPherson	KNEX	9:15 a. m. Saturday
Manhattan	KMAN	5:00 p. m. Thursday
Manhattan	KSAC	1:15 p. m. Wed. or Thurs.
Newton	KJRG	4:30 p. m. Saturday
Ottawa	KOFO	7:15 a. m. Saturday
Parsons	KLKC	5:00 p. m. Saturday
Pittsburg	KOAM	7:15 p. m. Monday
Pittsburg	KSEK	8:15 a. m. Saturday
Pratt	KWSK	4:45 p. m. Sunday
Salina	KSAL	***
Topeka	WIBW	4:15 p. m. Saturday
Topeka	WREN	7:30 p. m. Friday
Wichita	KFH	4:45 p. m. Saturday
Wichita	KFBI	***

(*** Time subject to change due to sports broadcasts.)

Outdoor Notes

By Joe Austell Small

Wild Ducks Can't Fly

Drake ducks are grounded for about a month each year. This period comes during the eclipse moult, at which time male ducks shed their feathers and are unable to fly. After being nude for a time, the old man goes into disguise. He grows new feathers like those of the female. This stage is called the eclipse plumage. He masquerades as a female for another month, and then sheds all feathers except his wing feathers. Then, taking on his natural look, he grows feathers which he keeps until the following year. At that time he again goes through the same routine. It is during this period of time, when drake ducks are unable to fly, that a great many of them fall victim to predators.

"Wind Fishing"

According to many lake anglers, wind is an important factor in catching fish. On windy days these fishermen fish on the lee shores for such surface feeders as bass and bluegills and on the windward side of the lake for fish such as walleyes and northern pike.

Their reasoning (and there's plenty to back them up) is that the surface feeders work the lee shores for insects and food that blow off trees and bushes, while bottom feeders feed near the windward shores where wave action concentrates small fish and other food organisms.

Intoxicated Butterflies

A good way of catching butterflies without running your legs off is to get 'em drunk. Set out rotting fruit for bait, the fruit juices will ferment and Mr. Butterfly, who cannot resist fruit, will partake of the juice. After a short wait, he will be too tipsy to fly and you can pick him up easily.

Big Business

More is spent each year on hunting and fishing than the combined amount spent on football, baseball, bowling and golf. The annual dog bill alone could finance baseball for several years.

"Allah does not deduct from the allotted time of man those hours spent in fishing."—Moslem Proverb.

As a Crow Flies

A most remarkable habit of the antelope is its tendency to take and continue but one direction in its flight. So determined is its disposition in this respect as to be impelled across arroyos, over mountains, and even through non-moving trains.

Nature's Oddities

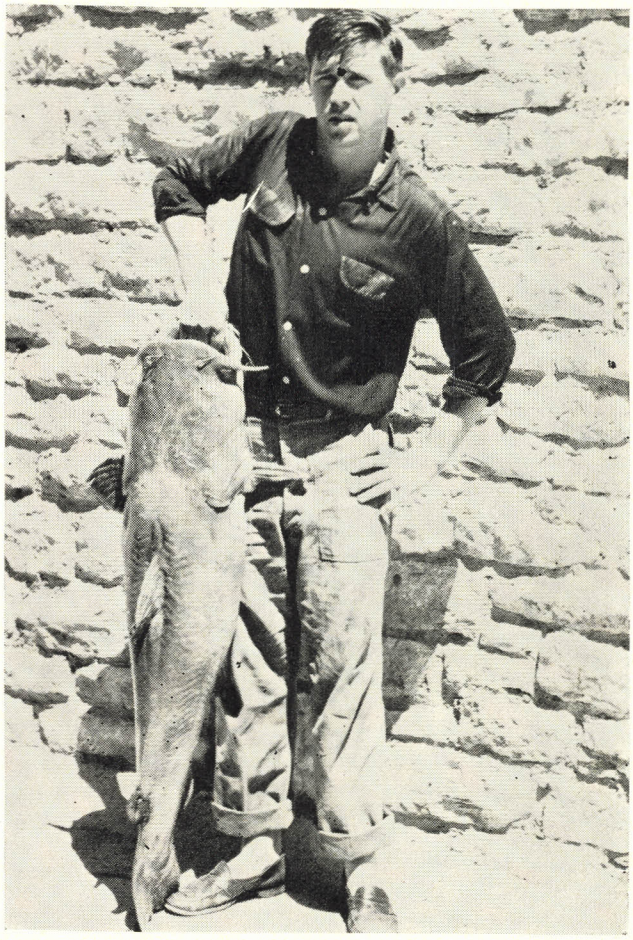
Fish, like humans, get seasick if left to the mercy of the waves for an extended period.

There is a small plover in Africa which serves as a toothpick for crocodiles. They allow it to enter their mouths unharmed.

The female nine-banded armadillo normally gives birth to four young, all of the same sex.

White bass die of old age in three years.

Prior to 1913, robins were classed as game birds in some southern states.



Minnows on a rod and reel were used by Robert Moody of Manhattan in catching this enormous yellow cat at Rocky Ford dam on the Big Blue river north of Manhattan this summer. The monster weighed 60 pounds.

Lutz Completes 6½ Years As Publicity Director

"Swede" Lutz

With this issue of *Kansas Fish and Game,* Harry "Swede" Lutz completes a term of six and one-half years as publicity director of the Kansas Forestry, Fish and Game commission. He had previously served as a member of the commission from the third district for nine years.

Weekly press releases, a quarterly magazine, special stories and pictures have been but a small part of Lutz' job during the past six and one-half years. He has generously given his time in promoting a better understanding of the fish and game department among sportsmen and the public in general. He has shown motion pictures and given hundreds of talks on fish and game, sportsmanship and conservation at civic, youth and sportsmen's club meetings. He has handled a voluminous correspondence and has shown countless groups around the Pratt fish hatchery grounds and other developments of the fish and game commission.

He has served also as assistant director.

During his tenure, a popular film library has been built up; several movies of department activities, including television films, have been made; and a fish and game radio series has been started. One of the last major projects under his supervision was equipping and planning for a wildlife exhibit truck to tour Kansas elementary schools.

Lutz is leaving the department to go into a bank at Sharon Springs, his home town. But those who know him expect him to continue to be vitally interested in the welfare of the fish and game department.

Don't Clip Him

If a dog could talk, one of the first things he'd tell you is not to clip his hair during the summer months. A dog perspires through his mouth so instead of making him cooler, you make his days warmer by exposing his skin to the direct rays of the sun. When a human being becomes warm, he perspires through the skin and evaporation cools him off. When a clipped dog becomes warm, there is no evaporation on the skin to regulate his temperature and he suffers much more than he would if he hadn't been clipped. Let your dog keep his winter coat—even during the summer months.

Only One Shot

With a single shot you can kill an American lion, brown tiger, puma, mountain screamer, panther, purple panther, silver lion, catamount, cougar and mountain lion. These are common names for one animal, the felis concolor, generally known as the mountain lion.

It has been estimated that 1,000 meadow mice consume approximately 11 tons of grass annually. While 1,000 mice appears to be a lot of mice, it is not uncommon to find 50 per acre. During one outbreak in Nevada, mice were estimated to have reached a peak of 12,000 per acre. The destructiveness of these field rodents presents a striking testimony in behalf of our most efficient mousers — hawks, owls, foxes, and snakes.

If you wish to be happy for an hour, get intoxicated.

If you wish to be happy for three days, get married.

If you wish to be happy for eight days, kill your pig and eat it.

If you wish to be happy forever, learn to fish.—Chinese Proverb.

A rattlesnake has, on the average, two (not one) rattles for each year of its age.

A Research Progress Report . . .

RAISING LESSER PRAIRIE CHICKENS IN CAPTIVITY

By Jim Coats, Game Biologist
(Photographs by author unless noted otherwise)

In southwestern Kansas where the lesser prairie chicken, *Tympanuchus pallidicinctus,* holds forth, it is commonplace for the numbers of this bird to fluctuate widely. It was thought by Dave Leahy, director of the Kansas Forestry, Fish and Game commission, that the status of the prairie chicken could be improved by the periodic release of a supply of these birds raised in captivity.

However, for a long time it has been considered impossible to raise prairie chickens in confinement. So, it was decided to study the problem to determine the methods by which such propagation might be accomplished. The credit for initiating this research project should be given to Director Leahy.

Most people acquainted with the problem agreed that feeding the young was the most important problem to solve. And there were other numerous important questions to be answered in trying to develop a system for raising prairie chickens in numbers.

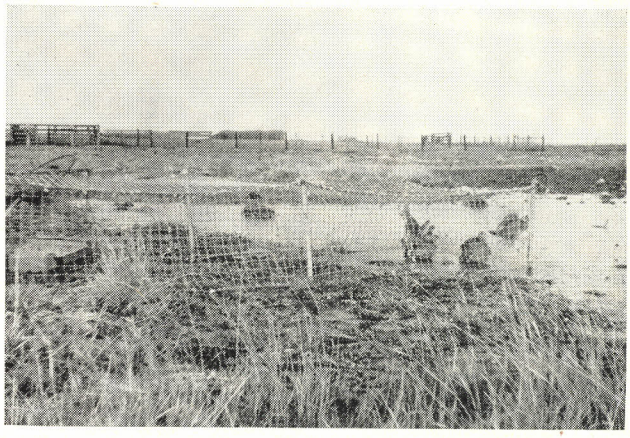
We have now concluded about 3½ years of work. We have talked to a great many people concerning the problem and have encouraged them to give us their ideas. Some had had experience in working with these birds. All have been helpful.

We are a long way from solving completely the many related problems arising in this work, but we feel that it is timely to give a report of our progress. Changes and alterations in procedures no doubt will be made, but the over-all plan and the general techniques are expected to remain much the same.

ACQUISITION OF BREEDING STOCK

A problem of this nature inevitably poses the perplexing situation of obtaining the initial breeding stock. Purchase of breeding stock was out of the question—no one had this bird in quantity for sale. There were two courses, obtaining eggs from the wild and trapping wild birds, both of which have been followed.

In the case of lesser prairie chickens, obtaining eggs from wild nests has been of limited value. These birds in their natural habitat nest in, under and around clumps of grass or sagebrush. The nest itself is a slight depression in the soil, sparsely lined with residual plant matter from the nest locale. Apparently, prairie chickens are, from the start of incubation, "tight setters." One has to approach very, very closely before they move from the nest.



Prairie chickens were trapped for the research project of raising them in captivity in traps like the one above. (*Photo by Marvin Schwilling.*)

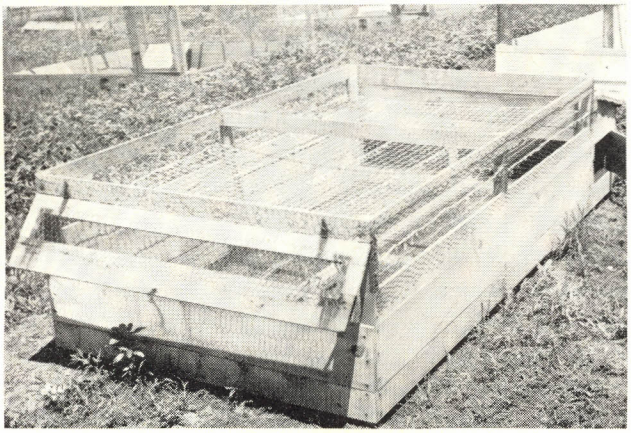
Therefore, the vegetation in which nests are found, their extreme concealment and the behavior of the incubating hen make it very unlikely that nests will be discovered. We learned that nests had never been found on many ranches where nesting by prairie chickens had occurred. Only a few ranchers told us they usually figured on finding at least one nest every season.

The second course for obtaining breeding stock was to trap wild birds. Lesser prairie chickens are notably difficult to trap. However, Stokley Ligon, formerly biologist with the federal fish and wildlife service, had determined methods for taking these birds, and, through his guidance, we were able to obtain our start of birds for breeders. These birds were taken in several locations to insure a variety of blood lines.

HOLDING PENS AND REARING PENS

Acquisition of wild prairie chickens for breeders led to our design of a special holding pen for these birds. Confining them in ordinary pens was not successful, since they were always jumping or flying into the wire panels and receiving serious injuries.

This special pen has a wire bottom to minimize the incidence of disease; it has a partition of fish netting which keeps the animal from hitting the wire top when jumping; and it has a solid panel side to minimize nervous pacing and jumping. These holding pens have proved suitable for holding wild stock without injury, for rearing young chicks after they leave the brooder house and, even for breeding pens when our regular breeding-pen facilities were crowded.

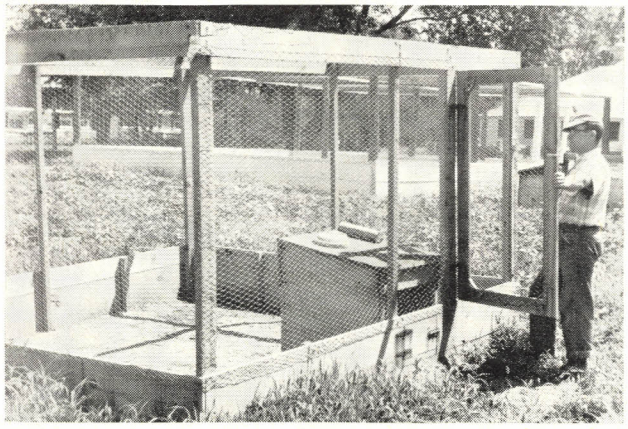


This is a new type holding pen which proved best for holding prairie chickens without injury. The pen is designed to minimize chances for disease.

BREEDING AND BREEDING PENS

The breeding behavior of prairie chickens in the wild is well known. In the spring the cocks congregate on "booming grounds." Here they display for several hours each day. Near the end of the "booming" season, in late April or early May, the hens occasionally visit these grounds. The complicated and unusual breeding behavior of prairie chickens posed the question of how well these birds could be encouraged to breed in close confinement.

We were tempted to try large enclosures of several acres for breeding pens, but, since our objective was development of mass production methods, we immediately tried pens of more practical sizes from 20 feet square to smaller sizes. By trial we have found that a pen about 10 feet or 12 feet square, similar to a common type of pheasant breeding pen, is satisfactory. This pen is placed directly on the ground. It is equipped with shelters for the birds and food.

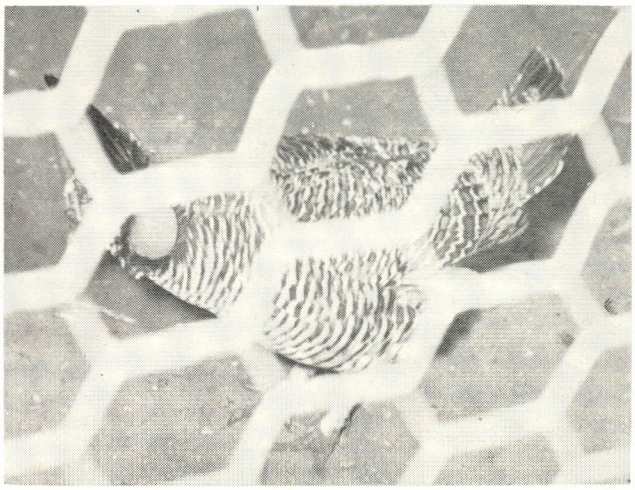


Satisfactory size for breeding pens for lesser prairie chickens, like the one shown above, was found to be 10 or 12 feet square.

MATING

In each breeding pen, we usually place one cock and one hen by arbitrary selection. Our experience has indicated that there are a surprisingly high percentage of successful matings by this forced-pairing method. In some instances we have placed several hens with one cock, but our evidence so far is inconclusive that this is the proper procedure for highest production. We have seen positively that putting several cocks in a breeding pen results in fighting and possible death to all but the dominant cock. Breeding stock of one or two years of age apparently results in the highest production. Breeders are moved from the holding pens to the breeding pens about the first week in March.

We can expect a seasonal production of about 25 eggs per hen to occur in the May-June period. Hens



Captive prairie chicken cocks behave in normal way during booming season, as shown by this cock in one of the project breeding pens. *(Photo by Byron Walker.)*

lay at a rate of about an egg each day. We found that the hens usually formed a depression under the leantos in which they laid their eggs. Collection of eggs once or twice each day minimized the possibility of damage to the egg by exposure to heat and sun.

Eggs were stored in a cool place in the same manner as other eggs. It was our practice to store them for not longer than three to five days before setting.

INCUBATION

Our first experience with the artificial incubation of prairie chicken eggs in forced-draft machines was in machines being operated for quail. The conditions prescribed for quail were not at all satisfactory for the lesser prairie chicken. Therefore we have since used a separate machine for incubating and hatching lesser prairie chicken eggs.

The number of eggs with which we have been working has not been of sufficient magnitude to rely heavily on statistical results. At no time have we had rigidly controlled incubation experiments.

Lesser prairie chicken eggs are light colored with small brown specks. They are smaller than pheasant eggs and larger than quail eggs. For egg positioners in the incubator tray we found the positioners for chukar partridge eggs were about the correct size.

We have found the following conditions in our forced-draft incubator to give satisfactory results:

99¾ degrees F dry bulb temperature (average). Checked by ordinary clinical thermometer placed in a central position in one of the middle egg trays. Since our incubator operated about ¼ of a degree above and below average (½ degree from maximum to minimum) this meant that our clinical thermometer read 100.0 degrees F.

81-85 degrees F wet bulb temperature. Usually a reading of 82 or 83 degrees at the first of the incubation season in May and gradually higher to 84 and 85 degrees in July.

Ventilation—moderate.

Turn eggs five times each day.

Transfer eggs to hatcher on twenty-first day.

Incubation period 25-26 days.

For the hatching stage we used a separate still-air hatcher. This we operated in the same manner as for other types of eggs—102½ degrees F average temperature at top of egg; moisture pans full; ventilation low until hatching is complete.

In summary, we are quite sure that for the first 21 days in the incubator the conditions should be significantly drier than for quail or pheasants. During the last four or five days in the hatcher, moisture conditions should be quite high to facilitate emergence from the shell.

INCUBATION WITH DOMESTIC HENS

We have used bantam hens for incubating and hatching our eggs but we have not found them more practical than artificial methods unless only a small number of eggs are to be set. In case the use of bantams is desired or required the normal procedure for housing, care and sanitation can be followed as for other kinds of eggs.

BROODING

Standard procedures were followed in brooding the young birds. We used a battery brooder throughout. Drafts were minimized by every means possible. For the first week the wire floor of the brooder was covered with a feed sack to reduce drafts. The birds do not need extra brood heat after five or six weeks if outside weather is warm.

FEEDING

The most challenging problem in raising prairie chickens in captivity hinged upon perfecting methods for feeding the young. The problem is not now completely solved but sufficient progress has been achieved to view the problem with much more confidence. Under methods previously used it was largely a matter of luck if chicks survived. Now the problem is resolved to the matter of increasing the percentages of chicks raised.

The chicks of prairie chickens have instinctive behavorisms which seem to account for the problems involved in feeding the young. They are:

1. The chicks characteristically inspect for food at their eye level or above, often stretching or jumping after objects. They do not ordinarily inspect or scratch the ground in search of food.
2. The chicks instinctively react only to moving insects or rarely inspect odd metalic or shiny objects. Ordinary foods, such as poultry mash, etc., do not incite their interest.
3. The chicks are most inclined to find water if it is in droplet form, rather than standing water in a trough or fountain.
4. The chicks are more inclined to search for food if they have ingested good quantities of water.

The type of food and water and the manner used in presenting them must be attuned to their instinctive behavior.

WATER

A water trough or water fountain was provided in the brooder at all times. Water also was sprayed with an atomizer on some grillwork placed in the brooder. A grillwork made up the partitions in our battery brooder so we sprayed the partitions of the brooder. Droplets of water formed on the grillwork and were particularly attractive to the chicks. The chicks were encouraged to drink the first day in the brooder. This spraying was done many times each day, the more the better. The chicks often were noted going directly to feeding after drinking. After it was certain that the

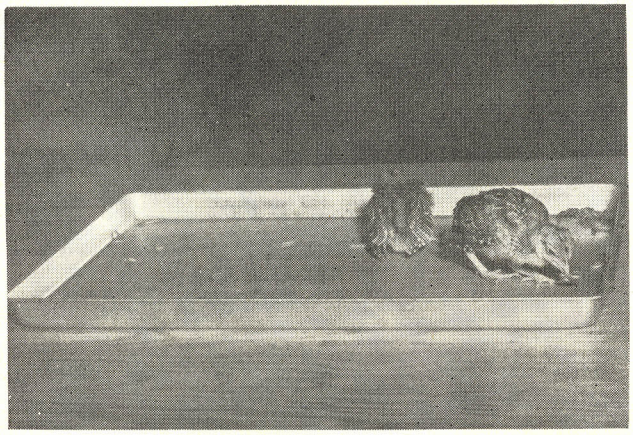
Chicks first take water in droplet form when it is sprayed by atomizer on the grillwork of their brooder.

chicks had begun using the regular water fountain, the spraying was discontinued.

FOOD

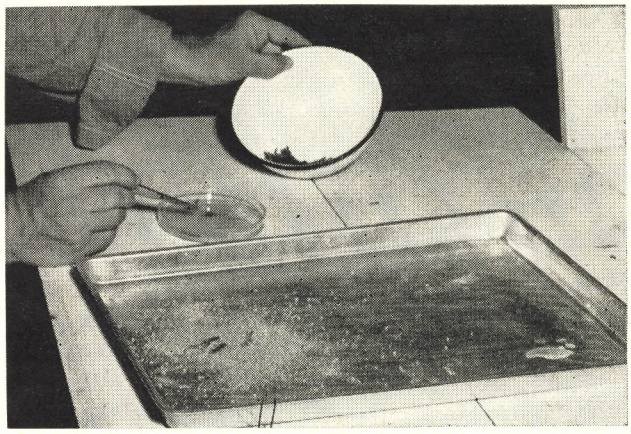
We found that when the chicks reach three weeks of age they begin to take inert, prepared feeds such as poultry mashes, etc. From that time on the feeding techniques can be similar to feeding pheasants or quail and, consequently, there is no big problem. The problem of feeding the chicks occurs from hatching time until the chicks are about three weeks old.

We have developed a feeding technique which in simple form and in final analysis is to get a balanced food of high protein content into the chicks by use of insects as "attractors and carriers." Knowing that the chicks instinctively take insects with relish we use the larval form of the mealworm (Tenebrio sp.) as the attractor and carrier. By dipping the mealworm in a substance such as egg yolk or corn syrup the mealworm is made quite sticky. It is then dusted with a high-protein chick-starter-mash. The mealworm with the sticky substance and starter mash then is a "breaded pork chop." Getting the starter mash into the chicks by this trick is the crux of the matter.



Chicks first had to learn to seek their food on the ground rather than at a higher level. Live mealworms were used to attract their eye to the bottom of a cookie pan and they readily ate the worms. Actually, the chicks in the picture are at the stage of eating the treated mealworms, but the birds are used in this picture to illustrate the initial feeding practice.

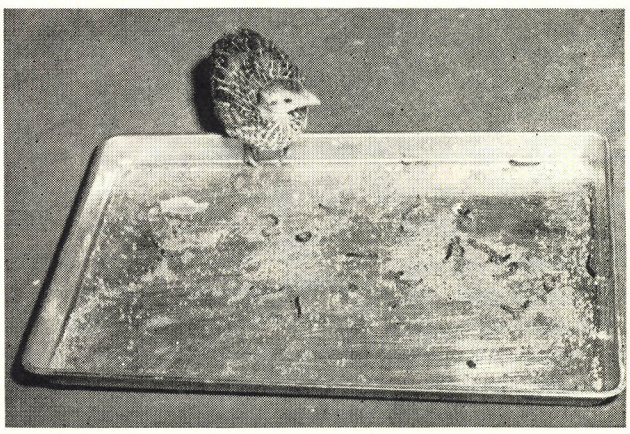
Since these chicks instinctively look for food "up high," they must be taught to expect their food on the floor. This we do the first two or three days by presenting untreated mealworms in aluminum cookie pans. Mealworm larvae are always available since they cannot crawl out of these pans. The pans have slick sides about three-fourths inch high. This type of pan will keep the larvae in and allow the chicks easy entrance and exit. By having a quantity of mealworms constantly before them, the chicks soon learn to inspect at the floor level for food and to associate the pan with food. We scarify the bottoms of the pans with sandpaper to create a rough surface for the chicks to walk on. Small-size larvae are used for the first few days since a full-grown mealworm is too big for the chicks to handle.



Preparation of the "breaded pork chops." Mealworms are being dipped in egg yolk and rolled in the rich chick starter.

Within several days the chicks usually are drinking water droplets well and eagerly take the small-sized untreated larvae from the cookie pan. Then the "breaded pork chops" are presented. Since the chicks have learned to expect food in the pan in the nature of mealworm larvae they readily accept the treated mealworms. Once these transitional steps are accomplished it is largely a matter of giving them enough to fulfill their feeding and drinking appetites until they naturally begin to ingest inert, prepared foods from the feed troughs at three weeks. Oftentimes in the first three or four weeks we supplement the "breaded pork chops" with a small quantity of shredded lettuce and egg yolk placed on the cookie pan. It may be found that other foods are of minor supplemental value.

Young prairie chickens are not different from other animals. As youngsters they are mighty thirsty and



This chick surveys his dinner of "breaded pork chops," mealworms to which he has become accustomed, dipped in a sticky substance and rolled in a high-protein chick feed.

hungry. They instinctively search in their particular manner for food and water of a certain kind. We feel that the use of insects as a means of getting a quantity of high quality food into the chicks is a distinct step forward in developing a new system for feeding the chicks. The use of mealworm larvae is not new. But the treatment of the larvae with high quality foods is a new concept.

Summary

We can now state conclusively that the lesser prairie chicken can be raised in captivity by mass-production methods modified to the requirements of this species. We are not satisfied that we have developed completely satisfactory methods in all stages of operation. But we are at a point of relative success. From here on it will be a matter of improvement.

Conclusion

Our research facilities are geared to about 25 breeding pens. We have now reached the point where we can release all the old, wild-trapped breeders and work only with hand-reared stock for breeders. We can see that detailed experimental work remains to be done to improve our methods.

For instance further experimentation needs to be done in determining exactly the proper conditions for artificially incubating the eggs. Also slip-joint shows up in some of the chicks. This indicates a need for close check on the nutrition of the chicks. Some chicks upon hatching lack development and vigor to such an extent that a check of the proper nutrition of breeders is indicated. Other aspects of this work need further attention. In some cases we will try to turn to other agencies to perform this work because of its extreme technicality.

Our objective is to perfect methods for raising the lesser prairie chicken in captivity; to provide a limited number of birds for releases in southwestern Kansas to test this practice for rehabilitating areas with depleted stock; to provide stock for display and educational purposes; and to provide stock and the know-how for game breeders.

Acknowledgments

There were many persons who assisted in this project. Personnel of the Kansas Forestry, Fish and Game commission who participated were: Byron Walker, Marvin Schwilling, Roy McKinsey, Jack McNally, Clement Gillespie, Edwin Gebhard, Willis Hall, Max Stone and Clyde Scott. Other persons who assisted were: J. Stockley Ligon, Carlsbad, N. Mex.; Gardiner Bump, U. S. Fish and Wildlife Service; Ralph Hahn, Joliet, Ill.; August Ginkel, Cedar Rapids, Iowa; George Atwood, Elkhart, Kan.; Bob Kincaid, Independence, Kan.; Gilbert H. Gladish, Higginsville, Mo.; Dale Arbuckle, Arkansas City, Kan.; H. C. Schaefer, St. Louis; A. H. Leonard, St. Louis; Jack Insko, Lexington, Ky.; L. E. Erwin, Manhattan, Kan.; G. D. McClaskey, Topeka; L. F. Payne, Manhattan; James Cox, Carlsbad; William Dome, Ashland, Kan.; Lawrence Krier, Ashland; Del Randall, Sitka, Kan.; E. E. Fellers, Lawrence, Kan.

Fewer Mallards Reported In 1954 Hunting Survey

Ten percent fewer mallards were bagged during the hunting season of 1954 than during the previous year, according to a waterfowl kill survey conducted by Jim Coats, game biologist for the Kansas Forestry, Fish and Game commission.

In 1954, mallards accounted for 40 percent of the kill of 904 hunters. During the previous hunting season, mallards made up 50 percent of the bag of the hunters sampled.

The drop in the proportion of mallards possibly can be accounted for in the unusual movement of the species during the season, according to Coats' report. Counts during January showed that an abnormally large number of mallards wintered in South Dakota and Montana.

After mallards, the kinds of ducks and their percentages in the hunters' kill were: green-wing teal, 16 percent; blue-wing teal, 9.1 percent; pintail, 7.2 percent; scaup, 4.9 percent; shoveller, 3.8 percent; gadwall, 2.5 percent; redhead, 2.2 percent; canvasback, 1.9 percent; baldpate, 1 percent; others, 7.5 percent; unknown, 3.8 percent.

The average per hunter season kill for 1954 dropped to 4.15 ducks from 5.96 of the preceding year, even though the waterfowl hunters spent more days hunting. The greatest number of ducks was bagged in the first 10 days of the season, with the number running lower as the season progressed. Percentages during 10-day periods of the duck season were: first 10 days, 24 percent; second 10 days, 21.3 percent; third 10 days, 19.2 percent; fourth 10 days, 14.6 percent; fifth 10 days, 12 percent; sixth 10 days, 8.8 percent.

The most heavily hunted counties were Sedgwick, Reno, Shawnee, Kingman and Cowley.

A total of 135 geese was reported in the hunter sampling. By kinds the total consisted of snow geese, 60 or 44.4 percent; Canada, 29 or 28.9 percent; others, 22 or 16.3 percent; and unknown, 14 or 10.4 percent.

Coats explained the severe drop in the proportion of Canada geese "suggests that the species found conditions too poor to delay them for long."

KNOW YOUR FRIEND--THE GAME PROTECTOR

James Crawford (Jimmy) Carlson, Sr., has been a game protector for the fish and game commission for twenty years. He is stationed at Salina and works in the counties of Ellsworth, Saline and Rice.

Carlson, a native of Saline county, had sporting goods and book stores in Salina and Abilene before becoming a game protector. He was a gunner on the warship, U. S. S. Minnesota, in World War I.

Carlson and his wife, Angeline, have three children, Jimmy, Jr., II, of Los Angeles, Mrs. Cy Curnow of Sumter, S. C., and Mary Helen at home. There are also three grandsons, Dan and James Crawford, III, sons of Mr. and Mrs. Jimmy, Jr., and Nicholas (born on Christmas day), son of Mr. and Mrs. Curnow.

Carlson's main hobby is fishing, with reading a close second.

A cat's jaw, unlike that of a dog, moves only up and down and not sidewise.

Fishes, as well as ships, use the Suez Canal. They travel back and forth between the Red Sea and the eastern Mediterranean.

More than 200 acres of rich farm land is washed into the seas each day.

Charles H. Toland, a veteran of World War I, has been with the fish and game commission as a game protector since 1939. He formerly served with the state highway patrol for seven years.

Toland was a member of the 90th division and saw overseas service in the first World War.

His game district covers Sedgwick and Butler counties and the northern part of Cowley county. Toland and his wife, Edith Irene, live in Wichita. Toland finds time for his favorite hobbies, hunting and fishing.

Meadow larks, formerly hunted as game birds, are not larks at all, but actually belong to the blackbird family.

The night hawk perches lengthwise on a tree limb, not crosswise as most birds do.

Because of its consumption of rodents, the Barn Owl is considered one of the most valuable of birds of prey. It is seldom seen in the daytime.

The wild boar has its practical purposes. Its strong, stiff bristles end up in paint brushes.

SUNRISE AND SUNSET TIMES DURING KANSAS' OPEN WATERFOWL SEASON—1955

Date	Kansas City, Mo.		Topeka		Wichita		Great Bend		Hays		Garden City		Goodland	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
October 9	6:22	5:49	6:26	5:54	6:32	6:01	6:38	6:07	6:41	6:08	...	...	5:50	5:18
October 10	6:23	5:47	6:27	5:52	6:33	5:59	6:39	6:05	6:42	6:06	...	...	5:51	5:17
October 11	6:24	5:46	6:28	5:51	6:34	5:58	6:39	6:04	6:42	6:05	...	...	5:52	5:15
October 12	6:25	5:44	6:29	5:49	6:35	5:56	6:40	6:02	6:43	6:03	6:49	6:10	5:53	5:14
October 13	6:26	5:43	6:30	5:48	6:36	5:55	6:41	6:01	6:44	6:02	...	...	5:54	5:12
October 14	6:27	5:41	6:31	5:46	6:37	5:53	6:42	5:59	6:45	6:00	...	...	5:55	5:11
October 15	6:28	5:40	6:32	5:45	6:38	5:52	6:43	5:58	6:46	5:59	...	...	5:56	5:10
October 16	6:29	5:38	6:33	5:44	6:39	5:50	6:44	5:57	6:47	5:58	6:53	6:04	5:57	5:08
October 17	6:30	5:37	6:34	5:42	6:40	5:49	6:45	5:55	6:48	5:56	...	...	5:58	5:06
October 18	6:31	5:36	6:35	5:41	6:41	5:48	6:46	5:54	6:49	5:55	...	...	5:59	5:05

Hunting on Another Man's Land Is A Privilege and Not a "Right"

Soon Kansas sportsmen will be in the midst of another hunting season and hunters will be confronted with the problem of finding a place to hunt.

The problem would be a very simple one if each of us owned or had land under lease, but that isn't the case with the vast majority of the state's hunters. The posting of land poses an acute problem be it in western Kansas or in the eastern part of the state.

This problem of finding a place to hunt has come about by the rapid increase in recent years in the number of people who have taken up the sport of hunting. And to add to the problem there have been a marked increase in the number of so-called sportsmen who have for years taken advantage of the farmer or landowner.

This problem of posted lands seems difficult of solution. Yet, regardless of how big the problem may seem, this progression toward a deteriorating situation does have a solution. But the solution lies with the sportsmen themselves, not with the state Fish and Game commission, as many people apparently think. Fish and game commissions the nation over have toyed with this problem and have tried everything short of regimentation to provide a place for fishermen to fish and a place for hunters to hunt. The situation can only be made better when those directly concerned take it upon themselves to find the answer.

Not until we realize that hunting on another's land is a privilege and not a right will it be possible to have better sportsmen-farmer relations.

This strained relationship between farmer and sportsman has all come about through a few so-called sportsmen or culprits, whichever you choose to call them. But these few, which are a very small percentage of the true sportsmen, have taken advantage of the rights of the landowner. "The abuse of the landowner's hospitality by a careless few may cause an entire community to withdraw its hunting privileges from all" a fact which should pound home to the individual the responsibility of his actions, and his moral obligation to conduct himself accordingly.

If hunters are to find a place to hunt, they must face up to the facts. In this case, the fact is this: Hunting on another's property is a privilege, not an inherent or vested right. This false belief of our "inherent rights" has done more to alienate the landowner from the sportsman than any other single thing. If we want to find a solution, we must start thinking in terms of the landowner's rights and the sportsman's privilege.

When a man hunts on another man's property he is a guest, not a landlord. The game may belong to the state, but the landowner owns the habitat and can open and close his lands to hunting as he sees fit. The answer then lies with more private land open to public hunting and it is up to the sportsmen themselves to set the pattern for such a program. Courtesy, consideration and, in general, higher ethical standards of conduct on the part of the hunter himself are necessary to bring this about. But such ethics can never be until the day comes when more hunters learn to put themselves in the other man's place, and to govern their actions and tempers accordingly.

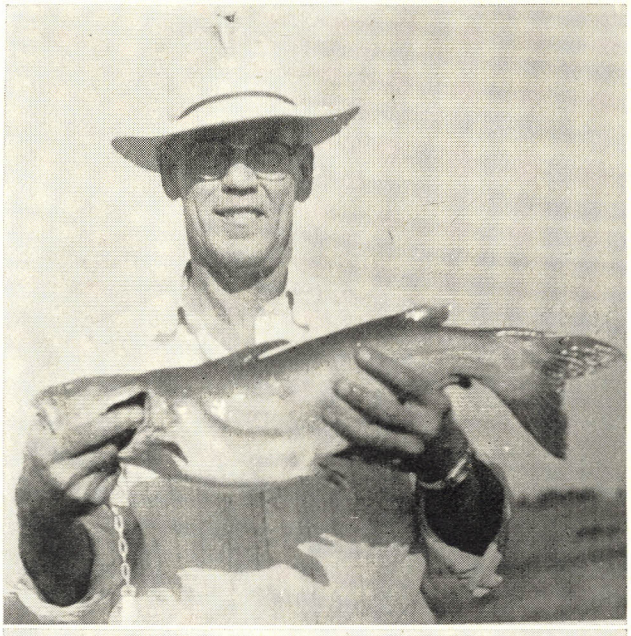
Why cannot the hunter be a good neighbor to the farmer? Most farmers are very hospitable folk. Why can a hunter not go to the farmer's home in season and out and be friendly with him? Why can he not invite this farmer to his home for a meal? Why can he not be friendly with him when he meets him in other places than on his own property?

The sportsmen, as we have said, are fine fellows in the great majority. It is the one culprit that can ruin the chances of all. So, here is something that the sportsmen can do. They can clear their ranks of the undesirables. They can be friendly and neighborly with the farmer, and this being done, better hunting, better relationships for all concerned will have been accomplished.

Date	Kansas City, Mo.		Topeka		Wichita		Great Bend		Hays		Garden City		Goodland	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
October 19	6:32	5:34	6:36	5:39	6:42	5:46	6:47	5:52	6:50	5:53	...	...	6:00	5:04
October 20	6:33	5:33	6:37	5:38	6:43	5:45	6:48	5:51	6:51	5:52	6:57	5:59	6:01	5:02
October 21	6:34	5:32	6:38	5:37	6:44	5:44	6:49	5:50	6:52	5:51	6:58	5:57	6:02	5:01
October 22	6:35	5:30	6:39	5:35	6:45	5:42	6:50	5:48	6:53	5:49	6:59	5:56	6:03	4:59
October 23	6:36	5:29	6:40	5:34	6:46	5:41	6:51	5:47	6:54	5:48			6:04	4:58
October 24	6:37	5:28	6:42	5:33	6:47	5:40	6:52	5:46	6:55	5:47	7:01	5:54	6:05	4:57
October 25	6:38	5:26	6:43	5:31	6:48	5:38	6:52	5:44	6:57	5:45			6:07	4:55
October 26	6:39	5:25	6:44	5:30	6:49	5:37	6:54	5:43	6:57	5:44			6:08	4:54
October 27	6:40	5:24	6:45	5:29	6:50	5:36	6:55	5:42	6:58	5:43			6:09	4:53
October 28	6:41	5:22	6:46	5:27	6:51	5:35	6:55	5:40	7:00	5:41	7:05	5:49	6:10	4:51
October 29	6:42	5:21	6:47	5:26	6:52	5:34	6:56	5:39	7:01	5:40			6:11	4:50
October 30	6:44	5:20	6:48	5:25	6:53	5:33	6:57	5:38	7:02	5:38			6:12	4:49
October 31	6:45	5:19	6:49	5:24	6:54	5:31	6:58	5:37	7:02	5:38			6:13	4:48
November 1	6:46	5:18	6:50	5:23	6:55	5:30	7:00	5:36	7:03	5:37	7:09	5:44	6:14	4:47
November 2	6:47	5:17	6:51	5:22	6:56	5:29	7:01	5:35	7:04	5:36			6:15	4:46
November 3	6:48	5:15	6:52	5:21	6:57	5:28	7:03	5:34	7:06	5:35			6:16	4:45
November 4	6:49	5:14	6:53	5:19	6:58	5:27	7:05	5:32	7:08	5:33	7:12	5:41	6:17	4:43
November 5	6:50	5:13	6:54	5:18	6:59	5:26	7:06	5:31	7:09	5:32			6:18	4:42
November 6	6:51	5:12	6:56	5:17	7:00	5:25	7:07	5:30	7:10	5:31			6:20	4:41
November 7	6:52	5:11	6:57	5:16	7:01	5:24	7:08	5:29	7:11	5:30			6:21	4:40
November 8	6:53	5:10	6:58	5:15	7:03	5:23	7:09	5:28	7:12	5:29	7:17	5:37	6:22	4:39
November 9	6:55	5:08	6:59	5:14	7:04	5:21	7:10	5:27	7:13	5:28			6:23	4:38
November 10	6:56	5:08	7:00	5:14	7:05	5:21	7:11	5:27	7:14	5:28			6:24	4:38
November 11	6:57	5:07	7:01	5:13	7:06	5:20	7:12	5:26	7:15	5:27			6:25	4:37
November 12	6:58	5:07	7:02	5:12	7:07	5:20	7:13	5:25	7:16	5:26	7:21	5:34	6:26	4:36
November 13	6:59	5:06	7:03	5:11	7:08	5:19	7:14	5:24	7:17	5:25			6:27	4:35
November 14	7:00	5:05	7:05	5:10	7:09	5:18	7:15	5:23	7:18	5:24			6:29	4:34
November 15	7:01	5:04	7:06	5:09	7:10	5:17	7:16	5:23	7:20	5:23			6:30	4:33
November 16	7:02	5:03	7:07	5:09	7:11	5:17	7:18	5:22	7:21	5:23	7:25	5:31	6:31	4:33
November 17	7:04	5:03	7:08	5:08	7:12	5:16	7:19	5:21	7:22	5:22			6:32	4:32
November 18	7:05	5:02	7:09	5:07	7:13	5:15	7:20	5:20	7:23	5:21			6:33	4:31
November 19	7:06	5:01	7:10	5:07	7:14	5:15	7:21	5:20	7:24	5:21			6:34	4:31
November 20	7:07	5:01	7:11	5:06	7:16	5:14	7:22	5:19	7:25	5:20	7:30	5:28	6:35	4:30
November 21	7:08	5:00	7:12	5:05	7:17	5:13	7:23	5:19	7:27	5:19			6:36	4:29
November 22	7:09	5:00	7:13	5:05	7:18	5:13	7:24	5:18	7:27	5:19			6:37	4:29
November 23	7:10	4:59	7:14	5:04	7:19	5:12	7:25	5:18	7:29	5:18			6:38	4:28
November 24	7:11	4:59	7:15	5:04	7:20	5:12	7:26	5:17	7:29	5:18	7:34	5:26	6:39	4:28
November 25	7:12	4:58	7:17	5:03	7:21	5:12	7:27	5:17	7:31	5:17			6:41	4:28
November 26	7:13	4:58	7:18	5:03	7:22	5:11	7:28	5:16	7:31	5:17			6:42	4:27
November 27	7:14	4:57	7:19	5:02	7:23	5:11	7:29	5:16	7:33	5:16			6:43	4:26
November 28	7:15	4:57	7:20	5:02	7:24	5:11	7:30	5:16	7:34	5:16	7:38	5:25	6:44	4:26
November 29	7:16	4:57	7:21	5:02	7:25	5:10	7:31	5:15	7:34	5:16			6:45	4:26
November 30	7:17	4:56	7:22	5:01	7:26	5:10	7:32	5:15	7:35	5:15			6:46	4:25
December 1	7:18	4:56	7:23	5:01	7:27	5:10	7:33	5:15	7:37	5:15	7:41	5:24	6:47	4:25
December 2	7:19	4:56	7:24	5:01	7:28	5:09	7:34	5:15	7:38	5:15			6:48	4:25
December 3	7:20	4:56	7:25	5:01	7:29	5:09	7:35	5:15	7:39	5:15			6:49	4:25
December 4	7:21	4:56	7:26	5:01	7:29	5:09	7:36	5:15	7:40	5:15	7:43	5:23	6:50	4:25
December 5	7:22	4:56	7:26	5:01	7:30	5:09	7:37	5:14	7:40	5:15			6:50	4:25
December 6	7:23	4:56	7:27	5:01	7:31	5:09	7:38	5:14	7:41	5:15			6:51	4:25
December 7	7:24	4:56	7:28	5:01	7:32	5:09	7:38	5:14	7:41	5:15	7:46	5:23	6:52	4:25
December 8	7:25	4:56	7:29	5:01	7:33	5:09	7:39	5:14	7:42	5:15	7:47	5:23	6:53	4:25
December 9	7:26	4:56	7:30	5:01	7:34	5:09	7:40	5:14	7:43	5:15			6:54	4:25
December 10	7:27	4:56	7:31	5:01	7:35	5:10	7:41	5:15	7:45	5:15	7:49	5:23	6:55	4:25
December 11	7:27	4:56	7:32	5:01	7:35	5:10	7:42	5:15	7:46	5:15	7:50	5:23	6:56	4:25
December 12	7:28	4:56	7:32	5:01	7:36	5:10	7:43	5:15	7:47	5:15	7:50	5:24	6:56	4:25
December 13	7:29	4:56	7:33	5:01	7:37	5:10	7:43	5:15	7:47	5:15	7:50	5:24	6:57	4:25
December 14	7:30	4:56	7:34	5:01	7:38	5:10	7:44	5:15	7:48	5:15	7:51	5:24	6:58	4:25
December 15	7:30	4:57	7:35	5:02	7:38	5:11	7:45	5:16	7:49	5:16	7:52	5:25	6:59	4:26
December 16	7:31	4:57	7:35	5:02	7:39	5:11	7:45	5:16	7:49	5:16	7:53	5:25	6:59	4:26
December 17	7:32	4:57	7:36	5:02	7:40	5:11	7:46	5:16	7:50	5:16	7:53	5:25	7:00	4:26
December 18	7:32	4:58	7:37	5:03	7:40	5:12	7:47	5:17	7:51	5:17	7:54	5:25	7:01	4:27
December 19	7:33	4:58	7:37	5:03	7:41	5:12	7:47	5:17	7:51	5:17	7:55	5:25	7:01	4:27
December 20	7:34	4:58	7:38	5:03	7:42	5:12	7:48	5:17	7:52	5:17	7:56	5:26	7:02	4:27
December 21	7:34	4:59	7:38	5:04	7:42	5:13	7:48	5:18	7:52	5:18	...	...	7:02	4:28
December 22	7:34	4:59	7:38	5:04	7:43	5:13	7:48	5:18	7:52	5:18	...	...	7:02	4:28

The sunrise and sunset time shown for Kansas City, Mo., Topeka, Wichita, Great Bend, Hays and Garden City are computed for Central Standard Times. Those for Goodland are for Mountain Standard Time. To convert this time for any given locality, add one minute for each 15 miles your location is west of the above given points and subtract one minute for each 15 miles east of said points. Shooting hours are one-half hour before the listed sunrise time to sunset time shown.

from - - our readers



Two beauties caught in Woodson County State lake are shown in pictures contributed by A. M. Sprigg, park superintendent. Above is Ted Whetzel of Fredonia with a 7-pound catfish. Below Mrs. R. M. Hogle of Wichita with a 10-pounder caught on a fly rod.

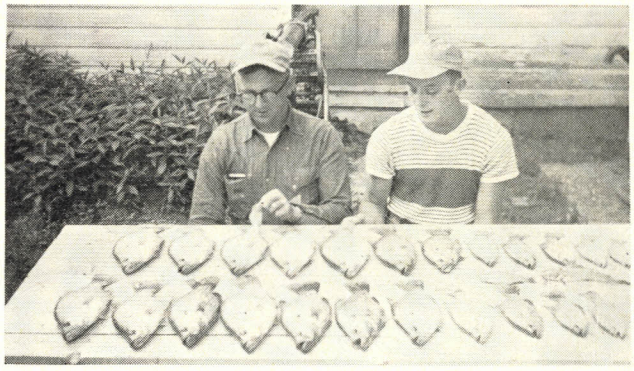
Dear Sir:

Thought you might be interested in this specimen, a 42-pound flathead caught at Riverton, Kan., close to the Empire district electric plant April 10. It was taken by the two pictured, Nance Rogers, left, and Martin Turner, both from

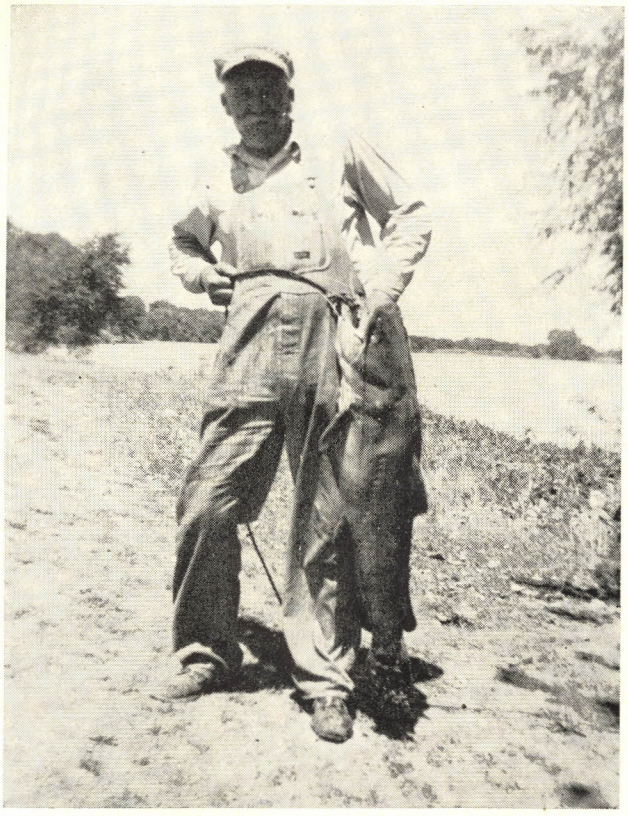
Galena. It was caught on a trot line using small goldfish for bait. The picture was taken for me by Harreld studio of Galena.

Strip pits are beginning to yield some real dandies now, with reports of bass up to four and six pounds right regular. Runkle lake, just south of West Mineral, has been opened again this year for public fishing. It was stocked with another 750 trout and a number of anglers have gotten their limit each time out. This is the third year of stocking the lake by the Pittsburg-Midway Coal company and the Farlington hatchery.

TOM FREEMAN,
Sports Director,
KOAM-TV,
Pittsburg, Kan.



Bob LeGer, right, and Jay LeGer made this excellent catch at a well-managed farm pond in southern Jefferson county. They caught these 23 giant crappie on live minnow bait. The total catch weighed 27 pounds and the 15 larger crappie weighed 23¼ pounds, ranging in size from a top of 2½ pounds down to one pound.



The largest fish caught at Mission lake, Horton, is the 45-pounder shown here. It was caught by Henry Jaucken of Sabetha on an 8-inch carp.

The large pelican held by two Coldwater girls became tired out in a dust storm this spring and made a forced landing in the northwestern part of Coldwater. The bird captured by the girls after a short chase, had a wingspread of seven feet. After it was fed overnight in a pen, it was taken by fish and game department personnel to Lindsay lake, southwest of Coldwater. It rested and fed on small fish before taking off again. The girls are Lois Vanderhule, daughter of Mr. and Mrs. Bowman, and Roberta Bain, daughter of Mr. and Mrs. Bennie Bain. *(Coldwater Western Star Photo.)*

Cedar Bluff fishing was good this summer as shown in this picture of 107 crappie caught by Mr. and Mrs. Fred Diel of Topeka and Mr. and Mrs. George Y. Gross of Ness City. Several measured 15 inches in length, according to Gross.

Gross also calls attention to vandalism at Cedar Bluff. He cites the case of a young tree that provided welcome shade for fishermen in 1954, but was thoughtlessly torn down this past summer. Gross says he has been attempting to help the tree grow properly again by tying it to a stake. He ends his letter with this plea, "Please don't anyone cut the rope until the tree gets some new roots started. Surely it wasn't a sportsman who cut the roots and left the tree to die."

A steak supper was enjoyed last summer by this group at Woodson County State park.

ARRESTS—MAY, 1955

Name and address	*Offense*	*Date of offense*	*Fine*
Anderson, Ray; Hill City	No fishing license	5-30-55	$10.00
Barnes, W. M.; Iola	No fishing license	5-27-55	10.00
Barnett, Jim; Evergreen	No fishing license	5-15-55	5.00
Bayse, Richard M.; Hoisington	No fishing license	5-14-55	10.00
Bateson, Frank; Lawrence	No fishing license	5-14-55	5.00
Berry, James; Winfield	No fishing license	5- 7-55	5.00
Bogle, Lester; Wichita	No fishing license	4-30-55	5.00
Brooks, Frank Leon; Rose Hill	No fishing license	5- 5-55	10.00
Bruce, Aron Paul; Kansas City, Mo.	No fishing license	5-29-55	5.00
Bruce, William Lloyd; Kansas City	No fishing license	5-29-55	5.00
Burton, Kim; Iola	No fishing license	5-22-55	5.00
Clevenger, Burl; Wichita	No fishing license	5-10-55	5.00
Cubb, Lizzie Lee; Wichita	No fishing license	4-30-55	10.00
Daigh, Don; Atchison	No fishing license	5- 5-55	5.00
Eikleberry, E. L.; Salina	No fishing license	5- 5-55	5.00
Fain, Elba Irvin; Wichita	No fishing license	5-22-55	5.00
Ficker, Edward LeRoy; Pueblo, Colo.	No fishing license	5-23-55	10.00
Fisk, Paul Gene; Coffeyville	No fishing license	5-17-55	5.00
Hicks, Eugene; Great Bend	No fishing license	5-16-55	10.00
Highley, Norman; Basehor	No fishing license	5-22-55	5.00
Highley, Orvan; Basehor	No fishing license	5-22-55	5.00
Hunsaker, Elbert J.; Hutchinson	No fishing license	5-12-55	5.00
Ilyes, George; Fort Riley	No fishing license	5- 2-55	5.00
Isenberg, Wilber; Fort Riley	No fishing license	5-16-55	5.00
Johnson, Vernon M.; Kansas City	No fishing license	5-21-55	5.00
Joy, Frank; McPherson	No fishing license	5-22-55	5.00
Klein, A. J.; Great Bend	No fishing license	5-14-55	15.00
Klein, Victor Jerome; Wichita	No fishing license	5-22-55	5.00
LaPietra, Joseph; Kansas City	No fishing license	5-10-55	5.00
Lister, Leon Elmer; Hutchinson	No fishing license	5- 1-55	5.00
Little, James L.; Coffeyville	No fishing license	5-17-55	5.00
Mathis, Wilber J.; Hutchinson	No fishing license	5- 1-55	5.00
Myers, J. A.; Tulsa, Okla.	No fishing license	5-21-55	5.00
Nunn, Lloyd W.; Springfield, Mo.	No fishing license	5-31-55	5.00
Oden, Walter J.; Russell	No fishing license	5- 5-55	15.00
Ramirez, Edward; Kansas City	No fishing license	5-22-55	5.00
Reed, Clyde; Junction City	No fishing license	5-16-55	5.00
Rice, Ulysses S.; Wichita	No fishing license	4-30-55	10.00
Riemer, Arnold Charles; Independence	No fishing license	5- 2-55	5.00
Schroeder, Robert; Inman	No fishing license	5-22-55	5.00
Seymour, Elga; Kansas City	No fishing license	5-22-55	5.00
Spence, James Channell; Robertson, Mo.	No fishing license	5-20-55	10.00
Steele, Thomas J.; Basehor	No fishing license	5- 5-55	5.00
Talbot, John Stewart; Colorado Springs, Colo.	No fishing license	5-29-55	10.00
Tucker, Eddie Mac; Junction City	No fishing license	5-16-55	5.00
Tull, James E.; Wichita	No fishing license	5- 7-55	5.00
Wicks, Kenneth E.; Hutchinson	No fishing license	5- 1-55	5.00
Wiedeman, Donald N.; Peck	No fishing license	5- 1-55	5.00
Wrestler, Glenn; Chanute	No fishing license	5-15-55	5.00
Atkinson, Ernest L.; Belvue	Take bass of less than legal limit length: (10) inches	5- 8-55	10.00
Thorpe, George; Wellsville	Take bass of less than legal limit length: (10) inches	5-30-55	10.00
Dernovish, John; Parsons	Take fish by means of illegal devices, to wit: fish traps	5- 8-55	100.00
Linsner, Robert, Jr.; Hoisington	Fishing with more than 1 multiple hook on a line	5-26-55	15.00
Wood, Robert Lee; Wichita	Snagging fish with pole, line and unbaited hook	5-13-55	10.00
Giese, John; Lansing	Set and operated more than 2 rods and reels or pole lines	5- 6-55	10.00
Johnson, C. G., Jr.; Lawrence	Using motorboat in state lake for purposes other than fishing, to wit: "joy riding"	5-16-55	5.00
Gresty, John; Scott City	No hunting license	5-24-55	5.00
Moore, Edgar; Scott City	No hunting license	5-24-55	50.00
Boatright, Robert; Atchison	Killed beaver in closed season	5- 5-55	25.00
Gordon, Fred; Kansas City	Killed two tree squirrels in closed season	5-19-55	15.00
Houser, Essie; Kansas City, Mo.	Misrepresentation	5- 9-55	5.00
Kemmerer, Frank; Kansas City, Mo.	Misrepresentation	5- 1-55	20.00
Poke, Richard; Kansas City, Mo.	Misrepresentation	5-28-55	5.00
Phifer, Mabel; Kansas City, Mo.	Misrepresentation	5- 9-55	5.00

ARRESTS—JUNE, 1955

Name and address	*Offense*	*Date of offense*	*Fine*
Armstrong, Wendal; Topeka	No fishing license	6-26-55	$5.00
Berberich, Don; Topeka	No fishing license	6- 6-55	5.00
Bogle, Lester; Wichita	No fishing license	4-30-55	5.00

Name and address	*Offense*	*Date of offense*	*Fine*
Bradley, Russell; Kansas City, Mo.	No fishing license	6-12-55	20.00
Brock, Bill Dean; Wichita	No fishing license	6-18-55	10.00
Brown, H. F.; Bunker Hill	No fishing license	6-15-55	10.00
Brown, Roy; St. Joe, Ark.	No fishing license	6-11-55	10.00
Calvert, Ben; Wichita	No fishing license	6-12-55	5.00
Cotton, Warren; Joplin, Mo.	No fishing license	6-19-55	5.00
Crapps, Everett H.; Fort Riley	No fishing license	6- 5-55	5.00
Cunningham, Norman; Turon	No fishing license	6- 4-55	25.00
Delgado, Lorenzo; Lincoln, Neb.	No fishing license	6- 1-55	7.00
Dusay, Jack M.; Russell	No fishing license	6-15-55	10.00
Featherston, Jack C.; McCune	No fishing license	6- 2-55	5.00
Franz, Russell; Salina	No fishing license	5-21-55	5.00
Haley, H. N.; Salina	No fishing license	6-14-55	5.00
Hall, Daryl; Neodesha	No fishing license	6-13-55	5.00
Heran, Bill; Atchison	No fishing license	6-22-55	5.00
Holt, Laverne G.; Topeka	No fishing license	6-26-55	5.00
Isom, Loyd E.; Lincoln	No fishing license	6-11-55	5.00
Jennings, James; Turon	No fishing license	6- 4-55	25.00
Jones, Otis L.; Topeka	No fishing license	6- 5-55	5.00
Kearns, Art; Neodesha	No fishing license	6-14-55	5.00
LaBarr, Richard C.; Neodesha	No fishing license	6-14-55	10.00
LeRoy, Bud; Chanute	No fishing license	6-27-55	5.00
Lucas, James, Jr.; Kansas City	No fishing license	6- 4-55	5.00
Martin, Darrell; Salina	No fishing license	6-12-55	5.00
Murray, Oscar C.; Wichita	No fishing license	6-12-55	5.00
Nickell, Don; Lawrence	No fishing license	6-12-55	5.00
Parker, Gilbert S.; Kansas City, Mo.	No fishing license	6-15-55	10.00
Rader, J. L.; Wichita	No fishing license	6- 4-55	5.00
Ramirez, Edward; Kansas City	No fishing license	6-10-55	5.00
Revel, Robert; Lyons	No fishing license	5- 1-55	5.00
Ritzinger, James; St. Joseph, Mo.	No fishing license	6- 7-55	5.00
Roberts, C. J.; Manhattan	No fishing license	5-15-55	5.00
Rodgers, Ronald; Salina	No fishing license	6-12-55	5.00
Sill, Louis J.; Kansas City, Mo.	No fishing license	6-25-55	5.00
Singleton, Elga; Kansas City	No fishing license	5-23-55	5.00
Sink, Lloyd G.; Wichita	No fishing license	6-19-55	5.00
Skinner, Gerald; Belle Plaine	No fishing license	6-13-55	5.00
Spencer, Lewis; Joplin, Mo.	No fishing license	6- 7-55	5.00
Spencer, Wayne; Joplin, Mo.	No fishing license	6- 7-55	5.00
Stevens, Jessa; Winfield	No fishing license	5- 7-55	5.00
Stevens, Maurice R.; Topeka	No fishing license	6-26-55	5.00
Thurman, Fred G.; Topeka	No fishing license	6-26-55	5.00
Turner, Lloyd; Salina	No fishing license	6-12-55	5.00
Vette, Henry C.; Colby	No fishing license	5-29-55	25.00
Vollmer, Jerome; Salina	No fishing license	5-21-55	5.00
Wyer, John; Wichita	No fishing license	6- 9-55	5.00
Bradley, W. R.; Topeka	Take black bass less than 10″ in length	6-10-55	15.00
Deghard, Albert; Topeka	Take black bass less than 10″ in length	5-23-55	15.00
Deghard, Robert; Topeka	Take black bass less than 10″ in length	5-23-55	15.00
DeWeese, R. O.; Atchison	Take black bass less than 10″ in length	5-12-55	10.00
Thorpe, George; Wellsville	Take black bass less than 10″ in length	5-20-55	10.00
Thorp, Vincent; Atchison	Take black bass less than 10″ in length	6- 6-55	10.00
Ashbury, Gene (Alias, Gene Sullivan); Moline	Dynamite fish in Elk River	5-25-55	50.00
Bullington, Bartley Leon; Howard	Dynamite fish in Elk River	5-25-55	50.00
Moreno, Raymond; Howard	Dynamite fish in Elk River	5-25-55	50.00
Townsley, Jimmie; Howard	Dynamite fish in Elk River	5-25-55	50.00
Smith, Wayne; Hutchinson	Unattended pole and line in state lake	6-12-55	10.00
Toalsen, Charles; Hutchinson	Unattended pole and line in state lake	6-12-55	10.00
Hess, Ralph, Jr.; Lawrence	Attempting to take fish by means other than baited hook and line, to wit: by use of device commonly known as a spider hook	6-11-55	25.00
Flowers, Merlin; Blue Rapids	Possession of illegal contrivance for taking fish—telephone generator, wires, etc.	6- 2-55	15.00
Collins, Louie; Hutchinson	Use and operate trotline in state lake; unattended pole and line in state lake	6-12-55	35.00
Wildman, J. E.; Kansas City	Take and possess bull frog during closed season	6- 4-55	10.00
Whiteside, Roy; Fort Scott	Operating a motorboat on a state lake for purposes other than fishing,	6-26-55	5.00
Wright, Earl; Concordia	Drinking liquor in state park	6-18-55	25.00
Harding, Hugh; Liberal	Being drunk in public place, to wit: Meade County State Park	6-12-55	50.00
Cox, Emory; Wichita	Taking migratory game birds, to wit: wild ducks, with a shotgun capable of holding more than three shells at one time in magazine and chamber combined	11-20-54	10.00
Jenkins, Frank E.; Manhattan	Taking migratory game birds, to wit: wild ducks, with a shotgun capable of holding more than three shells at one time in magazine and chamber combined	11-20-54	10.00
Wilson, Clarence; Anthony	Taking migratory game birds, to wit: wild ducks, with a shotgun capable of holding more than three shells at one time in magazine and chamber combined	11-13-54	10.00

Name and address	*Offense*	*Date of offense*	*Fine*
Blackburn, W. A.; Wichita	Hunt and kill mourning doves with shotgun capable of holding more than three shells at one time, magazine and chamber combined	9- 5-54	10.00
Dryer, Bill; Great Bend	Hunt and kill mourning doves with shotgun capable of holding more than three shells at one time, magazine and chamber combined	9-26-54	10.00
McConnell, Emerell D.; Wichita	Hunt and kill mourning doves with shotgun capable of holding more than three shells at one time, magazine and chamber combined,	9- 5-54	10.00
Kinkelaar, Denny; Dodge City	No hunting license; hunting wild game animals from a public or traveled road without permission from the adjoining land owner	6- 1-55	20.00
Wilson, Jim; Anthony	Hunt ducks without a duck stamp; hunt ducks without a plug in shotgun	11-13-54	10.00
Nading, Lloyd; Chetopa	Unlawful sale of fish	6- 7-55	75.00
Delgado, Sam; Chicago, Ill.	Misrepresentation	6- 1-55	5.00
Talley, William; Kansas City, Mo.	Misrepresentation	6-18-55	5.00

ARRESTS—JULY, 1955

Name and address	*Offense*	*Date of offense*	*Fine*
Campbell, Earl; Lindsborg	No fishing license	5-22-55	$5.00
Culey, Dean; Kansas City	No fishing license	7- 1-55	5.00
Jackson, Willie H.; Topeka	No fishing license	7-18-55	10.00
McDonald, George K.; Kansas City	No fishing license	7-29-55	5.00
McNeilley, Kenneth; Colorado Springs, Colo.	No fishing license	7-23-55	10.00
Momon, Van; Wichita	No fishing license	7-27-55	5.00
Walters, James; Wichita	No fishing license	7-27-55	5.00
Bowen, Joe; Chanute	Taking fish by illegal methods—electrical shocking device	7-24-55	50.00
Cordell, Forrest; Gardner	Taking fish by illegal methods—electrical shocking device	7-30-55	50.00
Hartman, Robert F.; Gardner	Taking fish by illegal methods—electrical shocking device	7-30-55	50.00
Wolfe, E. C.; Chanute	Taking fish by illegal methods—electrical shocking device	7-24-55	100.00
Moses, Junior Lee; St. Paul	Taking fish by illegal method—handfishing; no fishing license	7-14-55	15.00
Rebenstrof, Elmer; Sylvan Grove	Taking fish by illegal method—handfishing; no fishing license	7- 8-55	20.00
Ward, Albert Arlo; St. Paul	Taking fish by illegal method—handfishing; no fishing license	7-14-55	15.00
Oller, George W.; Lucas	Taking fish by illegal method—handfishing; also possession of fish spear	7- 8-55	25.00
Sharp, Joe; St. Paul	Taking fish by illegal method—handfishing	7- 6-55	10.00
Rottinhaus, Justin; Baileyville	Taking fish by illegal method—seining	7-17-55	20.00
Schmitz, Vincent; Baileyville	Taking fish by illegal method—seining	7-17-55	20.00
DeWitt, Jerry; Salina	Taking fish by illegal methods—seining and spearing	7- -55	10.00
DeWitt, Jim; Salina	Taking fish by illegal methods—seining and spearing	7- -55	10.00
Peters, Jerry; Salina	Taking fish by illegal methods—seining and spearing	7- -55	10.00
Baker, H. F.; Marysville	Taking fish by illegal methods—use of trammel net; no fishing license	7-22-55	25.00
Conner, E. L.; Independence	Taking fish by illegal methods—use of trammel net; no fishing license	7-22-55	25.00
Custer, A. E.; Camden Point, Mo.	Taking fish by illegal methods—use of trammel net; no fishing license	7-22-55	25.00
Denny, J. A.; Kansas City, Mo.	Taking fish by illegal methods—use of trammel net; no fishing license	7-22-55	25.00
Downey, P. T.; Kansas City, Mo.	Taking fish by illegal methods—use of trammel net; no fishing license	7-22-55	25.00
Grogan, Orren W.; Hoisington	Taking fish by illegal methods—use of trammel net; no fishing license	7-22-55	25.00
Chappel, E. L.; Winfield	Seining minnows without a fishing license	7- 7-55	10.00
Thomas, Leroy; Kansas City	Operating more than legal number of trot lines	7-13-55	10.00
Fish, Frank; Arkansas City	Operating trot lines in state lake	7-21-55	5.00
Gillem, Willie; Leavenworth	Operating trot lines in state lake	7- 9-55	10.00
Danver, Eddison; Salina	Possession of fish of illegal size	7- 3-55	10.00
Dominick, H. F.; Valley Center	Possession of fish of illegal size	7- -55	10.00
Speer, Cecil; Hutchinson	Possession of fish of illegal size	6-26-55	10.00
Armstrong, Charles; Topeka	Fishing and loitering without permission	5-22-55	15.00
Frieson, Floyd; Westmoreland	Fishing and loitering without permission	5-22-55	15.00
Griffith, H. D.; Topeka	Fishing and loitering without permission	5-22-55	15.00
Lane, Otis; Topeka	Fishing and loitering without permission	5-22-55	15.00
Sax, Robert; Topeka	Fishing and loitering without permission	5-22-55	15.00
Zabel, Herb; Westmoreland	Fishing and loitering without permission	5-22-55	15.00
Clark, M. C.; Overland Park	Hunt. take, and possess, raccoon during closed season	7- 1-55	10.00
Enfield, Warren; Merriam	Hunt. take, and possess, raccoon during closed season	7- 1-55	10.00
Owens, William; Kansas City	Hunt, take, and possess, raccoon during closed season	5-22-55	10.00
Horchem, E. D.; Scott City	No hunting license	7-11-55	5.00
Wade, Roy, Jr.; Bonner Springs	Possession of firearms in state park	7- 9-55	7.50
DeCuyper, Joe; Arma	Operate motorboat on state lake for purposes other than fishing	7-10-55	5.00
Whitworth, Louis; Pittsburg	Operate motorboat on state lake for purposes other than fishing	7-10-55	10.00
Snow, Louis S.; Hutchinson	Operate motorboat on state lake without permit	7-24-55	10.00
Sherman, Homer; Great Bend	Operate motor boat on state lake without permit, for purposes other than fishing	7- 4-55	10.00
Boyd, Elmer; Great Bend	Operate motorboat on state lake without permit (larger than 10 h. p.) and for purposes other than fishing	7-24-55	10.00
Rice, John W.; Kansas City	Operate motorboat on state lake for purposes other than fishing; use of alcoholic beverage on state property	7-10-55	25.00

Name and address	*Offense*	*Date of offense*	*Fine*
Carlisle, James E.; Hugoton	Swimming in state lake in water area other than that designated as the bathing area—jumping from boat near center of lake	7- 4-55	15.00
Bauman, Don; Salina	Drinking or consuming alcoholic beverage on state property	7- 3-55	4.00
Dunlap, Donald; Salina	Drinking or consuming alcoholic beverage on state property	7- 3-55	5.00
Enn, Raidna; Salina	Drinking or consuming alcoholic beverage on state property	7- 3-55	5.00
Fisher, Gail; Salina	Drinking or consuming alcoholic beverage on state property	7- 3-55	4.00
King, Gene; Tyrone, Okla.	Drinking or consuming alcoholic beverage on state property	7-16-55	50.00
Fink, Ethel; Salina	Violation of state park regulations	7- 7-55	10.00
Martin, Roland F.; Salina	Violation of state park regulations	7- 7-55	10.00
Sandborn, Ann; Salina	Violation of state park regulations	7- 3-55	15.00
Williams, Ronald Keith; Salina	Violation of state park regulations	7- 3-55	15.00
Steele, Bob; Salina	Speeding on motorcycle in front of concession at Ottawa County State Park	7-10-55	10.00

Life

By Dr. I. B. Howell, R. A. M.

A little sun, a little rain,
A little loss, a little gain,
A little joy, a little strife,
And this is Life.
A little wheat and a little chaff,
A little cry and a little laugh,
A little smile and a little weep,
The day's fatigue and a night of sleep,
A little work and a little play,
A glint of gold and a splash of gray,
The rosy light of the purple dawn,
The sunset glow as the night comes on,
Spring's perfumed breeze and the Autumn haze,
The wintry snows and the harvest days,
The porch where the crimson ramblers creep,
The sodden mound where the lost ones sleep,
A little hope and a little fear,
A little despair and a little cheer,
A little peace and a little strife,
Are the threads we weave in the web of life,
A few good-byes, a setting sun,
And Life is done.

The 10 Commandments of Safety

1 **Treat every gun with the respect due a loaded gun.** This is the first rule of gun safety.

2 **Guns carried into camp or home, or when otherwise not in use, must always be unloaded,** and taken down or have actions open; guns always should be carried in cases to the shooting area.

3 **Always be sure barrel and action are clear of obstructions,** and that you have only ammunition of the proper size for the gun you are carrying. Remove oil and grease from chamber before firing.

4 Always carry your gun so that you can **control the direction of the muzzle, even if you stumble;** keep the safety on until you are ready to shoot.

5 **Be sure of your target before you pull the trigger;** know the identifying features of the game you intend to hunt.

6 **Never point a gun at anything you do not want to shoot;** avoid all horseplay while handling a gun.

7 **Unattended guns should be unloaded;** guns and ammunition should be stored separately beyond reach of children and careless adults.

8 **Never climb a tree or fence or jump a ditch with a loaded gun;** never pull a gun toward you by the muzzle.

9 **Never shoot a bullet at a flat, hard surface or the surface of water;** when at target practice, be sure your backstop is adequate.

10 **Avoid alcoholic drinks** before or during shooting.

Reprinted from WATCH THAT MUZZLE, a leaflet supplied free in quantities to anyone interested in advancing the cause of hunting and shooting safety. Send requests to SPORTSMEN'S SERVICE BUREAU, 250 East 43rd Street, New York 17, N. Y.

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