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Joyce Harmon Depenbusch
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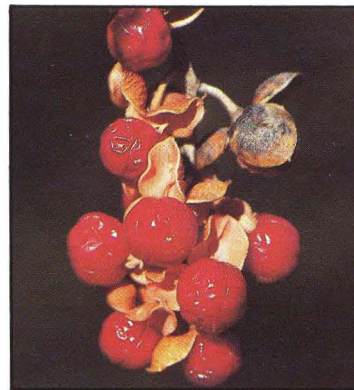
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About The Covers

Front: Gene Brehm photographed this 8-point white-tailed buck during the rut last November. Brehm used a 400mm lens and set his shutter speed at 1/125th of a second. Aperture was f/8.

Back: Working from a blind, Mike Blair photographed this wood duck drake early one morning. Blair used a 400mm lens, a shutter speed of 1/250th of a second. Aperture was halfway between f/5.6 and f/8.

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Editorial Creed: To promote the conservation and wise use of our natural resources, to instill an understanding of our responsibilities to the land.

THE BUCK STOPS HERE



On Deer Permits

This fall more than 40,000 Kansans will hunt deer in-state. A \$2.5 million computer and about 20 Fish and Game Commission employees spent a lot of time preparing the deer permits those 40,000 hunters must carry.

I take that back. Pratt-based personnel spent several months working on the deer permit drawing, which assigns successful applicants to one of the four hunts they've selected. The computer, however, had the easy job. An IBM 3033 randomly drew the names in a mere 30 seconds. More on that feat later.

Feeding that computer, gathering the information for the drawing, that's where all the time comes in. The process began in early May, when 210,000 big-game applications were printed at Pratt headquarters.

Firearm deer permits began returning to headquarters on July 1. Licensing personnel processed 500 applications that day, and the forms continued to arrive steadily throughout the next two weeks. But on the final days before deadline, the applications arrived relentlessly — 5,700 arrived on the 16th, another 5,400 on the 17th and 5,000 on the 18th.

Rose Ewing has been heading up the deer permit program since 1974, so she's used to the last-minute rush. A day or two before the July 18 deadline Mrs. Ewing begins to feel like the U.S. Postal Service on April 15 — the worst is yet to come. But Americans have a habit of barely making deadlines, and Kansas deer hunters are no exception. On the last day of the application period, 20 applications arrived via express mail or overnight delivery. And at least one caller had a special request.

"If I fly my permit into the Pratt Airport, can you please have one of your people come pick it up?"

"Yes, we can," was the reply.

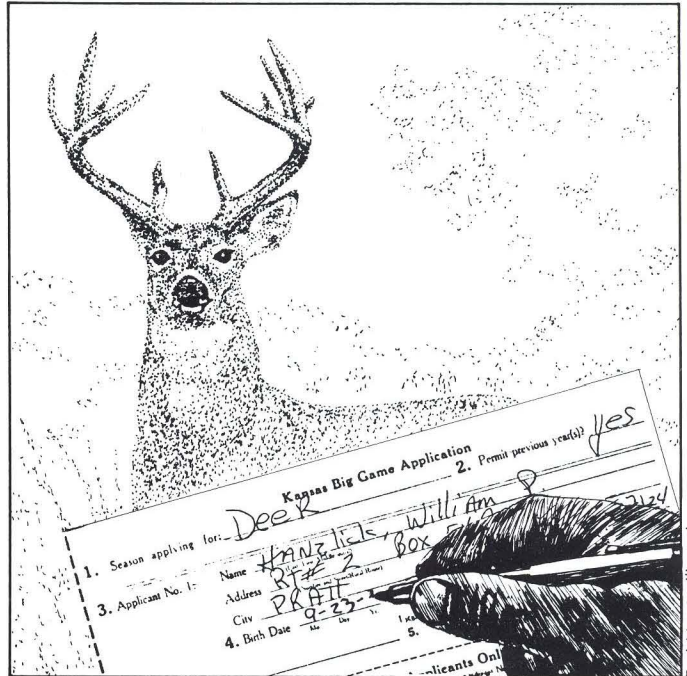
"We try to go the extra mile with the hunter," says Mrs. Ewing. Or a little extra. Fish and Game headquarters is eight miles from the airport.

Hand-delivery is the most common way of just beating the deadline. "They'll drive across the state to meet the deadline," says Karen Beard, licensing's deer clerk. "And they won't just have their own application. They'll have the whole town's."

All applications are then reviewed. Each blank must be filled out correctly. If so, the enclosed check is cashed. Licensing operates under the premise that all checks will clear the bank. That's usually a safe bet. Only 57 of some 40,000 checks received this summer were rejected for insufficient funds.

If there's a problem on the form, the applicant is informed of the boo-boo. Say the application is unsigned. A licensing clerk will return the unsigned form along with a note of explanation. So long as the signed application is returned by deadline, it's accepted. If not, it's rejected. There's no changing that rule. Other empty blanks — a missing address or birth date, for example — are usually corrected over the phone.

Most applications, however, are completed correctly. Once in-house, they're given validation and reference numbers. When all the forms have been processed, the megabrain IBM goes to work.



Paul G. Koenig illustration

On the morning of Aug. 13, systems analyst Milt Martin instructed the computer to run the permit drawing. The computer, 230 miles away in Topeka, then stored the Fish and Game job at the bottom of its execution list. First come, first served. Even with computers.

Minutes later the computer had worked the Fish and Game program to the top of the list, and at 10:04 began randomly pairing the applicants with their permits. At 10:04:30 the job was done. Thirty seconds. This particular computer can handle 5 million instructions per second. The deer permit program was a piece of cake.

The next step, of course, is getting the word — good or bad — to all applicants. Some choose not to wait for the mail, and that's fine. Licensing expects the bombardment of calls. One fellow called and asked about his and four friends' applications. Good news, sir. All of your friends drew permits. Now the bad news. You did not. Another fellow calls in each year and always asks for the same clerk. The fellow's been lucky recently, so he's usually happy when he hangs up. The man has a standing promise that he'll take the friendly clerk out for dinner the next time he swings through Pratt.

He'll have a tough time of it, though. The clerk is a happily-married grandmother.

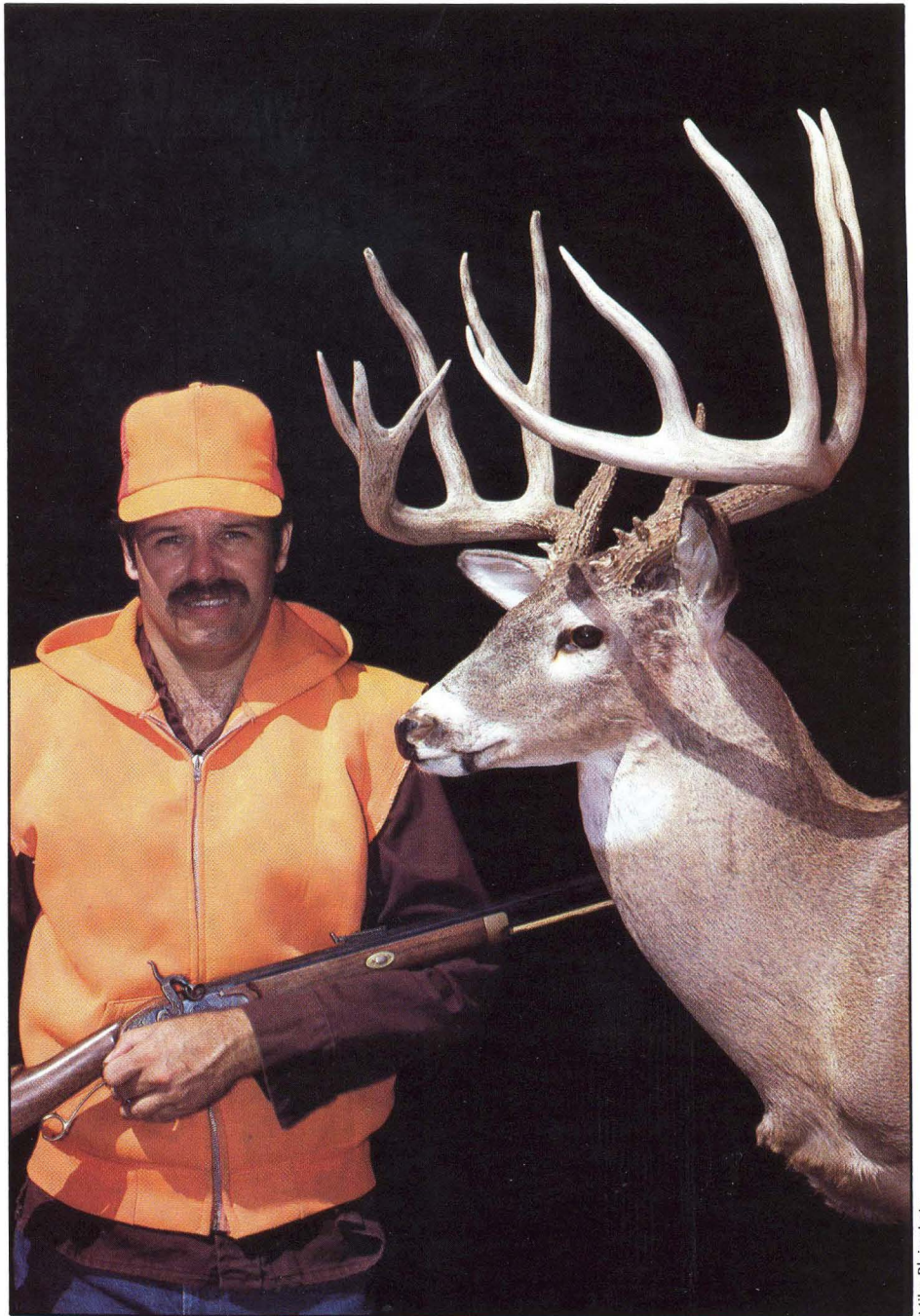
Paul

Paul G. Koenig
Editor

The Big Bucks Of Kansas

The Sunflower State is home to excellent deer hunting. And some huge bucks. Believe it.

Tom Mosher of Emporia poses with the huge Chase County whitetail he shot the last Saturday of the 1984 Kansas deer (firearm) season. Mosher used the .50-cal. Hawken he's holding to take the 14-point typical buck. Measured under the Boone and Crockett Club scoring system, this buck tallied 184 $\frac{1}{8}$ points, good for eighth place in the state record book. See the table on Page 5. Mosher's buck, which was 4 $\frac{1}{2}$ years old, weighed 230 pounds on the hoof.



Mike Blair photo

by Paul G. Koenig
Editor

In December 1965 Kansas held its first deer season in modern times. Kansans could hunt during the five-day season by permit only. Drawing a permit was a matter of getting lucky.

Lee Odle of Stockton got lucky.

Odle was one of 3,925 hunters issued a firearm permit that first season, but unlike most of his counterparts Odle showed little enthusiasm for deer hunting.

"I didn't hunt much (that first season)" Odle said recently. "I wasn't too excited. People wanted to know why I didn't hunt more, and I kept telling them I was waiting for the last day to get a big (buck)."

Odle wasn't kidding although he didn't know it at the time.

On the last day of the season, Odle and a partner quit hunting about 8:30 a.m. An inch of snow wet covered the ground, and Odle was so cold and wet

from traipsing through Rooks County canyons that he didn't care if he even saw a deer that day. The warm cab of the pickup felt so good, in fact, that he didn't feel like getting out to check on a lone muley doe traveling up a nearby draw. But what the heck.

Odle and his hunting partner left the cozy cab, followed the doe up the draw and spotted "a good bunch of deer." Odle's partner sighted on one of the two bucks in the herd, pulled the trig-

ger and dropped a 7-pointer. Odle sighted on a much larger buck, shot, missed high, shot again, again missed high, then finally corrected for the errant shooting. Odle bolted the .30/06 and racked in his third and final shell. He'd left his extra ammo in the pickup.

The big buck was running by now. Odle made his third and final shot, hitting the target just back of the shoulder and below the loin. The buck collapsed.

Closer examination showed the non-typical buck sported 10 points on its right beam and 14 points on its left beam. The huge muley scored 260²/₈ points, making it the firearm state record for non-typical mule deer.

Odle's record has stood ever since, and he's as proud today as he was 21 years ago in that snow-covered pasture. Folks still drive through his Phillips 66 service station in Stockton to see the huge antlers. Some come to buy gas, find the mammoth rack above the cash register, then gawk for several minutes. Even the regulars can't help but give it another look for the umpteenth time.

Seven hours after Odle killed his deer in 1965, Thad Douthit of St. Francis was sighting on his huge non-typical buck in Cheyenne County. Douthit's buck scored 239⁷/₈ points, making it the second-largest non-typical mule deer ever taken by a Kansas gun hunter.

The Odle and Douthit bucks are memorable, but the men are just two of more than 150 Kansans in the table on Page 5. The table lists the Top 20 bucks in each of eight categories. Several hundred more Kansas deer hunters have taken bucks big enough to make the state record book.

Where do these big deer come from and what does it take to make the Kansas record book? The Kansas Fish and Game Commission sets these minimums for eight categories:

Firearm

- Typical whitetail — 135
- Non-typical whitetail — 150
- Typical muley — 150
- Non-typical muley — 185

Archery

- Typical whitetail — 115
- Non-typical whitetail — 120
- Typical muley — 135
- Non-typical muley — 150

Points are awarded under the Boone and Crockett Club scoring system for big-game animals. This scoring system determines where a particular buck ranks in the standings.

Now, about where those big Kansas whitetails and muleys come from . . .

Everywhere. Or just about. A survey of state awards shows only seven Kansas counties (Stanton, Stevens, Grant, Wichita, Crawford, Bourbon and Harper) have not accounted for a trophy-size deer in the state record book. All other 98 Kansas counties have given up at least one buck that's qualified for state recognition.

Counties that have given up 20 or more trophy-sized whitetails and

muleys since 1965 are: Chase (29), Greenwood (27), Butler (26), Wabaunsee (22), Cowley (22), Stafford (22), Lyon (22), Republic (21), Reno (20), Clark (20), Washington (20) and Riley (20). These figures reflect both archery and firearms kills.

Gray County has given up more Top 20 deer (nine) than any other county. Only Barber, Sheridan and Rawlins can even come close with six. Please see the distribution map on Page 4.

Text continues on Page 6.



Gary Brehm of Pratt was one happy bowhunter the day he dropped this 10-pointer late in the 1984 bow season. The Pratt County buck scored 175⁵/₈ B and C points, which ties it for ninth place in the archery whitetail category. The buck weighed 165 pounds field dressed.

The Big Bucks Of Kansas

Cheyenne TMF-19 NTMF-2 NTMF-9	Rawlins TMF-2 TMF-11 NTMF-11 NTMF-17 TMA-12 TMA-15	Decatur TMF-13	Norton TMA-6 TMA-16	Phillips	Smith NTMA-8	Jewell	Republic NTWF-1	Washington	Marshall TWA-7	Nemaha TWF-1 TWF-16(tie)	Brown NTWA-18	Doniphan
Sherman TMF-8 TMF-10 NTMA-1	Thomas	Sheridan NTWF-13 TMF-1 NTMF-5 TMA-7 TMA-17 TMA-18	Graham TMF-12 TMF-14 NTWA-12	Rooks NTWF-7 NTMF-1	Osborne TMF-9 TMA-19	Mitchell NTWF-2	Cloud TMF-7	Clay TWA-8	Riley TWF-5 TWF-14 TWA-5	Pottawatomie	Jackson	Atchison NTWA-5 NTWA-17
Wallace NTMA-12	Logan NTWF-6 TMF-6 TMA-3	Gove NTMF-13	Trego NTMA-11	Ellis TMF-20 NTMF-16 NTMF-18 TMA-20	Russell TWF-4 TWF-16(tie) NTWF-19 TMF-5	Lincoln TWA-20	Ottawa TWA-11	Dickinson NTWF-20 TWA-9(tie)	Geary NTWF-14	Wabaunsee TWF-10	Shawnee	Jefferson TWF-18 NTWF-8 TWA-3 TWA-4
Greeley	Wichita	Scott TWA-18	Lane NTMA-9	Ness NTMA-2 NTMA-14	Rush	Ellsworth TMF-17(tie) TWA-1	Saline TWF-9	McPherson TWA-6 NTWA-2	Morris TWF-6	Lyon TWF-11 NTWA-8	Osage NTWF-12 NTWF-15 NTWA-6	Douglas NTWF-16 NTWA-11
Hamilton TMA-10	Kearny TMF-3 NTMA-7	Finney TMF-4 NTMF-3 NTMA-6 NTMA-17 NTMF-12	Hodgeman TMF-15 NTMA-10	Rice TWA-15 NTWA-13 NTMA-3	Barton	Edwards TWA-17	Marion NTWA-3	Chase TWF-7 TWF-8 TWF-19	Franklin NTMA-4	Miami NTWF-4 TWA-14	Johnson TWF-20	Wyandotte
Stanton	Grant	Haskell	Ford TMA-1 TMA-2	Pawnee	Stafford	Harvey	Butler TWF-15 NTWA-19 TMA-4	Greenwood NTWF-18 TWA-2 NTWA-1	Coffey NTWF-11 TWA-19 NTWA-20	Anderson	Linn TWF-13 NTWF-3	Franklin NTMA-4
Morton NTMA-5	Stevens	Seward	Gray TMF-17(tie) NTWA-9 NTWA-10 NTWA-15 TMA-5 TMA-9 TMA-11 NTMA-15 TMA-14	Kiowa TMF-16	Pratt TWA-9(tie)	Sedgwick NTWA-14	Woodson	Allen	Wilson TWA-13	Neosho	Bourbon	Woodson
Morton NTMA-5	Stevens	Seward	Meade NTMA-13 NTMA-16	Barber NTWF-5 NTWF-10 NTMF-4 NTMF-7 NTMF-14 NTWA-16	Harper	Sumner	Cowley TWA-16	Elk TWF-12	Montgomery	Labette	Crawford	Cherokee

Legend: T = Typical W = Whitetail F = Firearm
 NT = Non-Typical M = Mule A = Archery

Note: Using the legend above, you can see where the state's biggest bucks have fallen. A designation of TWF-2, for example, represents the No. 2-ranking typical whitetail taken with a firearm. NTMA-5 stands for the fifth-biggest non-typical mule taken with a bow. The Top 20 bucks are ranked for the following categories: typical whitetail (firearms), non-typical whitetail (firearms), typical mule (firearms), typical whitetail (archery), non-typical whitetail (archery) and typical mule (archery). Only 18 bucks are listed under the non-typical mule (firearms) heading, and 17 are given for the non-typical mule (archery) listing. The vacancies are due to a lack of qualifying entries. All bucks are measured using the Boone and Crockett Club scoring system.

State Deer Records

White-tailed Deer

Mule Deer

Rank	Score	Name & Address	Year	County of Kill
Top 20 Typical (Firearms)				
1.	1982/s	Dennis P. Finger, Netawaka	1974	Nemaha
2.	1947/s	William Mikjanis, McLouth	1985	Leavenworth
3.	194	Michael A. Young, Cedarvale	1973	Chautauqua
4.	189	Milton Wellbrock, Victoria	1968	Russell
5.	1887/s	Robert E. Luke, Riley	1984	Ft. Riley
6.	1863/s	Garold D. Miller, Delavan	1969	Morris
7.	1856/s	Waneta Pendergraft, Cottonwood Falls	1985	Chase
8.	1844/s	Thomas D. Mosher, Emporia	1984	Chase
9.	184	James R. Bell, Derby	1985	Saline
10.	1823/s	Norman Anderson, Alma	1966	Wabaussee
11.	1816/s	Kenneth C. Haynes, Emporia	1969	Lyon
12.	1794/s	Lowell Howell, Colwich	1973	Elk
13.	1785/s	Ronald F. Ware, Blue Mound	1977	Linn
14.	1778/s	Kelly D. Gulker, Milford	1983	Ft. Riley
15.	1767/s	Craig Waltman, Towanda	1982	Butler
16.	176 (tie)	Don Mai, Hoisington	1981	Russell
16.	176 (tie)	Joseph Schmelzle, Seneca	1985	Nemaha
18.	1745/s	Keith D. Hendrix, Topeka	1973	Jefferson
19.	1743/s	Valerie Ringler, Emporia	1984	Chase
20.	1741/s	Ralph Schlagel, Olathe	1984	Johnson

Top 20 Non-Typical (Firearms)				
1.	2586/s	John O. Band, Courtland	1965	Republic
2.	2511/s	Theron E. Wilson, Asherville	1974	Mitchell
3.	2292/s	Merle Cleve Beckman, Mound City	1984	Linn
4.	2266/s	Gary A. Smith, Paola	1970	Miami
5.	2216/s	Robert L. Rose, Kiowa	1972	Barber
6.	218	Dale Samuelson, Oakley	1967	Logan
7.	2044/s	Thomas Jakopic, Woodston	1982	Rooks
8.	203	Dale Heston, Oskaloosa	1982	Jefferson
9.	2017/s	Leon Smith, Sedan	1973	Chautauqua
10.	2014/s	Joe Ash, Medicine Lodge	1975	Barber
11.	1965/s	Charles D. Sergeant, Lebo	1985	Coffey
12.	1933/s	Howard Lilly, Melvern	1982	Osage
13.	1924/s	Morris Foster, Jennings	1965	Sheridan
14.	1923/s	Joyce Krause, Woodbine	1984	Geary
15.	1901/s	Douglas Bush, Melvern	1975	Osage
16.	190	Dan Norris, Berryton	1977	Douglas
17.	1874/s	Bryan Morehead, Greensburg	1982	Clark
18.	1833/s	Brett Clanton, El Dorado	1983	Greenwood
19.	1831/s	Ernie Amerine, Great Bend	1966	Russell
20.	1823/s	Lyle Gugler, Wichita	1970	Dickinson

Top 20 Typical (Archery)				
1.	1836/s	Jim Willems, Windom	1985	Ellsworth
2.	1824/s	Boyd Schneider, Madison	1984	Greenwood
3.	1822/s	John Welborn, Meriden	1982	Jefferson
4.	182	Michael J. Rose, Topeka	1982	Jefferson
5.	1797/s	Stan Christiansen, Hudson	1973	Riley
6.	1783/s	Larry Daniels, Wichita	1967	McPherson
7.	1766/s	Ray Mosher, Frankfort	1966	Marshall
8.	176	Rayford Willingham, Manhattan	1985	Clay
9.	1753/s (tie)	Gary L. Brehm, Pratt	1984	Pratt
9.	1753/s (tie)	Gary Stroda, Hope	1985	Dickinson
11.	1753/s	Gary Gans, Bennington	1985	Ottawa
12.	1752/s	Gerald Stroot, Colwich	1981	Kingman
13.	1725/s	Ronald G. Box, Wichita	1974	Wilson
14.	172	Dan R. Moore, Olathe	1982	Miami
15.	1717/s	Stan Christiansen, Hudson	1981	Rice
16.	1715/s	Michael Snyder, Winfield	1985	Cowley
17.	1701/s	Jay Schaller, Kinsley	1968	Edwards
18.	170	Monte Floyd Barker, Scott City	1973	Scott
19.	1696/s	Jack McCullough, Americus	1984	Coffey
20.	1693/s	Gerald Huehl, Salina	1985	Lincoln

Top 20 Non-Typical (Archery)				
1.	2496/s	Clifford G. Pickell, Wichita	1968	Greenwood
2.	2092/s	Lonnie Ensminger, McPherson	1968	McPherson
3.	2064/s	Bruce Schroeder, Hillsboro	1985	Marion
4.	202	Dennis L. Rule, Wichita	1982	Clark
5.	2005/s	Kirby A. Clifton, Atchison	1973	Atchison
6.	1994/s	Joe A. Rose Jr., Carbondale	1977	Osage
7.	1993/s	Phillip Kirkland, Dodge City	1981	Comanche
8.	1974/s	John R. Clifton, Emporia	1984	Lyon
9.	1915/s	Randall Koehn, Montezuma	1985	Gray
10.	1914/s	Wayne Herron, Cimarron	1983	Gray
11.	1907/s	Leon J. Bidinger, Perry	1983	Douglas
12.	1884/s	Donald Berry, Penokee	1970	Graham
13.	1873/s	Galen Crabbs, Sterling	1984	Rice
14.	1852/s	Al Weaver, Wichita	1965	Sedgwick
15.	1847/s	Allen D. Bailey, Montezuma	1982	Gray
16.	1832/s	Gary Blasi, Pratt	1983	Barber
17.	1826/s	Rick Baker, Lancaster	1983	Atchison
18.	1821/s	Bill Butrick, Reserve	1985	Brown
19.	1794/s	Jeff Stevens, Wichita	1982	Butler
20.	1793/s	Sam Martin, Emporia	1979	Coffey

Rank	Score	Name & Address	Year	County of Kill
Top 20 Typical (Firearms)				
1.	1874/s	Edward Karnes, Studley	1965	Sheridan
2.	1842/s	Fred Gilbert, Colby	1966	Rawlins
3.	1827/s	Glenn I. Meyers, Deerfield	1984	Kearny
4.	1813/s	Stan Smith, Garden City	1981	Finney
5.	1804/s	Roland Dupree, Natoma	1966	Russell
6.	180	Deloris Miller, Garden City	1982	Logan
7.	179	Paul L. Wilson, Glasco	1967	Cloud
8.	1781/s	Rex Murray, Goodland	1982	Sherman
9.	1763/s	Terry Lee Murphy, Alton	1973	Osborne
10.	1741/s	Leroy Baalman, Goodland	1970	Sherman
11.	1737/s	Charles Barnett, Colby	1983	Rawlins
12.	1725/s	Evelyn Hoeting, Morland	1967	Graham
13.	1692/s	Kenneth Marshall, Norton	1967	Decatur
14.	1684/s	James D. Bell, Narka	1965	Graham
15.	1681/s	Jim Kellenberger, Jetmore	1974	Hodgeman
16.	1677/s	Bruce D. Wedel, Wilmore	1981	Kiowa
17.	1676/s (tie)	Rick Connally, Ellsworth	1978	Ellsworth
17.	1676/s (tie)	David W. Simmons, Garden City	1983	Gray
19.	1673/s	Pete O'Brien, St. Francis	1965	Cheyenne
20.	1667/s	Vernon Hladek, Ellis	1982	Ellis

Top 20 Non-Typical (Firearms)*				
1.	2606/s	Lee Odle, Stockton	1965	Rooks
2.	2397/s	Thad J. Douthit, St. Francis	1965	Cheyenne
3.	2297/s	Herman Lang, Garden City	1969	Finney
4.	2293/s	Kenton Ray, Medicine Lodge	1981	Barber
5.	2143/s	Marlene M. Riley, Wichita	1974	Sheridan
6.	2091/s	Danny R. Fenton, Bucklin	1982	Clark
7.	2061/s	Barton L. Crow, Medicine Lodge	1983	Barber
8.	2056/s	Charles Uhl, Wilmore	1977	Comanche
9.	2052/s	Dwayne Mays, Ogallala, Neb.	1971	Cheyenne
10.	2024/s	Wayne Fredrick, Pratt	1982	Comanche
11.	197	Dennis J. Pianalton, Atwood	1965	Rawlins
12.	1964/s	Joseph R. Richardson, Garden City	1985	Finney
13.	1932/s	Lee Bollinger, Utica	1980	Gove
14.	1926/s	Ed Lenkner, Coats	1985	Barber
15.	1917/s	James Zook, Larned	1979	Comanche
16.	1914/s	Wayne W. Smith, Ellis	1971	Ellis
17.	1861/s	Donald J. Burks, Atwood	1975	Rawlins
18.	1685/s	Gilbert Balthazar, Palco	1966	Ellis

Top 20 Typical (Archery)				
1.	1783/s	Larry Ochs, Dodge City	1968	Ford
2.	1755/s	Merle Schulte, Dodge City	1974	Ford
3.	1742/s	Thomas B. Standard, Winona	1967	Logan
4.	1736/s	Alfred L. Weaver, Wichita	1970	Butler
5.	1727/s	Bob Barnes, Dodge City	1966	Gray
6.	1723/s	Greg McCall, Greensburg	1985	Norton
7.	1715/s	Delmer Foster, Hoxie	1966	Sheridan
8.	1714/s	Dan Fenton, Bucklin	1980	Clark
9.	1701/s	Dick Masters, Dodge City	1968	Gray
10.	1694/s	Harlan L. Gilbert, Topeka	1982	Hamilton
11.	1684/s	Dana Lupton, Montezuma	1984	Gray
12.	1671/s	William W. Manning, Hays	1973	Rawlins
13.	167	Stan Christiansen, Hudson	1985	Reno
14.	1657/s	Allen D. Bailey, Montezuma	1985	Gray
15.	1656/s	Steve Baird, Brewster	1984	Rawlins
16.	1655/s	Joe Schroeder, Wichita	1979	Norton
17.	1634/s	Kevin J. Ryan, Colby	1974	Sheridan
18.	1631/s	Steve Hein, Grainfield	1977	Sheridan
19.	1624/s	Gary Krier, Salina	1984	Osborne
20.	1618/s	Scotty Baugh, Concordia	1976	Ellis

Top 20 Non-Typical (Archery)*				
1.	2246/s	Robert W. Brock, Goodland	1974	Sherman
2.	2116/s	Ralph Stum, Ness City	1966	Ness
3.	2094/s	Jerry Skellenger, Sterling	1978	Rice
4.	1977/s	John R. Coblenz, Topeka	1966	Franklin
5.	1965/s	Kevin White, Elkhart	1982	Morton
6.	1947/s	Jay Sloan, Garden City	1967	Finney
7.	1937/s	Robert J. Price, Deerfield	1985	Kearny
8.	1931/s	Linton Haresnape, Lebanon	1981	Smith
9.	1906/s	Dennis Schroeder, Dighton	1977	Lane
10.	1884/s	Craig Knobbe, Jetmore	1984	Hodgeman
11.	1857/s	Terry L. Martin, WaKeeney	1974	Trego
12.	1765/s	Aaron Feist, Sharon Springs	1974	Wallace
13.	1713/s	Richard Nordyke, Liberal	1971	Meade
14.	1708/s	Vernon McBee, Utica	1969	Ness
15.	170	Rodney Lies, Dodge City	1968	Gray
16.	1646/s	Kent Davis, Meade	1972	Meade
17.	1505/s	Stanley A. Coval, Wichita	1971	Finney

* — One of two categories with openings in the Top 20.

interesting stuff, this deer hunter's trivia. What follows are a few more factual tidbits gleaned, in part, from state deer records.

* The Kansas deer herd is estimated at 250,000-300,000 animals. About 90 percent of the herd are whitetails, the remaining 10 percent muleys.

* Seven of 10 Kansas firearm hunters killed a deer during the 1985 season. Three of 10 bowhunters killed a deer last year.

* In 1984 (the last year for which records are complete), 72 percent of the bucks taken in the Gyp Hills (Barber, Comanche and eastern Clark counties) were at least 2½ years old.

That's the age at which Kansas bucks usually sport enough headgear to meet state minimums for recognition.

The second-highest percentage of mature bucks came from the Cimarron Unit, where 64 percent of the bucks harvested were 2½ or older. The Cimarron Unit encompasses western Clark, Meade, Seward, Stevens, Morton, southern Stanton, southern Grant and southern Haskell counties. The Cimarron's best hunting is generally considered to be the eastern half.

* Forty percent of the Kansas bucks taken in 1984 were 2½ years or older.

* The Gyp Hills consist primarily of fertile agricultural lands interspersed

with stretches of grasslands and stands of eastern red cedar. Keith Sexson, the state's deer project leader, believes the region's high calcium content helps account for the region's heavy-beamed bucks. The low hunting pressure also keeps more of the bigger bucks around for the following season.

* The intensely farmed Gray-Finney-Ford county corridor also produces some thick-beamed bucks. Big irrigated fields of wheat, alfalfa, corn and milo attract and keep deer in the area. The low hunting pressure helps keep the herd prospering.

* Farther north, the Ft. Hays limestone region (specifically Sheridan, Graham, Rooks, Ellis and Russell counties) has produced many trophy-sized bucks over the last two decades. Calcium is the chief component of limestone.

* Sherman, Cheyenne and Rawlins counties in extreme northwestern Kansas are known for big bucks, too. Sherman County gave up the No. 1-ranked non-typical mule deer (archery), Cheyenne County produced the No. 2-ranked non-typical muley (firearm) and Rawlins can boast the No. 2-ranked typical muley (firearm). Sexson attributes these big monster bucks, in part, to the light hunting pressure.

* The Flint Hills region also produces some big bucks. Eight Flint Hills counties list 20 or more bucks that qualify for state honors. The counties are: Riley, Wabaunsee, Lyon, Chase, Coffey, Butler, Greenwood and Cowley.

* Chautauqua County has given up more bucks in the last five seasons than any other county. Adjoining Montgomery and Cowley counties ranked second and third.

* Bowhunters intent on getting a buck this fall may want to work one of the nine counties that have given up 200 or more bucks since 1981. The nine counties are: Cherokee, Cowley, Butler, Lyon, Sedgwick, Reno, McPherson, Barton and Trego. Four other counties — Sumner, Montgomery, Greenwood and Coffey — each gave up more than 190 bucks during the last five years.

* Central Kansas seems to be where bowhunters have their best success on trophy-sized bucks. Adjoining Stafford, Reno and McPherson counties each have 18 entries in the state record book. Each of these bucks scored at least 115 Boone and Crockett points, the minimum score for a bow-killed deer. In western Kansas, Gray County has 15 archery records to its credit.



Mike Blair photo

On the third day of Kansas' first-ever deer season (1965), Edward Karnes of Studley shot this huge muley buck. Karnes knew he'd killed a big buck, but he didn't realize how big. He found out last January. The buck Karnes is showing here is the state-record (firearm) typical muley.





The drake wood duck is considered by many to be one of the most beautiful birds in the world. Few would disagree.

Woodrow

The wood duck thrives here, often in habitat other states would consider marginal at best. A glimpse at this secretive Kansas resident.

by **Marvin Kraft**
Waterfowl Project Leader
Emporia

photos by **Mike Blair**

Many species of ducks live in and pass through Kansas each year. While several of these species have been recorded nesting in our state, only the blue-winged teal, mallard and wood duck are common residents during the breeding season.

Of those three, the wood duck (*Aix sponsa*) stands out by way of its looks, character and lifestyle.

The male woody is considered by many to be one of the most beautiful birds in the world. Unlike most ducks, which usually nest in pothole/grassland habitat, the wood duck in Kansas is more often an inhabitant of the

wooded creeks, rivers and wetlands associated with rivers. Woodies use any available flooded timber or swampy areas extensively.

Wood ducks may be hard to spot. Whether this is the result of the wooded, brushy areas they inhabit or possibly the bird's shy nature is unknown. The end result, however, is that few Kansans are aware of or ever see the No. 1 nesting duck in our state. Often the only sign that woodies are present is the *wee-e-e-k, wee-e-e-k* call of the hen as she leaves the area.

There are two separate breeding populations of wood ducks in North

America. One occurs in the Pacific Northwest, the other in roughly the eastern half of the United States. Kansas is on the western edge of this larger eastern population. These birds winter in the Southeast, stretching from Texas to North Carolina and as far inland as the southeast corners of Oklahoma and Missouri. The western population winters in California.

The wood duck is a classic example of a species that suffered near catastrophic population declines and then recovered through sound management. In recent years woodies have usually ranked as the first or second

most numerous duck harvested in the Atlantic and Mississippi flyways.

The wood duck's darkest days occurred in the early 1900s. The population had declined drastically. Some conservationists feared the woody was near extinction. There were several reasons for this predicament, but overharvest by both sportsmen and market hunters was a major factor. Waterfowl seasons often extended from September through April. Bag limits were extremely generous, occasionally nonexistent. Unregulated commercial market hunting was common. America's settlement brought increasing drainage of swamps and marshes and clearance of riverbottom timber. These two factors further contributed to the woody's decline.

In 1918 the Migratory Bird Treaty Act between the United States and Canada gave the wood duck needed protection. With the sport and commercial harvest thus outlawed, wood ducks recovered rapidly. In 1941 some eastern states allowed a limited season with a one-bird bag. Since then, bag limits have been liberalized as the population has grown. The long-term loss of habitat, however, makes it unlikely that wood duck populations will ever build to the pre-1900 levels.

Most woodies arrive in Kansas during late February and March. Hen wood ducks usually breed as yearlings and are already paired with a drake when they arrive. Usually one to three weeks later, the search for a nest cavity begins. The female, or hen, is the leader in this activity. The drake merely tags along.

Several research studies have shown the female wood duck has a very strong homing tendency. Almost all surviving hens return to nest near where they gained flight or previously nested. In some instances, an older hen will nest in the same cavity used the year before. Usually, though, the nest will be less than a mile from last year's nest.

The search for a nest cavity may occur throughout the day, but is most intense during early morning. Frequently the hen will perch on a limb providing good visibility and scan the area for cavities. If one is spotted she flies to it, clings to the edge and looks in. If a closer inspection is warranted, she will enter the cavity. The hen repeats this activity until she finds a suitable nest.

Frank C. Bellrose reported that wood ducks in Illinois preferred natural cavities at least 30 feet above the

ground, although some were found as high as 65 feet and others as low as 2 feet. Most nests are found near woods, usually within one-half mile of water and brood habitat.

Once a suitable nest cavity is chosen, egg laying begins. Hens usually lay eggs at a rate of one per day until the clutch, normally 11-13 eggs, is complete. Woody hens do not gather nesting materials, so the litter present in the cavity is used to shape the nest and cover the first eggs. After she lays five or six eggs, the hen plucks down



A female wood duck takes a few seconds to rearrange a feather or two.

feathers and add these to the nest. As the clutch nears completion, the hen piles on even more down.

A rather common occurrence with wood ducks, called dump nesting, is the result of two or more hens laying eggs in one nest. More than 40 eggs have been recorded in one nest. In one instance, 29 young hatched from a total clutch of 33 eggs. Whether this activity is an innate characteristic of woodies, a result of inexperienced hens or a scarcity of nest cavities is unclear. Whatever the reason, this phenomenon occasionally results in increased production in an area with few nest cavities.

Incubation lasts about 30 days, and

it's a job for hens only. Although the drakes are usually around during the early stages of incubation (accompanying the hen when she leaves the nest to feed and rest), they normally desert their mate before the young leave the nest. The male then goes into seclusion during the molt, a period when the drake loses some of its feathers and is flightless.

The peak of hatching in Kansas occurs in late May and early June. After the young hatch, they remain in the nest about 24 hours. The hen then leaves the nest, checks the area for danger and calls the young.

The jump from the nest to the ground may be more than 60 feet, but the ducklings land unhurt and begin the trek to water and brood habitat behind the hen. It's at this time that many young are lost, particularly if the overland distance to water is great.

The female remains with the young until they're about five or six weeks old, but then leaves them to begin her molt and flightless period. During these first weeks of life the young feed almost exclusively on insects. As they grow older they eat more plant food. Adults commonly feed on acorns, mulberries, grapes and waste grain.

Woodies are present in Kansas almost anywhere there's quiet water and woodlands. This combination is most abundant in the eastern half of the state. That's why we have the highest occurrence of wood duck nesting and production in that region. Woodies also inhabit wooded streams and rivers in western Kansas.

From 1975 to 1977, state Fish and Game personnel annually conducted about 30 wood duck surveys on Kansas rivers and creeks. Each survey consisted of floating about 13 miles of selected river or stream in late May and early June. The floats were made in a canoe and usually during the early morning. Survey results indicated the breeding populations and densities on Kansas waterways were surprisingly similar to those found in eastern states.

Data from all survey routes was averaged. The findings showed that Kansas had a wood duck nesting effort for about every two miles of river or stream surveyed. During 1977 more than two wood ducks (both young and adult) were observed per mile floated. Some rivers were annual standouts for wood duck production. The Elk, Neosho, Cottonwood, Marais des Cygnes and Solomon were among those that usually attracted high numbers of woodies. In 1977, 6.8 wood ducks per mile (the highest density in the state) were observed on a stretch of the Solomon River in Ottawa County.

Wood ducks are managed by habitat and harvest. Landowners and sportsmen are frequently interested in doing something for wood ducks since this is the species that nests on the land they own or hunt. Often the concerned person's first inclination is to plant duck foods and erect nest boxes. While these activities are frequently beneficial to woodies, other approaches may be more important.

Wood ducks require nesting, brood-rearing, molting and roosting areas. Although food and feeding areas are necessary, there were no instances during the course of our wood duck investigations where lack of food appeared to be a limiting factor.

Where nest cavities are scarce, woody numbers can be increased by allowing large, old trees such as sycamores, silver maples, cottonwoods, elms and oaks to develop and thrive. If these trees are lacking, however, nest boxes can be erected.

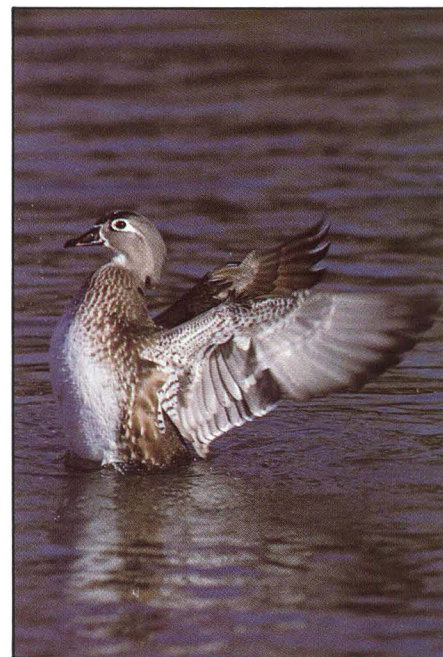
Ducklings that leave the nest may not live long enough to enter the fall population. In fact, many ducklings perish before learning how to fly. One of the key elements necessary to increase survival is adequate brood habitat. Brood habitat consists of dense overhead cover above water. This type of cover also is attractive to hens selecting nest sites. Our studies lead us to conclude that dense overhead cover, which is necessary to attract breeders and provide safe cover for young, may be the major limiting factor for wood

ducks in Kansas. When dense overhead cover was absent, woodies, particularly young, were seldom seen. The development of brood habitat by blocking small drainages and creating small 3- to 5-acre marshes along river and stream courses is an excellent way to increase wood duck numbers. In many instances, beavers do this riverine yardwork for us.

Woodies are not territorial in the usual sense, so it's possible for several nests to be located near one another. In areas where adequate breeding and brood habitat are present, wood duck nest boxes often help increase production. Concerned sportsmen and hunting clubs have given unselfishly in building and placing wood duck nest boxes in Kansas.

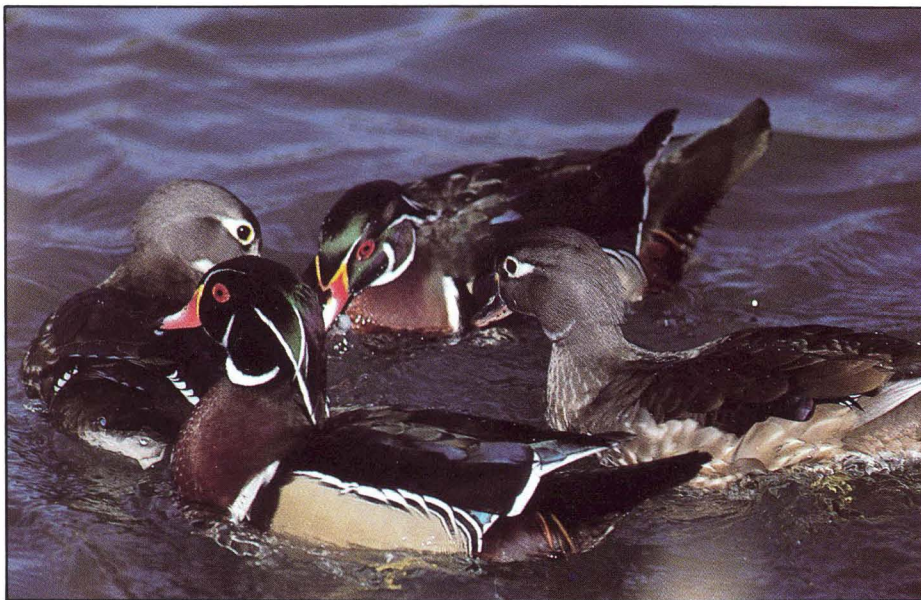
Nest boxes should be well-constructed, well-placed, maintained and predator-proof. Boxes that aren't predator-proof may be of little value to wood ducks; those boxes may even serve as death traps. Where numerous, unprotected nest boxes are erected, predators quickly recognize that a meal is available and systematically search the boxes.

Placement often determines how readily nest structures will be accepted and used. Boxes should be located near water and be easily visible to the ducks, not hidden by dense stands of trees or brush. Studies have shown that boxes located over water are often the first selected. Those placed in trees should be 15 feet or higher, while over-water boxes need to



Hen woodies are a mixture of browns and white but nowhere near as colorful as drakes.

A disturbance in the water brought these four woodies together for a brief encounter.



be only 4 or 5 feet above the high watermark. Some researchers suggest erecting a small number of boxes initially and then adding more when the occupancy rate reaches 30 percent to 50 percent.

Wood ducks do not carry nesting material so add 3-5 inches of wood shavings or a similar material. If the interior of the box is smooth, place a 4-inch wide strip of hardware cloth from the entrance to the floor. This will provide the necessary footholds for the young as they climb the cloth ramp and leave the nest.

Box maintenance is an important, often neglected part of the nest box program. Remove old nest material, wasp nests and other extraneous materials, then lay a bed of fresh wood shavings. Check predator guards and structure condition. For more information on wood duck nest boxes, call or write the Kansas Fish and Game Commission in Pratt.

The wood duck is a hardy, adaptable species, often thriving in Kansas in habitats which by other states' standards would be considered marginal at best. The bird's beauty is universally admired, its sporting and table qualities praised. Woodies will tolerate man's activities. All we have to do is spend a little time and effort on a nearby stream bank or wooded backwater to witness this spectacle of nature.





A wildlife conservation officer's two-way radio is an instant link to the rest of the law enforcement community. Here Jeff Gayner mans the horn.

Conservation Cops

There's more to being a wildlife conservation officer (WCO) than running down game poachers. Third in a series on state conservation jobs.

by **Doug Sonntag**
Wildlife Conservation Officer
Garnett

photos by **Mike Blair**

Wildlife conservation officers (WCOs) with the Kansas Fish and Game Commission deal with many aspects of wildlife conservation. These officers' primary duties are to enforce the fish, game and boating laws and Commission regulations. They must know the laws they en-

force, the outdoor sports they monitor and the great outdoors in general.

This job description also includes regularly performing many other closely-related duties. Some of these other duties include teaching hunter- and boating-safety classes as well as furharvester education courses. WCOs

also assist game and fisheries biologists by taking creel censuses, assessing farm pond fisheries, trapping and transplanting game animals, collecting fish eggs and conducting wildlife surveys.

Another responsibility is to keep the public informed of changes in wildlife

management practices, wildlife populations, conservation laws and Commission actions. Officers get the word out through local newspaper articles, radio and television programs, as well as by attending public meetings and talking with sportsmen and school groups. Through these contacts, officers not only keep the public informed but also receive vital information about illegal activities.

Since there are only 67 wildlife conservation officers to patrol 105 counties in Kansas, it's essential that the public provide tips on poachers. Unfortunately, there's just too much area to cover and not enough officers to cover it. Field officers must count on public support to effectively combat lawbreakers. Operation Game Thief (OGT), a toll-free hot line to report poachers, also helps fight the problem. Installed in 1984, the hot line lets concerned citizens anonymously report any illegal incident. Pertinent information is then relayed immediately to WCOs in that area. Since its inception, more than 200 calls have been

received, resulting in a 60 percent conviction rate.

WCOs have no set hours to work since law violations may occur at any hour. The work periods are varied. Schedules are adjusted to conform to peak activity periods. Holidays and weekends are usually spent working afield, and it's not unusual to see an officer on night patrol checking raccoon hunters, fishermen or scouting a problem area for spotlighting.

On hand during these peak periods of hunting and fishing activity is the WCO's unseen secretary, his wife, who occasionally serves as an answering service. She gives information to those requesting it, screens prank calls from genuine complaints and forwards legitimate tips to her officer husband through the local sheriff's office. The unmarried WCOs, however, don't have the luxury of an unpaid secretary. In those instances, working WCOs must rely on the sheriff's dispatcher to relay any messages.

During the busy season, a WCO's ordinary day might include checking



Working with the public can entail anything from helping post a no-hunting sign to sharing a special moment with a group of youngsters.



waterfowl hunters at dawn, handling a trespass complaint at midmorning, inspecting a boat at noon, checking a fisherman's creel at dusk and arresting illegal furbearer hunters at midnight. One quail hunter checked early one morning in northern Cloud County was greeted again by the same officer while deer hunting in southern Cloud County late that afternoon. The hunter's comment: "You guys are al-

most like God, everywhere at once!"

The rigors of an outdoor job, the technicalities of an eco-science and the legalities of law enforcement are demanding and complicated. It takes a special person to be a WCO.

Besides having a Bachelor of Science degree with major course work in fish and wildlife biology, an officer must satisfactorily complete basic law enforcement training at the

Kansas Law Enforcement Training Center in Hutchinson. Applicants must be of good moral character and have never been convicted of a crime punishable by imprisonment in a state or federal prison. Prior experience in law enforcement also is desirable but not required.

Since WCOs are on call 24 hours a day and have demanding schedules, they must be in excellent health. This

The Chautauqua County Sting

by Gene McCauley
Wildlife Conservation Officer
Winfield

6 a.m. Jan. 9, 1985. Heavy snowfall. Forty-two officers of the U.S. Fish and Wildlife Service, Oklahoma Department of Wildlife Conservation and Kansas Fish and Game Commission simultaneously conduct raids on residences and businesses of suspected deer poachers. Twenty-seven of 30 persons targeted confess to violations of state and federal wildlife laws. The raids end an undercover effort by the Fish and Wildlife Service, which helped bring down a deer poaching ring that had been operating in Kansas and Oklahoma.

The story began following the 1980 Kansas deer season. Landowner complained of Oklahoma hunters crossing the border into Chautauqua County. The hunters were based in deer camps in two northeastern Oklahoma counties. As the problem grew, Kansans complained from as far north as Elk County, as far east as Montgomery County.

Control efforts began in 1981 with a cooperative venture between adjoining Kansas wildlife conservation officers (WCOs) and Oklahoma rangers. As the extent of illegal hunting became apparent, enforcement efforts were increased. This included more manpower, unmarked vehicles, plain-clothed patrols and help from other enforcement agencies.

By 1983, reports from landowners, sportsmen and other concerned citi-



The deer sting operation on Jan. 9, 1985, netted numerous wall mounts. Some are shown above. The poachers were organized, but so was the state and federal effort to bust their ring.

zens reached such proportions that calls were often received faster than officers could respond. Arrests during the combined Kansas-Oklahoma firearm deer seasons reached 50. Many guns and several deer were confiscated. Fines exceeded \$11,500. But some active poachers were not apprehended. There were rumors that an organized and commercial poaching group was killing Kansas deer for head mounts as well as antler and meat markets.

Conventional enforcement was not effective with this group, so Kansas

WCOs mounted a selected enforcement effort before the 1984 season. Twenty-two WCOs and deputy WCOs were assigned to cover Chautauqua County in unmarked two-man patrols. They would be backed where possible by marked units from Chautauqua and Montgomery county sheriff's departments, the Kansas Highway Patrol, Kansas park rangers, local police officers and Oklahoma rangers. Aircraft would spot violations and direct ground units. Game check stations would operate at border crossings to search for illegal deer. The massive

condition must be maintained throughout the officer's career. Officers often spend long hours outdoors in inclement weather waiting for or tracking down a violator. Stamina is an important part of the job.

Perhaps the most important requirement, however, is experience in hunting, fishing, trapping and boating. WCOs work closely with sportsmen and must fully understand their needs,

wants and problems. This experience better equips officers to work with the sporting public in accomplishing a common goal — conservation of our natural resources.

By state law, the Kansas Fish and Game Commission is charged with the protection of all wildlife. To carry out this responsibility, the five-member commission, assisted by staff biologists and WCOs, sets regulations that limit

the harvest of certain species and restrict the taking of others. The Commission also establishes the legal methods by which game and fish species may be taken. These laws are necessary for several reasons.

We must have animals before we can hunt or fish, so preventing exploitation of our

effort seemed to say one thing: The poachers would be caught.

Oklahoma's deer opener dawned with wind-driven rain that turned to sleet. Hunting activity stalled. Air and ground surveillance was cancelled due to hazardous conditions. The entire weekend netted only 29 citations.

Several arrests were made, however, thanks to the cooperative monitoring network. One man, for instance, was cited opening morning for hunting from a vehicle. That evening, some 20 miles east, he and two others killed a deer using an artificial light. WCO Dennis Knuth ended up chasing the suspects into Oklahoma. The poachers encountered a roadblock of Oklahoma rangers at Hulah Dam. The rangers had been working spotlighters and responded to Officer Knuth's radio request for assistance. The suspects tried to avoid the roadblock but were apprehended by a Washington County (Okla.) sheriff's deputy who also had responded.

Some of the suspected poachers were arrested in their Oklahoma deer camps. We also learned that Dale Horne, senior resident agent for the U.S. Fish and Wildlife Service, had successfully infiltrated the poaching ring. He'd hunted and lived with them all fall and had tapes, photos and eyewitness testimony of nearly every deer killed.

The undercover operation showed the scope of the poachers' activities was less than suspected. Fifty deer, however, had been taken illegally in 1984. That year, legal harvest of deer in nine Kansas counties was less than the illegal harvest by this one group.

The poachers used a variety of vehicles to avoid detection, including expensive vans, large sedans and flatbed trucks rigged with farm and ranch equipment. Vehicle tags were sometimes switched. The poachers worked hard at hunting, driving continuously

from first light to dark. Night activity and spotlights, they believed, were too readily observed. Clothing was often dressy and seldom typical hunting attire. Women and children often accompanied the poachers to lend the appearance of a family traveling.

Guns were magnum calibers. The poachers wanted every deer they hit to go down and stay down. Upon killing a deer, they routinely drove away only to return later to retrieve the kill. Being well-acquainted with the terrain from previous seasons, they seldom had to mark a kill. When necessary, a can, bottle or cigarette pack wrapper at roadside was sufficient.

Occasionally dead deer would be collected at night. Or men might be dropped to secure a kill or cut off a head or set of antlers and be picked up later. Often the groups would cross paths and exchange information. In one instance, a deer was killed and left. A second group arrived later and killed a second deer near where the first had died. Neither group was aware until later what had occurred.

Most of the kills were large-antlered bucks. A few does were taken for camp meat, to fill a transferred deer tag or to give to friends. All of the bucks were killed merely for their large antlers. Some of those bucks were left to rot in the field; their antlers were smaller than they appeared when shot. There was a strong compulsion to brag among buddies about the number and size of racks taken.

Those involved included business owners, corporate executives, a state official, taxidermists, wives, girlfriends, juveniles and a couple who operated a country store and deer check station. A handful were seasoned violators of wildlife or criminal laws.

Bob Germany, the Fish and Wildlife Service's case agent, had this to say: "Most of these folks got caught up in

the trophy thing and lost sight of self-respect and hunter ethics. The competition that was generated created pressure to kill a bigger buck than the next guy and that led to crossing the state line where big bucks were plentiful . . . and it got out of hand."

On Jan. 9, 1985, 42 state and federal wildlife officers simultaneously raided the homes and businesses of these poachers; most had no idea what to expect as they opened the door.

The operation ultimately resulted in prosecution of four Kansans and 22 Oklahomans in federal and state courts. Two individuals were prosecuted on felony wildlife violations involving commercial selling. Fines for those convicted totaled more than \$35,000. Upon payment of fines, probation was granted those who received jail terms. Individual fines ranged from \$50 for hunting without a license to \$1,000 for unlawful harvest or possession of deer. The largest penalty was \$3,225 levied in state court against a Ponca City, Okla., man convicted on seven deer counts. He was assessed an additional \$3,100 in federal court for unlawful interstate transport of deer.

At least four were charged by local authorities in Oklahoma on drug violations uncovered by the raids. Cocaine was seized at one residence. Another four persons were found to be in violation of Wyoming game laws.

Illegal deer harvest will continue in Kansas at whatever level landowners, sportsmen and the public will tolerate. The more you help, the more you take the time to report unusual or unlawful activity, the more effective your WCOs will be in apprehending violators.

Are you willing to help? Get to know your local WCO. And call Operation Game Thief, 1-800-228-GAME (4263), a 24-hour toll-free number, to report any fish and game violations. Your report will remain confidential.





Addressing civic and sportsmen groups is part of a WCO's job. These officers are frequently called on as after-dinner speakers, so it helps to have a one-liner or two prepared.

wildlife is the most important reason for conservation laws. This protection helps ensure healthy wildlife populations for future generations.

Conservation laws are designed to provide everyone with an equal chance to harvest a fair share. Examples of fair-share regulations are bag and possession limit restrictions. By enforcing these restrictions, WCOs help more people enjoy a limited resource.

Another concern of conservation law officers is the safety of all outdoor-sport participants. Orange clothing requirements for firearm deer hunting, boating-safety equipment requirements and mandatory hunter-education courses are laws passed in the interest of public welfare.

Unfortunately many people ignore safety, so these protective laws must be rigidly enforced. A common attitude about life jackets is: "Well, I don't really need one because I'm a good swimmer." Sadly, most drowning victims are experienced swimmers who were indifferent toward safety rules. An officer who was issuing a citation to a speedboater for not providing a life preserver for his 2-year-old daughter was greeted with this response: "Well,

this was her first time out, and we wanted to be sure she would like it first." The officer merely replied, "Did you want it to be her last time?"

Penalties for violating Kansas fish and game laws vary from \$5 to \$1,000 and six months in county jail, depending on the charge.

Through daily contact with the sporting public, WCOs explain the conservation laws and why they must be enforced. Kansas WCOs have full law enforcement authority, accredited law enforcement training and use the same legal procedures to detect crimes and make arrests as any other peace

officer. WCOs can serve search and arrest warrants and also assist local police agencies upon request. In turn, local authorities help fish and game officers with trespass and poaching problems.

When officers learn of a violation, they issue a Uniform Notice to Appear and Complaint, commonly called a ticket. This complaint contains the person's name, address, date of birth, date, time and nature of infraction. It also sets a time and date for the violator to appear in court. If the infraction is serious enough, the violator is taken to county jail and stays until the court hearing or until bond is posted.

A violator may plead either guilty or not guilty before the judge. A guilty plea brings a fine, jail sentence or both. A plea of not guilty requires a court trial in which both the violator and arresting officer must be present. Then the judge decides, based on evidence, whether the accused is guilty of the charges.

Penalties for violating Kansas fish and game laws vary from \$5 to \$1,000 and six months in county jail, depending on the charge. In instances where a poacher is convicted of multiple charges, the courts have imposed fines of several thousand dollars and ordered all equipment used to commit the crime be seized and sold at public auction. Often violators have been ordered to pay restitution for game they have poached.

In one instance, three non-residents were convicted of taking 3,000 pounds of fish with a half-mile of gill and trammel nets. The poachers made an appeal to the judge to retain their confiscated boats, motors and nets, which were mortgaged for \$4,000. The judge, knowing they had been selling the illegal fish on the black market, quipped, "If a man is convicted of selling moonshine, you don't give him back his distillery so he can make some more as soon as he gets out of jail!"

In addition to levying huge fines, many judges are revoking the hunting and fishing privileges of first-time violators. In these cases the price of an education is quite high, but the judges believe that poachers aren't playing fair with other sportsmen and therefore don't deserve to play at all.

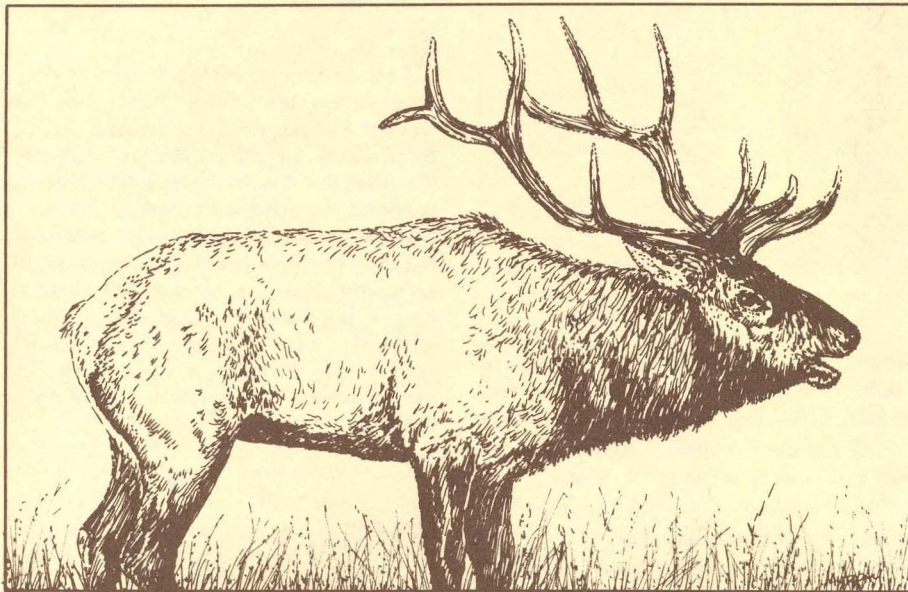
WCOs are highly-trained professionals who spend most of their lives educating the sporting public about conservation laws. The best avenues for this education usually are through personal contact and the media. At times, however, the most effective way to educate is via the ticket book.



the center section

Edited by Mike Miller

LETTERS



FORT RILEY'S ELK

Editor:

Regarding Wesley Johnson's letter and your response in the May/June issue, Fort Riley introduced a group of elk onto the military reservation last fall. As I understand it, they intend to allow hunting of the elk. So far as anyone knows (since the animals promptly disappeared into the woods) the elk are doing fine.

Angel Kwolek-Folland
Manhattan

LIMITS AGAIN

Editor:

Back to the crappie limit; I'm in favor of it. If that fellow who thinks the taking of the famous "289" is an isolated case, I can't figure out where he fishes. I see it regularly when the crappie are hitting. Fishermen are as competitive

as anyone, they all want to catch as many or more than each other. I can't say I'm not guilty. I catch many more than I can use, but I clean every one and give away what I can't use.

I'm retired and can go to a lake or pond nearly every day. I would be just as satisfied to catch a limit, whatever it might be. Twenty-five crappie over 8 inches would be a great limit.

As for the weekend fisherman, he'll be retired someday and it'll be his turn to fish as often as he wishes.

George W. Holler
Topeka

TEACHER'S AID

Editor:

I teach eighth graders at Independence Middle School and take each issue to school for

my students to read. Approximately 125 13-14-year-olds are exposed to KANSAS WILDLIFE and most of them thoroughly enjoy it. Many young people of this age group are just beginning a lifetime of hunting and fishing, and your publication emphasizes good manners and Kansas law in the field as well as promotes the beauty of Kansas wildlife.

Thank you for making my job of teaching these ideals easier.

Martha Bross
Independence

BRAVO FOR WCOs

Editor:

In my job, I work closely with members of the law enforcement division of the Kansas Fish and Game Commission. I feel these officers have one of the most dangerous jobs in law enforcement. A large number of persons they come in contact with while performing their jobs are armed, and they are usually in remote areas without backup help. I am impressed with the professionalism of the Kansas wildlife conservation officers that I know, and I hope the people of Kansas are aware of the sacrifices they make.

How about an article about the dangers of working as a WCO? As a peace officer and a landowner along the river, I frequently have to face armed trespassers, so I know firsthand about the dangers associated with the officers' jobs. I wonder if the readers of KANSAS WILDLIFE are aware. We all owe the WCOs a debt of gratitude for protecting our wildlife.

Keep up the good work on the magazine. It is an excellent publication.

Charles L. Bloss Jr.
Lecompton

Dear Mr. Bloss:

We appreciate your suggestion. There is a story about Kansas WCOs on Page 10 of this issue. It is the third in a series on state conservation jobs. Miller



JUST WONDERING

Editor:

Do snapping turtles pose any danger to people, including children, who float and swim in a 3- to 4-acre farm pond?

We enjoy KANSAS WILDLIFE immensely. The photos have helped my children to more than one Grand Award in our school's Learning Fairs.

Robert P. Hudson, M.D.
Olathe

Dear Dr. Hudson:

I asked several biologists about snapping turtles and people. Their opinions were the same: snapping turtles pose little threat to people swimming in a pond. But they do deserve respect. We could think of no instance where a snapping turtle aggressively attacked a swimmer. A turtle that is cornered or caught could seriously injure a person. They have strong jaws and are lightning quick when striking out in defense. In short, give snapping turtles a wide berth. But they shouldn't bother you if you don't bother them. *Miller*

KANSAS EXPERIENCE

Editor:

On Aug. 24 I drove from the Colorado state line to Oakley on U.S. Highway 40. I have hunted mule deer in the mountains west of Denver since the 1950s. On that night I saw a big buck mule deer with six or more points on each side. He was a big animal, weighing over 300 pounds if an ounce. At first I thought it was an elk!

Let's call this a beautiful Kansas experience.

John Cowley
Placerville, Colo.

growing in it. I estimate I feed 130 pounds of sunflower seeds, cracked corn and milo, thistle seed, millet, suet, bread scraps, paper shell pecans and black walnuts. I also have a full bird bath with a heater in the winter.

Usual visitors are: starlings, English sparrows, house wrens, robins, cardinals, screech owls, purple martins, humming birds, blue jays, pine siskins, goldfinches, brown thrashers, catbirds, Baltimore orioles, turtle doves and others.

I always have a pair of fox squirrels. They like the gray sunflower seeds and pecans.

Lawrence C. Christenson
Winfield

WHY?

Editor:

While the death of the purple martins in south Wichita is deplorable, I would like to report another death that is unmentioned. When the bulldozer channelized the waterflow in the Big Ditch, a flood control project for Wichita, it was death to nongame wildlife in the area. One of the few pleasures in the drive to the airport where I work was to see what birds were fishing the waters by the Kellogg bridge over the Big Ditch. Now that habitat is gone. Why?

Richard L. Hartman
Wichita

BIRD ENJOYMENT

Editor:

I have taken your magazine since about 1949 or 1950 when I was county attorney of Cowley County. I still enjoy it very much. I have been taking some old issues to friends in Rochester, Minn., and they enjoy them and pass them around.

I'd like to tell you about wildlife in my backyard. The yard is 75 feet by 140 feet with junipers, lilacs, japonica, Oregon holly, beauty bush, mack orange, spirea and hawthorn

MORE WILDLIFE ART

Editor:

My hunting days are in the past, and I take the magazine purely for the beautiful photos and paintings. I wish you would include the reproduction of a wildlife painting in every issue. As famous artists would likely be too high priced, you could discover new artists and give them a boost while adding interest to the magazine.

Iveta Moore
Eureka

Dear Mr. Hartman:

Habitat destruction is the biggest threat to wildlife today. Unfortunately, areas like the Big Ditch are designed for the specific purpose of flood control and wildlife interests are not a primary concern. *Miller*

THE LAW

POACHERS BEWARE

In their constant fight against poaching, Kansas wildlife conservation officers have added another weapon to their arsenal. It's a chemical analysis kit and beginning this fall, all WCOs will be carrying the kits. The kit spells bad news for poachers who may try to pass a rifle-killed deer off as a bow kill.

During the bow season, WCOs will invariably have a case where the suspect has put an archery tag on a deer that the officer suspects was illegally killed with a rifle. Firearm wounds look different than broadhead wounds, but there was no easy way to prove a wound was caused by a bullet. The new kit lets the officer test the wound right on the spot. The test, which uses a tartaric acid solution and is extremely sensitive, will show even the slightest trace of lead residue, usually present on tissues where a rifle bullet has entered.

Another evidence-gathering technique involves electrical stimulus of the animal's muscle, which will twitch in response to the current. But this movement decreases with time after death. With other test results for comparison, officers can estimate time of death.

Miller

MORE ON STEEL SHOT

Lead shot will be banned for all waterfowl hunting by 1991, according to a five-year program proposed by the U.S. Fish and Wildlife Service. Published in the June 27, 1986 Federal Register, the ban would be phased in, beginning in areas where lead poisoning of waterfowl is known to be a problem.

The phase-in plan has created some confusion over the law in Kansas. Some of the regulations have become more restrictive and new areas have been added.

Hunters must use steel shot when hunting waterfowl in the following areas: All lands administered by the Kansas Fish and Game Commission, U.S. Army Corps of Engineers and Bureau of Land Reclamation. Steel shot must

be used for waterfowl hunting on both private and public lands in Barton, Ellsworth, Cowley, Stafford, Doniphan, Jefferson, Coffey and Mitchell counties. The Flint Hills and Kirwin national wildlife refuges also will require steel shot for waterfowl hunting.

Steel shot is required for ALL shotgun hunting (this includes all game hunted with shotshells) on the following areas: Cheyenne Bottoms Wildlife Area, Jamestown Wildlife Area, Texas Lake Wildlife Area, Neosho Wildlife Area, Marais des Cygnes Wildlife Area and Quivira National Wildlife Refuge.

It should be noted that it is illegal to have lead shot in your possession when hunting waterfowl on any of the mentioned areas. On the "steel shot required for all shotgun hunting" areas it's illegal to have lead shot in your possession at any time. While the laws may be confusing, hunters should familiarize themselves with them. Steel shot is here to stay.

Muzzleloading shotguns will be exempt from steel shot regulations during the 1986-1987 season. Copper-plated lead shot is not a legal substitute for steel shot. *Miller*

OPERATION FALCON

A senior Saudi prince acknowledged that on three occasions in 1983 and 1984 he ordered and received shipments of wild gyrfalcons from the U.S. The shipments were in violation of the Endangered Species Act and Lacey Act. The prince said that he had directed others to acquire these highly prized birds of prey for him and that he didn't know about laws prohibiting such transactions.

The prince, a falconer devoted to conservation of the resource, has agreed to settle the matter by payment of \$150,000 to the U.S. Fish and Wildlife Service.

The case is a result of the Operation Falcon investigations and brings total convictions to 61, with more than \$490,000 in civil and criminal fines collected. The money has been placed in a reward account. *U.S. Fish and Wildlife Service*

ALCOHOL LAWS

Pennsylvania has beefed up their laws concerning hunting and trapping while intoxicated. The old law called for a \$25 fine plus court costs for the violation. The new law is patterned after those of the Motor Vehicle Code and Fish and Boat Code. Any person with a blood alcohol content of 0.10 percent or more is presumed to be intoxicated. Refusal to submit to a test would result in automatic loss of hunting privileges for one year. The penalty for being intoxicated has been raised to \$300 and loss of hunting privileges for one year. *Pennsylvania Game Commission*

OGT WORKS AGAIN

Last January, an anonymous caller reported through the Operation Game Thief line that a man had poached a deer. The man apparently knew the suspect as he gave law enforcement officials the suspect's name and address and that the deer was killed near Cheney Reservoir. Wildlife conservation officers Jack Dunbar, Ed Brown and Mack Long went to the suspect's house and questioned him. He gave the WCOs permission to search the premises; venison was found in the freezer. The man had no tag or permit for the deer meat.

He received a citation for illegal possession of a deer, pled guilty and paid a fine of \$177 including court costs. *Miller*

RABBIT TRAPPING

Recently, advertisements have been placed in several Kansas newspapers by shippers wanting to buy live cottontail rabbits. Kansas Fish and Game officials warn that there are special regulations governing the live-trapping of cottontails.

To trap and sell live cottontails in Kansas, a trapper's permit is required. This permit is different from a furharvester's license and is only available through Game Division. Rabbits may be trapped throughout the year, but the same daily limits and possession limits imposed on hunters are enforced. Trappers may take 10 rabbits per day and have 20 in possession.

Persons interested in trapping rabbits should contact the Kansas Fish and Game Commission in Pratt for more information. *Miller*

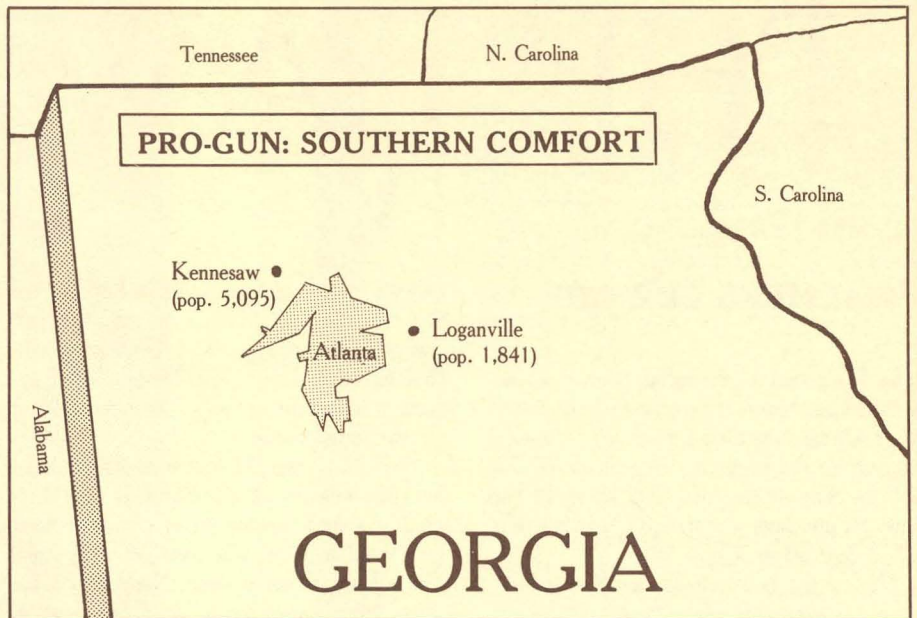
NEW PRO-GUN LAW?

The Loganville, Ga., Village Council is considering an ordinance requiring that all households possess a firearm.

Similar to a law passed in Kennesaw, Ga., the first municipality to adopt such a measure, the ordinance would have an exemption for those not wishing to have a gun in the home.

Kennesaw passed its ordinance in March 1982 as a symbolic protest to the handgun ban adopted by the Morton Grove, Ill., village board, which narrowly approved the measure June 8, 1981.

Kennesaw and 15 other communities that have adopted similar ordinances or resolutions urging gun ownership have seen a decline in their crime rates, while Morton Grove has seen an increase in crime. *Monitor NRA*



HUNGRY POACHER

A Wamego man got hungry so he poached a deer. That's what he told wildlife conservation officers. The man also said he'd do it again if he needed to. He made no bones about confessing to the crime. Catching him was the trick.

On Feb. 19, 1986, an Operation Game Thief caller reported that the man had been bragging about poaching a deer. The caller remained anonymous but said the deer carcass could be found at the suspect's house.

WCO Rick Campbell received the information and called WCOs Jay LeBeau, Glen Hurst and Bill Burlew to assist. They went to the suspect's house to question him. As Hurst and Burlew walked to the house, Campbell and LeBeau watched from a distance with spotting scopes. They hoped to see any suspicious activity after the other pair finished questioning the suspect.

As Hurst and Burlew walked up to the house, they saw a freshly quartered deer carcass hanging in the garage. A woman answered the door, said that the suspect wasn't home and that she didn't know anything about a deer.

The four WCOs were questioning a neighbor when they saw what they thought to be the suspect's vehicle arrive at his house. They quickly drove to the house. But before they could get there, the man made a getaway and a chase was on.

Wildlife conservation officers generally avoid chases, but they knew they had a good case on this suspect. The chase rolled out along the county roads near Wamego with both Fish

and Game vehicles in pursuit. Finally, when the suspect thought he was out of the sight of his pursuers, he drove off the road, down a hedgerow and hid. What he didn't know was that the second law enforcement vehicle had crested a hill and could see him as he side-tracked.

When arrested, the man admitted to killing the deer, saying he did it because he needed the food. He was issued a ticket for illegal possession of a deer during closed season. He paid \$278 in fines and spent 10 days in jail. *Miller*

OPERATION PISCES

Arrests have been made in Georgia and South Carolina for the illegal commercialization of wildlife. In Georgia, a 20-month investigation (Operation Pisces) covered 27 counties and was conducted by Georgia Department of Natural Resources conservation rangers and U.S. Fish and Wildlife Service special agents. The undercover agents set up a storefront business to infiltrate the illegal market. More than 500 pounds of alligator meat, 2,000 pounds of deer meat, 2,500 pounds of raccoon meat and 1,000 pounds of fish, including the endangered short-nosed sturgeon, were bought and sold during the operation. The gourmet food market supplied all of the business demand.

In South Carolina, 70 people were arrested in May for the illegal commercialization of deer, fish, gamebirds and fur. State warrants and

federal indictments, involving 300 counts of conservation law violations, were served as a result of an undercover crackdown involving state and federal special agents. *Endangered Species Technical Bulletin*

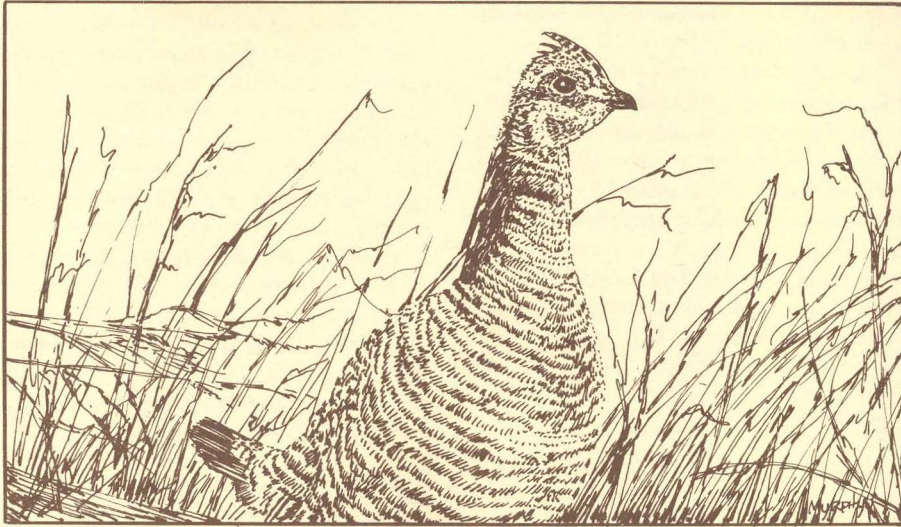
HUNTER SAFETY LAW

When making all the preparations for the opening day of hunting season, don't forget one very important thing. If you were born on or after July 1, 1957, you must complete a hunter safety course to hunt legally in Kansas.

The course is offered through the Kansas Fish and Game's Hunter Safety Program, and courses given in other states are honored. Persons under 16 must have the card with them when they hunt on land other than their own. Residents 16 years of age or older and all non-residents must have the card to purchase a license and must carry the card when they hunt until they are 27 years old.

Make sure you have your card well before the hunting season starts. If you can't find it, and you took the course in Kansas after 1973, your number is on record. To replace a lost card, write a letter with your name, address, birth date and \$2 to the Kansas Fish and Game headquarters in Pratt. A new card will be mailed to you. Or you can buy a replacement card at Fish and Game offices in Hays, Dodge City, Concordia, Emporia, Topeka, Valley Center, Chanute, Kansas City or Wichita. Receiving the card by mail will take several days so plan ahead. *Miller*

HUNTING



CHICKEN HUNT

Prairie chickens are mysterious — like ghosts from ancient grassland days. Their glory era saw vast prairies only slightly scarred by the plow. The chicken flocks were uncountable.

Those days are forever gone, but Kansas still boasts the best prairie chicken hunting in America. Prairie chickens, however, don't present an easy hunt. Often it involves a long wait at the end of a wind-swept stubblefield. Chickens aren't famous for being easy targets either. They seem to materialize out of the prairie, flying fast and high, sometimes by the hundred, as they wing toward the feed fields.

Recent Kansas seasons have yielded prairie chicken harvests ranging from 50,000 to more than 110,000, including both species found in the state — lessers and greater. Most of the harvest consists of greater prairie chickens, largely because lessers have dwindled as their western Kansas short-grass prairie habitat has disappeared under the plow. Greater are numerous where well-managed native grass pasture exists in the state's eastern half.

The best greater prairie chicken hunting is usually found where soybean or milo fields meet the southern Flint Hills' native grasslands. Most hunters find their success by situating themselves in fencerows or other cover at the edges of these feed fields.

Prairie chickens habitually come to feed shortly after dawn, usually returning to loaf in the pastures by midmorning. They fly back to

feed in mid- to late afternoon, returning to roost in the grass before dark. These predictable flights afford the most profitable chicken hunts. It's important that hunters get into position well before flight time. Being very still is more important than being completely hidden. Twelve-gauge No. 6 or No. 4 loads are probably the most popular among prairie chicken hunters. Chicken shooting demands that the gun barrel keep swinging. Pull the trigger, then follow through.

Though lesser prairie chickens feed in patterns similar to greater, they are sometimes hunted behind pointing dogs. Greater also can be hunted with dogs, but are generally reluctant to hold for a point.

Lessers are most common in areas of western Kansas where large tracts of native prairie still exist. Cut corn and milo fields are popular areas for hunting lessers.

Traditionally, the Kansas prairie chicken season opens on the first Saturday of November, one week before the pheasant opener. The tradition continues this year. The daily limit for both lesser and greater chickens is two, and the possession limit is six. *Rob Manes*

DEER RUT

Throughout Kansas, November marks the arrival of the deer breeding season, better known as the rut. Rutting activity seems to coincide with the changing photoperiod. Because of this, activity in the northern regions of the

state may slightly precede that of southern regions. Deer researchers have found that testosterone (primary male hormone) levels in the blood stream of buck deer rise markedly with the approach of autumn. It is thought that the behavioral and physiological changes characteristic during the rut are triggered by this chemical.

Pre-rut activities start as early as late August when the yearly antler growth is complete. At this time bucks rub the dried velvet from their antlers and lightly spar with other bucks within their home range. Some obvious physical changes also occur. Swelling in the neck tissue of the more mature males signals a rutting buck to the keen observer.

As the photoperiod shortens, aggressive behavior steadily increases and certain behavioral activities start. Bucks make sexual signposts called scrapes. These scrapes are found along heavily used travel lanes, bedding and feeding areas. Scrapes are made under overhanging branches. Debris is pawed away to expose bare earth where urine is deposited. Bucks mark overhanging branches with scent from glands near the corners of the eyes. Bucks also chew and rake the branches with their antlers.

As does reach estrus, chemical scents alert the dominant male in the region. This male will then follow (and often chase) the doe until she is receptive to breeding. This receptive period seldom lasts more than 24 hours. During this time the dominant male drives off any subordinate rivals, but serious fights may occur between two evenly matched bucks.

Most whitetail does in Kansas are bred during November, but extremes of the seasons may reach late September and early February. Since whitetail bucks travel more during this month of peak activity, November is the best time to observe, photograph or hunt the species. Keith Sexson, deer biologist with the Kansas Fish and Game Commission, supplies data to support these claims.

"Our archery deer hunter report cards show that 58 percent of all bucks harvested by bow in Kansas were taken during the last three weeks of November." Sexson continued, "With only 25 percent of the male deer harvest coming in October and 15 percent in December, it would seem that the bucks are least wary and most active at the peak of the rut."

Some hunters and photographers maintain vigilance near scrapes while using commercial scents to help attract their quarry. Others capitalize on the increased aggressiveness of mature bucks by rattling horns to simulate a fight between two deer. Whatever approach is taken, the rutting period is the best time to search for deer in Kansas. *Gene Brehm*

FEWER HUNTERS

Statistics show that fewer people bought hunting licenses in 1985, but paid more for those licenses. The number of licensed anglers increased.

The number of U.S. licensed hunters dropped from 16,018,250 in 1984 to 15,879,572 in 1985. However, the revenue from license sales rose nearly \$8 million. Fishing license revenue increased more than \$22 million.

The U.S. Fish and Wildlife Service notes many reasons why license sales fluctuate annually. Some of the reasons include weather, availability of game, economic conditions and changes in state regulations. So participation trends in hunting and fishing must be based on long-term changes rather than annual shifts.

Since tabulation of hunting license revenues began in 1923, sportsmen have paid more than \$4.4 billion to state wildlife agencies for hunting privileges. That money and fishing license revenues provide most of the funding for state fish and wildlife agencies.

Aside from license fees, sportsmen pay special excise taxes on guns, ammunition, archery equipment and fishing equipment. Receipts from those taxes also help fund state fish and wildlife programs. Last year, hunters paid \$120.8 million into the Federal Aid in Wildlife Restoration Program (P-R). Since the P-R Program began in 1937, hunters' taxes have provided more than \$1.6 billion. Kansas has received more than \$30 million in P-R funds since 1939. More than \$2 million was received in 1986.

Hunters also pay extra to hunt waterfowl. They must buy a federal duck stamp, the proceeds from which are used to acquire waterfowl habitat. Since the duck stamp originated in 1936, waterfowlers have contributed more than \$268 million to the federal wetland acquisition program. *Wildlife Management Institute.*

DECEMBER DUCKS

Some of the finest duck hunting anywhere can be found right here in Kansas in December. If nasty weather cooperates in northern states, large numbers of mallards flock into Kansas. In late December most of the standing water is frozen, and large numbers of ducks will concentrate along the creeks and rivers.

I've had some fantastic hunts on a marsh bordering a river. While the marsh water is usually frozen, the ducks fly along the river to and from feeding areas. My hunting buddies and I enjoy hunting over decoys much more

than pass shooting, so we break ice in the marsh and throw out a couple of dozen decoys. Our best hunts have been on cold days with hard north winds. We break out an area not more than 30 yards wide on the south side of a small timbered island. Ducks flying along the river are drawn to the sheltered water. It usually takes only a little persuasion with a call to get ducks to set their wings.

Late-season duck hunting requires a good blind and camouflage. December ducks usually have seen some hunting pressure and are cautious. We make a large blind out of materials found on the spot and either wear headnets or are careful to keep uncamouflaged faces down while ducks are overhead.

Insulated coveralls, chest waders and stocking hats are needed for a comfortable hunt. Another good warmer in late winter is a thermos full of hot soup. Sipping soup during lulls in the morning flights really warms the insides.

Miller

STAYING WARM

Bowhunters who don't fill their tags in October will be hunting in much colder weather in November and December. The 40-degree and 50-degree temperatures and light camouflage jackets will be memories. Sitting in a tree stand watching the pre-dawn light on frosty undergrowth can be a pleasurable experience . . . if you wear the right clothes.

Bowhunting from a tree stand is different than walking for pheasants and quail. Most bowhunters like to get into the stand before light. Waiting for the sun to rise can seem to last for hours when you're cold. The key is to insulate your body and then add layers. One innovation in the long underwear market is polypropylene. The thin undergarments pull moisture away from your body and wick it to outer garments. Staying dry is important in staying warm. The outer layers can be Thinsulate or wool. Wool is especially valuable under wet conditions as it holds much of its insulation properties when wet.

Warm boots are extremely valuable while sitting in a tree stand. Boots that keep your feet warm while walking through snow may not work while sitting still in subfreezing temperatures. The warmest boots for this are felt-lined packs. These boots are not made for all-day walks but keep feet warm while sitting still.

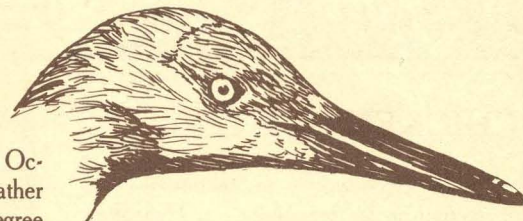
Hunting deer during the November rut can be productive because the deer move all day. You won't be able to sit patiently for any length of time if you're not properly dressed. *Miller*

EDGES FOR QUAIL

Most quail hunters associate the little birds with some type of timber. Whether it's a creek or shelterbelt, the quail are usually nearby. But to really narrow the habitat down, hunt the edges.

An edge can be where any two habitats meet. It might be where native grass and timber come together. Or some place as subtle as a weedy draw and feed field. In late winter, quail are rarely far from a food source. Grass and forb seeds are a good source of food, but agricultural grains may be better in cold weather.

The bobwhite will move from cover to feed areas in early morning and late evening. By hunting the edges, you increase your chances of catching them between areas. Edges are also ideal places to look for quail all day. Edges of timber and native grass, feed or stubble are good places to start hunting. *Miller*



NO CRANE SEASON

Kansas hunters will not have the chance to hunt cranes in 1986. The Kansas Fish and Game commissioners voted against holding a crane season after a considerable amount of protest.

Most of the people speaking out against the crane season were National Audubon Society members. Their biggest concern was that hunters would mistakenly shoot an endangered whooping crane.

There was also an emotional plea. Many Audubon members felt that the sandhill crane was a noble bird that shouldn't be hunted.

Hunters in Kansas who would like to hunt cranes will have to speak out. Even before the meeting, the commissioners saw an overwhelming letter-writing response from persons against the season. Biological studies show that a regulated season would not hurt the crane population. Hunter education would be the only way to ensure positive identification of sandhills. Other states such as New Mexico, Texas and Wyoming have had crane seasons without problems.

The money waterfowl hunters spend on stamps and taxes on their equipment funds wildlife management programs. These programs benefit all wildlife, including sandhill cranes.

Miller

FISHING

FISHERIES UPDATE

WINTER ACTIVITIES

If you're trapped inside and bored this winter, you can ease cabin fever by doing some tackle maintenance. You'll begin to feel better as soon as you get out the fishing tackle and start getting it ready for next season.

There are always plenty of things that you never seem to have time for once the season starts. Clip all the knots from lure eyelets, sharpen hooks, poke the paint out of the eyelets of new jigs and straighten up the tackle box. Organize your box so that lures can be found easily. When the fish are biting, lures are usually thrown into the tackle box. You may even find lures you thought were lost.

Cleaning your fishing reels is another good winter activity. Baitcasting reels will work much smoother if you'll clean and re-grease them. You'll need a small container of solvent, a stiff-bristled artist's paintbrush and a set of small screwdrivers. The reel instructions usually have a schematic drawing of all parts so you should be able to reassemble your reel. Just take it apart slowly and carefully lay each piece out the way you took it off. Brush off the old grease with the paintbrush and solvent, let the parts dry and re-grease and oil them. Be careful not to get too much grease on the gears. Excessive grease can make the reel work stiff on cold days. *Miller*

LICENSE SALES UP

The number of paid fishing license holders increased 2.27 percent in 1985, according to U.S. Fish and Wildlife Service figures. A total of 29,673,190 individual fishing license holders were identified last year compared with 1984's total of 29,015,918.

It's interesting to note that the rapid rate of increase of paid fishing license holders between 1961 and 1975 (three percent per year) coincided with a comparable boom in new reservoir construction during this same period. Approximately 190,000 surface acres of new reservoirs were constructed each year during this period. Conversely, the much slower rate of increase in the number of paid fishing license holders since 1975 (.8 percent per year) coincided with a dramatic drop in reservoir construction (less than 67,000 surface acres per year).

Fishing license revenue also continued its long-term upward trend, increasing by

\$22,664,497 to a total of \$282,342,746 in 1985. The 8.7 percent fishing license revenue increase in 1985 was comparable to the average annual increase of 9.9 percent recorded since 1975. The rate of increase in fishing license revenue was about 12 percent a year from 1961 to 1975. *Sport Fishing Institute Bulletin*

TROPHY REPLICA

You can have your trophy and release it, too.

According to *Sporting Times News*, a firm now claims to be able to produce a custom replica mount of a bass or any other gamefish with nothing more tangible than a photo and weight and length measurements.

Dan Edwards, of Catch & Release Custom Mounts Inc., recently displayed several mounts for a group of biologists who agreed that the acrylic plastic fish could not be distinguished from the original mounts.

This technique is a positive step for catch-and-release programs. A fisherman can have the thrill of catching an 8-pound bass, the thrill of letting it go and still have the mounted trophy at home on the mantel. *B.A.S.S. Times*

WIPERS NATURALLY

According to the Texas Parks and Wildlife Department, the Department's inland fisheries and hatchery biologists have apparently verified natural reproduction of hybrid striped bass in Lake Palestine, Texas.

Hybrid stripers are produced in hatcheries by fertilizing eggs from striped bass with milt from male white bass. The hybrids, previously considered to be infertile, have produced excellent fisheries in Texas and several other states, including Kansas.

In 1985, Texas fisheries biologists started getting angler catch reports of what appeared to be small hybrids. The last hybrid stocking, however, was in 1982. The fish were sent to the Heart O' the Hills Research Station and the San Marcos Fish Hatchery for examination.

Results indicate some of the fish were not white bass and were probably the product of hybrid reproduction. Biologists theorize the fish were possibly a cross between hybrids and white bass. *Sport Fishing Institute Bulletin*

Reservoir fisheries investigator Dave Willis and fisheries biologist Ron Marteney have sent questionnaires to 48 bass clubs in the state. The clubs were asked how many tournaments they held at El Dorado Reservoir in 1986.

The survey will help Marteney better manage the reservoir fisheries, giving him information on the pressure, catch and harvest of bass. Willis will use the tournament information in studies of bass tournaments statewide.

* * *

The agency recently announced that in its efforts to cut spending, district offices would be closed. However, offices owned by the Commission and offices offered rent and utility free will still be maintained. The following offices are still staffed by fisheries personnel: Cheney Reservoir, El Dorado, Emporia, Fall River, Downs, Osage, Kansas City, Manhattan, Independence, New Strawn and Pittsburg. These offices are in addition to the regional offices in Dodge City, Valley Center, Hays, Concordia, Topeka and Chanute.

* * *

Crappie anglers will be pleased to know that 600 black crappie were stocked in McPherson State Fishing Lake in June. Black crappie were stocked rather than white crappie because black crappie are less likely to overpopulate and stunt. The clear water and abundant bass at McPherson should keep the crappie population healthy and under control.

* * *

Doug Nygren, fisheries biologist in Wichita, reports that a 1-acre education pond has been constructed at Chisholm Creek Park in northeast Wichita. The pond will be used for recreational activities such as fishing clinics, farm pond management clinics and aquatic life field study.

The pond will be stocked with largemouth bass, sunfish and channel catfish. It will provide an ideal place for youth to learn and practice basic fishing skills. Clinics will be conducted upon request from youth groups.

* * *

An August storm ripped through southeast Kansas damaging more than just crops and buildings. Large hail stripped leaves from trees and crops in Allen and Coffey counties. Tons of that stripped vegetation washed into the Neosho River and nearby creeks. As the vegetation decomposed, it used up oxygen in the water, causing an oxygen depletion. It is estimated that 12,000 fish were killed in a 6-mile stretch of the Neosho River between Burlington and Leroy. Wolf, Big and Crooked creeks also had heavy fish kills. *Fisheries Division*

ISSUES

ANTI-HUNTERS LOOSE

The Issues article titled "Fighting Back," in the September/October issue reported on the Humane Society of the United States (HSUS) attempt to stop hunting on national wildlife refuges. The HSUS sued the Interior Department to stop hunting on refuges because sport hunting is a "form of cruelty which should not be allowed on refuges." It also said that hunting on refuges caused HSUS members great stress since the animals they see might be hunted later.

The International Association of Fish and Wildlife Agencies joined the Interior Department to fight the suit. The court ruled that HSUS lacked standing to bring the suit on behalf of its members, and that Interior does not have to prepare the massive paperwork that plaintiffs envisioned. International counsels Paul Lenzini and Bill Hutchins and Interior counsel David Hardy directed a brilliant defense of hunting on refuges. *Wildlife Management Institute*

LAWSUIT

The U.S. Court of Appeals in Miami has dismissed the latest handgun liability suit. The Shipman vs. Jennings Firearms case is the fourth R. Windle Turley "defectless" handgun product liability suit to be dismissed by a federal appeals court.

The suit was filed by Nell Shipman on behalf of her daughter, Linda Barach, who was shot and killed by her husband. Barach's husband then turned the gun on himself — allegedly using a Jennings Firearms-made .22-caliber pistol.

Jim Rooks, Turley's chief counsel, sought to hold the manufacturer strictly liable for the death of Barach, claiming the gun allegedly used in the killing had no social utility; the gun was indiscriminately marketed to the public; and the sale and manufacture of the gun constituted an "ultrahazardous and inherently dangerous activity."

The three-judge panel rejected the first two Turley claims citing a recently decided firearm product liability suit, Trespalacios vs. Valor Corporation.

The "ultrahazardous" theory was not per-

tinent to the case, the judges said, citing several cases in which Turley was defeated. *Monitor NRA*

LAND LOST

An antiquated law, a negative court decision and government passiveness have combined to give several major oil companies title to more than 86,000 acres of public land in Colorado for a nominal fee of \$2.50 per acre.

According to some observers, the action could set a precedent that results in the transfer of nearly 300,000 more acres of public land to private ownership in Colorado, Utah and Wyoming.

The lands being transferred contain large oil shale deposits, which were claimed by the companies prior to 1920 under the 1872 Mining Law. That law allows mineral claimants to get title to public land if the mineral deposits are such that a "prudent man" would attempt to develop them. Since 1920, when the Mineral Leasing Act was passed, developers of energy mineral deposits on public land have not had a right to take the land. Instead, they are allowed to extract oil, coal, gas or shale and pay the federal government royalties. The land remains in public ownership.

The oil-shale lands in question, however, were claimed before 1920, under the 1872 law. Therefore the companies have argued for years that they have rights to the land as well as the shale. The Interior Department has countered that the companies have no rights to the land because oil shale has not been and is not a resource that a "prudent man" would develop, and that the claims now are governed by the 1920 leasing statute. The prudence argument seemed to be a good one because producing oil from the shale is not now a sensible investment.

The companies pressed their case in court and were granted a favorable verdict last year. The Colorado Federal District ruled that the companies have a right to the land as well as the shale. Interior, however, continued to fight. Solicitor Ralph W. Tarr said that the court ruling raised "disputable issues of law" and might be reversed on appeal. But Interior's resolve dissolved, and the decision was made to give the land to the companies and negotiate a few goodies for being so accommodating to the public's property.

An agreement has been reached and signed that would give companies the land and the shale in return for minimal favors. The federal government retains the rights to mineral resources other than shale in the land. Rights-of-way are preserved, "reasonable public access" for hunters will be permitted and livestock grazing will continue. There is no assurance, however, that critical winter range for big game and other wildlife habitat will be maintained as was required of Bureau of Land Management. And the land is in the Piceance Creek Basin, home to one of the country's largest herds of mule deer.

The giveaway now needs only the court's approval to become final. *Wildlife Management Institute*

LIABILITY COSTS

The liability insurance dilemma has cost Colorado anglers use of three popular fishing lakes. The impoundments had been operated by the Foothills Recreation and Parks District of Lakewood and were leased from an irrigation company. When the company's liability policy expired, the firm was unable to renew coverage. To protect itself from legal action, the company has applied for a permit from the Colorado Division of Wildlife to spread rotenone in the lakes. This will kill the fish, and anglers will not be tempted to trespass. *Wildlife Management Institute*

RIVER OFF-LIMITS

Because channelization along the Black Vermillion River in northeast Kansas can no longer be viewed as a local or individual landowner problem, state water officials have declared the river off-limits to further straightening by landowners.

The action by Division of Water Resources Chief Engineer David Pope came at the meeting of the Kansas-Lower Republican River Basin Advisory Committee. About 80 landowners, watershed and conservation district members, and state and federal officials toured the area and attended the public comment session.

Channelization, or straightening of the river to move flood waters off farmland quickly, has been a controversial issue for several years. It has created a domino flood effect on downstream landowners. Officials have also expressed concern over the heavy sediment load and ag-chemical contamination of Tuttle Creek Reservoir downstream. Tuttle Creek is one of the state's largest reservoirs and has recently been identified as the "kingpin" of state drought planning. *Rural Papers*

NATURE

BIRDS THAT SMELL

Turkey vultures, or buzzards as they are commonly called, are one of the few scavenger birds with a sense of smell. Common in Kansas, the turkey vulture has a highly developed sense of smell that it uses to locate food. Other vultures rely on sight to find dead prey.

The turkey vulture, because of its capabilities, will inhabit wooded areas. Most other species of vultures are common only on open plains where they can see long distances. Other species of vultures will follow the turkey vulture to food that was hidden from sight.

Miller

GATOR COMEBACK

The prehistoric alligator is crawling away from extinction. The alligator was in trouble 20 years ago when it was first federally listed as endangered. It has now rebounded to the point that the U.S. Fish and Wildlife Service (USFWS) considers the alligator biologically secure throughout its range in the Southeast.

Today's optimism is in sharp contrast to the recent belief that poaching and other types of illegal harvest had so reduced alligator numbers that the species would never recover. Through a coordinated series of crackdowns by federal and state wildlife law enforcement agents, a major reduction in poaching was achieved.

The USFWS now proposes that the alligator be reclassified in seven states — Alabama, Arkansas, Georgia, Mississippi, North Carolina, Oklahoma and South Carolina. The alligator previously has been reclassified in Louisiana, Texas and Florida, where the reptile's concentrations are the heaviest.

This action would change the species' listing from "endangered" or "threatened" to "threatened by similarity of appearance." This designation acknowledges that the alligator has recovered in these seven states, but technically holds the species on the Endangered Species List under a special category. That category indicates that American alligators could so closely resemble other crocodilians that the difficulty in distinguishing between listed and unlisted species could threaten the American alligator.

The alligator population has grown such that Louisiana, Texas and Florida have undertaken controlled harvests. Similarity of appearance provisions allow such programs, but impose rigid rules to ensure that these hunts will not jeopardize the species and that the meat, leather and other goods put in trade are clearly distinguishable from illegally taken alligators.

U.S. Fish and Wildlife Service



WINTER BIRDFEEDERS

Putting up a birdfeeder this winter can be both beneficial and enjoyable. Hang a simple wood tray with a top from a tree branch near a window. The tray can be filled with sunflower seeds or a mix of several varieties of seeds. Songbirds will greatly benefit from the feed during subfreezing periods when snow is on the ground. And you'll enjoy the minutes and hours spent birdwatching.

Another suggestion: Invest in a small field identification book of birds in your area. Set it next to the window and learn to identify the different birds that will visit the feeder daily. The real challenge comes when an unusual bird visits. They can be as brilliant as the evening grosbeak or as animated as the white-breasted nuthatch. Birdwatching can be habit-forming to anyone who enjoys nature. *Miller*

HUNGRY SNAKE

Missouri conservation agent Mike Christensen is used to calls about problems with wildlife. Usually it's a squirrel in the attic or an opossum in the basement.

But one caller had him scratching his head. "I didn't believe the caller, so I went to look for myself. Sure enough, it was just as the caller said — a 5-foot black rat snake had swallowed a doorknob."

Christensen could feel an oval-shaped object with a stem about halfway down the snake's body. He told the caller that the snake

would probably regurgitate it in a couple of days. Two days later Christensen got a call saying the snake had rid itself of the porcelain door knob. *Missouri Dept. of Conservation*

TELLING TEAL

Most waterfowlers know about teal. One of the smallest ducks, teal challenge shooters and delight taste buds. But do you know the difference between blue-winged, green-winged and cinnamon teal?

While the same last name implies that all three ducks have similar characteristics, this is both true and false. For instance, bluewings and cinnamons have several similarities. The females of both species are nearly identical in appearance and in calls. The males have identical wing markings, although their body feathers are very different. On the other hand, greenwings aren't related to either bluewings or cinnamons. They actually have more in common with mallards and black ducks than with the other two teal. *Ducks Unlimited*

SMART VARMINT

Sheep producers in Rice County have lost 304 sheep since the fall of 1982. When the producers decided to trap a problem coyote, they found they had one smart sheep killer on their hands. It took 45 days to trap the varmint and during that time, the coyote killed 14 more sheep. *Wildlife Damage Control Newsletter*

NOTES

FISH & GAME VIDEO

What have you seen on television lately? We're just curious. For more than two years now, Kansas Fish and Game has produced a weekly news story for Kansas State Network (KSN). Subjects of the stories have ranged from elk to smallmouth bass, from bowhunting for deer to feeding hummingbirds. Most KSN affiliates air the one-minute story during their Thursday or Friday newscasts. KSN affiliates are located in Wichita, Topeka, Great Bend, Garden City, Oberlin and Joplin, Mo.

That weekly story is the most regularly seen video production effort by Fish and Game, but it's not the only one. We also produce public service announcements, provide video support for other broadcasters around the state and are involved in production of sportsmen's instructional tapes. One example of the latter is a 15-minute production on "Turkey Hunting in Kansas." Our video is also being used to produce teaching aids to complement other items available in the Wildlife Education Service's loan library.

There are many other video projects we'd like to undertake . . . but money and manpower constraints don't allow. The agency's Information-Education Division has one full-time video production employee: Gene Brehm. KANSAS WILDLIFE readers will recognize the name. For four years Brehm was the magazine's still photographer. Brehm shoots nearly all of our video, edits the tape into finished form and maintains our inventory of video equipment.

Our video equipment comprises a color camera, three-quarter inch portable videocassette recorder, tripod, microphones, cables and batteries to make all these things work. We have an office monitor and player to view and log each tape shot. That's about as fancy as our video gear gets. We have no editing equipment; all editing is performed either at a cooperating television station or through a commercial editing lab. One of our goals is to buy a complete editing lab.

Making do with what we've got has been our guiding philosophy all along. Television production, like many things these days, can consume about as much money as one wants to spend. Since we're spending sportsmen's dollars, we've tried to buy the best equipment we can afford, but buy only what's essential.

Television is the most powerful and persuasive medium around. That's the primary incentive for our television production project. There is simply no better way to keep so many Kansans informed about our wild resources. We hope to encourage a widespread appreciation of those resources. That's the first step toward safeguarding them for future generations.

Bob Mathews

FARMER RELATIONS

Too often, hunters and fishermen are at odds with landowners. The sportsmen feel a landowner who posts his land is being stingy and wants to keep all hunters and fishermen out. The landowner has probably had some bad experiences with vandals or unethical individuals posing as sportsmen. This doesn't have to be the case, and with a little extra effort, sportsmen can build valuable friendships with landowners.

When a farmer posts his land, it isn't necessarily a slap at sportsmen. Most landowners are intolerant of trespassing, so they post their property. It is illegal to hunt or fish on private property without permission, regardless of whether it's posted. Worse yet are vandals who leave gates open, cut fences, leave trash and drive across fields. These people make it tougher for the ethical hunters and fishermen.

Most landowners will respond warmly to respect and consideration. The sportsmen who take the time to visit with landowners, get to know them and respect their wishes usually have plenty of land on which to hunt and fish.

Pheasant hunters who visit landowners early in the fall, weeks before the season opens, will usually have better luck in securing permission. Farmers are swamped with opening-day hunters asking to hunt. Often farmers will promise permission to friends or family or to that hunter who asked early. This leaves the hunter waiting until the opening day out in the cold.

Sportsmen should take time to check in with the landowner every time they go out. This is just giving the landowner the respect he deserves. Always be sure to let him know what vehicle you're driving and how many people are in your party. Giving the landowner some of the game you bag is only right. After all,

without that landowner, you wouldn't have had the opportunity.

A common myth is that farmers are hostile to out-of-state hunters. But one group of hunters from Tennessee has put in the extra effort. Each year before pheasant season they arrive a few days early. They then invite all the landowners they hunt on to a barbecue. Over the years the Tennesseans have developed strong friendships with the farmers.

Most farmers only expect proper consideration. By taking the time to send a Christmas card, deliver a roll of deer sausage or just stop in to say thanks, you let your host know you truly appreciate the privilege of hunting and fishing. *Miller*

PROTECTION?

A group of researchers is studying the use of guardian dogs to protect sheep from predators. The group traveled through Kansas and placed 17 puppies on 14 different farms.

Burros have also shown potential to protect sheep from coyotes. At least three Kansas sheep producers now run burros with their sheep. One burro per pasture is all that is needed although burros should not be placed in adjoining pastures. *Wildlife Damage Control Newsletter*

SIGNS AVAILABLE

The *Kansas Farmer* and the Kansas Fish and Game Commission have combined efforts to provide farmers with "Hunting With Written Permission Only" signs. One of the biggest problems between hunters and landowners is hunting without permission. Farmers want to know who's on their place. Even though it's illegal to hunt without permission regardless of whether land is posted, it still happens. The sign delivers a clear message to ask for and receive written permission before hunting.

The 9-inch by 12-inch signs are yellow with black lettering. Send \$1 to *Kansas Farmer*, 3310 SW Harrison, Topeka, KS 66611 or Kansas Fish and Game Commission, Rt. 2, Box 54A, Pratt, KS 67124. Included with the sign will be a book of pocket-sized permission cards, a copy of hunting regulations and Kansas hunting and fishing guides.

Also included in the package will be subscription cards to *Kansas Farmer* and KANSAS WILDLIFE magazine. Both of these publications will provide you with pertinent information and hours of entertainment. The cards also could be used to provide dandy Christmas gifts for friends and family. *Miller*

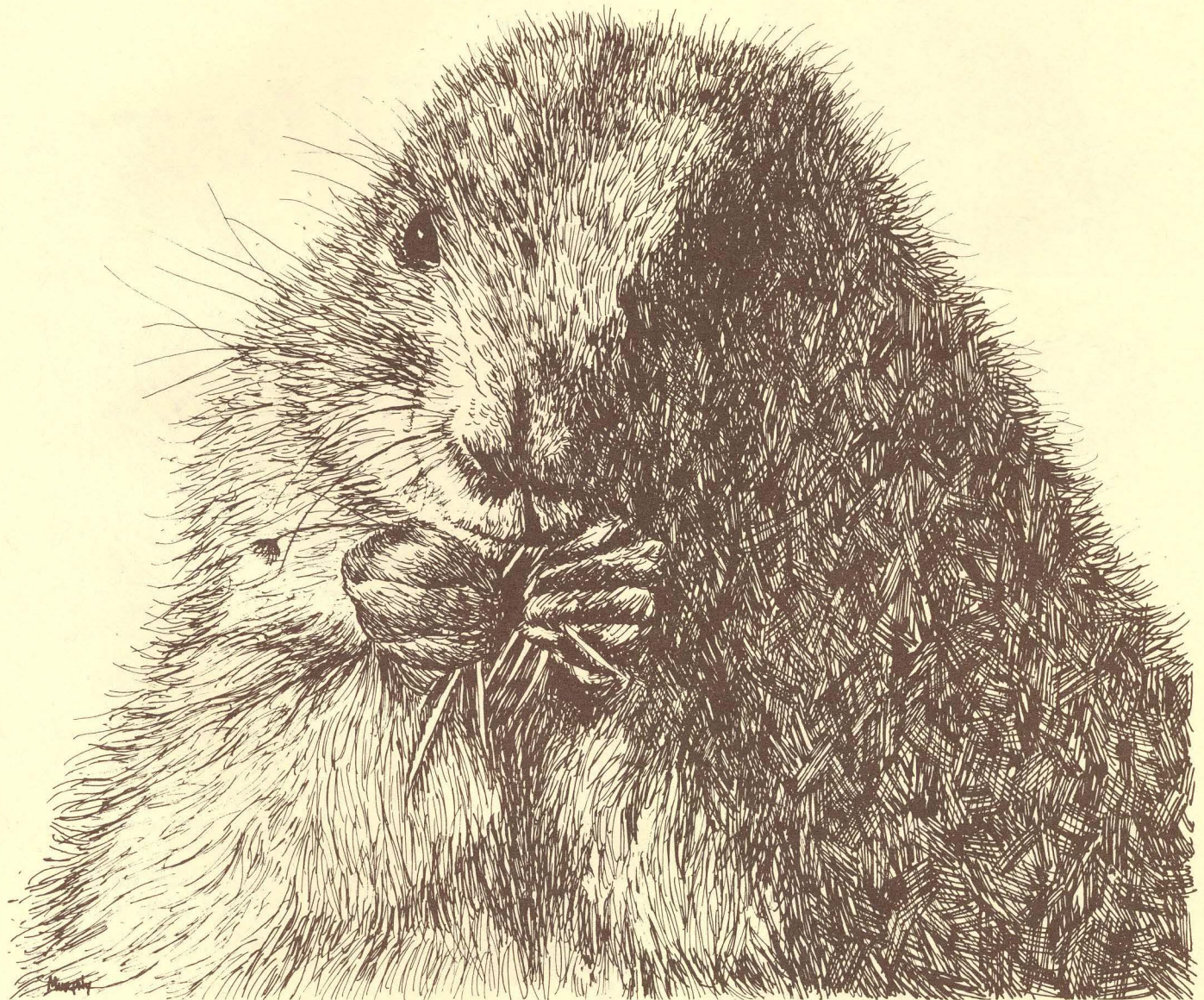
NATURE'S NOTEBOOK

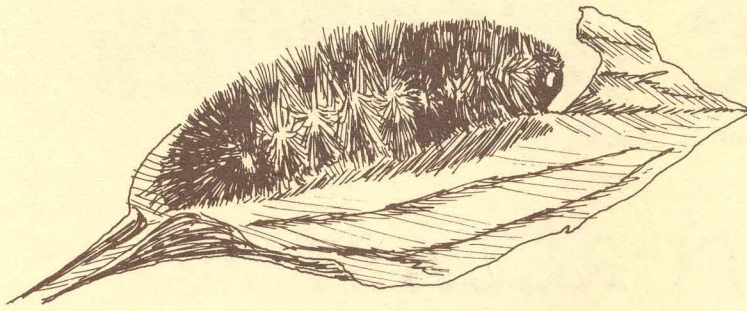
by Joyce Harmon Deppenbusch Wildlife Education Coordinator

WINTER FORECASTING

There's certain amount of guesswork in any weather forecast even with meteorologists' technical equipment. But you won't believe some of the ways our ancestors used to predict the coming winter weather. After reading about these techniques, make a winter forecast for your area. The experts don't put much stock in the folklore, but see how close your predictions were to the actual weather.

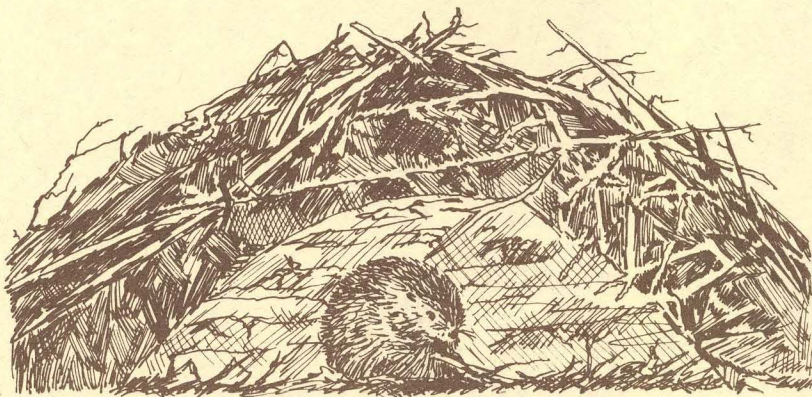
The old weather predictors believed that if animals put on an extra heavy coat of fur or feathers, or added a large layer of fat, we were in for a harsh winter. Experts say that the animal's health and amount of food available before the cold weather affects animals, not the future weather.





Woolly bear caterpillars have been credited as winter forecasters. A wide band on the caterpillar means a hard winter, a narrow band predicts a mild winter. Early fall geese migrations are supposed to be signs of an early, tough winter.

A long, hard winter is supposedly ahead if oak, walnut, chestnut and other mast-producing trees are heavy with nuts. Tree bark that's thicker on the north side of the tree is said to mean the same thing. When squirrels store large caches of nuts, it might mean they're getting ready for a harsh winter. The trouble with this folklore is that squirrels may bury their food in several storage locations.



Do beaver and muskrats know to expect a severe winter when they build high lodges? Scientists say no; the amount of available vegetation determines the lodge size.

Hornets and paper wasps are said to make nests with thick walls if a bad winter is expected.



Patti Murphy illustration

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KANSAS WILDLIFE

After The Opener

Opening day is a memory; the pheasants were rookies then. But how to handle it when you're up against seasoned veterans?

by Michael Pearce
Manhattan

The two birds had probably been nest mates, palling around the summer and early fall north of Salina. I met them the second Saturday of November, opening day, in a patch of wheat stubble. Mysti, my golden retriever, introduced us at a range of 10 yards.

It looked too easy, the birds sailing to my left at eye level. The Remington came up, kicked once and the farthest bird fell. Following through, I swung the old 1100 in front of the other bird, pulled the trigger, but nothing happened. For the first time in who knows how long, the empty first round had hung up.

Yanking the hull free, I closed the bolt on another round. Time for a fleeting shot? Something answered yes, so I quickly shouldered the gun and pulled the trigger. The rooster wobbled, dropped a single feather but kept going. A strange whistling sound came from the gap where the feather had been.

That pheasant and I met two more times in as many weeks. Once the strange-sounding rooster flushed 100 yards ahead of me and once 100 yards behind me. Even though I hunted the area a half-dozen more times, it was late January before I saw the bird again.

I'm constantly amazed at the change a pheasant goes through in just a few short days. Opening morning they're a sportsman's dream, almost accommodating as they flush at just the right range and sometimes give you a second chance if you bungle the first.

Two weeks later they're different birds. Externally they don't look any different. Oh, I suppose the tailfeathers and spurs may be a touch longer and their plumage a tad more colorful, but they're not the nice guys they were opening day. Now they know how to survive.

Mid- and late-season birds are masters at playing the extremes. They can sit as tight as chrome on a trailer-hitch or run so fast you'd swear they'd been cross-breeding with white-tailed deer. Or they can flush so far out of range they appear as specks on the horizon.

But it's a game that can be won, at least some of the time. The key is to accept the bird for what it is and act accordingly. A pheasant usually is going to do what's easiest and still allow itself an escape route. The rows between milo or corn stalks stretch like highways for a fast-stepping rooster. But let that long, clean row run into a jungle of chin-high kochia and the cover becomes a kind of security blanket. The birds hold tight and are reluctant to move. Warm, windy days seem to make the birds skittish. Yet calm and cold days (and we're talking cold, not cool) can make pheasants quite predictable.

So can snow. A fresh and fluffy powder, for example, is a dog owner's dream. On the closing morning of the 1979 season, four of us endured a cold and snowy hell for a pair of cockbirds near Minneapolis. But with the afternoon came the sun. The wind died and the 4 inches of fresh powder glistened like diamonds. In three hours we

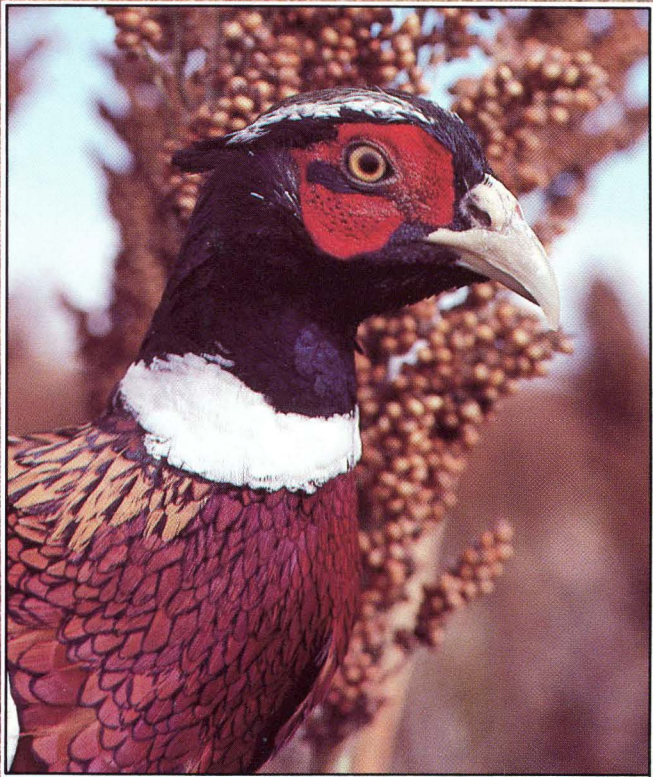
bagged an even dozen long-tailed cockbirds and missed half as many. All but one came from under a dog's nose.

Take that same snow, however, add a thin layer of crust and it's a whole new game. Sure, we may wallow around as we noisily crash along, but it's smooth running for the birds.

Two Januaries ago an inch-thick layer of ice covered another 8 inches of snow on one of my favorite spots in Ottawa County. Partner Mark Grinter and I knew it would be futile to walk 'em up so we pulled the old head-'em-off-at-the-pass routine.

Mark was still a half-mile from where I sat waiting when a mass of color and tailfeathers came zipping toward my position, concealed by a brushpile. The birds weren't running, they were sprinting — necks stretched and feet doing double time. More birds were coming, but I couldn't wait. When the first quartet was within 20 yards I stood. Two slipped and fell as they tried to stop. The other two made it airborne, too close to my 12-gauge pump. The pair didn't stay up for long.

There are a few right ways and far more wrong ways to block running pheasants. I'm always surprised at how many hunters wait until they're 100 yards or so from the end of a cover before one in the group circles and blocks. Sometimes it helps, but it's usually too little, too late. Most pheas-



ant hunters don't realize the importance of having the blocker posted before the walkers ever start. When I'm blocking, I like to be ready before the hunters ever come into view.

One of the biggest mistakes a blocker can make is to let the birds see him moving in. These birds aren't stupid! If they know there's a shotgun at each end, they'll exit out the middle. When possible, sneak into position using every bit of available cover.

Once in place, a blocker must do his best to remain unseen. I hunt with one guy who can't resist the temptation to stand when a pheasant is still at least 100 yards away — in the air or on the ground. That guy, by the way, doesn't get many shots.

Position yourself where you can see and shoot clearly. Have your outline at least broken. This doesn't require a fancy blind, just a bush or a small tree. Remember that not moving is your best camouflage.

Safety must be foremost on all pheasant drives . . . whether you're blocking or driving. Every hunter should know the blocker's exact location. When I'm a blocker, I take off my orange hat to blend in better. But once the guns are within, say, 80 yards and any flushing bird will be in someone's range, I stand in plain view and put the orange hat on again.

Blockers will get few shots if they aren't in the right place. The very end of the cover may seem like the obvious place, but that's not always the case.

Pheasants have a nasty habit of exiting a cover where it bends or turns. It's as if they follow the edge until there's only open field, then they take off, ignoring the rest of the nearby cover.

Several years ago we put the whammy on some birds that tried that trick. Our hunting party was working a shelterbelt with low groundcover, tailor-made for running birds. The tree line ran as straight as an arrow except for where a small, mostly barren draw angled in 50 yards from the end.

Friend Jon Blumb and I were chosen to block that frigid January afternoon. Having hunted the trees before, I let Blumb set up just off its intersection with the draw. Shivering, I did my best to cuddle up with a cedar tree while I waited for the walkers.

Four evenly-spaced shots from Blumb's direction warmed me immediately. Turning his way, I caught sight of a single cock pheasant sailing from his position. Minutes later I was walking toward my friend, and I had a line of good-natured ribbing ready about his obvious misses. Luckily my eyes went to work before my mouth.

There was Blumb, one rooster in hand and obviously looking for another. As it turned out he was looking for a pair of birds. I didn't even bother to ask why he only hit three of the four roosters.

How you hunt a cover can have an effect on a pheasant's running. Try to enter the cover unnoticed and be as quiet as possible. Another good way to get the birds to sit is to push them in the opposite direction of where they want to go.

That brings to mind one woody draw that I hunt in Clay County. One end butts against a full section of prairie grass, the other a gravel road and a field of green wheat. Park at the road, walk toward the grass and we're lucky to get a pair of flushes. Circle around, come in from the prairie and push the birds toward the open and it's a far different story.

All right, you've got the birds to hold, now you've got to get them into the air. How? Work the cover thoroughly. A good dog, one that stays in fairly close, can be a big asset. One of my favorite ways to hunt tight-sitting roosters is to follow my golden retriever, a flushing dog.

If you have a good dog, don't second-guess it. A dog's nose can tell them more about a cover than you'll ever learn from magazine articles or through years of experience. Be sure to give the creature plenty of time and, if it wants to, let it go back over an area you've already hunted.

Two years ago I lost my cool when Mysti kept wanting to backtrack in a wheatfield. Rather than stay with her I stopped, hit the whistle a couple of times and finally screamed. At the sound of my voice, four roosters flushed from the nearby terrace she was working.

If you don't have a dog, you're on your own. Again, be thorough and take your time. Let a blocker worry about the running birds. And if you're without a dog or blocker, concentrate on small, thick covers such as cattails or Kochia.

Always expect pheasants to play both ends of the spectrum. Even though most may seem to be running or flushing wild, there will be a few that do their cement imitation and vice-versa. Late one November afternoon last season, Jeff White of Sublette guided Tom Huggler and me to a thick draw that bordered a cut cropfield. Our timing was wrong, and the birds were just beginning to walk from the weeds

into the feed. We were still 100 yards from the cover when maybe 20 pheasants, many of them roosters, flushed wild and flew out into the immense stubblefield.

We toyed with the idea of skipping the cover, figuring the birds were gone, but there wasn't time for a move. We entered the chin-high thicket, zig-zagging back and forth and letting the dogs work. Barely 50 yards in, Mysti pushed a rooster up in front of me. It was a standard crossing shot, and the bird fell. Another bird flushed in front of Tom, offered him a similar shot and met a similar fate. Five minutes later still another cockbird thundered up. I had a good shot and blew it. Tom tried a long, last-chance shot and connected.

Try to think like a pheasant. Pay attention to what the birds are doing. Some days they may like being on high ground, sunning themselves on south-facing slopes where they can stay warm and dry. One predictable pattern is that the birds will often loaf in plum thickets when there's fairly deep snow, especially the first day following a snowfall. These thickets, presumably, give pheasants protection from airborne predators.

A snowstorm the closing week of a season was enough to get Mysti and me back out for one last go. The drive to our hunting grounds north of Salina had proved my suspicions. The birds were in the plum thickets, particularly those near feed bales or feedlots.

Wanting to surprise the birds, we carefully stalked the thickets. With Mysti at heel, I sneaked in low, sometimes on all fours and using any available cover. I'd saved this favored spot until late in the day to let the birds return from feeding.

The stalk had taken us a mile out of my way, but my belief in what was to come kept me going despite the cold and wind. With three birds already in the car, I reminded myself to concentrate on a single rooster.

We popped into sight 10 yards from the cover and several hens erupted into the air. Movement near the back of the thicket caught my eye. It was a rooster trying to run out of range. Mysti saw it at the same time and closed the gap. When the bird flushed at 25 yards, it produced a familiar whistling sound as it headed straightaway. This time, however, the rooster's luck ran out.



Michael Pearce is the Kansas editor for Outdoor Life magazine and a regular contributor to The Wall Street Journal. He is an avid bird hunter.

Guns & Loads



Pressed for one all-round pheasant combination, the author recommends a premium, stout load of 12-gauge No. 6s zipping down a modified barrel. His favorite load: copper-plated No. 7 $\frac{1}{2}$ s.

There are two schools of thought when it comes to bagging pheasants. Some folks prefer brute force, others simple finesse.

It wasn't that long ago that I thought that bigger was better. I've even talked with hunters who swear by No. 2 pellets. My standard weapon was a 3-inch 12-gauge magnum. But four years and

nearly 300 pheasants later, I think I was going a little overboard.

Judging from the thousands of birds I've seen killed, I'm convinced that the key to killing a pheasant starts with an even, dense pattern. Large shot, such as No. 4s and No. 5s, doesn't seem to have enough pellets to consistently result in clean kills. At least not

from my guns. But remember, much of what I say is opinion. Mine.

What's my favorite shot size? It depends a lot on the average range, the choke used and weather conditions. But I never shoot anything larger than No. 6s and most of my birds fall to No. 7 $\frac{1}{2}$ shot.

With shotgun shells, quality has a lot to do with performance. Simply put, you get what you pay for. Cheap promotional loads often pattern poorly. The best I've found for pheasants are premium copper-plated loads. Buffered loads perform quite well, too. They're more expensive, granted, but you usually don't get all that many shots on a pheasant hunt.

Do premiums make a difference? I think so. The first year I shot quality loads, I downed 97 pheasants and brought home 93. Part of that high success ratio came from experience and a good retriever. But I did notice how well the pellets had performed as I cleaned the birds.

As for guns, doubles seem to swing easier and allow you the option of a different load in each barrel. One of my favorite combinations last year was to carry a premium field load of No. 7 $\frac{1}{2}$ s in my improved cylinder barrel and a premium heavy load of the same shot size in the modified tube. If the shots were really long I'd switch to premium 2 $\frac{3}{4}$ -inch magnum No. 6s, complete with a buffered shot column for added range.

But it doesn't take a fancy gun to kill pheasants. Pump and automatic 12-gauges probably account for more cockbirds than any other shotguns although 20-gauge shotguns shooting high-brass loads also will work on pheasants.

As for choke, I shoot a lot of birds with an improved cylinder barrel, and I really don't think most hunters have any business carrying a full choke. Most hunters simply aren't good enough shots to take advantage of the extended range.

But if I could only pick one gauge, one shot size and one choke for all-round Kansas pheasant hunting, I'd have to go with the old standard: 12-gauge, a quality, stout load of No. 6s and a modified choke. It's worked for years, and it'll keep on working.

Remember, though, that the real trick to killing a pheasant cleanly is hitting it in the right end with a dense pattern. Forget about the 2-foot-long tailfeathers or the blurred wings. Concentrate on that seemingly short, bland head and neck. Put the pellets there and the bird is yours — no exceptions. — *Michael Pearce*





Chemical pollution often can't be seen, but its effect on fish, insect and other aquatic life can be devastating. Here the author uses a digital pH meter to test water quality in a spring-fed stream that flows into Milford Reservoir.

The Four Deadly Sins

River and stream pollution threaten our state's river systems. We know the four major threats. Now we've got to pass laws to fight them.

by **Bill Layher**
Aquatic Ecologist

photos by **Mike Blair**

In an effort to familiarize Kansans with the state's wildlife and abundant natural resources, we often overemphasize the good and sometimes fail to report the bad. This is a story of the bad and what we can do to make it better.

The bad? River and stream pollution. There are four primary threats to our state's river systems: point source pollution, non-point source pollution, habitat alterations and channelization,

Denuded stream banks, at left, such as this scene on the Smoky Hill River below Chapman can cause extensive soil loss, impair water quality and reduce riverflow. And that can cause severe flooding.

and dewatering. These categories often overlap, and their impacts are related by a complex interaction of physical, chemical and biological factors. The ramifications of these threats are indeed great while the symptoms and impacts on our natural resources are often hard to pinpoint, even after scientific study.

There have been a few bright spots, however. Last January the Kansas Water Authority approved a Fish, Wildlife and Recreation Section of the State Water Plan. This section, more than any other, made the plan truly comprehensive and recognized the tie between water and the state's fish and wildlife resources. Public hearings brought out nearly 1,200 concerned

Kansans who supported this section of the Water Plan. Probably no other section mustered as much public approval. Yet when the Kansas Water Office submitted five pieces of legislation to the state Legislature earlier this year, not one was given a hearing. These bills, however, were introduced in an election year and to a lawmaking body already dealing with other water issues. The Kansas Water Office intends to reintroduce its legislation in the 1987 session. It appears certain the agency's recommendations will receive scrutiny.

The proposed legislation deals primarily with two related threats to our rivers: channelization and habitat alteration. It's my hope Kansas lawmak-



The clear waters of the Republican River below Milford Reservoir, at top, join the turbid, sediment-loaded waters of the Smoky Hill River, left, to form the Kansas River, right. More than 60 percent of the riverbanks between Abilene and Junction City have been cleared of woody vegetation. This has caused extensive bank erosion problems and hurt water quality downstream.

ers will recognize that the proposed legislation represents compromise by water users, agricultural interests, sportsmen and others interested in clean waters.

Non-point Source Pollution

Non-point source pollution is a term used by water-quality experts to describe pollution that can't be tied to a specific site or source. Usually non-point source pollution is related to farming techniques that do not employ the soundest management practices. Other non-point source pollution threats come from major construction that leaves the ground bare and unprotected from washing. Runoff from urban areas, towns and cities also carries harmful materials such as lead from gasoline combustion, lawn chemicals and a host of other pollutants.

Non-point source pollution probably represents the greatest threat to our streams and rivers. Many streams that once contained deep pools and channels are now filled with sediment (soil washed off the land). Many of our mainstem reservoirs such as John Redmond and Tuttle Creek are silting in much faster than the Corps of Engi-

neers predicted. Insecticides and herbicides used in crop production mix with the soil and enter streams. While some pesticides don't directly kill adult fish, they can result in smaller hatches of fish fry. Some herbicides (Atrazine, for example) designed to kill vegetation also kill aquatic plant life such as one-celled algae. These simple algae are the base of the food chain in many aquatic environments.

It's hard to give examples of streams not impacted from such sources; almost all are to varying degrees. The removal of vegetation along streams that only flow after rains even impacts the streams they eventually run into. Many small streams of this nature have been plowed, cropped, and during rainfall events carry much sediment downstream, filling in the permanent streams they enter. The decreased channel capacity causes more severe flooding downstream, in addition to filling in pools, smothering fish eggs and preventing production of a valuable food source for fish — aquatic insects.

Phosphates and nitrates (fertilizers) also mix with sediment and enter streams. When the water warms in the spring, our rivers often turn bright

green, a sure sign of nutrient overloading. Ponds and lakes formed by small-stream dams can receive heavy nutrient inputs, too. These waters become unusable for recreation because of heavy weed growth, which also harms water quality.

Point Source Pollution

Point source pollution can be traced to a single, distinct point such as a sewage outfall from a city or effluent from an industrial plant. In the past, massive fish kills on the Cottonwood River were caused by feedlot discharges. That situation was eventually corrected by the Kansas Department of Health and Environment. Cowskin Creek in Wichita is notorious for recurrent fish kills caused by the industrial discharge along its course. Cowskin Creek may well be the most polluted stream in the state.

Stream survey records indicate that fish populations in the Arkansas River are as much as 80 times greater above Wichita than below that city. Some high-quality streams also may be impacted. The Spring River in southeast Kansas is potentially threatened by the expansion of Joplin, Mo. The Spring River is an Ozarkian stream, one of only two in Kansas. The river also is impacted by other sources including seepage from lead and zinc mine shafts in tributary streams. Sometimes the pollution is not visible. The water may appear to be high quality to the casual observer.

Habitat Alteration and Channelization

Habitat alteration and channelization, including river dredging, can harm both fish and wildlife as well as water quality and water management. Take, for example, the Black Vermillion River, which flows into Tuttle Creek in Marshall County. Many sections of this river are without trees, which were removed during channelization. Heavy flooding occurred historically on the river, but not with the frequency now seen. As many as 19 floods in a single summer have left farmers in the middle of the basin with no crops or workable land. Caving banks come to rest in Tuttle Creek, thereby reducing the reservoir's storage capacity, making wildlife management lands at the upper end unmanageable and contaminating the water with excessive nutrients. EPA studies list Tuttle Creek Reservoir as the most eutrophic (overfertilized) in the United States. The reservoir's only salvation is its high turbidity, which prevents sunlight penetration and subsequent massive algae blooms.

Trees along riverbanks absorb nu-

trients and filter overland runoff, thus preventing massive non-point source pollution. Many states actively protect rivers from alteration and riverbanks from tree removal.

Riverbanks are left unstable when trees and root systems are removed. The lower Smoky Hill River from Abilene to Junction City has had about 60 percent of its banks denuded. Fields have been plowed to the edge of the stream. The banks are eroding, and studies reflect denuded banks are as much as 20,000 times more susceptible to erosion than vegetated banks. More than 15 sections of the river have had concrete rubble dumped on them in an effort to hold the banks. Prevention of riparian (streamside) vegetation removal would do much to prevent water-quality problems, maintain the state's fish and wildlife resources and save the farmer's soil.

Recent EPA studies indicate that the amount of sediment accumulated in stream bottoms is directly related to the width of the tree belt along the stream. The narrower the vegetative band, the more silt and sediment in the stream channel. Oklahoma recently discovered more than 80 percent of the trees have been removed along major rivers in that state. Other Midwest states indicate that 6 percent to 11 percent of the streams have been channelized. No figures are available for Kansas, yet a good guess may be 8 percent. We know the effect and should learn from experience. Legislation can help correct these mistakes.

Dewatering

More than 700 miles of Kansas streams, once permanently flowing rivers, no longer flow. Other streams are headed the same way. Last year the Kansas Water Office tried unsuccessfully to protect flows in some rivers. But special-interest lobbyists, unable to see even their own benefits from sound water management, caused the bill to die. Yet one-third of the state is dry on the surface, and the cancer marches eastward. We have the knowledge to control its spread, but it appears we may not have the wisdom.

Yet there is room for optimism. The groundwater management districts are placing tighter controls on irrigation development along streams. This helps to ensure the groundwater seepage that feeds our central and western rivers. State agencies such as the Division of Water Resources are looking closer at groundwater-streamflow relations before issuing water rights. Water planning is coming of age and is far superior to the wholesale and unplanned usage of our water resources.

Streamflow itself is essential to recharge groundwater necessary for irrigation near river corridors, to provide safe disposal of human sewage, to provide municipalities with drinking water and to provide farmers and ranchers with water for livestock. Sound water management can provide for multiple uses and ensure water for all.

The Arkansas River is probably the most notable of all dewatered streams in the United States. Mountain snow melt once produced a summertime flow approaching a mile in width in western Kansas. Now, with a few short exceptions, the Arkansas River is dry from Garden City almost to Great Bend. Yet the highway maps still show a magnificent stream meandering across the state. Kansas has blamed Colorado for lost flows because of that state's storage reservoirs. Flows entering Kansas, however, are quickly diverted to irrigation ditches and rarely proceed downstream. Groundwater pumping in Kansas has eliminated any flows that might have been produced along the stream. Land practices have prevented almost all runoff in western Kansas. The stream bed has even been plowed and planted to crops in areas.

Other streams face the same destiny. The upper portions of the Solomon, Saline, Smoky Hill, Cimarron and Rattlesnake Creek are breathing their last gasps. Reservoirs built for irrigation water supply are no longer able to provide farmers with water.

Reduced flows also can affect quality. The Rattlesnake Creek drainage historically has been salty but upon entering the Arkansas River was quickly diluted by vast flows from the upper basin. Now the Arkansas is dry or with little flow above the confluence of the Rattlesnake Creek basin. The Arkansas is now saltier than it used to be, and its flows provide recharge to the groundwater aquifer Wichita uses for its water supply. The salinity buildup now threatens this water for human consumption.

As our streams become threatened from dewatering, sedimentation and pollution, the fish in them also are affected. The Arkansas River shiner spawned at flood flows in the Arkansas River. But with the reduced river flows, we no longer find this species. As channels in other streams fill with silt, species dependent on rocky riffles are lost. Over time, pollution can eliminate species by preventing egg hatching. The changes are often subtle, and there is no apparent fish kill. Yet the organisms are gone. The Kansas Fish and Game Commission and some universities monitor fish distri-

bution, but the state provides no funds to evaluate water-quality changes from such a perspective. These changes, however, often indicate where to look for problems that otherwise go unnoticed.

Following is only a partial list of streams and some of their problems. If you care about natural resources, your water supply and the quality of life for our children, get involved in water planning. Contact your elected officials and let them know your concern.



River Pollution in Kansas

Nutrient Loading and Non-point Source Pollution:

Statewide: almost all streams to varying degrees, except for some Flint Hills and Red Hills streams.

Southcentral: Cottonwood River (upper portion); Medicine River (oilfield runoff); Walnut River (oilfield runoff); Whitewater River.

Southeast: Walnut and West creeks, Greenwood County (oilfield runoff); Spring River (mine shaft water intrusion).

Point Source Pollution:

Statewide: isolated stream segments near municipalities on many streams.

Southcentral: Arkansas River; Cowskin Creek; Walnut River.

Northeast: Kansas River; Missouri River.

Southeast: Neosho River.

Channelization:

Statewide: many short segments on most streams.

Northeast: Missouri River; Black Vermillion River; Stranger Creek; Wolf River; Vermillion Creek.

Southeast: Neosho River (segments); Four-Mile Creek.

Southcentral: Upper Chikaskia River.

Riparian Habitat Removal:

Statewide: all under channelization; many small streams.

Northeast: much of the Kansas River.

Northcentral: lower sections of the Smoky Hill River.

Southcentral: Parts of the Arkansas River; Little Arkansas River.

Dewatering:

Statewide: More than 700 miles of fishable streams lost. Includes portions of the upper Arkansas River, Saline River, Smoky Hill River, Cimarron River and Rattlesnake Creek. — *Bill Layher*

KANSAS WILDLIFE

Gallery

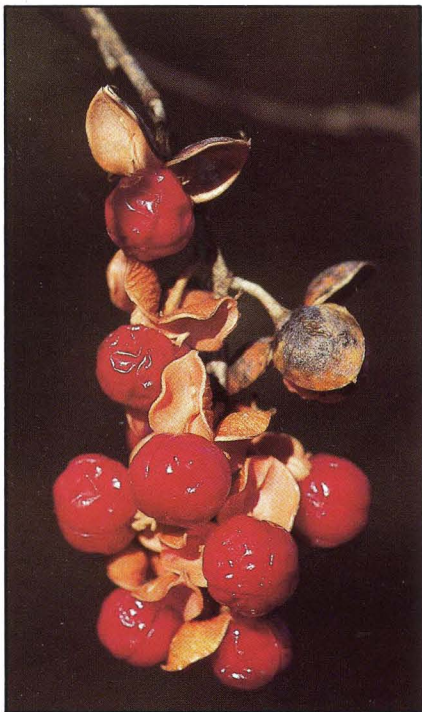
photos by Mike Blair



Before the hard frosts, Cowley County sugar maple crosses the yellow spectrum on its way to orange. Shot with 50mm, f/11, 1/125.



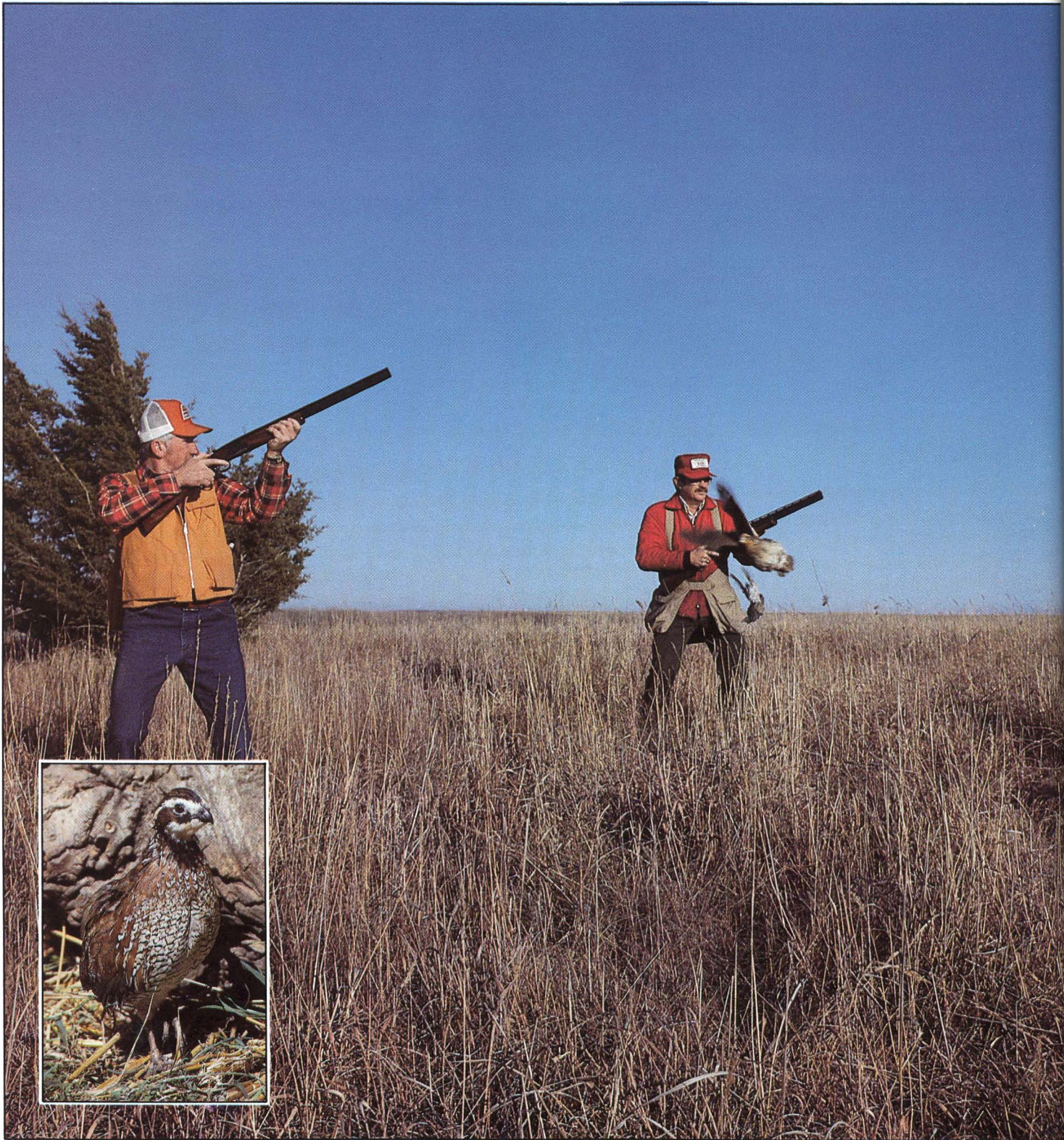
Morning fog blankets the Sedgwick County lowlands along the Arkansas River. Shot with 50mm, f/11, 1/250.



As colors fade and leaves drop in early December, American bittersweet, left, retains its brilliant hues against the afternoon shadows. Shot with a 105 micro, f/8, 1/125.

Warm days followed by frosty nights allow trapped sugars to chemically produce these brilliant reds in smooth sumac, right. Shot with 50mm, f/9.5, 1/125.





Kansas upland bird hunters can get involved with Quail Unlimited projects, which are geared at improving upland habitat. The bobwhite quail, inset, benefits greatly from these projects. QU's aim is to raise money then put most of those dollars to work locally.



Gene Brehm photo; Mike Blair inset photo

More Birds For The Future

The state's former small-game project leader is now a regional director with Quail Unlimited. Passage of the 1985 Farm Bill made his decision to leave easier.

by Roger Wells
Americus

During the eight years I was the small-game project leader for the Kansas Fish and Game Commission, I had the chance to meet and talk with many of you. During those years sportsmen experienced some of the state's best upland bird hunting ever. But we've had some poor years, too.

During the past decade, however, Kansas has consistently been among the top three states in pheasant harvest and hunting pressure. We were the best in the nation some of those years. We're almost always at the top in quail hunting days, hunters and quail harvest. And our prairie chicken hunting is second to none.

All of this comes as no accident. Kansas is blessed with a rich diversity of terrain and land uses. Farmers and landowners haven't converted every acre to cropland as they seemingly have in other parts of the Midwest. Hedgerows, shelterbelts, native prairies and woodlands are still abundant throughout much of Kansas although there is less of this valuable habitat every year.

No small degree of the credit for Kansas' position in the world of upland bird hunting also must go to the Kansas Fish and Game Commission. Many of you still remember when there were

no pheasants and no pheasant season throughout much of Kansas. I can well recall growing up on our Labette County farm and enjoying a quail season that ran for just a few weeks and then only for selected days of the week. And remember the days when the prairie chicken season was only a couple of weekends long? Modern wildlife survey techniques have enabled the Kansas Fish and Game Commission to gradually liberalize the hunting seasons and bag limits on our upland birds while at the same time closely monitoring the hunting seasons. That was my job as small-game project leader. What follows is an explanation of how those surveys were employed and what they mean to upland bird hunters, not just in Kansas but in other states as well.

From the time the Kansas Fish and Game Commission was formed until the late 1950s, Kansas had no scientific method of monitoring any game population. The Commission would meet every year, hear field reports, then try to decide if a population was higher or lower than the previous year's. But this type of management had little documentation on which to base seasons and bag limits. Because decisions made on season lengths and bag limits were based upon crude estimates, the

days and number assigned to each species were ultraconservative.

This is by no means a criticism of those techniques or the season-setting process used at the time. That's just the way it was done. None better was known and conservative season lengths and bag limits were probably the best approach. Most of the men that served on the five-man Commission at that time recalled all too well the early days of the 20th century when many game populations were extremely low or on the brink of extinction. So a conservative nature, a reversal of past exploitation, was to be commended.

Toward the end of the 1950s, however, things began to change. Science became more a part of wildlife management in Kansas. With that advancement went the need to more fully understand the hunter's impact on game populations. And it was becoming more and more evident that to successfully manage game species we needed scientifically reliable and valid techniques, which could more accurately detect annual change in game populations.

In 1957 the Kansas Fish and Game Commission initiated its first postseason hunter survey. This survey, based upon a 5 percent random sample of Kansas hunters, gave the agency its first assessment of hunter harvest of small-game animals. In addition, the survey also told us which species were most popular, where most of the hunters were from, how hunting effort among groups of sportsmen (city vs. rural, for example) compared, to name only a few of the findings.

In 1962 and 1963 Kansas began its first surveys to track wildlife population levels statewide. These surveys were scientifically and statistically sound. The findings, therefore, were as reliable as possible and could be compared with findings from other states. During those initial years of wildlife population monitoring, biologists used several sampling techniques on small-game species. Many were techniques that had proven successful in other states, some were adaptations of old methods and some completely new. The plan was to use several techniques for a few years, then study each to determine which was most accurate and economical. From the use of these varied methods, which included quail whistle counts, pheasant crow counts, roadside counts, brood counts and rural mail-carrier surveys, the agency established what is now recognized as one of the best small-game population monitoring mechanisms in the country.

How have these study techniques affected sportsmen? By using harvest surveys and hunting pressure figures and comparing them with varying season lengths and bag limits, the Commission has been able to offer more hunting days to sportsmen and open seasons in new regions of the state.



Mike Blair photo

The Farm Bill will provide more habitat for upland game species such as the bobwhite.

As an example, modern studies show that Kansas quail hunters will hunt between 5 and 6½ days afield per year. The number of days rarely varies, except when bird populations are low. Surveys also have shown that although seasons are lengthened, sportsmen usually will not take advantage of those extra days, per se. They will, however, hunt later in the season, on days they might have otherwise hunted in November or early December. Studies show that extending the season into January puts little additional pressure on an upland bird population. What it does, though, is offer the license-buying Kansas sportsman the chance to enjoy his sport a few extra days.

Kansas' techniques for population monitoring have proven useful not only here but in other states as well. In September 1982 I presented a report at the Second National Bobwhite Quail Symposium in Stillwater, Okla. The report dealt with various techniques used in Kansas to monitor small-game population change and hunter effort. In that report I compared the various techniques that Kansas uses with some that were used in the early 1960s and some that are used by other state conservation agencies. I pointed out that some of those older techniques were either not providing accurate data to

the manager, costing the state agency far more than other methods might, or both. As a result of that report, other small-game biologists from across the country asked me how to improve their own small-game monitoring methods.

Our state is noted as one of the leaders in upland gamebird habitat restoration. I think that reputation will continue, especially with the help of local sportsmen forming Quail Unlimited chapters across Kansas.

Quail Unlimited (QU) is a national non-profit organization whose aim is to raise money for upland bird habitat projects, then put most of that money to work in the area where it is raised. Kansas sportsmen, through the formation of QU chapters, have shown they're willing to work for improved upland bird hunting.

Earlier this year I became QU's first full-time regional director. But I had mixed emotions when I decided to accept the position. The Kansas Fish and Game Commission is a fine agency, and I very much enjoyed my job as small-game project leader. My decision, though, finally depended upon where I felt I could have the most impact on the state's wildlife resources and how I could best serve Kansas sportsmen. The passage of the 1985 Farm Bill, especially the Conservation Reserve Program (CRP) part of that bill, made my decision easier. The CRP's goal is to remove 40 million acres of highly erodible cropland from production over the next five years. I see in that program the best opportunity sportsmen have had since the old Soil Bank days to really enhance wildlife populations. Written into the Farm Bill was the requirement that local United States Department of Agriculture agencies consider wildlife benefits when working with landowners on their CRP lands. The program calls for private organizations and state agencies to help landowners plant on their CRP lands. The program also offers additional cash, manpower, equipment and planting stock.

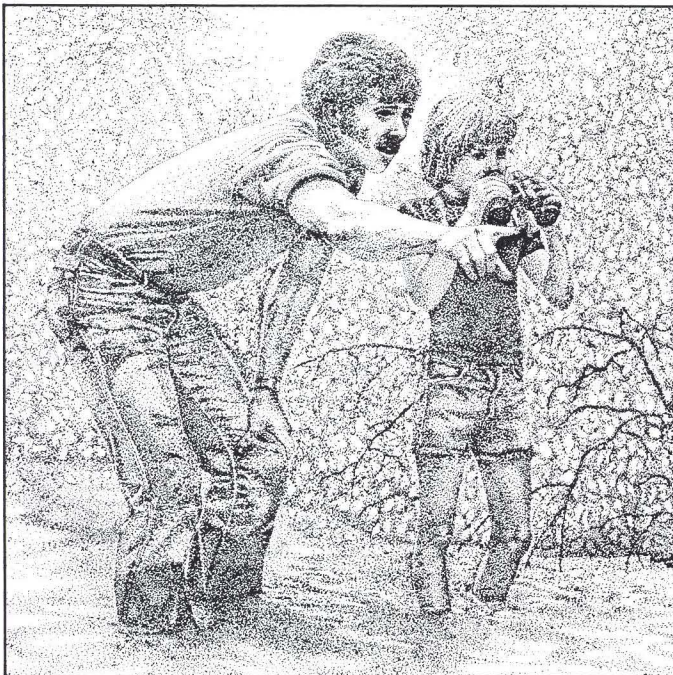
I hope dozens of new Quail Unlimited chapters will form in Kansas in the next year or two. This would ensure that extra money is available to help with these plantings. I'm firmly convinced that if the CRP is left unchanged, Kansas sportsmen can have one of the greatest positive effects on our wildlife habitat problems in years. Let's not let this chance slip away.



For more information on Quail Unlimited, write Roger Wells at P.O. Box 26, Americus, KS 66835. Or call him at (316) 443-5834.



River Reflections



Patti Murphy illustration

I know what she's thinking.

Dear God. Please let a fish bite. (minutes later) Please God. If you let one little fish bite, I'll never ask again. (minutes later, out loud) Dad, can we go hiking? What's that green stuff in the water? Oh! I think I have a bite! He's got my bobber! I got one! I got one!

Jessica, my excited 9-year-old, backs up the bank while reeling as fast as she can. She flings the thrashing large-mouth in the grass. The glimmer in her bulging eyes discredits the notion that this 1-pound bass doesn't quite rank in the lunker category.

I know what she's feeling. I'm just as excited for her although I must refrain from acting too silly. I never heard her silent prayer. I know my dad never heard mine either when I was her age. It's something that you naturally resort to as an impatient child but don't dare let anyone know you're desperate.

Sharing outdoor experiences with your own children or others' kids is a noble and rewarding diversion but also somewhat selfish. You get to relive childhood. When I take Jessica and her younger sisters Andi and Kati fishing, bird-watching or hiking along our favorite stream, it gives me the chance to recall the good times I had while growing up near the South Fork Solomon River in Rooks County.

Nostalgia beckons. I recall numerous skivvy-dipping excursions with my older brother. I was about 6 years old and remember "helping" Dad set trotlines and catching catfish. Then there were the seining expeditions that once yielded a

monstrous 8-pound catfish. The river's range of recreation was infinite. There was lizard chasing, dinosaur fossil hunting, toad swimming contests and dam building rivaled only by the colossal concrete and riprap structure the Bureau of Reclamation built just a few miles upstream. I remember, too, the first time I cried really hard. It was the day Dad said we were moving to town.

My tears were in vain, though, as I soon learned that my lifelong companion, the Solomon, was within easy walking distance of our new home. Aging into adolescence, I found my river fun greatly enhanced thanks to a bolt-action .22 rifle. I plinked a plinker's paradise with that gun. To this day there is hardly a more satisfying smell than burnt gunpowder. It always reminds me of a fall scene of yellow-brown cottonwood leaves and scampering squirrels along a clear, sandy stream.

Memory is not my strongest asset, but the Christmas of 1964 is easy. My first shotgun. Mine! I didn't have to borrow a friend's extra single-shot anymore for pheasant hunting. It was a used but absolutely beautiful Revelation 20-gauge bolt-action with a three-shell magazine clip. Only a few hours later, I christened that new gun and shot my first pheasant on an island in the partially frozen South Fork Solomon River.

That river also had to endure the ravages of my Honda Trail 90, but one day the river got even. It swallowed my trail bike in a familiar shallow run that was carefully scoured in expectation of my next visit. I can still hear the unrepressed chuckling of my good friend Nick as he helped rescue and resuscitate my gurgling machine.

I strain to recapture every delightful day I shared with the South Fork. But it's an effort roused with a degree of urgency since my old flowing buddy is deteriorating. Why? In casting aside all esoteric arguments, let's only acknowledge that in our quest for gross national product we change the Kansas landscape. In only a couple of dozen years, my stream's vital signs have weakened. Its flow has diminished. Its channel is becoming choked with sapling willows and cottonwoods. The South Fork Solomon River can no longer offer the dependable enjoyment that I once knew. I lament its condition as one who consoles a sickened relative, and I ponder the loss of its virtues for younger generations. My sympathy is crudely shaken when I realize that my own children are among this age group.

If persistent threats such as water depletion and pollution worsen, will Jessica have a favorite natural companion of which one day she, too, will reminisce? Will it also decline or disappear so that any references will be in past tense?

These fears reflect the classic driving force for conservation. It was a concept that at one time meant only yearly posters at the county fair. The implications are much clearer now. It hits home even more when I catch the sparkling expression on Jessi's face lighted by the tug of a fish or the sight of a whitetail watering just downstream.

A sound land ethic replete with good stream conservation values will always be relevant — critically so as we peer into the future through the eyes of our children.



