

# KANSAS FISH & GAME



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May-June 1976



# KANSAS FISH & GAME



May-June, 1976

Vol. 33, No. 3

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by Ken Stiebben

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BOB WELLBORN ..... Staff Writer  
KEN STIEBBEN ..... Photographer  
BEV ALDRICH ..... Editorial Assistant  
JUDY MESSECAR ..... Circulation

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## KANSAS

### Forestry, Fish & Game Commission

P. O. Box 1028  
Pratt, Kansas 67124  
316-672-5911

## REGIONAL OFFICES

### Southeast

Chanute, 66720  
222 W. Main Bldg.  
316-431-0380  
Jim Bryan—Law Enforcement  
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215 S. Seth Childs Road  
913-539-6731  
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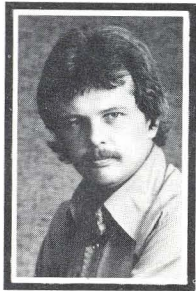
# Wildlife

## WITH A CAMERA



By Ken Stiebben, Photographer

**S**LOWLY, I poked my head above the yucca. I had belly-crawled the last seventy yards of this dry, cactus-covered land and wasn't sure the big pronghorn was still in the same county. My luck was still holding, the buck was about forty yards out and seemed unaware of my presence.



Stiebben

I steadied myself for the shot and squeezed it off. He never flinched. I grinned, knowing the wind was blowing the sound of my reflex camera away from the ears of this beautiful animal. I hit the rewind lever and hoped that I could play this pronghorn for some exciting pictures.

This was the second day on assignment to photograph the pronghorn antelope. I had teamed up with game protector Kenny Knitig and game biologist Kent Montei. Kent was working on a game survey prior to the second antelope season and this was Kenny's home territory. We had driven south out of Goodland and were smack dab in the middle of Wallace County.

We had seen plenty of antelope the previous day, but the nomadic bands managed to stay about 300 yards out, and that's too far for even the finest photographic equipment.

I had made a few exposures at that distance, but up to now my luck had been mostly bad.

Now as I squeezed off the exposures, I become aware of the sunlight and shadow and its effect upon exposure and composition. The buck is cropping grass and occasionally

throws me a wary glance as he slowly moves out of range. I have exposed nearly four rolls of film and at one point was so close to him that I could have easily hit him with a rock. The fine sandy soil is caked to my shirt and arms and I realize how hot this western Kansas land can get.

I sit back and touch fire to a Camel and realize my hands are shaking. And that's the most beautiful part about my job, the excitement of meeting wildlife on its own ground. The excitement of the hunt, the chase and knowing at least this time—I won.

Gathering up the equipment, I head back to the car. Kenny and Kent have been watching from a dry creek bed some 300 yards distant and they can't believe the big pronghorn allowed me

to get so close. I mumbled something about hard work and clean livin'!

Being a member of the staff of the KANSAS FISH & GAME magazine, I get many inquiries about photography. We are asked about the type of equipment, what kind of film and what developers we use. The editor has allowed a bit of space so that we may answer some of these questions.

A large portion of the pictures found in this publication are photographed with Pentax 35mm cameras. Now we are not here to argue the fine points of Pentax verses Nikon or Leica. To do so would bore most of the readers to tears. Most 35s work equally well when they are used properly.

This bittern was photographed with a 135mm lens using Plus-X film asa 320. The exposure was 125th of second at f-11.

Ken Stiebben



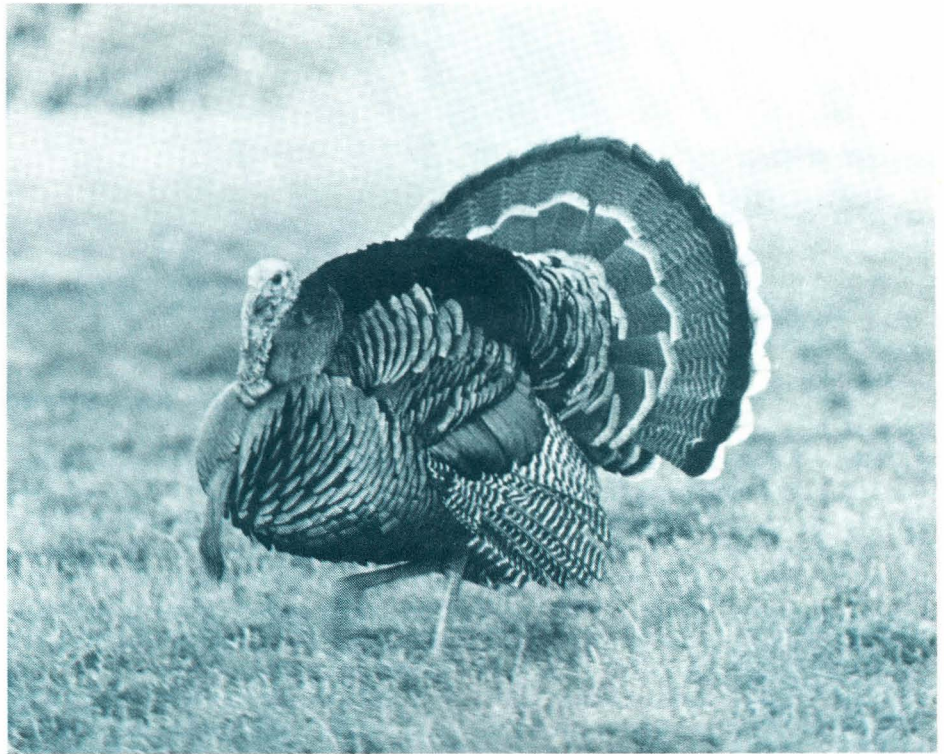


When preparing for a field trip I usually take the following equipment. One Bolex or Beaulieu 16mm movie camera, one Hasselblad (120) film size camera and two Pentax 35mm cameras. Two tripods and an assortment of lenses from 28mm wide angle to a 600mm zoom completes the list.

Now that's an impressive list of equipment, but when you are asked to photograph everything from greenbugs to aerial pictures of Cheyenne Bottoms, a certain amount of equipment is required.

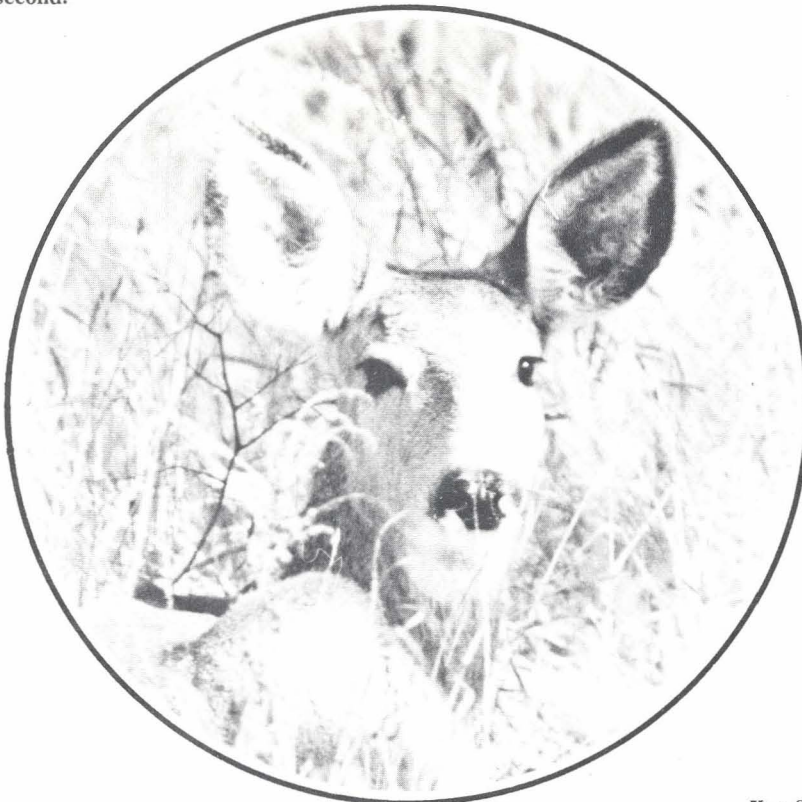
When I need to be mobile (following hunters through the field etc.) 35mm cameras are best. The lenses for these particular cameras would depend upon the effect one wants to create. I would suggest a 35mm wide angle and a small zoom lens such as the Takumar 85-210. This zoom lens is not considered to be fast, but cuts a very sharp negative (fine resolution).

When working from a blind, I feel the Hasselblad can't be beat. It offers a larger negative than the 35s (120) size film and the Carl Zeiss lenses are some of the finest in the world. However, this camera is quite expensive and since most camera buffs



This early morning shot of a Rio Grande turkey was photographed from a blind with a large Tamron zoom lens 200-500. The film was Tri-X rated at asa 1000. The exposure was 1/8th of a second at f6.9.

This bedded mule deer was photographed in Meade County with a 400mm lens at a distance of 40 yards. The film was Plus-X rated at 320. The exposure was f-11 at 250th of a second.



are carrying 35s, we will try to restrict our comments to the smaller cameras.

A sad but true fact is that many would-be photographers know very little about how to properly use their cameras. Especially its metering system. Just because you can activate the meter and center the needle doesn't mean you are getting the proper exposure. You are getting an average reading for that particular scene. And that is what you will produce, an average picture.

Remember, an exposure meter is a measuring device that impartially indicates the intensity of light that is striking its cell. No meter can tell the difference between dark barnwood or a white card. It can only measure the light they reflect. The resulting exposure from the white card or dark barnwood is calibrated to give you middle-grey in the print. Every subject, every meter, every time—middle-grey.

Now middle-gray ain't all bad. It's a good average, however if you plan to photograph a subject that is strongly back lighted or want to make a silhouette, you will have to do more than center the needle.

Ken Stiebben



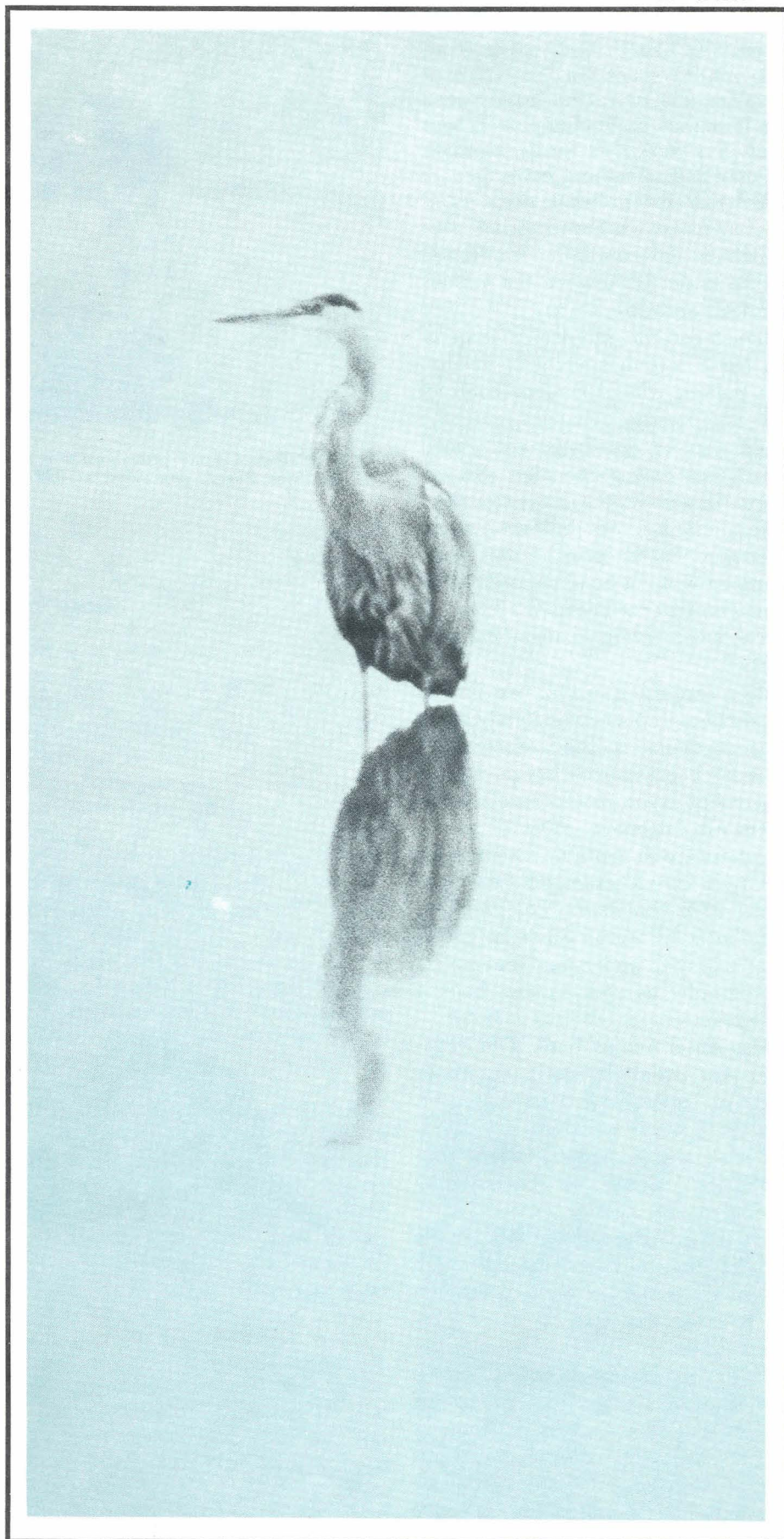
A friend recently gave me a roll of film to process. He was quite excited about the film because he'd photographed some wild turkeys. I processed the film only to find the frames were at least three stops underexposed. I studied the frames carefully and they told their own story. The turkeys were some distance from the camera and one-third of the negative was bright sky, while the bottom third was bright wheat stubble. The turkeys were framed in the center of the negative and were standing in the shade of trees. This photographer was asking the impossible of his meter. He was getting a false reading from the bright sky and wheat. That particular meter did not have the capability to give the correct exposure for the game birds. He should have overrode the meter and adjusted his aperture open at least two stops.

**There are several meters** on the market that could have handled this situation. One is the Honeywell 1 degree 21 degrees spot meter. It has the capability of reading only the light falling on the turkey, thereby giving a much more realistic exposure.

It seems that I have gone on and on about meters but haven't given you any answers. That's because there is no best answer for exposure. My point is that a good meter is still the one best tool a photographer can have.

**Whether you use the expensive spot meter** or a through the lens meter that comes built in with most good 35s, you must take the time to learn just what that particular meter can and cannot do for you and make your adjustments accordingly. When in doubt of exposure and time permits, it doesn't hurt to bracket. Bracketing your exposure, simply means to make your first exposure at what you feel is the best setting, then expose two more frames, one stop over and one stop under.

For those of you that develop your own film and I hope there are many, just a few words about film developers. We use two types in our lab, Microdol-X and Ethols U. F. G.





These are both fine grain developers. I especially like U. F. G. since it allows you to shoot Eastman film at approximately twice the listed speed with minimum grain clumping. These developers work well for us, however you may find something better.

Probably the greatest single error one can make when processing your own film is allow a difference in temperature to occur between the various chemicals and rinse water.

Remember the physical makeup of film has a certain amount of gelatin. This gelatin will expand or contract with temperature changes and the results can be disastrous with small negatives. This contraction and expansion is one of the main causes of grain clumping. (a grainy or sandy appearance in the print) This grain clumping will not be obvious on small prints, however it becomes all too apparent when trying to make enlargements.

It's a rare thing to find two professional photographers who totally agree on a particular method or style. I think it's because each has developed a system of exposure and development that works for him.

If you care to continue a search for quality I can recommend two good books. *The Amateur Photographer's Handbook*, by Aaron Sussman. This book is easy to understand and covers photography as well as any book I have read.

Also Ansel Adams' book, *The Negative*, is a definitive work on proper negative exposure and development. His method is called THE ZONE SYSTEM and is taught in many professional schools of photography throughout the nation.

Outstanding photographs rarely "just happen" they are created through the many variables offered through the photographic process.

The photographer must learn to use light or the absence of light to create the mood of a picture. He must be able to preview the scene in the mind's eye, take from the scene what he wants and discard the rest. This can all be accomplished through the effective use of shutter and lens.



This Wallace County pronghorn was photographed with a Takumar zoom lens 85-210. The film was Plus-X pan rated at 320 and the exposure was 500th of second at f-8.



Ken Stiebben



# CIMARRON

## Sportsman's Challenge

By Paul Bocquin

**C**ORONADO's passage way and landmark of the Santa Fe Trail—only two of many titles that aptly describe the Cimarron National Grasslands in southwest Kansas. Stretching out over more than 107,000 acres, this expanse of prairie is the largest public hunting area in Kansas and the only public grounds where wild turkey can be hunted.

In 1541, Coronado evidently traversed this general region. He seems to have been the first and only white man to leave a record conveying a picture of it prior to the Louisiana Purchase in 1803.

During the period of early western exploration and travel which followed this latter event, and which extended from the administration of President Jefferson to well beyond that of President Lincoln, a multitude of travelers made their way over this territory.

The first American adventurer known to have traversed this specific region, and who also left a journal of his enterprise, was William Becknell. This was in 1821, and it was the beginning of the so called "Cimarron cutoff" or "Jornada" of the Santa Fe Trail.

This route began in the vicinity of the present Dodge City, followed a southwesterly direction, reached a northernmost bend of the Cimarron River near the present town of Sautanta, and continued across the region along the north side of the river into the present Cimarron County, Okla.

The region was far from being a vast expanse of lush prairie. Vegetation on the sand hills was thin. What was there, was comprised of "broom grass", "weeds" and "prickly pear". On the valley floor of the Cimarron River, where the soil was sandy, the vegetation again was a scattering of "broom grass and weeds".

The better soil supported "a luxuriant growth of excellent grasses of several sorts". Trees were scarce and many of these were dead. The higher region between the Arkansas and the Cimarron was regarded as a desert, which was referred to as a "bugaboo" because of the fearsome reputation the stretch had earned.

Notwithstanding so bleak a landscape, immense herds of bison are reported to have roamed the region, providing a hunting ground for the Comanche, Kiowa, Cheyenne and Arapaho. Pronghorns also seem to have been common.

In the 1880s, settlement took place first by cattlemen, then by farmers.

This led to abuse of the landscape from overgrazing and "broken-out" lands. The payoff came with the great drought of the 1930s which resulted in dust storms and a mass exodus of residents. Failure to adapt to environmental conditions characteristic of that region contributed in large measure to the infamous Dust Bowl. Hardlands north of the Cimarron River withstood this period better than sandy lands south of the river, which were susceptible to "blowouts".

It was during the 1930s that the Resettlement Administration came into being. Through this agency, the project area was purchased by the federal government. Corrective land management measures were then undertaken. Grazing was greatly reduced on the rangelands and the task of restoring grass cover to the former croplands was begun.

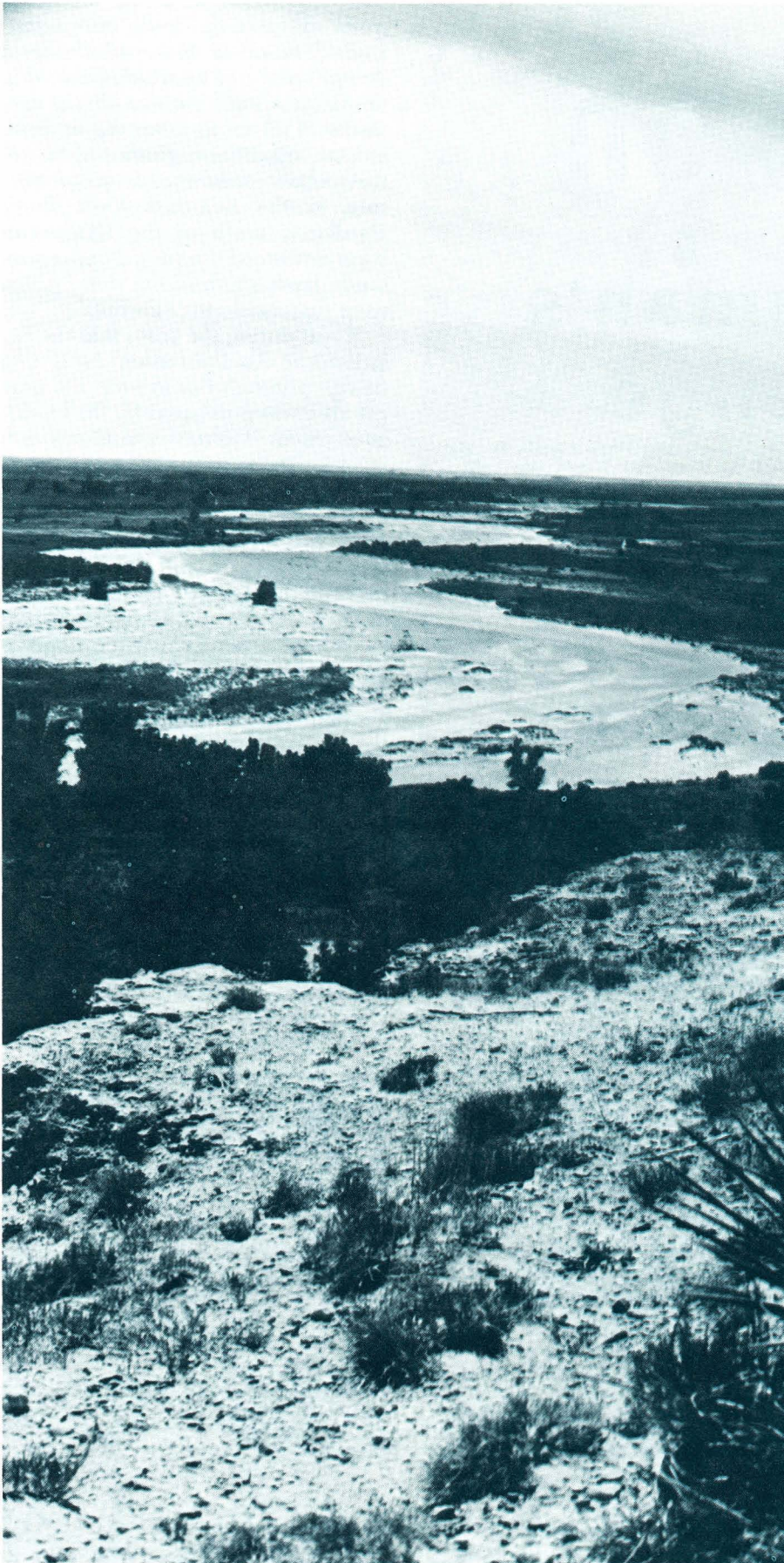
When this agency was discontinued in the late 1930s, the Cimarron Grasslands project came under the administration of the U. S. Soil Conservation Service. A land management and restoration program, strongly oriented toward conservation, was continued.

Since 1954, Cimarron Grasslands has been administered by the U. S. Forest Service through the headquarters of the San Isabel National Forest at Pueblo, Colo. Recognizing a general lack of outdoor recreational resources of the region, this agency

Bobwhite quail thrive in cover along the Cimarron River.







in addition is interested in a fuller utilization of sport fisheries and waterfowl development.

Aerial photographs taken in 1936 present a bleak and foreboding picture of the land. Where once stood short and midgrass cover, there appears to be a complete lack of vegetation with the exception of occasional sage brush and the muted branches of shrubs, such as American plum and skunk brush.

Through three decades of public ownership, a vigorous program of reconstruction has taken place. A tremendous task of reseeding the sandy lands to grass has been followed. Parts of the area have required multiple seeding to re-establish a grass cover. This endeavor appears to have been most successful west of state highway 27. Most recently, grazing has been allowed on a limited scale.

Lesser prairie chickens appear to be distributed throughout the sandy lands. Ring-neck pheasants are found near adjacent cropland surrounding the grasslands and appear numerous over the lands covered with dense, weedy growths of tall forbs. They also are occasionally seen watering in the river bed.

The river bottom has a significant wildlife population. Small numbers of scaled quail range through the area. Large numbers of bob white quail are found throughout the better areas of cover. A small herd of mule deer range throughout the entire length of the river bottom. Bobcats, coyotes, kit fox and an occasional porcupine are found here.

Waterfowl use the streams and level ditch pools constructed on the floodplain by the Kansas Fish and Game Commission. Bluewing teal are known to nest in these areas. These waterfowl pools are being managed for fishing by the Commission and have been stocked with largemouth bass, bluegill and channel cat. All pools are now open to fishing.

The climate is characterized by temperatures ranging from a maximum of 105 to 25 below. Mild winters and hot summers are the general pattern. Precipitation varies from 7 to 32 inches annually, with an average of 16.6 inches.



High prolonged winds, occasional hail and electrical storms also are common. Average wind velocity for the year is 15 mph and "blowouts" frequently occur during years of drought.

From 1933 until 1939, six inches or less of annual precipitation was recorded in five out of the six years. During 1951, 1952, and 1953 the precipitation averaged approximately nine inches.

### Wildlife Development Plan Now Underway

Following 10 years of successful Rio Grande wild turkey trap-transplant efforts on the Cimarron National Grasslands, a controlled hunting season on this game bird was opened in the spring of 1974. The third annual turkey hunt is scheduled April 24 through May 2, 1976.

Bill Hanzlick, the Commission's regional game manager for western Kansas, was one of the men responsible for bringing back the largest game bird in Kansas.

"Basically, the wild turkey is restricted to the major water courses, which are the Cimarron and Arkansas Rivers. Morton County has a good number of turkeys along the Cimarron River, specifically on the Cimarron National Grasslands and points east on down to Liberal," Hanzlick explained.

A wildlife habitat development and maintenance plan was drawn up for Cimarron National Grasslands in 1975 by the Kansas Fish and Game Commission and the U. S. Forest Service. Its objective is to fully develop and improve the habitat along the Cimarron River and National Grasslands for lesser prairie chicken, turkey, deer, quail, dove, pheasants, waterfowl, and other non-game species, according to Hanzlick.

This plan was prepared through the authority of a cooperative agreement approved by these two agencies in 1958. The habitat development plan would serve to further improve waterfowl populations in the area west of highway K-27. In addition, there are limited opportunities to develop old gravel pits into small water-





fowl areas. Currently, there are numerous ducks using the small, open water areas along the river.

**Large fish ponds have been** constructed in years past, south of the river between highway 27 and Wilburton road. These ponds have supported several species of fish and provide a limited but important recreational source in this area.

During the summer and fall of 1975, a dragline was used to renovate waterfowl-fish ponds. They were cleaned out, and rank, dense vegetation around the edges was eliminated. Shorelines were reshaped and restored to original size and shape.

**More water is needed from a range** allotment standpoint in order to adequately utilize the grasslands. Wildlife would also benefit by additional water development along the river. Thirty to 40 seep pits are planned to insure adequate water supplies for domestic stock in the river area pastures.

The game biologists believe that the development of wildlife food plots along the river is the highest priority.

In addition to providing needed winter food supplies for the many species, it would be desirable to have the wild turkeys winter on the Grassland rather than on private land to the east.

**Currently, the turkeys tend to** congregate in large flocks on private land where food is available. Large flocks are more susceptible to domestic fowl diseases, excessive predation and poaching. The food plots would encourage the turkeys to remain in a more native habitat throughout the year.

The development plan calls for the construction of 6 to 10 five-acre food plots at various intervals along the Cimarron River. It will be necessary to fence out some of these sites. Grain sorghum and small grain planted at these sites will furnish a much needed winter food supply for wildlife.

**"Seven and one-half miles of new** fences will be needed to provide additional units for grazing allotments," said Don Mecklenburg, district ranger. "This will be located on the north side of the river, between highway 27 and the Wilburton road."

Don Mecklenburg, district ranger, inspects one of the 77 guzzlers which serve as watering places for lesser prairie chicken and other game birds. The guzzler is protected by a 10 x 10-foot corrugated steel cover.



These fences have been set up in grazing allotment plans. Limited grazing plus the control of livestock will enhance the existing wildlife habitat.

**Wildlife cover will be established** by fencing off one-half to one acre plots in the fence corners of the many pastures that exist on the Grasslands. These corners will adjoin private land on two or three sides to enable the birds and wildlife to have a cover plot where intensive agricultural practices of domestic livestock grazing will not disturb them. The plans call for 60 of these fence corner plots.

Other plans call for the planting of nut and food bearing trees in scattered areas. As the Cimarron River is sparsely covered with Cottonwood trees, there would be osage orange, burr oak, walnut and pecan trees planted among the cottonwoods.

**Quail and bird shelters are needed** at many of the game plots and guzzler areas. Old boards and fence posts will be converted into quail shelters. Dead branches and limbs along the river also can serve as necessary bird cover. About 100 of these shelters would be beneficially used.

There are 77 guzzlers located in the Grassland areas which serve as watering places for birds. Mecklenburg said five more guzzlers will be constructed, as they provide an important water source during prolonged dry periods.

**The district ranger also is** preparing a detailed tourist guide map for visitors to Cimarron National Grasslands. It shows the locations of roads, landmarks and other highlights.

"We hope that these improvements and facilities will better serve the sportsman and the general public," he said.

**Cimarron National Grasslands** will offer visitors a scenic and rustic adventure that can be found in no other area. For example, they can view old springs and Santa Fe Trail ruts north of the river. The region also offers opportunities to Indian arrowhead hunters, coyote callers, and bird watchers.

The immensity of the grasslands and the wide variety of plant and animal communities provide a challenge for the modern pioneer.





# Kansas Fish & Game NEWS

## STATE INVESTIGATES 55 FISH KILLS

PRATT — The Kansas Forestry, Fish and Game Commission said today more than 55 pesticide related fish kills have recently been investigated on lakes, streams and farm ponds in a four-county area of southcentral Kansas.

Department of Health and Environment personnel have assisted Commission personnel with the investigations in Cowley, Harper, Sedgwick and Sumner counties. Wheat in the area has been heavily sprayed with pesticides during the past five weeks as a result of army cutworm and greenbug infestations.

Joe Lillie, Pratt, aquatic ecologist for the Commission, said the largest kill occurred at Anthony City Lake where more than 14,000 fish were killed. According to Lillie, investigations have shown definite proof that fish in the area have been killed by doses of pesticides rather than dying of oxygen deficiency as some citizens have speculated

“Fish suffering from lack of oxygen come to the water surface gasping for air while those hit with pesticides will swim in a tight circle and appear to be agitated by something in the water,” Lillie said. “They will swim erratically through the water for no apparent reason and eventually will end up lying on their sides in shallow water.”

Pesticides affect livers, kidneys and brains of fish. The amount of pesticide to which fish are subjected determines how soon fish will die. Lillie said in some ponds fish have been dying for three weeks.

Principle pesticides being used in the spraying operations are endrin and methyl parathion. Methyl parathion is a relatively short-lived pesticide while endrin remains for a longer period of time. According to reports on previous endrin applications to aquatic environments, it takes approximately one

month for endrin to dissipate from the water, two months from the fish in the water, and three months from the mud in the pond bottom.

According to Lillie some ponds have been totally killed out while others received only a partial kill. In general ponds of one acre and smaller were totally killed out while most larger ponds received only partial kills.

Some anglers have questioned officials about the advisability of eating fish caught from streams and impoundments in areas where pesticide spraying is being conducted. Health Department officials recommend that disabled dying and dead fish be avoided by the angler. The safest course of action is to eat only those fish which appear perfectly normal and which give a good fight while being taken.

The risk may be further reduced by completely removing the organs, fatty tissue and skin where pesticides may have accumulated. High temperatures used in thoroughly cooking the fish will destroy much of the pesticide within the fish flesh.

Officials from both agencies said pesticides are still being applied in Kansas and there is a chance of more ponds being affected. Public support is requested in reporting spray planes which

might be doing illegal or hazardous spraying. Incidents may be reported to the Department of Health and Environment by calling 265-3181 in Wichita and 322-2774 in Wellington.

Lillie said the Fish and Game Commission would be rechecking affected ponds in three months for a comparison of pesticide levels. This will help determine if the impoundment will sustain fish-life for future restocking of fish.

Pondowners are requested by the Commission to follow several procedures before making application for fish to stock. First, the pond is to be seined to determine if there are live fish present. A minnow seine used in shallow areas is adequate. If fish are found they will probably reproduce thus negating the need for restocking.

Before a pond can be stocked by the Commission, it must be void of fish life. Lillie said fingerlings are the only size stocked by the Commission in ponds, if there are larger fish in the impoundment, these fingerlings will not survive.

Farm ponds meeting agency requirements are usually stocked by the Commission in fall months, starting in late September.

## PRIVATE CITIZENS DONATE PROPERTY TO COMMISSION

PRATT — Some private citizens in eastern Kansas have done “their thing” for conservation and in so doing have set an example others may wish to follow.

What they have done is simple but highly effective in reserving tracts of land for wildlife habitat and enjoyment of present and future generations. They have donated parcels of land to the Kansas Forestry, Fish and Game Commission.

One 102-acre tract, now known as the Harmon Wildlife Management Area, is

located approximately two miles north of Chetopa in Labette County. The other parcel is located on the bank of the Missouri River east of Wolcott in Wyandotte County.

The Harmon area was donated by several members of the E.R. Harmon family of southeast Labette County. The area has about one-quarter mile of frontage along Labette Creek. It is currently open to the public for fishing, birdwatching and related general outdoor recreation activities.

The area is predominantly woodland but is significant in that a number of interesting plants and animals are found on the property. Some timber has been

selectively cut from time to time but has never been cleared. A small area of native prairie exists on the area and current plans call for returning the few small cropfields to native vegetation.

No vehicular traffic is allowed on the Harmon property; only foot traffic is permitted. Users are requested to take their refuse with them when they leave since no trash barrels will be provided which would detract from the beauty of the natural area.

The 50-acre tract of land in Wyandotte County was donated by the L.G. Barcus family of Wyandotte County and the Bob Andrews family

of Robeson County, N.C.

The area is composed of natural riverbank vegetation and will be managed as a natural area.

Access to the property is currently available only from the Missouri River. Access across adjoining private property must be with permission of the owners.

No formal name has been established by the Commission for the land in Wyandotte County.



COMMISSION ELECTS  
NEW CHAIRMAN

(April 16, 1976)

PRATT--Lewis B. Moon, Independence, was elected chairman of the five-man board of the Kansas Forestry, Fish and Game Commission at their April 15 meeting in Pratt.

Moon was appointed to the commission in 1975 and has been serving as commission secretary. He replaces Art Hanson, Bonner Springs, who has served as chairman the past year. Dr. Jerome Sayler, Great Bend, third district commissioner, was elected secretary. Sayler has served on the commission since 1975.

-GA-

GAME LICENSE SALES  
INCREASE IN 1976

(April 2, 1976)

PRATT--Revenue from the sale of hunting, fishing and trapping licenses in 1975 amounted to \$3.32 million for the Kansas Fish and Game Commission.

The 1975 sales were about \$938,000 more than in 1974, according to Robert Ward, business management chief.

Sales to out-of-state license holders increased significantly. There were 360 more non-resident fishing licenses and 1,075 more 10-day licenses sold than in the previous year. There were 21,220 non-resident hunting licenses sold in 1975, 179 less than in 1974.

Trapping licenses were sold to 6,462 persons in 1975. This was 102 more than a year earlier and was the highest in more than 10 years.

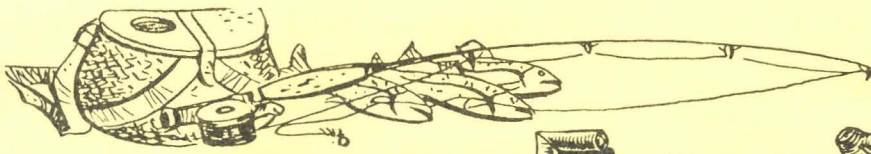
Hunting and fishing licenses are sold separately or in combination. Separate hunting licenses sold to Kansas residents last year numbered 149,398 or a decrease of 5,126 from the year before. There were 260,379 separate fishing licenses sold to Kansas residents in 1975, about 15,000 less than in 1974.

A drop in the sale of combination hunting and fishing licenses was reported in 1975. There were 51,098 combination licenses sold, a drop of 6,446.

Much of the increased revenue came from the higher fees on resident hunting, fishing and trapping licenses. Resident hunting licenses went up from \$3 to \$5 and resident fishing licenses from \$3 to \$5. Trapping licenses were increased from \$1.50 to \$3.00.

-PB-





# KANSAS FISH RECORDS

## BASS, LARGEMOUTH BLACK

Weight: 11 pounds, 3 ounces  
Length: 25 inches  
Date: January 6, 1965  
Place: Private lake in Bourbon Co.  
By: Charles Prewett, Pittsburg, Ks  
Tackle: Spinning rod & reel, Johnson  
spoon & porkrind

## BASS, SMALLMOUTH

Weight: 3 pounds, 9 ounces  
Length: 17¼ inches  
Girth: 14½ inches  
Date: February 27, 1976  
Place: Cedar Bluff Reservoir  
By: David Hudson, Ellis, Ks  
Tackle: Rod & reel with white jig  
and minnow bait combination

## BASS, SPOTTED (Kentucky)

Weight: 4 pounds, 2 ounces  
Length: 19¾ inches  
Date: September 9, 1973  
Place: Council Grove City Lake  
By: Newell Julian, Council Grove, Ks  
Tackle: Rod & reel with jig & worm

## BASS, STRIPED

Weight: 33 pounds, 12 ounces  
Length: 37½ inches  
Girth: 27 inches  
Date: June 1, 1975  
Place: Cheney Reservoir  
By: Carl G. Hooker, Wichita, Ks  
Tackle: Rod & reel with yellow  
"hellbender" with black stripes

## BASS, WHITE

Weight: 5 pounds, 4 ounces  
Length: 17 inches  
Date: May 4, 1966  
Place: Spillway area below Toronto  
Reservoir  
By: Henry A. Baker, Wichita, Ks  
Tackle: Rod & reel (spincasting)  
with "Tiny Tot"

## BLUEGILL

Weight: 2 pounds, 5 ounces  
Length: 11 inches  
Date: May 26, 1962  
Place: Scott Co. farm pond  
By: Robert Jefferies, Modoc, Ks  
Tackle: Rod & reel with worms

## BUFFALO

Weight: 54 pounds, 4 ounces  
Length: 45 inches  
Date: May 24, 1971  
Place: Farm pond north of Tescott,  
Ks  
By: Randy Lee, Minneapolis, Ks  
Tackle: Bankline with worms

## CARP

Weight: 35 pounds, 4 ounces  
Length: 42½ inches  
Girth: 27½ inches  
Date: May 2, 1970  
Place: Sandpit near Lyons, Ks  
By: W. Amos Henry, Lyons, Ks  
Tackle: Rod & reel with corn

## CATFISH, BLUE

Weight: 33 pounds, 12 ounces  
Length: 42½ inches  
Girth: 23 7/8 inches  
Date: June 21, 1974  
Place: Kansas River near Lawrence,  
Ks  
By: Harold Hunsinger & Gordon D.  
Chappell, Jr., Lawrence, Ks  
Tackle: Bankline with goldfish

## CATFISH, BULLHEAD

Weight: 5 pounds  
Length: 18½ inches  
Date: June 2, 1974  
Place: Fish & Game Strip Pit  
(Unit 15)  
By: Mary Louise Sachetta, Scammon  
Tackle: Rod & reel with worm

## CATFISH, CHANNEL

Weight: 32 pounds  
Length: 40½ inches  
Date: August 14, 1962  
Place: Gardner City Lake  
By: Edward S. Daily, Gardner, Ks  
Tackle: Throwline with small sunfish

## CATFISH, FLATHEAD

Weight: 86 pounds, 3 ounces  
Length: 55½ inches  
Date: August 24, 1966  
Place: Neosho River near St. Paul,  
Ks  
By: Ray Wiechert, Brazilton, Ks  
Tackle: Trotline with sunfish



**CRAPPIE, BLACK**

Weight: 4 pounds, 10 ounces  
Length: 22 inches  
Date: October 21, 1957  
Place: Woodson County State Lake  
By: Hazel Fey, Toronto, Ks  
Tackle: Rod & reel with live minnow

**CRAPPIE, WHITE**

Weight: 4 pounds, ¼ ounce  
Length: 17½ inches  
Date: March 30, 1964  
Place: Farm pond in Greenwood Co.  
By: Frank Miller, Eureka, Ks  
Tackle: Rod & reel with live minnow

**DRUM**

Weight: 28 pounds, 2 ounces  
Length: 32 inches  
Date: August 12, 1974  
Place: KOP Dam near Parsons on  
Neosho River  
By: Tony J. Fornelli, Arma, Ks  
Tackle: Trotline with crawfish

**GAR**

Weight: 31 pounds, 8 ounces  
Length: (not known)  
Date: May 21, 1974  
Place: Outlet at Perry Reservoir  
By: Ray Schroeder, Topeka, Ks  
Tackle: Rod & reel with yellow 1/8  
oz. beetle

**GOLDEYE**

Weight: 1 pound, 14½ ounces  
Length: 17½ inches  
Date: May 20, 1973  
Place: Milford Lake  
By: Kris Eenhuis, Wakefield, Ks  
Tackle: Rod & reel with white  
spinner

**PADDLEFISH**

Weight: 74 pounds, 8 ounces  
Length: 67½ inches  
Girth: 33½ inches  
Date: May 15, 1973  
Place: Dam below Chetopa, Ks  
By: Joseph D. Plummer, Chetopa,  
Ks  
Tackle: Rod & reel (snagged) during  
2nd open snagging season

**PERCH, YELLOW (Ring)**

Weight: 12 ounces  
Length: 11½ inches  
Date: July 12, 1970  
Place: Lake Elbo, Pottawatomie Co.  
By: Merlin Sprecher, Manhattan, Ks  
Tackle: Rod & reel with "Gold  
Nugget"

**PIKE, NORTHERN**

Weight: 24 pounds, 12 ounces  
Length: 44 inches  
Girth: 20 inches  
Date: August 28, 1971  
Place: Council Grove Reservoir  
By: Mr. & Mrs. H. A. Bowman,  
Manhattan, Ks  
Tackle: Rod & reel with silver spoon  
& skirt

**STURGEON**

Weight: 4 pounds  
Length: 30½ inches  
Date: November 17, 1962  
Place: Kaw River near Topeka  
By: J. W. Keeton, Topeka, Ks  
Tackle: Rod & reel with worms

**SUNFISH, GREEN**

Weight: 2 pounds, 2 ounces  
Length: 12 inches  
Date: May 28, 1961  
Place: Strip Pit in Cherokee Co.  
By: Louis Ferlo, Scammon, Ks  
Tackle: Rod & reel with "Abu"  
spinner

**WALLEYE**

Weight: 13 pounds, 1 ounce  
Length: 31½ inches  
Date: March 29, 1972  
Place: Rocky Ford fishing area  
By: David Watson, Manhattan, Ks  
Tackle: Rod & reel with jig





# Kansas Fish & Game NEWS

## DEER PERMIT APPLICATIONS AVAILABLE SOON

PRATT — Application dates for applying for 1976 deer hunting permits have been announced by the Kansas Fish & Game Commission.

Archery deer permit applications will be accepted from June 1 until June 21 at 5 p.m. Application forms will be available at county clerks offices, license vendors and from Commission offices by June 1. No limit is placed on archery deer permit numbers. Persons applying for archery deer permits must have attained the age of fourteen on or before the opening date of archery season.

The archery season opens October 1 and runs through

November 30, then reopens December 18 and continues through December 31.

Firearms deer permit applications will be accepted from July 1 until July 15 at 5 p.m. Application forms will be available for firearm permits in late June from county clerks, license vendors and from Commission offices.

Only persons attaining the age of sixteen on or before the opening day of the firearms deer season are eligible to apply for permits.

Commissioners approved the issuance of 11,125 firearm deer permits for the December 4 through December 12 season.

## TURKEY HUNTERS REPORT MODERATE SUCCESS

PRATT-Kansas turkey hunters reported moderate success from opening weekend hunting activity, according to the Kansas Fish and Game Commission.

State game protectors working the turkey hunting area on opening weekend reported a total of twenty eight of the big-birds checked in hunters bags. Report cards processed early in the week at commission headquarters indicated an opening weekend harvest of fifty-four turkeys. A total of 400 sportsmen received permits to hunt turkey in a limited area of southwestern Kansas.

"Weather conditions on opening day were less than desirable," said Bill Hlavachick, Pratt, game biologist. "Calling during the spring season is the most effective way of hunting turkeys and the high winds on Saturday rendered the calls almost useless."

"Game protectors working the area had very few problems," said Marvin Ham-

ilton, Dodge City, southwest law enforcement supervisor.

Jack Dunbar, Kingman, game protector working in Harper and Barber counties checked nine turkeys harvested by hunters and investigated one complaint.

Game protector Bob Nease working in extreme southwest Kansas checked 44 hunters with 5 birds.

Many of the officers reported seeing numerous turkeys on opening weekend. Jim Kellenberger, game protector working Ford and Gray counties reported seeing a total of twenty-five turkeys. "The birds were in good condition," Kellenberger noted. "Several of the turkeys collected by hunters were near 20 pounds with 11 inch beards."

Biologists expected the harvest of turkeys to be near 140 birds but the wet cold weather during the week could reduce that number.

The 1976 season opened April 24 and will run until sunset on May 2.

## APPLY FOR ANTELOPE PERMITS

PRATT — Kansas sportsmen interested in obtaining a permit for the archery and firearm antelope season should be aware that the application period for permits is drawing near.

The Kansas Fish & Game Commission will accept permit applications from June 10 until June 25 at 5 p.m.

Applications for antelope permits will be available on June 10 from the Forestry, Fish & Game Commission, Box 1028, Pratt; Northwest Regional Office, 890 S. Range in Colby; or from the District Fish & Game Office, 2204 N. Vine at Hays, Kansas. A drawing will be held in Pratt on July 7 at 10 a.m. to determine the permittees for the 1976 antelope hunting seasons.

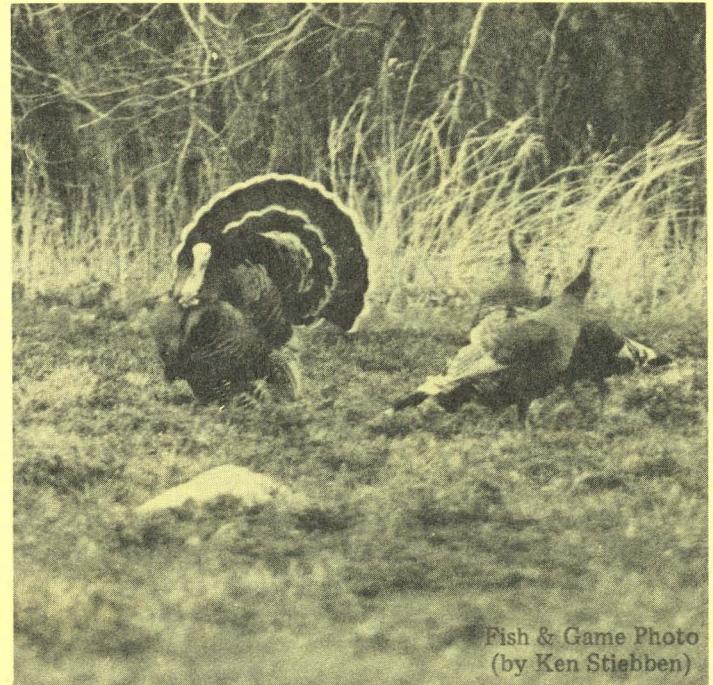
The archery antelope season as adopted by Commissioners, will run from September 25 through September 29 and will be limited to 50 permits.

The firearm antelope season will run from October 2

through October 4 and will be limited to 80 permits. Fifty percent of all permits are reserved by law for landowners within the open area. Permits not taken by landowners will be available to general residents.

Persons who received an antelope permit in 1974 or 1975 shall be ineligible to receive a permit (firearms or archery) in 1976 unless the permit category for which they applied is not filled. Only persons attaining the age of sixteen on or before October 2, 1976 are eligible to apply for firearms permits. Persons applying for archery antelope permits must have attained the age of fourteen on or before September 25 to be eligible to apply.

The Commission urges all persons applying for any big game permit to carefully read and follow the instructions supplied with the application forms.



Fish & Game Photo  
(by Ken Stiebben)

DISPLAYING TURKEY GOBBLER WITH HENS.



SPRING PLANTING TIME

(Although this is a south-central regional release, planting of shrubs and grasses has been carried out by commission personnel throughout the entire state.) 4/26/76

NEWTON--Spring is planting time. Game Biologists and area managers for the Kansas Fish and Game Commission have gone in for it in a big way on game management areas in southcentral Kansas.

Steve Capel, regional supervisor said over twenty thousand trees and shrubs were planted on the various areas this spring.

Raymond Parish, area game manager for Marion said 7,200 plantings of honeysuckle, nanking cherry, contoneaster, american and sandhill plum, autumn and russian olive, fragrant sumac, dogwood, chokecherry and red cedars will provide escape and winter cover for many species of wildlife.

Byron Walker, area game manager for Kingman planted 1,000 trees and shrubs filling in vacancies in established plantings.

Ken Garrigues, area game manager at Cheney Reservoir said 6,000 trees and shrubs were planted on ten acres. The same species plus burr oak and multiflora rose were the main varieties planted.

Over 5,000 plantings of chokecherry and fragrant sumac were made at Butler and Chase State Fishing Lakes. These varieties were selected because they are native to the areas.

At Butler the plants will provide quail and rabbit cover and natural blinds for pass shooting prairie chicken in anticipation of opening the area to hunting in the future.

At Chase and McPherson State Fishing Lakes plantings were made near the fishing piers to provide landscaping and natural barricade to prevent vehicles from driving out on the piers. Over 100 six to ten foot cottonwoods were planted along the north side of Chase lake to provide shade for campers in the future.

Capel said the trees and shrubs will need from four to five years to grow before they will become effective cover, but the weeds that are allowed to grow around the plots will be effective cover this year. He said the weeds will provide nesting cover and food for wildlife.

In addition to the shrub plantings nearly 100 acres of grasses were planted on the areas.

At Cheney ten acres of native grasses and twelve acres of a special cool season grass mixture were planted to provide pheasant nesting cover. At Fall River 25 acres of native grass and 25 acres of reed canary grass was planted in marshy areas for its tolerance of flooding.

Twenty-four acres of the special pheasant nesting grass mix was planted at Kingman and Marion with an additional 15 acres of native grass mix planted at Marion.

The grass plantings will provide essential nesting, escape and brood rearing cover, Capel said.





# Kansas Fish & Game NEWS

## STRIPED BASS HATCHERY OPERATES AT WILSON

RUSSELL--The first striped bass fish hatchery in Kansas has been set up at Wilson Reservoir in north central Kansas under supervision of the Kansas Fish and Game Commission.

Located at the site of the old marina in Lucas park, the hatchery started operating April 26 and is expected to continue through the spawning season, according to Robert Hartmann, assistant chief of the fisheries division.

The hatchery consists of a 10 x 18-foot shed, holding

tanks, air compressors to supply air in the tanks, gasoline generators for standby power and water pumps.

A "capture team" is working nights at the lake, using large mesh trammel nets to take stripers. The females and males are then injected with a hormone to induce spawning and placed in a holding tank with several males at controlled water temperature. The females spawn within 2½ to 4 days.

Hartmann reported the first spawn from Wilson pro-

duced slightly under one million eggs. The eggs are siphoned off into hatching jars. Female stripers are returned to the lake and the males are held for another spawn.

Hartmann said the hatchery is part of a striped bass investigation being implemented by the Commission through federal Dingell-Johnson funds from federal excise taxes on fishing equipment. Other phases of the study include an assessment of present steeper populations; assessment of the impact stripers have on existing fish populations; and an assessment of public recognition and attitude toward the striped bass program.

The investigation will cover a three-year period and the hatchery equipment is portable so it can be moved to the best locations for obtaining steeper brood stock. Wilson was chosen as the best

current producer of brood size stripers.

"Our goal is to establish the steeper as a prime game fish for Kansas," Hartmann said. The steeper would also be tops as a predator of rough fish, as it has a voracious appetite.

Six federal reservoirs in Kansas are involved in the steeper investigation. They are Wilson, Cheney, Milford, Glen Elder, Tuttle Creek and Webster.

"These six reservoirs were selected to accommodate our present limited stocking capabilities," Hartmann explained.

He said the six will receive top stocking priority in order to establish brood stock for future production. In the future cultured stripers from these reservoirs will be used to expand the program to other Kansas waters.



Verl Stevens, supervisor of fish culture, and Jim Stephen, fisheries biologist, prepare to release striped bass female back to the waters of Wilson Reservoir. This twenty-pound female produced nearly one million eggs.



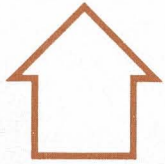
## SPORTSMAN CALENDAR

SPECIES	SEASON DATES	APPLICATION PERIOD	DRAWING	PERMITS
Squirrel	June 1 - Dec. 31	-	-	-
Antelope (Archery)	Sept. 25 - Sept. 29	June 10 - June 25*	July 7	50
Antelope (Firearms)	Oct. 2 - Oct. 4	June 10 - June 25*	July 7	80
Deer (Archery)	Oct. 1 - Nov. 30 Dec. 18 - Dec. 31	June 1 - June 21*	None	Unlimited
Deer (Firearms)	Dec. 4 - Dec. 12	July 1 - July 15*	Aug. 4	11,125
Pheasant	November 13 Closing to be set			
Quail	November 13 Closing to be set			
Prairie Chicken	November 20 Closing to be set			

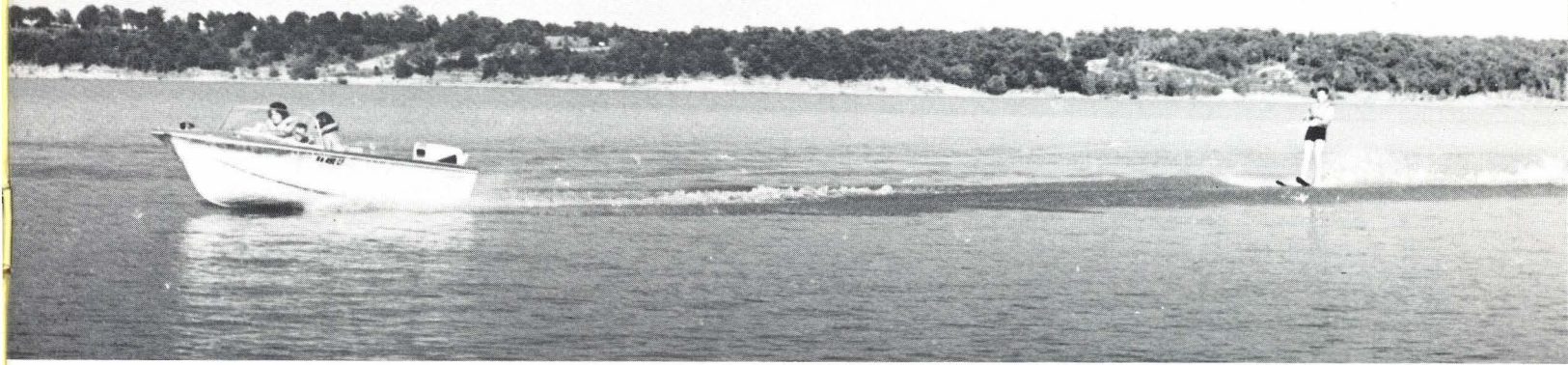
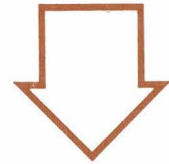
\* Deadline cutoff time for acceptance of applications is 5:00 p.m. on last day of application period. Reliance on postmark is no longer possible.



# RESERVOIR

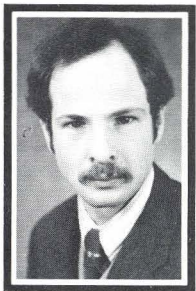


## UPS AND DOWNS



By Bob Wellborn, Staff Writer

**THE** MAGAZINE assignment was clear enough. Interview Verlyn Ebert, North-central Kansas fisheries supervisor, obtain information and write a story on the water level manipulation programs used on some Kansas federal reservoirs to improve the fishing and create habitat for waterfowl.



Wellborn

Very simple. Except the assignment proved much more complex than it appeared. There are 13 reservoirs in Kansas involved in the program, although actual numbers may vary from year to year. These include Kanopolis, Wilson, Milford, Council Grove, Tuttle Creek, Perry, Pomona, Melvern, Toronto, Fall River, Elk City, Marion and John Redmond. Each water level manipulation plan is tailored to fit the specific needs and capabilities of each reservoir.

All of these reservoirs impound water. Beyond that, most similarities end. Each reservoir has a distinct personality: water quality; average

depth; size; shape and slope of the shoreline; fertility; bottom type and vegetation—to name just a few—and that is only a start. Every reservoir also has other individual characteristics that must be considered. Among these are size of the drainage area, flood frequency, release rates, location within the state and the age of the reservoir.

Because these reservoirs are all flood control projects, this aspect must receive primary consideration in any fluctuation plan.

A news story covering the plan at Wilson Reservoir explains the position of the U. S. Corps of Engineers on the water level manipulation plans.

“Another deviation from the plan occurred because the U. S. Army Corps of Engineers built Wilson Reservoir for the prime purpose of flood control. M. O. Smith, chief of the Public Affairs Office, maintains this to be the primary goal of the reservoir. He said that at any time should a water emergency arise affecting Wilson Reservoir, the water manipulation for the benefit of fisheries and waterfowl habitat would be abandoned until the emergency has passed.”

**Boating, water skiing and camping**

are also important uses of the reservoirs and deserve consideration in a fluctuation plan.

It was about this time the thought of “very simple” began to dissolve as Verlyn’s list of reservoir differences continued. Even such things as the direction the reservoir faces can be important. What it really boiled down to was no one plan would work on all reservoirs—each one is just too unique.

The species of fish found in the individual reservoirs does not vary a great deal. Some may have northern pike or perhaps spotted bass, while others do not. Still, most are somewhat similar. Here again is where the similarity ends.

Certain reservoirs may have large numbers of one or more species while the same species in other reservoirs may be small in number. The fish species are, of course, reacting to different conditions in the reservoirs.

All of the variables are important and must be considered in order to develop a plan which will do the job of improving the fishing and creating habitat for waterfowl.

Writing about the plan became even more complex when it was dis-



covered that even though the Fish and Game Commission biologists formulated the reservoir plans, the Kansas Water Resources Board reviews and coordinates the plans with the U. S. Army Corps of Engineers offices in Kansas City, Mo., and Tulsa, Okla., and the Kansas Parks and Resources Authority. Some changes may occur in the proposals when needs and goals of all agencies are known. When the plans are put into action, each agency evaluates the results.

**Kansas Fish and Game** readers may be more accustomed to reading about Kansas critters, but this article will explain what the Fisheries Division is doing to assure a future of good fishing in Kansas reservoirs. This will be a presentation of some fairly technical information about a plan that will maintain or improve the reservoirs for fishing and waterfowl use. In short, the Commission believes the sportsman is interested in why fish and waterfowl are plentiful and why they are not, and how water level manipulation plans improve these resources.

#### **New Reservoirs Produce Fish**

New reservoirs usually fill in stages, gradually. This has some interesting effects on the fish.

**Gizzard shad and other species** of forage fish, spawn, not just once, but several times each year, every time the level of the reservoir rises, Ebert said. This dramatically increases the available food supply for sport fishes. Some sport and pan fishes will eat their weight in a day, growing very fast.

While filling, the reservoir is also covering up acres of vegetation. It offers spawning areas to certain species and protective cover for fry, young fishes. In short, a new reservoir is a high producer of fish and generally fishing.

**As the reservoir ages and is held** at the normal level known as conservation pool, the prolific gizzard shad slows down. Usually only one spawn each year is produced and the available forage base to pan and sport fishes is reduced.

The sport fish feeding activity and thus fishing success is also reduced, Ebert said.





The flooded vegetation is soon lost in these reservoirs, thus eliminating an important type of fisheries habitat.

The water level manipulation plans are designed to stimulate the conditions found in the filling of a new reservoir, and thus maintain higher fish populations and better fishing than possible with stable water levels, Ebert said.

Kansas is within the Central Flyway for waterfowl migrations and each fall thousands of ducks and geese pass through the state. Some mallards and Canada and snow geese even spend the winter here. How long the migrants stay is largely determined by water conditions which greet these visitors.

A gradually filling new reservoir which inundates vegetation creates a highly desirable marshy type habitat for waterfowl. As a result, waterfowl use of a new reservoir is high. Most of the early migrating species of waterfowl, primarily dabbling ducks and white-fronted geese, prefer this marshy condition. If not present, they soon move on.

Ken Stiebben, Commission photographer, lifts a crappie from Norton Reservoir. Crappies are just one of many species that benefit from water level manipulation.



Ken Stiebben



Aging of the reservoir and attainment of a permanent conservation pool brings an end to freshly flooded vegetation areas available to waterfowl. Lesser numbers of waterfowl and shorter duration of time spent on Kansas reservoirs by most waterfowl species are normal results.

Water level manipulation plans afford the opportunity to re-create in established reservoirs the needed marshy habitat for waterfowl.

#### Water Level Manipulation Cycles

Basically, the water level manipulation plan starts in the summer with a lowering of the reservoir.

As the lakes are drawn down, countless hours of slogging through knee-deep mud begins in the exposed shorelines of the reservoir by Fish and Game Commission personnel. It is hard work under a hot Kansas sun in muggy Kansas summertime air, twisting the crank on a cyclone seeder, spreading Japanese millet, rye and other suitable grasses to grow on the newly-exposed reservoir bottom areas. This is to supplement the natural invasion of the area by terrestrial plants.

At Milford Reservoir last summer for example, 400 acres were hand-seeded to millet and rye grass. The fast-growing millet grew to more than six feet in 70 days.

The next step in the water level manipulation plan is to slightly raise the water levels of the reservoirs before duck and goose hunting season. The partial flooding of the millet and



George Anderson





Dave Asbury, formerly of Liberal, hauls a nice string of channel catfish from a reservoir cove.

other grasses provides marshy conditions which attracts them for a longer period.

**On several of the reservoirs** where conditions have allowed this plan to function, waterfowl numbers have increased.

After the vegetation has served waterfowl needs, most water level manipulation plans call for slight water level decreases to protect the remaining vegetation from ice damage during the winter months. The plants have only begun to function in the overall water level manipulation plans.

**In the spring when many fishes** begin to spawn, the water level manipulation plans call for a rise of water to inundate the grasses planted the previous summer. The purpose of this rise, usually about two to four feet, is to provide fish with a vegetated area attractive for spawning, and to

provide protection from predation for the newly-hatched fry. The decaying vegetation also releases nutrients which stimulates dense population of plankton, microscopic plant and animal life, to develop. The newly-hatched fry in turn feed on the plankton.

The walleye requires a different spawning habitat than most fishes in Kansas.

**They spawn on rock and gravel beds.** The rock and gravel must be clean and free of algae to prevent the eggs and sac fry from smothering. When the reservoir level is raised to cover vegetation for other sport and pan fishes, the water also covers rocks and gravel that have been exposed to the air and cleaned, perfect for walleye spawning.

Water clarity is an important asset to good fisheries management, as well as being aesthetically pleasing to the

eye. Plants grown during the previous summer have a double effect on the water clarity. The root structure of the plants aids in tying the soil together, making it less subject to erosion by wave action. As it decomposes, the vegetation also helps to clear mud from bodies of water like those found in Kansas.

**Water clarity is important to fishing** because it enhances predation by sport fishes and makes sight-feeding fishes more susceptible to the angler. Again, the idea is more larger fish for the fisherman to catch.

Benefits from the high water stage are not restricted to fisheries. Spring migrating waterfowl will also find the flooded vegetation to their liking. With abundant food and cover present, waterfowl numbers increase, affording sight seeing opportunities to reservoir visitors. These improved habitat conditions make it possible for waterfowl to return to their breeding grounds in better shape.

**The end of the high-water period** completes the cycle of a typical water level manipulation plan. But, for the newly-hatched fry, the end of the cycle is only a beginning. Similar plans in the future will assure them of optimum growing conditions.

At the time most sport fishes reach the size at which they begin to change to a diet of fish and are less vulnerable to predation themselves, the water levels of the reservoirs are scheduled to be lowered. This concentrates the forage fishes, making them easier prey for sport fishes; accelerating the sport fish growth and retarding the forage fish growth. Gizzard shad growth in particular is slowed by this action, making them available as forage for a longer time.

**With the summer drawdown,** Fish and Game personnel are again slogging through the mud, spreading the millet and other grasses.

Because excess inflows during the low water level period may cause a rise in the water level, the Commission has requested in the water level manipulation proposals that such rises be held for from a week to ten days to stimulate the prolific shad to spawn again.

**Water Level Manipulation Results**  
Water level manipulation plans at



Council Grove Reservoir were initiated in the spring of 1970. The plans have been followed with varying results due to floods and other problems in all years except 1973 when a series of flood inflows in the spring and fall kept the reservoir well above planned levels. The reservoir was also drawn down during the summer of 1973 for repair work on the rip-rap of the dam.

The Council Grove 1974 water level manipulation plan report contained these interesting points, as noted by Troy Schroeder, fisheries biologist:

- "Average weight per fish increased.
- The part of the fish population composed of game and pan fish of harvestable size increased.
- Gizzard shad production increased and multiple spawns were noted.
- Reproduction and survival of walleye, largemouth bass, white crappie and white bass increased. Especially large year classes of walleye occurred in 1971 and 1972. A large year class of white bass was noted in 1975.
- Growth rates of white crappie, walleye and channel catfish increased.
- Body condition improved in nearly all sizes of each species.

● Lake turbidity (muddiness of the water) was less in 1975 after a lush growth of vegetation was flooded than it was in previous years when little vegetation was flooded in the spring.

● Growth rates of gizzard shad slowed after the summer drawdown, thus increasing their value as forage (food for sport and pan fishes.)

● Waterfowl numbers and hunter use of the reservoir greatly increased in 1974 as a result of the modified plan."

Perry, Pomona, Melvern and Tuttle Creek Reservoirs had good crappie and white bass growth last year as a result of the water level manipulation plan, according to Leo Dowlin, Northeast Kansas fisheries supervisor.

Other improvements in the Northeast Kansas reservoirs were an increase in the reproduction and survival of walleye and largemouth bass at Perry and Pomona Reservoirs. Tuttle Creek, Perry and Pomona Reservoirs had multiple gizzard shad spawns last year.

"An apparent reduction in the recruitment of rough fish including carp and buffalo was exhibited at Tuttle Creek and Pomona Reservoirs," Dowlin said.

Melvorn had a significant increase in gizzard shad in the reservoir and

excellent largemouth bass recruitment.

Dowlin also said the water clarity in all four Northeast Kansas reservoirs improved as a result of the water level manipulation plans.

### The Future of Water Level Manipulation

Schroeder summarized the future for the water level manipulation programs in Kansas when he wrote, "The water level manipulation programs will continue to be evaluated yearly, although certain effects of the yearly fluctuation programs on the fish populations may not be evident until the following years."

The time-lag of the water level manipulation program sometimes makes it difficult to convince the public of the effectiveness of the program, Ebert said. He continued, "Anglers need to be patient, as the increased production of game and pan fish won't show in their creel for two to four years following a successful plan.

"The plans are complex and all the answers are not known. But with continued evaluations and minor modifications to adapt them to changing conditions, they will ultimately make fishing in Kansas better than it is now," Ebert concluded.

Inundated rocky banks are good spawning sites for gamefish like walleyes.

Ken Stiebhen





# FOODS

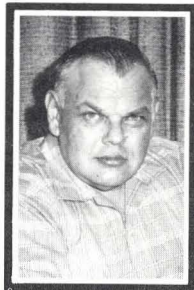
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## COUNTRYSIDE

By George Valyer, Staff Writer

**EVER** EAT any wild greens: If you haven't, then you didn't grow up in a rural atmosphere. Every country boy and girl, at some time or other, has been introduced to a mess of dandelion and poke with just a little sour dock for flavor. Cook 'em all up and you have something better than spinach to many or something worse than medicine to some.

Many farm lads in the past have been introduced to a tonic of spring greens without developing any liking for them, but to others, the distinctive aroma of a pot of greens simmering on the stove was enough



Valyer

to start the saliva flowing with a sense of pleasant anticipation. Regardless of your attitude, one fact remains. Greens are good for you and, like 'em or not, they are richer in vitamins than some of the cultivated garden produce.

But greens are not the only thing growing wild which are relished by persons with a taste for the "different." The so-called "natural" foods available for the taking in many areas are numerous and you don't need to be a Euell Gibbons to enjoy them. All you need is a little information on what to avoid and a little help from a friend like "Tyke" Williams.

Tyke is one-fourth Cherokee Indian and grew up in the Ozarks of Missouri. For as long as she can remember, her family has utilized the wild plants which grew around them—at first because of poverty and later because of preference.

Tyke Williams is a story in herself. She knew the late Gibbons and corresponded with him regularly and has her own herb and wild plant garden. But this story is about wild foods and we'll leave Tyke's story to a later time.

Of course everyone is familiar with certain wild foods, such as nuts. Pecans, walnuts, hickory nuts and hazelnuts are high in food value and desirable for use in many ways. Anyone living in a part of the state where

nut trees grow wild can usually get permission from some kind landowner to harvest some of his natural crop, especially if he offers a share of his efforts. Many landowners charge a one-third share of commercially valuable nuts for the privilege of harvest. Others may be glad to have the nuts picked up to avoid having them wasted.

Then there are wild fruits such as sandhill plums, blackberries, gooseberries and papaws. Wild plums make delicious jams and jellies and are also canned by some housewives as a change-of-pace dessert for winter use. Wild blackberries are my favorite wild fruit and, made up into a pie or cobbler, they are hard to leave alone. The tart gooseberry is small and its thorns make it hard to pick but the pies which result make it worth the effort. Papaws, growing along eastern Kansas streams, are a fruit relished by many. Of the same family as the tropical papaya, the papaw is sometimes compared in flavor to the banana.

The persimmon is a wild fruit distinctive from others. It matures late in summer or early fall and, according to those in the know, it is not ready to eat until after the first frost of fall. At that time, the persimmon becomes ripe, soft, sweet and palatable. A green persimmon will pucker your mouth with its sour acidic tang.

Most of the wild foods we have mentioned so far are more or less common to anyone but there are many more which are not so well known.

The cattail can be used for food in many ways. Growing in ditches and shallow water areas throughout much of the state, it is available to many natural food enthusiasts.





Tyke is a literal encyclopedia of wild plants—especially the edible kind. She eats or uses many plants that the average person would completely overlook. For instance, she says the tender young leaves of the milkweed plant can be used for cooked greens as can wild lettuce and the common wild day-lily. Watercress can also be cooked along with other greens and the entire plant is edible including the white roots. Tyke cautions against using the raw watercress in salads or sandwiches unless one is sure that the water it comes from is not polluted.

**There is absolutely no reason** for anyone to starve just because he is not able to make it to a grocery store or super-market, Tyke Williams maintains "Mother Nature has a vast supply of food if we just listen to her and let her help us out." Tyke says that even in winter there is always something available in the great outdoors if we just know what to look for.

For instance, the common cattail can be used in many ways. In the early spring, the tender, young shoots are good. "Just reach down in the water and pull out the center stalk. It is starchy and can be eaten raw or cooked like asparagus. Later, when the bloom (or cattail) first appears, cut it off and cook it just like corn-on-the-cob." Tyke maintains that the taste is similar to corn at this stage. When the bloom is mature, the pollen can be shaken from the head and used like flour. The nodules can be boiled like potatoes and are very nourishing.

**Yucca is also edible.** The bloom stalk should be cut when it is about 12 inches tall and then cooked like asparagus after parboiling. The blossom can be picked and cooked like cauliflower—steamed, buttered and add a little salt. When the blossom has lost its petals, the pistol is removed and pickled. Tyke prefers these to capers. She also says that the root tuber, when dried and pounded to a pulp, makes an excellent shampoo. The yucca plant was used by early-day pioneers as one of the ingredients of soap and thus earned its sometimes-used name of "soap weed."

The Jerusalem artichoke (a native



Common pigweed is a popular green with some wild food enthusiasts.

Tyke Williams grows many wild plants in her own garden. Here she displays the Jerusalem artichoke plant which has the edible nodules on its roots.





plant), which looks somewhat like a wild sunflower, has nodules on the roots which are quite edible. The nodules, which range in size from about as big as your thumb to as large as a potato, should be split in half, soaked in cold water and eaten raw. According to Tyke, they have a nut-like flavor and are delicious in salads.

**Nearly every Boy Scout has been** introduced to the Indian potato or wild carrot. It grows in profusion in short-grass prairies with a long creeping vine. The blossoms are deep purple and the tuber is yellow, reminding one of a large carrot or sweet potato. Tyke doesn't like these raw since they are a little strong in flavor but, boiled like a potato, they can provide a lot of nourishment.

Tyke says that most plants can be eaten and enjoyed but there are a few which are mildly toxic and a very few which are deadly poison. The common Irish potato is a good example of a mixture of the very good and the bad; while the tuber is a staple item in most diets, the leaves and stems are poison and should not be eaten. With the poke plant, it's the other way around—the root is poisonous while the leaves are good but should always be cooked, never eaten raw.

**One plant which grows in Kansas** river and stream valleys is deadly. It is the water hemlock. It grows a large tuber similar to a wild carrot or wild parsnip but it has an ugly odor. According to Tyke, this is a good way to tell when a plant is not edible—just use the "nose" test.

Tyke likes to use many of the wild plants as tea. She maintains that catnip leaves when dried and steeped make a delicious tea that is "Mother Nature's sedative." Why buy sleeping pills when a little catnip tea before bed will produce the same effect? Dried rose hips also make an excellent tea which is rich in vitamin C. The mullin plant also provides the ingredient for a good tea. The hairy leaves are washed, dried and brewed into a beverage which has some nutritional value and a delightfully different taste.

**When preparing any wild plant,** especially greens, Tyke cautions against over cooking. She says that a little "chewy" is good. Also, don't use too much water which will have to be thrown away. "After all, many of the vitamins and minerals which the plant contains are cooked into the water and this liquid should never be thrown away." Tyke calls this pot liquor. "Save it and use it in soups," she says.

We have intentionally neglected mushrooms in this article. Many are delicious when properly prepared and used and some are very toxic to humans. To adequately treat the subject of mushrooms, a book with many illustrations would be needed. We suggest you obtain a copy of the *Mushroom Handbook* by Krieger at your local library.

**All persons using wild foods** should be sure that they have not been sprayed with toxic chemicals. With today's widespread use of chemical pesticides, it is vitally important that the individual is sure that no sprays have been used on the plants within the degradable time as stated on the chemical label.

Tyke Williams says that Mother Nature has provided a vast supermarket of foods in the out-of-doors. All it takes to avail yourself of this storehouse is adequate knowledge and an open mind regarding different tastes. You may not enjoy your first venture with wild foods but try them again and again. You just may develop a real liking for them and most are very nutritious. Tyke says that there is no reason for anyone to starve in the world of Mother Nature's bounty.

Some wild mushrooms, like the morel pictured here are delicious while others are deadly.

Vic McLeran





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