KANSAS FISH & GAME

November-December 1974

FISH & GA



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Front cover-Western Kansas antelope. Ektachrome transparency by Ken Stiebben.

Back cover-Muledeer. Ektachrome transparency by Ken Stiebben.

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Rx for **Kaptors**

By Vic McLeran, Editor

WAS NEARLY dark as the big red-tailed hawk sailed into a large cottonwood beside the Sedgwick county road. Clutched tightly in his talons was a large cotton rat, still



quivering in death throes. The hawk immediately began tearing into the rodent hungrily. Intent on its meal, the bird didn't pay much attention to the approaching car. "Slow 'er down a

McLeran

little," muttered the man on the right. As the car's speed decreased, he rolled down his window and thrust a 12 gauge through the opening. Spotting the movement, the hawk dove from the cottonwood still clutching the rat.

But it was too late.

Swinging his shotgun slightly ahead of the bird, the man jerked off two quick shots. The hawk faltered in midair as No. 4 shot ripped through his feathers shattering a wingbone. Out of control, the bird plummeted into a thick patch of ragweeds.

"Got another quail killer," the gunner said, rolling up his window.

"I read somewhere that it's against the law to shoot hawks and owls," the driver said. "And besides, I thought I saw a rat in that bird's talons."

"Well, one hawk more or less isn't gonna' make much difference," said the gunner.

Attitudes and actions like this are responsible for the deaths of hundreds of hawks, owls and eagles each year in Kansas. Aside from the fact that it's a violation of both state and federal law to shoot raptors, ignorant gunners persist. And biological studies have shown they're often doing Hawks and owls, wounded by illegal shooting, get a second chance at life through the rehabilitative efforts of raptor enthusiasts across the state.

the game bird population a disservice, because raptors feed primarily on rodents like the cotton rat, which in some areas, prey heavily on quail eggs and chicks.

As the car pulled out of sight around a bend, the injured hawk pulled itself painfully into a sumac thicket. There it spent the night, numb with pain and the November chill.

Next morning, a quail hunter found the bird, still alive but weak and bloody. Throwing his hunting coat over the struggling hawk, the man subdued the bird and carried it back to his car. This hawk, unlike many others, would get a second chance.

The man was Carl Crumm, Wichita fireman and president of Raptor Research Inc., an organization devoted to the welfare and study of birds of prey. Crumm took the bird directly to the office of Dr. Doug Battershell, a Haysville veterinarian.

There the shattered wingbone was set and the hawk was nursed back to health. Several months later, the bird was released-a rehabilitated raptor.

There are several individuals and organizations across the state that are doing their best to rehabilitate and provide first aid for birds of prey that have fallen victim to lawless gunners. In Garden City, I talked with Robert Fulton, director of the city's zoo. "We receive anywhere from five to ten wounded eagles during each pheasant season," Fulton told me. "While most of them are victims of gunshot wounds, some have struck highline wires or fences." Fulton and his staff do their best to rehabilitate the birds so they can be returned to the wild. But sometimes the birds are so badly damaged they die. Others have wings so shattered that amputation is required to save the bird from gangrene.

As Fulton and I walked up to the eagles' large flight pen, we confronted a pathetic sight. A bald eagle, our national symbol, lay fluttering and flapping on the dirt floor like a clumsy chicken. The raptor had fallen from a low perch and was lying on its side. Looking closely, I could see why the bird was having trouble regaining its balance-it had no wings. They had been amputated after someone had shattered both wing bones with a magnum duck load. Fulton says he

Mike Janis, left, director of the Dillon Park Outdoor Education Center in Hutchinson, and Tom Etzler, a summer aide, check the progress of an injured red-tailed hawk.



receives as many as 30 wounded raptors a year, mostly red-tailed and rough-legged hawks which die or must be destroyed. Whenever possible, Fulton releases the birds as soon as they're strong enough to look after themselves. Pointing to a big golden eagle, he said, "We'll release him this fall as soon as the other eagles start coming into this part of the country on migration."

Traveling eastward to Hutchinson, I looked up Mike Janis, director of the Dillon Park Outdoor Education Center. Janis and his aides receive a dozen or so injured hawks and owls annually. Again, most are suffering from gunshot wounds, although some are victims of automobiles while others have collided with wires and fences. "Occasionally we'll get a hawk that appears to be suffering from pesticide poisoning," Janis said.

Injured birds reached these "raptor rehabilitators," through many channels. Humane societies, children, hunters, Boy Scouts and citizens from all walks of life refer the raptors to these men. In Wichita, pet shops will get calls about injured hawks or owls and refer them to Raptor Research Inc. The Biology Department at Wichita State University has also sent wounded hawks to the organization.

"I had some kids bring in an injured kestrel (sparrow hawk) not long ago, that had an interesting history," Janis recalled. "It seems their father drove a truck and the kids made a habit of checking the truck's grill for insects and birds each time their Dad got home. One evening they found the kestrel which was wedged between the bumper and grill. The bird wasn't in too bad a shape considering the ordeal."

Most of the hawks received are buteos—the large, broad-winged, fantailed hawks you see perched along the road on telephone poles or soaring slowly over the fields. Their conspicuous habits make these beneficial birds extremely susceptible to the lawless shooter. Red-tailed, rough-legged and marsh hawks seem to lead the list of casualties.

Carl Crumm explained the process they use in repairing and rehabilitating an injured hawk: "The first thing we do after receiving the bird is to determine specifically what's wrong. Usually it's pretty obvious. In the case of a broken wing, which is a fairly common injury, we tape both wings firmly to the body by wrapping several strands of tape around the hawk's entire body. The bird is then given a light tranquilizer and placed in a darkened shed or room."

Most hawks calm down when placed in dark surroundings, being reluctant to move around in the dark.

"For the next several weeks, we keep the bird extremely well-fed while the bones are knitting. At the end of about three weeks, we take off the tape and let the hawk begin to exercise its wings. After a few days of limited exercise, we begin flying the birds on a long line attached to their legs. We do this to let the birds practice and to strengthen their legs. When we feel the birds have regained their strength sufficiently and are in good shape, they're banded and released."

Crumm and other members of Rap-

tor Research, Inc., along with Dr. Battershell's help, have rehabilitated nearly three dozen raptors in the past four years—raptors which otherwise would have died or been destroyed.

While these are beneficial, worthwhile efforts as far as the birds of prey are concerned, there are some drawbacks for the uninitiated. First of all, it is illegal to possess any hawk, owl or eagle without a scientific collector's permit. These permits are issued by the Kansas Forestry, Fish and Game Commission to zoos, college biology departments and organizations like Raptor Research Inc. and the Dillon Park Outdoor Education Center. This means that anyone without a permit, who takes possession of a raptor-even to rehabilitate the bird -is in violation of state and federal law.

Secondly, there are not nearly enough qualified people who have the knowledge, facilities or equipment to care for injured hawks and owls.

Crumm, a veteran falconer, sees the

Tom Etzler displays a young great horned owl which is recuperating at the Center.



Vic McLeran Fish and Game

Vic McLeran



wasting a recreational resource by not legalizing falconry. True, it's a demanding form of recreation in terms of time and not many people would take it up, but those who are interested should have the opportunity of getting involved in the sport legally.

"And in these days of decreasing hunting areas and increased 'No hunting' signs, the guy who hunts with a hawk is liable to get the nod from a farmer who won't tolerate firearms on his place."

Each spring, Raptor Research Inc. conducts a census on breeding populations of raptors in the countryside around Wichita. They maintain the birds are in good shape populationwise and wouldn't be harmed if a few birds were captured for use in falconry.

"This is especially true of buteo hawks and great horned owls, both of which are ideally suited for falconry here in Kansas," Crumm added.



Hooded red-tailed hawk is an excellent bird for falconry where the sport is legal.

legalization of falconry in Kansas as one answer to some of the problems.

"Kansas is one of only five or six states in the country that doesn't have any provisions for legalized falconry," Crumm explained. "If this sport was legal, falconers, with their knowledge and equipment, would be in a good position to care for injured birds of prey. And with their falconry permits, they wouldn't be outside the law in possessing the birds as long as they didn't have over their quota as allowed by the permit."

Crumm also stresses the educational aspect of falconry. "I know falconers in other states who give many talks and programs each year to elementary science classes, junior high biology classes and Boy Scout groups. Talks and programs like these, which stress the importance of hawks and owls, go a long way in raptor conservation. Especially since you're reaching youngsters who are forming opinions."

"Then too, it seems to me we're

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Outside of the little kestrel, we have very few true falcons in the state so prairie falcons and the rare peregrine falcons wouldn't be of much consequence in the Kansas falconry scene. Accipiters like the Cooper's hawk are shy, secretive birds which although excellent for falconry, are hard to acquire.

The Wichita raptor enthusiast said if falconry was ever legalized, he'd like to see some fairly stiff and enforceable guidelines. "An applicant should take and pass a rigid examination on hawks, their training and care before being issued a permit," Crumm stated. "And I'd also like to see a fairly high permit fee of around \$25. This would discourage 'pet keepers' or those who wanted to keep a hawk because they thought it would just be an unusual pet."

There is no law which specifically says you can't practice falconry, but the way the statute reads now, it's illegal to possess a raptor. And you obviously can't hunt with a hawk unless you have a hawk. Then too, that section of law which specifies the methods by which game can be taken doesn't mention hunting with falcons or hawks. And if it's not mentioned, it's not legal.



John Holsenbach and Carl Crumm of the Wichita-based Raptor Research Inc., admire a rehabilitated red-tailed hawk.

To legalize the sport, the state legislature would have to pass a bill empowering the Fish and Game Commission to authorize falconry as a legal method of taking game.

Adherents of the sport like the late Aldo Leopold, a pioneer in the history of North American conservation, have nothing but praise for falconry. Leopold once stated, "The most glamorous hobby I know of today is the revival of falconry. All in all, it is the perfect hobby." spected by conservationists is the fact that the hawks leave no crippled game in the field. The quarry is either killed or escapes—usually the latter. Experienced falconers say for every cottontail taken by their hawks, a dozen or so escape.

But regardless of whether or not the legislature ever passes a falconry bill, one thing is sure—as long as there are concerned raptor enthusiasts around, a few hawks and owls will get a second chance at life.

One of the reasons the sport is re-

Orphaned youngsters like these immature barn owls are often turned over to raptor enthusiasts.



Kansas Water Patrol



By Paul Bocquin, Staff Writer

ON THE NIGHT of July 13, 1974, two boats collided on Pomona Reservoir. The larger power equipped boat went over the top of the smaller fishing boat about 10:45 p.m. in the main



part of the lake near Vassar State Park.

Later that night, Don Douglas, of Prairie Village, who was operating the fishing boat, was reported missing after his empty boat was found circling out of control on the lake. His body was found later, floating near a marina.

The other boater apparently had left the scene, according to investigators. But through a slip of the tongue, he reportedly gave himself away to friends. Law enforcement officers received two anonymous tips which, although incomplete, led to discovery of the larger vessel. Traces of paint and damage to the bow helped to establish that this boat was involved in the accident.

The owner of this craft was charged August 9 in Osage County court with involuntary manslaughter and released on \$1,500 property bond. His case was pending as this was written.

This case was investigated by the Osage County sheriff's office, Kansas Bureau of Investigation, Corps of Engineers and Forestry, Fish and Game Commission.

The above incident is more spectacular than most cases involving the Kansas Water Patrol. But it illustrates the necessity of having a modern courtesy water patrol team to police Kansas public waters.

The need for enforcement of boating laws became evident a few years ago when the number of registered boaters in the state started growing by leaps and bounds. Oliver Gasswint, boating administrator for the Commission, reports 10,000 boats were registered in the licensing office at Pratt headquarters in 1960. The number continued to grow at the astounding rate of 10 percent annually and now

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Bocquin

there are 72,000 vessels registered in the boating department, which administers this program.

"Based on federal estimates, there are another 20,000 rowboats, canoes, and other non-powered craft used in Kansas," Gasswint reported. Boating permits are issued by the Commission for mechanically propelled and sailcraft.

As the need for trained boat patrolmen became more apparent, the Kansas Forestry, Fish and Game Commission established as one of its goals under Project SASNAK the development of a modern courtesy water patrol to help police the numerous federal reservoirs and dozens of state fishing lakes and other public waters under its jurisdiction.

In September, 1972, Gasswint became the first boating act administrator for the Commission. In this position, he is responsible for developing and directing the statewide boating safety program. He also supervises the boat registration system and represents Kansas in all matters concerning the operation of watercraft within the state.

After leaving Kansas in 1958 to accept a biological position with the Michigan Department of Conservation, Gasswint returned to Kansas in 1962 to serve as federal aid coordinator for the Commission, a post he held until being named game division chief in 1969.



Oliver Gasswint-Boating Act Administrator

The new administrator had his work cut out for him from the start. Establishing a whole new boating department and implementing the water patrol program was no easy task.

For instance, during 1972, more than 1,400 persons died from boating accidents across the nation, according to the U. S. Coast Guard. In 1973, this figure had climbed to 1,700. However, the number of registered boats has increased more rapidly than the number of accidents and of course Kansas accidents were only a minor fraction of these figures. Nevertheless, the increased use of Kansas reservoirs and public lakes in recent years gave a clear indication that the growing number of boaters would require closer supervision.

A significant number of boaters, skiers and fishermen visited federal reservoirs in the state during 1973. Most heavily used by boaters were Perry Reservoir with 438,000 visitations, Pomona Reservoir with 332,000 and Milford Reservoir with 315,000, according to a recent study by the National Water Safety Congress.

The 20 reservoirs in Kansas recorded an etstimated 2,250,000 visits from boaters, 1,080,000 visits from skiers and 3,911,000 visits from fishermen in 1973.

In July, 1974, three men were hired by the Fish and Game Commission to serve on the Kansas Water Patrol— John Lingg, Raymond Beisel, and Billy Cox.

Lingg had joined the Commission in 1969 and prior to his new appointment, was a game protector in Neosho and Harvey counties. Previously, he was a trooper for the Kansas Highway Patrol from 1966 to '69.

Cox, formerly of Hutchinson, majored in police science at Barton County Junior College, Great Bend, and also had worked in law enforcement for several years. Beisel had operated a business in Downs for several years.



Ray Beisel-Water Patrolman



John Lingg—Water Patrolman



Billy Cox-Water Patrolman

Their first in-service training program was the SASNAK school which was attended in August and September, 1973, by other new employees hired under Project SASNAK. The school consisted of two weeks of classroom work and three weeks touring facilities managed by Fish and Game throughout the state.

Then in October, Cox and Beisel attended the five-week basic training course at the Kansas Law Enforcement Training Center in Hutchinson. Lingg had completed the training course earlier when he was a game protector with the Commission.

Finally, came six weeks of intensive training in January and February, 1974, for the three patrolmen and the boating administrator at the National Boating Safety School in Yorktown, Va.

The three well trained men were then ready to assume full-time duties on the Kansas Water Patrol. Lingg was stationed in Newton, Cox in Manhattan, and Beisel in Concordia with each having jurisdiction over his area of the state. However, in many cases they work two men together as a team.

Each man is equipped with a 19foot, inboard-outboard vessel. These are used primarily on federal reser-



Water Patrolman Beisel points out flame arrester to a boater during a safety check.

Jack Haley, Fish and Game Commissioner from Minneapolis, gets a ride in one of the new patrol boats.



voirs but can be used to patrol state fishing lakes and other public streams. Their boating uniforms consist of blue jump suits with blue jackets for cool weather. They wear regular law enforcement outside the boating season. Sidearms are worn with the law enforcement uniforms but not while on boat patrol.

Each boat is equipped with fire extinguisher, six-foot paddle, anchor on 100 feet of line, tool kit, two spotlights (red and white), siren, compass, boat hook and 100-watt twoway radio. These radios are tuned to the same frequency as sheriffs and highway patrol troopers.

The Kansas Water Patrol officers augmented by three summer assistants have made more than 1,000 boat safety checks on federal reservoirs in recent months. About 75 percent of those checked meet the legal standards and many others correct their deficiencies within a short time, Gasswint said.

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Ken Stiebben



A revised publication of the Synopsis on boat and water safety laws in Kansas was prepared and published by the boating department last February. It explains procedures in registering boats under state regulations and how to obtain a license to operate a boat on public waters. The booklet also lists required safety equipment to carry in a vessel. Special regulations for state and fishing lakes under jurisdiction of the Forestry, Fish and Game Commission are also outlined. Approximately 75,000 copies of this publication are distributed annually.

The Synopsis is mailed along with certificates of number to those who register their craft. Others can obtain copies by writing to the Kansas Forestry, Fish and Game Commission, Box 1028, Pratt, Kan. 67124, or from their local game proctectors.

Pleasure boaters are reminded it is illegal for skippers to use state fishing lakes for pleasure boating. Boats can be used at these areas for fishing purposes only.

Harold Lusk, law enforcement chief, rides with patrolman Cox during a routine patrol.

"Many of the life preservers checked, especially those of child sizes, were no longer floatable. Some were split down the sides or worn out beyond safe use. Other flotation devices were water logged or had arm and leg straps missing."

During the first few months of the 1974 boating season, probably 300 citations were issued. The most common violation was for operating craft without an adequate number of Coast Guard approved flotation devices.

Other violations resulted from not carrying the certificate of number that all licensed boaters must have while on board their craft.

"We recommend carrying the certificate of number in a plastic envelope taped to the dash or in a key chain buoy," Gasswint suggested.

During the off-season after boating activities are through, the water patrol officers follow a busy schedule of safety education activities. They are available to conduct safety programs for schools, civic groups and others interested in boating safety. They also participate in sport, boat, and travel shows and state fairs and often bring one of their patrol boats along to demonstrate and exhibit. Sailboating is becoming increasingly more popular on Kansas lakes and reservoirs.



Ken Stiebben Fish and Game



Thousand of Kansans have discovered the fun of family camping.

Boaters should also be aware of new federal and state regulations on flotation devices that became effective in 1974, Gasswint points out.

On vessels less than 16 feet in length and on all canoes and kayaks, the boatman must carry a Coast Guard approved life preserver, buoyant vest, special purpose device, ring buoy, or buoyant cushion for each person on board and being towed.

On vessels 16 feet long and longer, except canoes and kayaks, the boatman must carry a Coast Guard approved life preserver, buoyant vest or special purpose device for each person in or using the boat. In addition, there must be a ring buoy or buoyant cushion in the boat.

"This equipment is required for all vessels, whether registered or not, and must be readily accessible at all times," Gasswint said. The buoyant cushion or ring buoy on vessels 16 feet or longer must be immediately available for man-overboard protection.

These new state regulations on flotation equipment became effective January 1, 1974.

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In addition to the Synopsis, a comprehensive boating safety publication has recently been prepared by Gasswint's office and is being submitted to the state printer. "We hope to have this brochure ready for distribution early in calendar year 1975," he said.

In addition to these publications, the boating department has several films available on boating safety at the film library in Pratt. These include films produced by U. S. Coast Guard, National Red Cross, National Safety Council...and Outboard Boating Club of America.

"We plan to add more boating films to our department film library in the coming year," the boating administrator said.

"At present, we have no boating safety slide programs for general use but have been taking pictures for this purpose in recent months. A 140-slide series with tape narration is being produced by the Fish and Game Commission, using Coast Guard material. It will be available for use this fall in classrooms or elsewhere." This slide series is a major revision in the Coast Guard "SOS" series, Gasswint explained. "Our purpose is to make SOS applicable to Kansas boating. When completed the series will be reduced from 198 slides to 140 with sound on tape narrative."

Copies of this series will be available from the Fish and Game headquarters, at each of the regional offices and from each Kansas Water Patrol officer.

We have also approached the Kansas Department of Public Instruction in an effort to get the series used in our public schools," Gasswint reported.

The National Association of Engine and Boat Manufacturers reports a nationwide drop in sales on most craft this season through June, compared with the same period in 1973. Only sailboats and canoes have increased in volume sales, indicating that boaters are relying more on muscle power. Sales of houseboats dropped 21.9 percent, outboard motor sales were minus 11.8 percent and inboard sales were down 11.9 percent.

However, a general manager of a marine products group predicts the boating industry will continue to grow, with a soaring market over the next 10 years. He points out that the industry's dollar volume is down only modestly for the 1974 model year.

While the number of registered craft in Kansas has increased approximately 10 percent each year in recent years, this was not the case in fiscal year 1974, according to records in the boating registration office. Apparently the price of fuel and earlier concern about availability of fuel discouraged the usual "trade-ups" by current boatmen and the addition of new participants in the boating fraternity.

However, the number of registered craft did increase from 69,998 to 71,474 during fiscal year 1974. So although the increase was slowed up, it is still moving upward with no indication of any change in the long-term rise of boaters on Kansas waters.

Ways to Improve the Gun Owner's Image

Reprinted from The American Rifleman July, 1974.

The sportsmen-hunters of the United States form one of the largest elements in our national population, an estimated 20 million strong. That means one person out of every 11 men, women and children. In going afield after game, they follow a custom or habit virtually as old as the human race. That they no longer find it necessary to take game to eat and stay alive does not, in itself, diminish the stature of hunting. Game remains a legitimate and highly desirable dish on the menu of many Americans and most people the world over. Hunting as a sport also has global acceptance.

Only in America, sad to say, is sports hunting under a methodical slanderous attack. Only in America, it seems, is there a systematic misrepresentation of the motives and instincts of sports hunters. That most of this campaign stems from the thinking and expression of a relatively few people is beside the point. Their clamor persists and grows in volume if not in validity.

There supposedly is a time table created by some shadowy mastermind of the anti-hunting, anti-gun movement. It goes like this: First, abolish trapping and bow hunting; next, prohibit all hunting; finally, get rid of all private firearms. While unverified, such a plan resembles the gradual steps of the big anti-gun campaign in recent years. First, the demand was merely to end mail-order sales of guns (which was done). Next, curbs on handguns were proposed. Then came demands for the surrender of all handguns, and, finally, some point-blank urging that all private firearms be confiscated.

What can be done about it? Several things, if the vast majority of Americans who believe in gun ownership as an individual liberty and personal right can only be brought to act. We can enlist the millions of unorganized hunters to counteract the assaults on hunting. And we can also render sport hunting less subject to smear attacks, by clamping down on the relatively few game hogs and poachers who gave the whole sport a bad name. Two clear ways to do this are outlined in this issue of *The American Rifleman*.

One of the biggest and best means of rallying support

for the whole threatened structure of private gun ownership is to participate in your Annual Hunting and Fishing Day. Here is a movement on *our* side that could grow gigantic. The first National Hunting and Fishing Day attracted an estimated 3,500,000 persons and the second, an estimated 14,000,000.

The National Shooting Sports Foundation, the National Rifle Association, the National Wildlife Federation, the Izaak Walton League, the Wildlife Society, the National Recreation and Park Association, the National Future Farmers of America, the International Association of Game, Fish and Conservation Commissioners are among organizations sponsoring the big event.

Red, white and blue bumper and window stickers heralding National Hunting and Fishing Day, NHF Day kits including posters and banners for local use, and an illustrated NHF Day Action Manual on how to organize an NHF Day program can be obtained at nominal cost from the official sponsorship by writing to: NHF Day, 1075 Post Rd., Riverside, Conn., 06878. The manuals, intended for clubs or organizations sponsoring local events are \$2 and the kits are \$3.

One of the great opportunities of NHF Day is to acquaint your community with firearms sports and firearms safety, and to bring uncommitted or uninformed individuals of goodwill to a realization that, to most Americans, firearms are for sport.

When it comes to improving the so-called public image of the sports hunter, the NRA has a new longterm program which offers a challenge to constructive action not only by hunters and other gun owners but by all good citizens. Entitled HOW—"Help Our Wildlife" this program would enlist all law-observing citizens in a movement to report game law violations and property vandalism afield.

So here are two great opportunities for action: In support of National Hunting and Fishing Day and in support of HOW around the calendar.

Both deserve the full cooperation of all gun owners and all good citizens in general.

KANSAS FISH & GAME



NEWS P.O. BOX 1028

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PRATT, KANSAS 67124

RELEASE____

SPORTSMAN'S CALENDAR

Phone- 316/672-6473

SEASON	OPENING DATE	LAST DAY	BAG LIMIT	POSS. LIMIT			
Rails	September 7	November 15	25	25			
Snipe	September 7	November 10	8	16			
Woodcock	October 12	December 15	5	10			
Ducks, Coots, /Statewide/							
Ducks, Coots, Mergansers	October 19	December 8	100 pts.	200 pts.			
(Ĕast Unit) (West of U.S.	December 23 December 23	December 29 January 5	100 pts.	200 pts.			
283)							
Geese	October 19	December 29	5	5			
				"Hunters or specifics)			
Pheasant	November 9 December 16	December 6 January 31	4	12			
Quail	November 9	December 6	8	24			
	December 16	January 31					
Prairie Chicken (Lesser &	November 9	December 6	2	6			
Greater)							
Squirrel	June I	December 31	5	10			
Cottontail	Season Open Year	Around	10	20			
Jack Rabbits	Season Open Year	Around		Possession			
			Li	imit			
Dee <mark>r (</mark> Firearms)	December 7	December 15	1*	ן *			
Deer (Archery)	October 1	November 30]*	1*			
beer (Archery)	December 21	December 31	1*	1*			

* Special Permit Required

KANSAS FISH AND GAME RELEASE

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COLOR WILDLIFE ART ...TO HELP MENTALLY RETARDED CHILDREN

Tommy Nobis devotes his off-season time to helping mentally retarded children throughout Georgia. He has by his own efforts, raised countless thousands of dollars to help provide recreational experience for these youngsters. But he needs your help – and offers you this rare opportunity! Through arrangements made by Tommy with the National Wildlife Art Exchange, Inc. of Vero Beach, Florida, Falcon fans and friends may now buy a fine art print of the Peregrine Falcon painted by famous wild-

life artist, Ron Jenkins, for a special price of \$60.00. And one-half of the proceeds will be donated by National Wildlife Art Exchange to

Tommy Nobis to be used for the express purpose of helping these mentally retarded youngsters participate in recreation under the tutelage of the Georgia Special Olympics. The Peregrine Falcon is a fabulous bird. Flying at speeds of almost 200 miles per hour

they are found along mountain ridges and the eastern coast each spring and autumn. Now on the endangered species list, the Falcon in flight is the very essence of freedom and wild beauty. The edition will be limited to 10,000 or less and each print will be numbered and signed by the artist. The price of \$60.00 for the 20" x 24" print includes

packaging and delivery. All checks received after January 15, 1975 will be returned. In the event the total edition is sold prior to the cutoff date of January 15, any checks received thereafter will be returned.

Help Tommy Nobis help the retarded children! Send your check today to:

⁷⁴ SCORE, INC. P. O. Box 89144 Atlanta, Georgia 30312

If you cannot or do not wish to buy a print at \$60.00 - your donation in any amount will be welcome. Prints, of course, go only to those buying them at \$60.00 - or \$120.00 for two, \$180.00 for three etc.

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HUNTER ETHICS AWARD

TO FIRST KANSAS GIRL

(released August 9, 1974)

GENESEO--Herding calves back into a pasture for a landowner has earned Mary Ellen White the distinction of being the first girl in Kansas to receive the coveted hunter ethics award, it was announced by R.W. "Bill" Fowler, fourth district commissioner for the Kansas Forestry, Fish and Game Commission.

The hunter ethics award has been presented to 36 Kansas young people who have performed good deeds for landowners and is an important part of the Hunter Safety program, according to Royal Elder, hunter safety administrator.

Mary Ellen, 15, completed the hunter safety course last year under Paul Peterson, Little River, a certified instructor.

Later, while in the vicinity of the Ed Byard farm, Route 5, Lyons, the teenager discovered two calves out on a public road. She notified Byard, then returned to the scene and herded the calves into his pasture.

In nominating her for the hunter ethics award, Byard said, "I think this was a very kind and thoughful deed."

Mary Ellen is the daughter of Mr. and Mrs. Wendell White of Geneseo.

More than 40,000 students have successfully completed the hunter safety course over the past 17 months. The course emphasizes respect for the landowner as well as safety in the use of firearms, Elder said, adding that this training has greatly reduced hunting accidents and vandalism.

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SHARP DECLINE NOTED IN QUAIL POPULATION

PRATT--Prospects for an abundant harvest of upland game birds during the 1974 fall hunting season appear somewhat less than optimistic, according to population surveys taken this summer by the Kansas Forestry, Fish and Game Commission.

Quail population figures were down in all regions of Kansas except the west, which showed a nine per cent increase over 1973. Declines of 20 per cent were noted for the north central region, 37 per cent in the south central, 29 per cent in the Flint Hills, 26 per cent in northeast, and 48 per cent in southeast regions. However, production success of the quail population was up in two regions from 1973, the game division reported. Production increases of 128 per cent were noted in the west and 22 per cent in the north central regions. The number of young was down 30 per cent in south central Kansas, six per cent in the Flint Hills, 12 per cent in the northeast and 45 per cent in the southeast regions.

On the positive side, production success of the pheasant population was up in all regions of Kansas. The northwest showed a 32 per cent increase; southwest, up 24 per cent; north central, 28 per cent; south central, 41 per cent, and northeast, 65 per cent.

Greater prairie chicken numbers were up 180 per cent in the Flint Hills and eight per cent in the western cropland areas. The eastern cropland region showed a drop of 50 per cent and the blackjack region of southeast Kansas was down 67 per cent.

While the six per cent decline in the pheasant population was not considered significant, the statewide decline of 36 per cent in the quail population was of greater concern to game biologists.

"We cannot pinpoint the specific reason for these annual changes," stated Jim Norman, supervisor of game research. "Habitat and the weather affect game populations. It could be one or the other or a combination of both."

He said this population survey was taken in July when quail hatching was still in progress. Another survey is planned in October.

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ANTELOPE SEASON HELD; LANDOWNERS HIGHLY COOPERATIVE

GOODLAND--Kansas' first pronghorn antelope season in recent times proved to be highly successful receiving the support and cooperation of both hunters and landowners.

Big game biologists for the Kansas Forestry, Fish and Game Commission said hunters with permits were well received over most of the antelope range in Wallace, Sherman and Logan counties. Most had made arrangements with landowners before the season opened but even those who had not received prior landowner permission experienced little difficulty in obtaining a place to hunt.

"Several landowners who were opposed to the season expressed appreciation for the way hunters conducted themselves," said Bill Hlavachick, technical services biologist for the Commission who assisted in the manning of one check station. "One instance of trespass was reported and only one permittee was issued a citation for failing to have a valid Kansas hunting license.

Hlavachick also praised northwest Kansas game protectors for their assistance. "The area was well patrolled and a lot of landowners congratulated them for their efforts," he noted.

Of 78 eligible hunters, 69 bagged antelope during the threeday season, Sept. 28-30. Most success came on opening day when 61 pronghorns were taken. Four were bagged on Sunday and four on Monday. Of the total bagged, 61 were bucks, eight were does.

Only about ten per cent of the antelope population in the three county area were harvested during the season. According to recent antelope census reports, there are nearly 700 pronghorns in the area.

Three trophy bucks were harvested with horns measuring 15 or more inches in length. Although most hunters used firearms, David A. Stevenson of Thomas County bagged his antelope with bow and arrow.

The season is expected to increase the rate of the pronghorn population expansion into new areas which will help alleviate some crop damage complaints. It will also tend to re-inject some wildness into the animals.

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COMMISSION REPAID FOR AMMONIA KILL OF COW CREEK FISH

(released 10/7/74)

PRATT--The Kansas Forestry, Fish and Game Commission received a check for \$8,364 Monday from Mid-America Pipeline System of McPherson for damages from a fish kill on Cow Creek northest of Hutchinson.

Thousands of fish and minnows died August 13 when a pipeline owned by Mid-America ruptured and released anhydrous ammonia into the stream.

This money will be used for an estimated three-year fisheries restoration program along the four-mile stretch of Cow Creek, according to Richard D. Wettersten, Commission director.

The restoration will involve stocking 100 harvestable size (10-14 inches) channel catfish per acre per year for three successive years. This will allow area fishermen to continue catching harvestable fish until the natural stream population recovers.

This particular stretch of Cow Creek is heavily used by many fishermen because of its close proximity to Hutchinson.

OUTDOOR BOOKS BY KANSANS

If you're into snakes or buffalo, you'll be interested in the publication of two new books. <u>Amphibians and Reptiles of Kansas</u> by Joseph T. Collins and The Buffalo Book by David A. Dary, are both authored by Lawrence men.

Collins is a vertebrate preparator at the Museum of Natural History while Dary is assistant director of university relations at KU and also teaches at the University's William Allen White School of Journalism.

Collins' book is an updated sequel to Hobart Smith's <u>Handbook of Amphibians</u> and <u>Reptiles of Kansas</u>. The new publication contains accounts of the natural history of the 91 kinds of snakes, lizards, turtles, toads, frogs and salamanders in Kansas. It is filled with more than 100 striking black and white photos.

Amphibians and Reptiles of Kansas sells for \$5 and can be obtained from the Publications Secretary, Museum of Natural History, University of Kansas, Lawrence, 66045.

Dary's book contains all the information you'll ever need to know about the American buffalo; its origins, locations, migrations, habits, its significance and role in both Indian and white cultures and its near demise and salvation. Throughout the text, Dary weaves fascinating threads of fact and folklore about this animal which was such an integral part of American history.

The Buffalo Book retails for \$15 and is published by the Swallon Press, 1139 S. Wabash Avenue, Chicago, Illinois, 60605.



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BOOKLET ON SKUNKS NOW AVAILABLE

LAWRENCE--The State Biological Survey of Kansas recently announced publication of another booklet of interest to Kansas outdoorsmen. Entitled <u>Skunks in Kansas</u>, the publication is authored by W. Thomas Edmonds, Jr., a graduate student in zoology.

Like its predecessors, <u>Ticks in Kansas</u> and <u>Chiggers in Kansas</u>, this booklet makes extremely interesting reading. Topics covered include; the skunk in history and folklore, both species of skunks in Kansas, their behavior, musk, activity, habitat and dens, food, capture, removal and control of skunks where they have become a problem.

Under the heading, "Skunks As Pets," the author writes, "The capture or possession of any wild animal for a pet or for any other purpose is illegal without permission from the director of the Kansas Forestry, Fish and Game Commission, Pratt, Kansas. A permit to engage in such activity costs \$2.00."

Since that section was written, the law has been changed. It is now legal to possess striped skunks for pets if the person keeping that skunk has a valid hunting license in his possession. Spotted skunks are another matter. To legally possess them as pets, you must have a bill of sale or receipt which indicates you purchased the animal from a licensed game breeder. You cannot legally take spotted skunks from the wild for possession as pets.

Dr. Jan Caldwell, assistant director of the State Biological Survey, said individual copies of <u>Skunks in Kansas</u> may be obtained free of charge by writing the State Biological Survey of Kansas, 2045 Avenue A., Campus West, Lawrence, Kansas 66045.

Animals such as coyotes, woodchucks, prairie dogs, gophers, ground squirrels and mice and rats, which are not legally classified as game animals or furbearers may be possessed as pets without any restrictions or requirements.

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(released August 21, 1974)

DRUM RECORD SET ON NEOSHO RIVER

PARSONS--A fishing record that has stood for more than 21 years has been broken by Tony J. Fornelli of Arma.

Using crawfish bait on trotline, Fornelli retrieved a drum fish weighing 28 pounds, two ounces. He was fishing on KOP dam east of Parsons on the Neosho River.

The drum measured 32 inches in length with a 26-inch girth. The fish was taken at 9:30 the morning of August 12.

The previous drum record was set June 27, 1953, when Louis Hebb of Howard caught a 27-pounder out of the Howard City Lake.



KANSAS DEER HUNTER WINS NATIONAL AWARD

(released September 19, 1974)

PRATT--A Topeka sportsman who shot a whitetail deer during the 1973 Kansas firearm deer season qualified for the silver bullet award from the National Rifle Association.

The Kansas Forestry, Fish and Game Commission reports Sgt. Keith D. Hendrix of the Topeka Police Dept. will receive the coveted award Sept. 27 at the annual Kansas Peace Officers Association convention in Topeka. This award is made each year to the NRA member who takes the largest game animal on the North American continent.

Sgt. Hendrix was chosen for the recognition after shooting the largest typical whitetail deer. The deer was taken Dec. 1, 1973 in Jefferson County, approximately one-half mile from where Hendrix was born. The deer measured 174 5/8 inches on the Boone and Crockett scale.

Care of Your Camping Equipment

By Farrell Brewer, Staff Writer

CAMPING IS fast becoming one of the major outdoor activities for many families. The major inducement for family camping seems to be economic. Many people have time to travel and



have a strong desire to see other places, but it is expensive for a family to live a week or a month in motels and eat in restaurants.

As a solution, many have turned to camping. In many instances, it

Brewer

is cheaper to take the whole family camping than it is to live at home, besides providing rest and relaxation and bringing the family closer together.

On the other hand, there are those who have tried their hands at camping and met with total failure, and vow that they will never take to the outdoors with a tent again.

Camping, like any other activity, requires basic knowledge and skill. Some knowledge can be gained in the comfort of air-conditioning and the old armchair. However, experience is the best.

I would suggest that before you beat a path to the nearest camping products dealer you either go camping with a friend who has experience or at least visit with a veteran camper.

Fish and Game

Those who vow they will never camp again usually have met with some problem that soured them on the sport. Some probably just bought equipment and took off to the wilds without any forethought or preparation.

They set up their campsites in a nice level spot, cooked supper, and hit the sleeping bags for some well earned

rest, only to be awakened in the middle of the night by a downpour and discover that they had selected a spot that floods easily.

Bad weather doesn't have to dampen the fun on your camping trip.

While some campers shudder at the sight of a dark cloud and run for home or the nearest motel, the experienced outdoorsman merely adjusts to the prevailing weather and comfortably continues with his outing. With just a few improvisions you can adapt to any weather, adding enjoyment to your trip.

Awakening to the sound of rain on a tent roof is a relaxing experience, unless you forgot to stow a supply of dry wood for just such an occasion. If you pack some candle stubs in your gear they will come in handy for this problem. Place one in the middle of a "teepee" of small wet twigs. By the time the candle burns down the stack of twigs will be dry and a fire can be started.

When selecting a site for your tent or camper check the drainage of the area and choose a spot high

It's a good idea to thoroughly clean tents and tarps at the end of the camping season.



Farrell Brewer



The box which the lantern was packaged in makes an excellent storage container.

and dry so you will not be awakened by water in your tent or find you need a tow truck to pull your camper free.

Little hints like this can be obtained from any veteran camper and when you gain experience you will have tips to share with your friends.

Equipment is an essential part of the camping experience. It has only one real purpose—to make the trip as comfortable and enjoyable as possible. Many overnight picnickers consider the amount of appliances necessary for comfort to be so great that transporting it becomes a problem. Some experienced campers use a very limited amount of equipment. The desired degree of "roughing it" will depend a lot on the individual or family.

As your skills develop you will find that more comfort can be derived from less equipment. The "Vets" of the camping world advise newcomers to buy only quality camping gear, which, with proper care and use, will last for many years.

This is sound advice, particularly the part about the proper care and use. It won't do you much good to buy quality equipment and abuse it. You will find if you don't care for your equipment it will fail you when you need it most.

Like other campers, you will have a small fortune in tents, sleeping bags, stoves, lanterns and picnic jugs, but your gear will become worthless if it doesn't get the proper care. Tents will be tough to set up if sectional poles are bent and don't fit together. You might as well sleep on the ground as on a sleeping bag that has lost all of its padding through a tear. Hot meals won't be possible if your stove won't light.

How do you avoid such incidents? Here are a few easy suggestions based on manufacturers' recommendations—that will keep your gear in top shape and help retain its value.

Store gear in a cool, dry place. But even more important is what you do with your gear before you store it. Before-storage maintenance really pays off according to manufacturers.

Let's start with your tent, since it is one of the most expensive items in your inventory. Turn it wrong side out and give it a thorough brushing with a stiff brush. Do this every time you are finished using it, not just when you are putting it up for the winter months. Sand in the floor seams or twigs caught in the threads of the fabric will wear and weaken the sturdiest of materials.

Examine the tent for dirt spots that won't come out with brushing. These may be cleaned with mild soap and warm water, or if you find a stubborn spot, use cleaning fluid. Next, make any necessary repairs using adhesive mending tape on small tears and sew-on patches for larger holes.

After your tent has been used for several seasons or if you have spotcleaned it several times, it should be re-coated with water repellent. If this is done before storage, the tent should be thoroughly aired to prevent the possibility of spontaneous combustion.

A couple of tips while using your tent; never spray insect repellents in such a way that the liquid spray gets on the tent since many of these sprays tend to impede the water resistance of the canvas. Also you should never rub the inside of the canvas or have anything touching it during a rain as it may break the surface tension and cause the tent to leak.

When folding your tent for storage, fold it in a different place each time. This gives the surface equal wear and helps prevent strain along creases.

Metal tent poles are very important; even though they are usually treated with corrosion resistant material they can be kept in better working order if they are cleaned and oiled lightly. Be sure to store your tent and poles separately as the points can puncture the fabric if rolled inside.

Sleeping bags are delicate pieces of equipment and need to be handled with care, and down-filled bags need special pampering. The first step in preserving a down bag's life is to keep it clean so that it will seldom need dry cleaning or washing. When down becomes soiled it loses its fluffiness and consequently its warmth. Repeated cleaning or washing harms down fibers. The answer is a cotton liner which can be removed and cleaned after each use.

Even with extra care your sleeping

bag will eventually get dirty. If you decide to have it dry-cleaned be sure you take it to an establishment that handles such items. You may wash down bags, but this is a job requiring time, care and patience. Don't use detergents as they have an oil-removing action that injures down. Instead, use a mild, pure soap and warm water. If you are determined to wash your sleeping bag be sure to follow the manufacturer's recommendations.

Drying the bag is a slow process. It can be done in a commercial dryer at a low heat but the best method is putting the bag outdoors in a breeze.

In addition to care in cleaning, bags need careful repairs. You should check your bag for holes and rips and mend them before storage.

Synthetic-filled bags require about the same care as down bags in cleaning, repairs and storage. They may be dry-cleaned by a reputable firm. Some can be washed in a home machine, but take care to use a low water temperature and speed, and a low temperature later in the dryer. (Check the label for instructions.)

Compared to other camping equipment, insulated jugs and ice chests require little maintenance and preparation for storage. Just clean with water and a light soda solution, and dry thoroughly. Then open the spigot, unscrew the cap, or prop open the lid to allow air circulation. If you will save the shipping cartons from your jugs and chests they will make excellent storage cartons. In the event someone was careless and poked a hole in your cooler, they can often be patched with fingernail polish.

Most camp stoves require the use of clean, unleaded gasoline fuel. Some manufacturers package their own fuel and recommend using it exclusively. They do state, however, that clean white gasoline may be used. Never use fuel containing lead compounds or lubricating oils as they will damage the stove.

Clean your stove after each use. Match heads and other foreign particles around the burner will cause smoky tongues of yellow flame.

The pump leather should be oiled at least twice a year and with clean motor oil or neatsfoot oil; a few drops will do the trick. This will keep the leather soft and pliable.

For extended periods of storage, fill the tank with clean fresh fuel. Empty this fuel from the tank and start with fresh fuel when taking it out of storage.

The stove generator changes liquid fuel to a vapor. Eventually it may fill with carbon so no fuel can get through it. To avoid problems, you should to store and transport it in the shipping container or other such box. Store and transport the lantern lying on its side.

Campers use many more items than mentioned here, but a book would be needed to cover each item. One of the best bits of advice would be to save the instruction pamphlet that comes with each item, read it thoroughly be-



Keeping a small camp stove clean means better fuel consumption and cleaner operation for the camper.

carry a spare generator and the instructions for replacing it in your gear.

Gasoline lanterns require the same fuel precautions and pump leather oiling as does the stove. You should carry spare mantles for your lantern. When in use, rotate the cleaning needle level frequently. This keeps gum and carbon from clogging the generator tip opening.

Keep the lantern clean. It is well

fore using the equipment, and refer to it often.

Remember the most important step in storing your equipment comes before storage. Clean, well-maintained camp gear is twice as much fun to use and you'll find it lasts a long time.

With this information and the experience you will gain you should have fun camping in the Sunflower state.

Fish and Game

Kansas Fish & Game Interview

(NOTE: To have heard the name Marvin Schwilling, it's necessary for you to meet only two qualifications: (1) Be a resident of Kansas, and (2) be nuts about duck hunting.

Schwilling, waterfowl project leader for the Kansas Fish and Game Commission, was born and raised near Cottonwood Falls. The GI Bill helped finance Schwilling's college education after he saw service in the South Pacific during World War II. After attending Kansas State University 1½ years, he transferred to Colorado State University to graduate in 1950 with a bachelor's degree in wildlife management.

Schwilling began with the Kansas Fish and Game Commission January 15, 1951. "My first assignment was at Garden City, where I was called a district game management supervisor," Schwilling recalls. During that time he conducted two years' research on the lesser prairie chicken.

In 1954, he was assigned to the Marais des Cygnes Waterfowl Management Area as a refuge manager and remained there until 1956. That year, he accepted employment with the Nebraska Game and Fish Commission to conduct prairie grouse studies.

Schwilling returned to Kansas in 1959 and was assigned to Cheyenne Bottoms, where he has been ever since. A waterfowl section was created within the Commission that year and in 1961 Schwilling took the helm as waterfowl project leader. "It's been good here," Schwilling says; and as you watch the man survey his beloved Cheyenne Bottoms you have to believe him. An unquestioned waterfowl expert, Schwilling here explains the reason why the High Plains Mallard Management Unit was formed, why it's working well and his hopes for the future of mallard management units. KF&G: Marvin, what is the boundary of the High Plains Mallard Management Unit?

SCHWILLING: In Kansas, it's all of that area lying west of the 100th meridian. Basically, that's west of Highway 283. This highway runs through towns like Hill City, Dodge City, and WaKeeney. It also includes portions of Central Flyway states like Montana, North and South Dakota, Nebraska, Colorado, Oklahoma, Texas and New Mexico which lie between the 100th meridian and the Continental Divide.

KF&G: How many days longer is the duck season in the High Plains Unit than the season for the remaining two-thirds of Kansas?

schwilling: This year, it's seven days longer. This week of extended hunting time must be after December 10. Last year, duck hunters were given 16 extra days.

KF&G: Why are mallards only hunted in the unit?

SCHWILLING: It's not mallards only.

"Hunter success is higher in the West because there are fewer hunters and more mallards."



"The high plains season is aimed at harvesting a surplus of mallard drakes." "Hunters are encouraged to come out and hunt the high plains mallard season."





Basically, mallards are all the hunters get. Probably less than two percent of other ducks are harvested, because most other ducks have gone south to the wintering grounds. The mallard drakes are about all that stay behind. That's why the High Plains hunting is permitted—it's mallard drakes almost exclusively and we have a surplus of them. If we had a surplus of gadwalls, pintail or baldpate, the same methods could be used to harvest them.

KF&G: Let's talk about the hunter success ratio in the west during the extended season. Is it higher or lower than the ratio during the regular season in the other two-thirds of Kansas?

SCHWILLING: There can be no doubt the hunter success on birds per hunter would be higher in the west, because you have fewer hunters and a larger number of mallards. But the same thing would be true in the east if we had fewer people in the east and a higher mallard population. If we had the human population and the mallard population distributed evenly across Kansas, we would not have the opportunity to offer a surplus in any area.

If you don't use it, you lose it. You can't stockpile it.

KF&G: What condition can the duck hunter expect to encounter during the separate season?

SCHWILLING: They encounter exactly the same conditions we encounter in the remainder of the flyway. Ninetyeight to 99% of the ducks in this area are mallards in an unbalanced sex ratio.

Hunting is difficult during this period. The mallards are on their wintering grounds and wintering flocks are restricted to large bodies of water, like reservoirs. They leave only mornings and evenings for the feed fields. They'll range 20-30 miles out from the reservoir. Hunting is a real challenge. Even though there are large numbers of birds there, they are hard to hunt. The ducks have been gun-educated through the season, in other words.

KF&G: What hunting methods work best in the unit?

SCHWILLING: If there is any open water, a large number of decoys would be the most effective. The large flocks don't decoy well to small numbers of decoys.

To be successful, you have to determine where the birds are feeding and set up for them. You have to follow them and set up for them; you can't just go in there and scare 'em up. They're almost universally on private land and you must have permission from the landowner. Really, it's probably the most difficult waterfowl hunting we have. Sometimes, you can crawl on them but usually one shot is all you get—then the whole bunch spooks.

You see, you may have 20,000 mallards in one area. You may see up to 5,000 go into a field and you and your hunting buddies start a sneak as soon as they're in. But usually, other birds will come in and spook the ones that are down by warning them something isn't right. If you do get among them, it's boom-boom-boom and you're done. You may as well hunt for another field.

One of the better ways I've found is let them go ahead and feed. Let the big numbers leave—usually, that's after 11:00—and hunt the 'hangbacks.'

KF&G: The hangbacks?

SCHWILLING: Yes. Walk the fields like you were hunting pheasants. They will not spook nearly as much as will the big bunch; usually you'll get out just one or two birds at a time. These are the hangbacks—the birds which, for one reason or another, have stayed in the field when the big bunch left.

KF&G: Why must it be after December 10?

SCHWILLING: Because the season is aimed entirely at harvesting a surplus of mallard drakes. After December 10, basically, other species of ducks have moved out. The remaining flocks of mallards have as high as a 7:1 sex ratio, or seven drakes for every hen. There has been some reduction in this ratio since we started the High Plains Unit in 1972. In other words, it's doing just what we hoped it would do. It hasn't harmed the birds' production as far as we can tell. By the way, if you don't have the point system, you can't have the High Plains Mallard Management Unit. The point system and the unit system came in the same year.

KF&G: Why the reduction in length this year?

SCHWILLING: It results from the U. S. Fish and Wildlife Service's analysis of the habitat in the north. They want to send back a larger breeding population to the improved breeding grounds there. By reducing the bag limits this year, it should accomplish that. The fall flight is predicted by the Service to be "no change from last year," but the regulations are more restrictive to send back a larger breeding population next spring.

KF&G: What is the purpose of the unit's separate season?

SCHWILLING: Simply for good game management as we know it. We in the wildlife field would like to see wildlife considered a renewable resource and we'd like to leave as much for breeding purposes as we can.

Here, we had a resource that was being underharvested. By permitting more harvest for the resource, that amounts to good game management.

The idea behind the High Plains Unit is very good, but it creates jealousy among duck hunters.

KF&G: That brings us to the next question. Some eastern Kansas duck hunters feel the Commission is slighting them and favoring the westerners. How would you respond to this?

SCHWILLING: Actually, if we had the surplus resources in eastern Kansas we would certainly love to have the hunters take advantage of it—but the surplus resource is simply not there. The resource we have is utilized by many more people, so we don't have the available surplus we have in the High Plains. We could permit longer seasons and higher bag limits in the east like we do in the High Plains area, if we had lower human populations and higher mallard populations in both areas. But we don't. KF&G: Would you encourage duck hunters from other parts of Kansas and out-of-staters to take advantage of this unit, or is it pretty much hunting for locals?

SCHWILLING: Absolutely, we encourage them to take advantage of it. The surplus is there and we would encourage any hunter to try it to see the surplus we have and to find out how difficult and challenging it is. Anybody that is properly licensed should come out and see what we are offering the people in this unit.

You have to face adverse hunting

and driving conditions. The birds are in the middle of the reservoirs and there's no way to get them from a boat. The ice is unsafe to walk on, so you have to get the landowner's permission and hunt on private land.

KF&G: What would you like to see happen in the future with mallard management units?

SCHWILLING: We'd like to establish management units that more completely utilize the surplus. We'd like to manage the duck populations the way we manage geese. We don't use state boundaries with them. Also, we'd like to establish a central unit and permit a more liberal harvest there if the resource permits. East of the Flint Hills we're approaching maximum utilization, but it looks like we could allow more utilization in central Kansas than we're doing now. But, this could be done only by more banding and analysis of bag—and this will be hard to do. In the east, for example, we have twice the recovery rate of banded birds we do in the west. This makes it tough, but we can do it!

The big greenhead mallard drake is a favorite with waterfowlers everywhere.



A NYONE WHO has spent any time at all fishing the waters of Kansas will agree that one of the basic units used is the earthworm. Many anglers refuse to try any other bait as they have had great success with the worm. Where to get worms sometimes poses a problem in some parts of the state.

There are several ways to get the worms. You can shock them out of the ground, stumble around your yard at night looking for them with a flashlight, uproot a corner of your lawn or garden, or buy some from a bait dealer. You can also raise your own with little fuss and bother.

Worm farming has become popular with many anglers. Some have even turned their efforts into extra cash by selling excess worms to other fishermen.

There are as many ways to raise worms as there are persons raising them. In this article I will set out

Raise Your Own Bait

By Farrell Brewer

several tried and successful methods. One constant is the basics necessary for the earthworm to survive.

In order to survive and multiply, worms need a favorable environment and something to eat. The necessary environment is moist soil that is protected from drying out, flooding and freezing. Worm food is almost anything organic — weeds, leaves, hay, straw, chicken mash, cornmeal, coffee grounds, and vegetable discards.

Raising your own worms is an economical way of beating today's high bait prices.



Worms can be raised anywhere; in the garage, basement or in the back yard, and you can have an elaborate set-up or a very basic one.

Let's start with a basic one that can be used in the basement or garage. You will need a box; the size depends on how many worms you are going to raise. An old produce box that can be obtained at a vegetable market will do the trick. You can fill the box with good topsoil and be successful; however, when you start to take the worms out of the box for use, you may have a bit of trouble with the soil compacting. I suggest using a bedding of good quality peat moss. This substance is loose and easy to work with. Then simply contact another worm raiser and obtain a brood stock, place them in your worm bed and feed them. When your fishing fever is high, go to your worm bed, harvest some worms and head for the water. Sounds simple, doesn't it?

Another simple worm bed is constructed of exterior plywood measuring $4 \times 2 \times 2$ feet and set eighteen inches into the ground in a garden or other loose soil.

Getting this bed started takes little effort. Make the box or get a suitable one and remove its bottom. The only important dimension is the height, which should be about two feet.

Pick a spot for the box. Dig a hole to size, set the box about two-thirds of its height into the ground, and fill in around the outside.

Line the bottom inside the box with a several-inch layer of leaves, weeds, grass, straw, or anything similar. Then cover that layer with several inches of a mixture of rotted manure, peat moss and topsoil. Thoroughly moisten the contents of the box with water. If green material is used it may heat for a while as it decomposes, so it would be best to wait a week before putting any worms into it.

Feeding the worms is also up to the individual raiser. Some use commeal or chicken mash. If you intend to raise just enough worms for bait perhaps kitchen discards will do for food.

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Healthy worms are hard to beat as a top notch fish bait.

Most worm raisers put a wet burlap sack over their bed to retain moisture and provide insulation. Black plastic sheeting may be substituted for the sack. When worms are needed they may be dug.

You can avoid the digging by using

a bale of straw or hay instead of the burlap or plastic. Soak a bale with water, let it drain, and remove the wires. Separate the bale into uniform sections several inches thick. Use enough of these placed on edge, to cover the surface of the bed. The insulating qualities of the compacted straw will help keep your worms fat, happy, and reproductive summer and winter. And moist straw is good food supply. Many worms will work up into it or be on the ground just beneath it. Whenever you want bait, just pull up a section of straw, pick out as many worms as you need, and drop the straw back.

In time overpopulation will become a problem. One solution is to have two boxes. Let your first box winter over covered with straw. There'll be thousands of worms in it come spring. At this point start a new box, stocking it with breeders from the first box. Get your bait out of the old box all summer, but in the fall dig it up and set it aside until spring. The new one will be full by then, and it will be time to start the other box.

Either way, each spring you'll have enough bait to supply the entire neighborhood.

Probably the best worms to put in the above-mentioned worm beds is the red wiggler. They multiply fast and provide excellent bait.

Another type of worm that can be very profitable and provide excellent bait is the night crawler. To raise this worm requires a little more space, as they are raised outside, not in boxes.

First, cultivate a couple of acres and seed it with grass and clover. Night crawlers like clover particularly. Then seed the area with worms. If you want a fast start, you might plant 100,000. Even then you wouldn't want to pick any for a full year. After a year, you could harvest that initial 100,000 and by the next year five times that.

One nice thing about night crawlers is that you don't have to feed them. All you have to do is cut the grass periodically (not letting it get more than three inches high), water it, and pick the worms. When the nights are warm (over 40°) and the ground is moist the worms will emerge to breed and eat dead grass. That's when you catch them.

Your neighbors will think you have gone batty when you start harvesting the night crawlers. You must creep around the area with a flashlight trying to keep quiet so you won't frighten them back into their holes. A night crawler will always keep its tail in the hole so he can escape if anything approaches. When you grab him, you must be careful not to pull too hard. He might tear in two, or be stretched far enough to cause internal injury. When pulling a crawler who refuses to let go of his hole, loosen your grip and place your hand on the ground next to the hole. When he contracts, he will loosen up, and can then be pulled out with ease.

There are many other ways to raise worms for fun and profit. I talked to J. A. Lyon of Newton who has been raising worms as a hobby for nearly thirty years. He described some of his methods to me and I will share them with you, but he won't divulge all of his secrets and very understandably so. He is now retired and may go into worm raising in a commercial way to supplement his income.

Lyon has sixteen or seventeen large worm boxes in a room in his garage. He takes his worms seriously and does much experimenting in feeds and temperatures that worms do best in and on.

He claims a worm needs a special diet and their food supply needs to be monitored closely. Many worm raisers feed laying mash but Lyon doesn't recommend it as many brands contain copper and salt. Lyon has found that the salt will dehydrate the worms and the copper will chill them.

He grinds his own feed from wheat and corn and says the finer the grind the better as large particles will become lodged inside the worm and cause it to break off and become a "shortie." Corn and wheat are the basic ingredients to his feed and then he puts in several "secret" additives.

He contends you need to know the protein content of the feed and maintains his near 14% since more than that will kill the worms.

Lyon contends a worm will eat his own weight each day, so if you have a hundred pounds of worms feed a hundred pounds of feed.

He fills his worm beds with peat moss and prefers sphagnum type when he can get it. He soaks the moss for twenty-four hours in rain water before

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putting it into the boxes. He recommends squeezing the excess moisture out before using it.

He also recommends sterilizing the worm bed with boiling water to kill all bacteria before putting in the peat.

Lyon raises wax worms, African crawlers, "goldies" and another variety or two.

He keeps a special box of worms for his own use and for friends, and feeds them a special toughening formula to keep them on the hook. He claims a toughened wax worm is a real dandy, and says that a fish needs to be educated at Harvard to take this worm off a hook.

Lyon says that the time to strip or harvest a bed is up to each individual, but one thing to watch before stripping is to be sure that all feed has been consumed. It is not good to stir the feed into the bed. Now that you have a thumbnail sketch on worm raising, let's talk about using them.

I have a friend that swears by good worms for bait. He must know what he is talking about as he usually brings home a nice stringer of channel cats when he goes fishing.

He contends that worms need to be put on a hook a special way. Every worm has a breeding ring, sometimes called the life line. This is a heavy band around it about one-third of the way down from its head. Be careful to insert the hook below this ring. Bring it out on the head side without going through the worm. This leaves the bait on the hook so that it can roll along in the current and wriggle naturally.

Give earthworms a thought for bait. I'm sure you will find them an excellent selection.

J. A. Lyon of Newton raises worms as a hobby. Here he grinds his own worm feed from a mixture of corn and wheat.





Q. What is the law on using a spotlight when hunting at night?

A. It is illegal to use a spotlight, headlight or other artificial light for the purpose of spotting, locating, taking or attempting to take or hunt any live animal while having in your possession any firearm, bow or other implement which can be used to kill game. However, it is legal to use an artificial light when taking raccoons or other furbearing animals when those animals have been treed with the aid of dogs. When using an artificial light, it is illegal to hunt with any firearm larger than a .22 caliber rifle, using only .22 short or .22 long rimfire cartridges. It is unlawful to use .22 long rifle cartridges when hunting with an artificial light.

Q. What are the requirements under the law for keeping a wild animal pet?

A. It is unlawful to have any game or furbearing animal or bird in your possession unless you have a scientific collector's permit issued by the Kansas Forestry, Fish and Game Commission for possession of that animal or bird. These permits are normally issued only to colleges, universities and biological institutions. However, it is legal to possess these birds or animals provided you have a valid bill of sale or other papers which indicate you purchased the bird or animal from a licensed game breeder or pet dealer.

Q. Is it legal to shoot from a county road or highway?

A. The law states that it is illegal to shoot, hunt or pursue a bird or animal "from any traveled public road or railroad right-of-way that adjoins occupied or improved premises, without having first obtained permission of the owner or person in possession of such premises."

EDITOR'S NOTE: Each month, hundreds of letters reach Fish & Game Commission headquarters with questions regarding various phases of the department's activities, policies, projects and plans. In addition, we receive numerous queries about hunting, fishing, trapping and wildlife. As space permits in future issues, we'll publish some of these questions and their answers to provide Sunflower sportsmen with a greater appreciation and understanding of their Fish & Game Commission and the Kansas outdoors. If you have a question, mail it to FISH & GAME FORUM, Box 1028, Pratt 67124.

Q. Who is required to take the Commission's Hunter Safety Course?

A. Anyone who was born after July 1, 1957 and wants to hunt with firearms or bow, must have a certificate of competency or a hunter safety card which indicates successful completion of the Hunter Safety Course. This is not required for those who hunt on their own land.

Q. What is the so-called "running season" on 'coon, fox and 'possum?

A. The running season extended from August 1, 1974 through September 30, 1974. During that period, it was legal to pursue (but not take or kill), 'coon, 'possum and fox with hounds. A season of this nature was requested by 'coon hunters since they need some time prior to the regular season to field test and train their young dogs. The regular hunting season opened October 1, 1974 and runs through February 28, 1975.

Q. If I'm over 65 and exempt by law from being required to buy a hunting or fishing license, can I still take a full bag limit?

A. Yes, provided you abide by all the legal methods for taking game or fish. However, you must have a valid duck stamp in your possession if you hunt waterfowl. Q. Do we have any eastern or western diamondback rattlesnakes here in Kansas?

A. No for all practical purposes. There is one record for *Crotalus atrox*, the western diamondback, from Cherokee County. However, it's suspected that the specimen involved was transported into the state by persons unknown and was not a native snake. Western diamondback rattlers have been found in western Oklahoma just below the Kansas line and ranchers in Barber, Comanche and Clark counties say the reptile is found in that area. The eastern diamondback is not found west of the Mississippi River. The three native rattlers in Kansas are the prairie rattler, the massasauga, and the timber rattlesnake. The latter is confined to the eastern third of the state; the prairie rattler ranges the western half and the massasauga or pygmy rattler is scattered across most of Kansas. Herptetologists say the prairie species is probably our most common rattlesnake in terms of sheer numbers. The copperhead, our fourth poisonous pit viper, occupies the eastern third of Kansas.

Q. I have quite a few woodchucks on my farm and have heard they're good to eat. What's the best method for taking them?

A. Groundhog or 'chuck hunters in eastern states swear by a flat-shooting rifle like a .222, 22/250 or a .243 equipped with a scope. Ardent 'chuck hunters say a pair of field glasses or a spotting scope is essential since woodchucks are extremely wary and many shots are at least a hundred yards. Woodchucks, if taken young and fried, are tasty with a flavor similar to squirrel. The older animals are tough and grisly though, and require pressure cooking.



THE DOVE SHOOTER'S HANDBOOK by Dan M. Russell; Winchester Press, 460 Park Avenue, New York, NY 10022; 1974; 256 pages, \$6.95.

For a long time now, I've wondered why someone didn't write a book about dove shooting. Someone finally has. That someone is Dan Russell, a wildlife biologist for the Kentucky Department of Fish and Wildlife Resources. He is eminently well qualified to write about mourning doves, having worked with the species since 1949. And while dove management is his vocation, dove shooting is his avocation.

In The Dove Shooter's Handbook, Russell explains everything you'll need to know in order to improve your gunning and get the most out of the sport: what doves eat, how they migrate, how they have adapted, and even prospered with changes in agriculture and hunting pressure; what equipment is best and how to use it; how to find the best dove shooting areas; how management programs are working to improve your sport and some super looking recipes for cooking the doves after you've bagged them. Illustrated with scores of photographs, this is unquestionably the book that dove shooters have wanted for a long time.

THE EDUCATION OF A TURKEY HUNTER by William Frank Hanenkrat; Winchester Press, 460 Park Avenue, New York, NY 10022; 1974, 216 pages, \$8.95.

Every now and then you meet a hunter or fisherman who is so involved with his particular sport and quarry that it becomes his whole reason for being. I've never met Frank Hanenkrat but after reading his book it's easy to imagine him being that way about turkey hunting and turkeys.

Hanenkrat learned his turkey lore from old-timers, from game management scientists, and from over fifty years of hunting the birds and observing them in the field. In this remarkable new book he tells you what he has learned about turkey hunting and how he has learned it in a narrative so filled with suspense, surprise, humor, and at times touching sentiment that it stands as a solid piece of literature in its own right. The reader shares the entire span of Hanenkrat's absorbing education, from childhood blunderings to meditations on time and the fact of growing old.

Throughout this narrative, you get what amounts to a complete course in how to hunt wild turkeys—guns, loads, dogs, calls, clothing, stalking—all the basics of hunting this bird which during the last two decades has staged one of the most impressive comebacks in the national wildlife management picture. Hanenkrat includes the secret tricks and ploys, the privileged information that turkey men normally pass along only by word of mouth to their sons or their close friends. And Hanenkrat delivers all this information in an easy going style, colored with anecdotes so unforgettable that you can't help but remember the lesson.

The growing fraternity of Kansas turkey hunters will want to read *The Education of a Turkey Hunter*.

HOW TO ATTRACT, HOUSE, AND FEED BIRDS by Walter E. Schutz; Macmillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022; 1974, 196 pages, \$2.95.

From time to time, especially during the winter months, we receive letters asking how to feed, attract, and house songbirds. Walter Schutz's book has all this information and more. It tells you all you'll need to know about providing food and shelter for birds to help them survive. It describes trees, shrubs, and vines that lure birds. It gives complete directions for preparing seed mixtures and bird delicacies such as grit, suet, and peanut butter variations; and it contains 17 feeder plans including suet log feeders, platform feeders, hopper feeders, and shelf feeders. The book also shows how to make and care for a concrete bird bath, provides more than 30 plans for houses designed for the comfort of wrens, swallows, woodpeckers, robins, and many other birds. There's even a plan for a three-story 14family martin house. All these plans are detailed for the do-it-yourselfer. The publication also describes how, when, and where to find birds: how to identify them; mentions bird photography, bird banding, urban bird watching, caring for sick birds, constructing guards to protect birds from their enemies and shows maps of migration routes.

THE WORLD OF THE WOOD DUCK by F. Eugene Hester and Jack Dermid; J. B. Lippincott Company, Philadelphia and New York; 1973, 160 pages, \$5.95.

For the past several years, Lippincott has published an ever-expanding series of Livng World books on popular North American birds and animals. Like its predecessors, this is an excellent publication.

Dr. Eugene Hester, a former faculty member of North Carolina State University, is currently Chief of Fisheries Research for the Bureau of Sport Fisheries and Wildlife. Jack Dermid, former editor of the magazine, *Wildlife in North Carolina*, is now an assistant professor of biology at the University of North Carolina. For years both men have been deeply involved with the welfare of the wood duck.

The authors weave their own years of experience and observation into those of other biologists for an intimate look at these fascinating birds. The authors follow the woodies to their wintering grounds, where the ducks pair off, and then to the spring breeding grounds, where the young are hatched in the cavities of trees-and are required to jump into the outside world. The reader observes the growth of the young and the lives of their parents through the summer months, and in the autumn we see the wood ducks as they congregate in evening roosts and take a hunting trip down a southern river. All aspects of the ducks' lives-including behavior, migratory patterns, eating habits, molts, nesting, predation, and mortality—are covered in the text and in the remarkable photos.

In a chapter titled "The Wood Duck and Man" the recovery of the species from near extinction to its present-day abundance is discussed, along with the problems of the future. The final chapter explains how interested individuals can build nesting boxes and make a personal contribution toward protecting the wood duck.

