KANSAS Wildlife & Parks

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The View From Here

by Steve Williams

Welcome IAFWA

Hunters and anglers who have spent any time in our state are aware of its rich natural resources. Upland bird, turkey, and deer hunting opportunities are among the finest in the nation, while our fisheries provide diverse opportunities for every type of angler. Situated in the middle of the Central Flyway, Kansas marshes attract birdwatchers from across the country. This September in Wichita, we'll showcase these Kansas attributes to fish and wildlife experts from the U.S., Mexico, and Canada at the 91st International Association of Fish and Wildlife Agencies (IAFWA) Annual Meeting. You may not have heard of IAFWA, but this organization has been working for our fish and wildlife resources for nearly 100 years.

Formed in 1902 to advocate the end of spring waterfowl hunting and make state hunting licenses mandatory to fund wildlife management, IAFWA's mission remains consistent with this conservation ethic:

- Promote the sustainable use of natural resources;
- Encourage cooperation and coordination of fish and wildlife management at all levels of government;
- Develop coalitions among conservation organizations to promote fish and wildlife interests;
- Encourage the professional management of fish and wildlife; and
- Foster public understanding of the need for conservation.

IAFWA's governmental members include the fish and wildlife agencies of the states and provinces, as well as the federal governments of the U.S., Canada, and Mexico. All 50 states are members. The Association has been key in promoting sound resource management and strengthening federal, state, and private cooperation to protect and manage fish and wildlife and their habitats.

IAFWA's contribution to our natural resources is too vast to list on this page. In general, the organization represents states' interests in fish and wildlife management and works to solidify the goals and objectives of all 50 states and territories, as well as the overlapping interests of Canada and Mexico. This representation includes providing state fish and wildlife agencies with legal counsel, conducting surveys to track conservation trends, and providing program assistance in such areas as hunter education, shooting sports, aquatic education, proactive strategies, and professional development.

IAFWA is also involved in fish and wildlife management issues in Washington, D.C., advising, testifying, and developing coalitions to draft and support needed legislation, and addressing threats to fish and wildlife management in North America. In fact, IAFWA has been at the forefront of nearly every conservation victory in the history of our nation, including the creation of the federal duck stamp, establishment of the federal wildlife refuge system, and development of the 1985 farm bill that resulted in the Conservation Reserve Program and the Wetlands Reserve Program.

The department is proud to host the IAFWA Annual Meeting in Kansas this fall. Four hundred wildlife professionals will convene in Wichita for four days of meetings and a good dose of Kansas hospitality. Dove and teal hunting, fishing, and wildlife watching are scheduled for "breakout" activities. And there is also time set aside for participants to enjoy other area attractions each evening.

IAFWA's 91st Annual Meeting will place Kansas at the center of the continent's critical conservation issues, and it will show people from across the country that Kansas is more than wheat fields and tornadoes. Hats off to the IAFWA for nearly 100 years of conservation, and a big thank you to the Kansans who made their visit possible.

Steve Williams

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About the covers

Front Cover: Ever alert to danger, a whitetail buck bounds away as photographer Mike Blair catches the action. 600Mm lens, f/8 @ 1/500th sec.

Back: Jim Reid and partner Rebel watch approaching ducks during a successful late-winter mallard hunt. Marc Murrell took the photo with a 55mm lens, @ f/16, 1/125 sec.

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Duck Hunter's Dream

by Dustin Teasley
illustrator, Pratt

photos by Mike Blair

The Neosho Wildlife Area, in southeastern Kansas' Neosho County, is 3,000 acres of duck hunting dreams. When rainfall is generous, tens of thousands of waterfowl will visit the wetland.

My first look at Neosho Wildlife Area was on a fall morning last duck season. I had come, shotgun in hand, to join several companions on a hunt at this well-known Kansas marsh. It seemed odd to arrive at a time of day when many hunters were leaving. But with any new hunting situation, it is important to be prepared for the area and courteous to other hunters. We wanted plenty of light to help us navigate the new surroundings. and we didn't want to blunder through decoy spreads just after shooting hours. Our late start helped us avoid these problems and gave us a good look at the area.

I was surprised at the area's pristine beauty. We stopped at the area office to obtain the free, required

daily hunting permit. Though there is a self-help station, we were lucky that area manager John Silovsky was there to provide some good information. He reported that hunting pressure had been heavy all weekend with good success. He also said that a layer of ice had covered the area overnight but was expected to break up mid-morning. Knowing that open water would attract hungry ducks, we had new optimism. We picked up an area map, and along with some advice from Silovsky, we searched for a place to start.

The dikes and maintenance roads on the area do not take away from its natural beauty. The fall foliage was spectacular even though it was late autumn. The large amount of flooded timber near the roads disguised the size of the area. It was not until we began walking a dike that we realized the size of the pool we would hunt.

I was struck by the number of trees that surrounded us. Waterfowling in timber was a new experience for me since most of my hunting is done on areas with few or no trees. Not only was the pool surrounded by forest, but there were rows of trees, brush, old road beds, and acres of flooded smartweed and planted crops. Neosho was truly a duck paradise.

Everything looked so good that it was hard to decide where to set up. The farther down the dike we traveled, the more ducks we saw. After 100 yards or so, I looked around and noticed there were no cars, no road noise, no radio towers — just trees, marsh, blue sky, and ducks. It put a smile on our faces.

We crossed, very carefully, the ditch bordering the dike. Some of these ditches are deep and slippery. Our first setup was on a dirt mound that other hunters had obviously used during the season. The setup looked good enough but proved to be an obvious danger to the ducks. Flock after Flock would come by, flaring before they reached shotgun range.

After an hour of this, we decided to move. Late-season ducks become wary of typical hunting setups where decoys are placed adjacent to a blind. This set up seem natural to hunters from a ground perspective but when viewed from the air, it is extremely obvious. It appeared that weekend hunting pressure had made ducks especially cautious. We noticed that flying birds seemed to key off of a nearby point of flooded trees so, we moved to that point and changed tactics.

We stood against flooded tree trunks and positioned our decoys around us in two groups. One part of the spread was placed 20-30 yards out, and the rest were anchored close around us. This left an inviting gap where ducks could land within shooting range. Standing in the icy water was not a relaxing way to hunt, but the strategy paid off. Now, the tables turned in our favor.

Flock after flock passed high overhead, and some ducks would break from the ranks to give us a look. Mallards, pintails, widgeons, and gadwalls made their way to feed in the marsh. Our shooting opportunities increased, and we were soon rewarded with a nice pair of mallards.

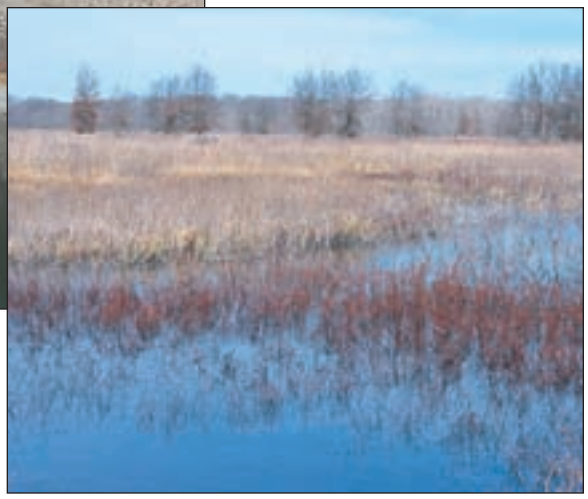
By early afternoon, bird movement slowed down, and we took time to enjoy the Neosho surroundings. Construction of this area began by the Kansas Department of Wildlife & Parks in 1960, and by 1962 was complete enough to allow the area's first waterfowl hunting. During the last 40 years, wildlife management practices have maximized hunting opportunity, supporting moderate to heavy hunting pressure.

Located in the southeastern corner of Kansas, in Neosho County, the Neosho Wildlife Area offers a unique experience to the outdoorsman, especially the waterfowler. The 3,000-acre area also provides excellent hunting for deer, turkey, quail, rabbit, and squirrel.

Seasonal fishing is also popular in Pool 3, which is the only pool with permanent water. Bowfishing for carp is popular with local fishermen in the spring and summer. There are regulations in effect governing fishing dates for this pool. The Neosho River also offers excellent fishing in this area. The river runs along the west boundary of the property and can be accessed from the main road of the complex.

Of all the activities available on

The Neosho Wildlife Area is managed specifically for waterfowl. When rainfall is inadequate, water is pumped from the Neosho River, which courses along the area's west boundary. Corn, millet, and milo are planted in the pools, then left unharvested and flooded to provide food for migrating waterfowl. All hunters are required to get a free permit when the enter the area. Permits are available at the office or self-help stations.



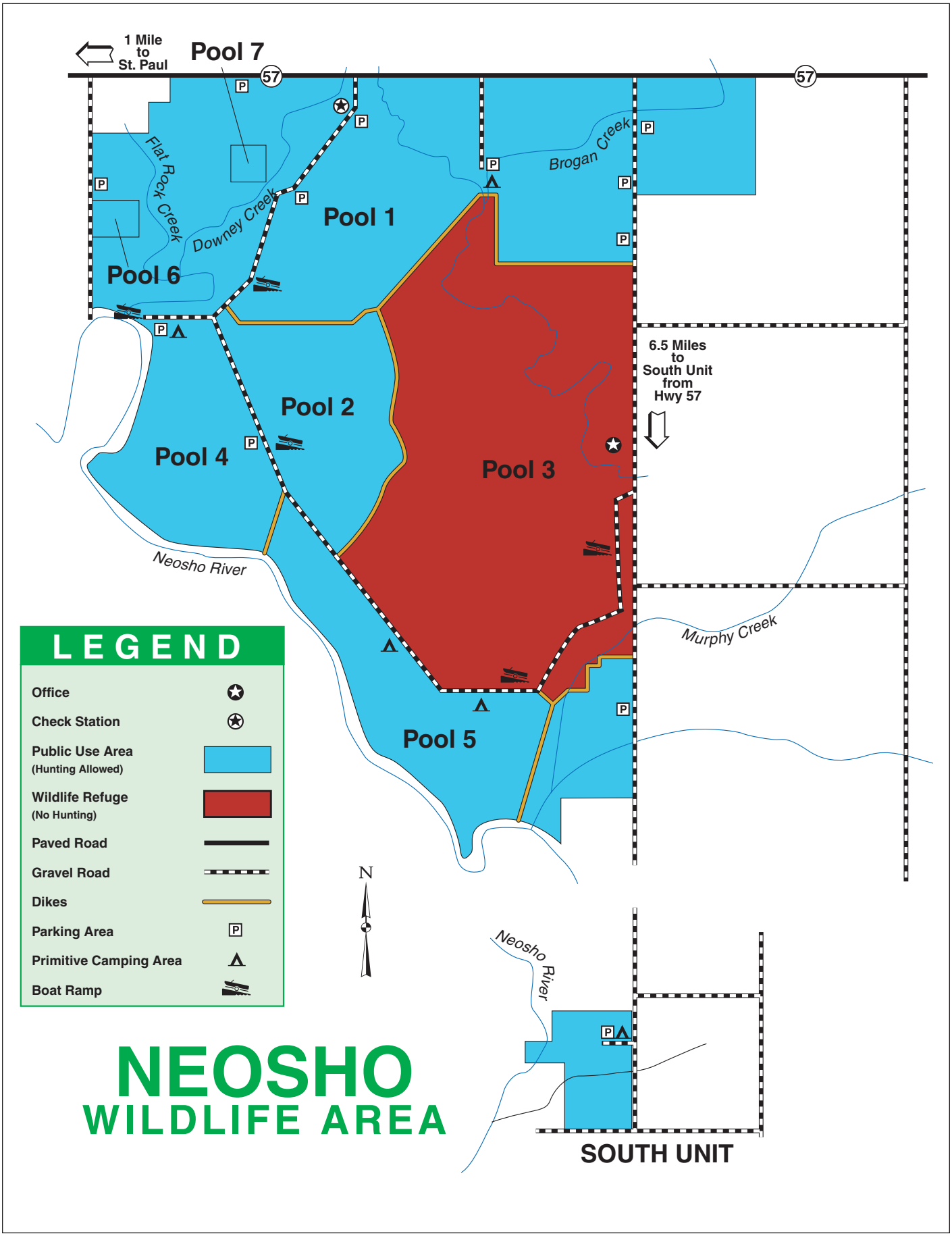
the area, the Neosho Wildlife Area is best known for waterfowl. The area was originally created to provide migrating waterfowl a place to rest and feed during migration and can attract as many as 100,000 birds during both fall and spring migrations. More than 60,000 ducks, mostly mallards, will winter on the area.

The marsh area has 1,775 acres divided up into 15 management pools. However, due to size, hunters are most interested in the five largest pools. Pool 3, the refuge pool, is largest. Four other large pools, 1, 2, 4, and 5, make up the majority of the hunted pools. Hunters can access all of the hunted pools by foot or by boat. Ditches used to transfer water may be deep and can pose hazards while wading but make handy boating lanes.

As with all Kansas waterfowl areas, summer and early fall rains can often make or break the fall duck season. According to Silovsky, a hot, dry summer makes it hard to manage water. "Fortunately, we can pump water from the adjacent Neosho River, which is a perennial water source. We have the capability to pump into two or three units at one time, and a week's pumping can make a big difference. Even so, in hot, windy weather, evaporation makes it hard to see much gain. Drought conditions make it tough on the duck season."

Summer also affects the important food crops planted for wildlife. At Neosho, corn, milo, and millet are planted to feed winter waterfowl. However, milo has proven to be the crop of choice for the area. When crops make good seed, the area holds large concentrations of birds even when it freezes up.

"All of our crops are planted specifically for wildlife and are not harvested. Since most of our fields are inundated several months of the year, we plant 2-3 weeks later than the average for our area. The crop may not be as heavy, but all of it goes for wildlife food. This approach has worked well. During the past several years, we've been surprised that birds stayed on the area when things froze up. We feel this is directly related to our food plots."



NEOSHO
WILDLIFE AREA

Dikes divide the area into pools that can be filled independently. Most hunting pressure occurs on the five larger pools

Silovsky hopes for adequate water in dry years as early teal season opens. "Early teal season is strictly an opportunistic hunt for us. If we can gather water prior to the season, we will." Early water may also affect the special youth season at Neosho, which is held a week prior to the regular duck season opener. "We're lucky to have several conservation groups that go out of their way to get youth involved in duck hunting at Neosho. Ducks Unlimited and Waterfowl USA members take an active role in helping young hunters get started. In a good year, we'll have as many as 60 youngsters take advantage of Kansas' early youth duck season. A drought year makes it tough to accommodate this hunt. Unfortunately last year, there simply wasn't enough water and the youth hunt was disappointing. Hopefully, this year will be better."

At Neosho Waterfowl Area, hunters are not restricted to designated blinds. Dirt mounds throughout the area provide possible hunting sites, but hunters may set up wherever they choose. Natural vegetation can be used to construct blinds. Boat hunters can find suitable hiding places among dense trees or flooded brushy shrubs. Hunting from management dikes or roads is prohibited.

Competition at Neosho can be heavy, and hunters are always looking for new ways to bring in wary birds. Any trick that varies a decoy spread from the norm may provide the edge needed for success. For us, wading into flooded timber made the difference. Hunting on week days can also be a good idea.

The afternoon shadows grew long as we returned to the business at hand. Other hunters arrived, and the marsh came alive with the sounds of success. Though we saw other species, mallards made our hunt. Throughout the late afternoon, ducks crossed the sky in waves and finally became a swarming mass over the entire area. Feeding flocks could be seen decoying to hunting setups throughout the area, and the sound of distant gunfire provided an amazing waterfowl experience between our own shooting opportunities.

The sounds of our calling rang through the trees. It was exciting to watch a dozen birds break ranks with larger groups to slide into our decoys. The sunlight on green heads was unforgettable against the backdrop of autumn timber.

Neosho offered its beauty and its ducks. We finished with 15 mallards and an experience that would live in our memories. The walk back to the truck did not seem nearly so long. There were no complaints, no mishaps, just plain fun.

Some area old timers claim the best duck hunting in Kansas can be found in their back yards at the Neosho Wildlife area. Having hunted areas like Quivira and Cheyenne Bottoms, statements like these were once hard for me to believe. But after a hunt on one cold November afternoon, I can understand this point of view.

Teal, rail and snipe hunting can be good at Neosho when late-summer rains provide water.

NEVER STOP SCOUTING

by Gene Brehm
videographer, Pratt

photos by Mike Blair

To be consistently successful, the deer hunter should scout year-round. Even early hunting trips should be considered part of the scouting plan.

As the evening light faded, I climbed from my treestand to end another fruitless bowhunt. Nearby deer sign was so abundant that it was almost scary. Scrapes and rubs were everywhere. Not far from my stand, I took the time to check a rub on a 20-inch-diameter tree. Fresh shavings proved that at least one buck had visited recently. Two of the vicinity's eight scrapes showed activity from the previous night. Or was it from daytime? I started to wonder if bucks roamed the area while I spent my midday hours at work. After four days of hunting both dawn and dusk, I had not seen a single buck and was frustrated and confused.

I learned something about scouting during that 1980s deer hunt. I had found fantastic deer sign in an ideal-looking area, so I camped over it. Visual clues sug-

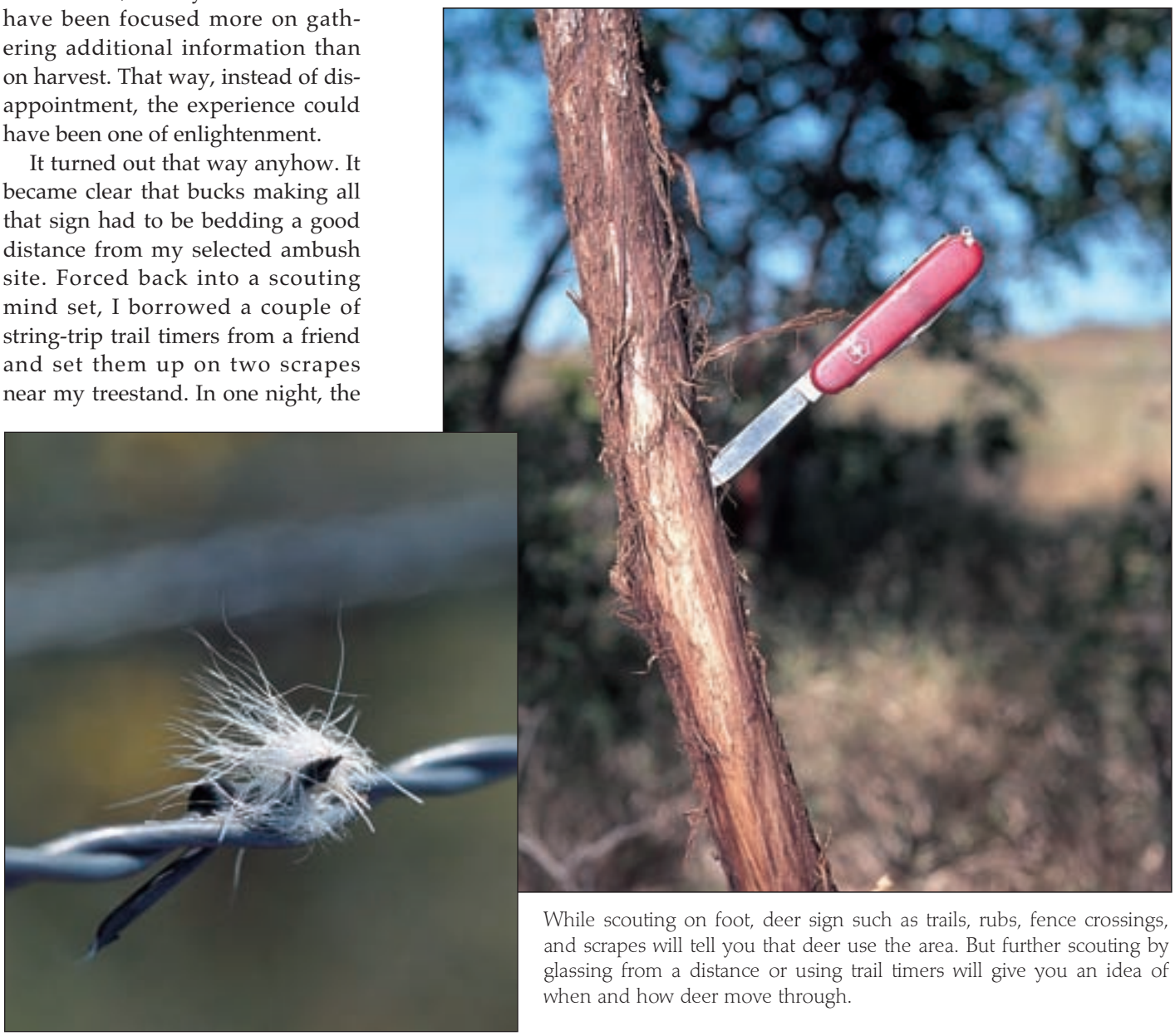
gested that it was the perfect ambush spot, and that all I needed to do was to be there. My confidence soared the first few times I hunted the area, but slowly, optimism turned to despair. My biggest mistake (and I made several) was possibly my attitude.

I hadn't watched the area prior to deer season but instead had walked it looking for trails, scrapes, and rubs. Upon finding the impressive sign, I had expected too much. I should have looked at my initial hunts as part of my scouting. It was okay to be ready to shoot a deer if one showed, but my attitude should have been focused more on gathering additional information than on harvest. That way, instead of disappointment, the experience could have been one of enlightenment.

It turned out that way anyhow. It became clear that bucks making all that sign had to be bedding a good distance from my selected ambush site. Forced back into a scouting mind set, I borrowed a couple of string-trip trail timers from a friend and set them up on two scrapes near my treestand. In one night, the timers proved what a week of stand sitting had hinted. The timers were tripped after 9 p.m.

Armed with this information, I took a broader look at my hunting area. I forced myself to spend time glassing from high vantage points, and it paid off. One evening I spotted several deer moving from a suspected bedding area. The next day I shifted back to hunting mode. I placed a stand at midday and killed a mature buck that evening. Since then, I've never taken thorough scouting for granted.

It's true these days that most Kansans needn't look far to find deer. Yet, most understand the importance of scouting. Some hunters are not satisfied with merely finding deer; they want to find deer with big antlers. These hunters have a passion for scouting trophies and spend tremendous time and energy in this pursuit. By contrast, the majority of deer hunters scout casually when they find time and can spare the extra gas money. They are happy to find evidence of a modest-sized buck or a good doe population. Regardless of hunting goals, knowing how and when to scout can help anyone make the most of their time and



While scouting on foot, deer sign such as trails, rubs, fence crossings, and scrapes will tell you that deer use the area. But further scouting by glassing from a distance or using trail timers will give you an idea of when and how deer move through.

expense.

Summertime scouting should begin in earnest about the first of July. By then, antler growth of bucks should be sufficient to indicate the quality of an area's deer. Bucks behave differently in mid-summer, feeding and bedding in the company of other bucks. And they are much more likely to be seen in open areas, rather than the dense cover they usually stay in. This may be to protect their tender, growing antlers or to avoid flying insects in more wind-blown habitats. Whatever the reason, bucks seem to be more visible in July and early August than at any other time of the year. If you want to see what type of deer live in your hunting areas, don't miss scouting at this time.

Early-season scouting should be concentrated on food sources such as croplands. Deer, especially bucks, are more visible in open areas in mid-summer than they will be later in the fall. Once you've established that an area holds the deer you're looking for, keep scouting and watching, perhaps even setting trail timers (below) before you decide where to put your stand.

Does are also highly visible during summer months. In May and June, does move into pastures and meadows to have their fawns. Each will pick an isolated area away from other deer to raise their young. As fawns grow, the small family groups become more mobile and active throughout the day. They are easily observed, and the presence of many does indicates good hunting areas.

Where the terrain allows, experienced scouters glass summer deer from high vantage points with binoculars or spotting scopes. In timber country, ridgetop meadows are good places to watch. In open pasture land, deer can be seen moving through moist draws. During dry, hot, weather, water holes can be deer magnets from midday until dark.

Besides these open areas, crop fields are also good choices for scouting. Each crop has a preferred stage of development for feeding deer. Soybeans, clover, and alfalfa are especially good summer viewing areas during twilight hours. Milo is good as developing seeds are ripening. Corn or tall hay crops may hold impressive numbers of deer, but the animals can be seen only when feeding along the edges.

Throughout Kansas, Conservation Reserve Program grasslands are a favorite bedding site for both mule deer and whitetails. Brad Odle hunts whitetails and an occasional mule deer on, or near, his family's farm in northwest Kansas.

"I often see good bucks when I swath alfalfa," Odle says, "Even in early June you can usually tell when you're looking at a good deer. During the summer months, bucks are mainly interested in high energy foods. For some reason, and it must be hormone levels, these deer are not nearly as wary as they are in the fall. They will often come out to feed while farming activity is going

on in the same field. When I have time to actively scout, I watch alfalfa bottoms in the late evenings. Later in the year I'll also watch milo fields when the grain is in the dough stage. This can be in August or in September, depending on the maturity of the crop."

Odle added, "One specific buck that I've been watching for the past several years is fairly visible during the summer, but after he strips his velvet, he seems to move to remote CRP grasslands and beds on the high ground. At that time, he'll feed on wide-open newly planted wheat fields and just can't be approached from any direction. He seems to range out only at night. That's why he's still out there."

Using binoculars or a spotting scope can help determine deer movement patterns in open country. Finding an overhanging branch such a the one pictured at left will tell you that a mature buck visits the scrape. Sheds like the one below tells you that a bruiser buck survived the hunting seasons.

Last year, Odle grew weary of waiting for that animal and moved to a stand where he expected to fill one of his antlerless game tags. As often happens, a whitetail grossing more than 160 inches offered an easy shot and the temptation was too great. He's already looking for the larger buck, hoping 2001 will be the year.

Knowing the quality of deer living in your hunting area can help decide the type of deer you'll take. If scouting reveals that big deer are present, you'll know to hold out for a good one.

J.R. Dienst farms near Lakin, and knowing the local buck population helps him be successful. "I usually get a good idea of the quality of deer that I have while I'm out on the tractor," Dienst says. "These deer, both the whitetails and the mule deer, are much more tolerant of a tractor than they are of a pickup. During the farming season I'll usually

see most of the deer that live here."

Dienst also sees a lot of deer when they are moved around by wheat harvest. "The bucks haven't fully developed at harvest time," J.R. adds, "but you can get a good idea that you should keep an eye on a certain deer."

Dienst described how knowing where a big non-typical mule deer normally stayed helped him just last year. "I knew there should be eight bucks in a group I spotted, and I could find only six of them. I watched the uncut milo field from sunup until three in the afternoon before the big guy finally stood up. He was only 80 yards from a main road and the traffic had made him hide all that time. I was watching from a half-mile away."

Those hunters who don't scout may be passing-up the largest bucks that live in their hunting area, while hoping to see a larger deer that doesn't exist. Even so, not seeing big deer while scouting certainly doesn't mean that there are none around. Danny Williams of McPherson had been bowhunting an area with good sign but was mystified by the fact that he had seen no mature bucks. He borrowed a remote camera system and set it up near his treestand. After three days, the roll of film was processed to reveal a surprise.

"When I got the pictures back," Williams said, "they showed five different mature bucks. All of the pictures were taken after dark, and the largest buck was a monster. That deer was killed during rifle season about a mile away and was gross-scored at over 190 inches. But I saw only one mature buck out of that stand during the entire bow season."

These stories illustrate how pre-season scouting can help a hunter find the right "zone." But complications are part of the process. Since Kansas is primarily an agricultural state, deer habits and haunts often change when fall crops are harvested. This can confuse what is learned in pre-season scouting. Bucks may spend August and much of September in corn or milo fields that are harvested before some deer seasons open. In parts of Kansas, crop fields may be the only cover for miles. But once these fields are harvested, scouting must be refocused on likely habitats within reasonable distances.

Randy Benteman is a deer hunter and Kansas Wildlife and Parks conservation officer stationed at Cottonwood Falls. He is well familiar with how deer patterns can change with harvest and to help sort it out, he likes to do much of his scouting in late winter. "I've used post-season scouting primarily as a method of finding hunting locations for the next year," Benteman says, "but I don't put much faith in the specific trails I find at that time."

Benteman feels that by January, the deer have been pressured into a change of normal patterns which is also complicated by a change in food availability from earlier in winter. "What you can learn at this time," Benteman continues, "is the location of a mature buck. While large tracks don't guarantee the presence of a trophy, they are proof that a mature deer is in the area. I've found that deer often use dif-

Be especially aware of deer movements and wind when scouting or setting stands. Mature bucks and does will avoid areas where they repeatedly encounter human scent. Glassing from a distance before you select a stand site may help you avoid blundering into a big buck like this when you enter the area.

ferent trails this time of year but will still be in the general area come next season."

Benteman likes to wait for a good snow for post-season scouting. "A long-lasting snow can really show where deer are and how they're moving," he says, "but a few deer can make a lot of tracks. It's easy to overestimate the number of deer you have at this time."

Another advantage of post-season scouting is the possibility of finding shed antlers. A buck sheds its antlers in late winter, often near the area where he rutted the previous fall.

Travis Kolm of Pratt uses shed hunting as a key element of his scouting strategies. "When I find a good shed, I feel fairly positive that I know the home range of a good buck," Kolm says. "I've usually been able to see that deer the next fall in the same general area."

"Sixty to 70 percent of the antlers I find are within 150 to 200 yards of a food source," Kolm advises. "I study the terrain around a food source and then check all of the draws or low areas leading to the food source. Bucks like to travel the low areas such as draws, waterways, saddles, and the backs of terraces. I'll find many shed antlers in the winter food sources, such as wheat fields, especially where the deer jump the fences. I don't find many sheds on good trails, and I don't find very many in heavy timber, at least not out here in central Kansas."

For the new hunter (or a hunter moving to a new area) who hasn't had time to scout before season, it's always wise to hunt the downwind edges of a potential hunting area. Set stands for the various wind directions and don't go too deep into the habitat. Pick stand sites that offer a good visual vantage point, yet won't alert any deer of your presence. Note the direction of deer movement both mornings and evenings. Pay close attention to wind direction and behavior (swirling, downdrafts and updrafts). Record the time and direction of movement of every sighting. Don't just glass for deer. Glass the area for potential stand sites. Look for trees shaped properly to accept your stands which must be located on the downwind side of the areas where deer are commonly seen.

From these scouting stands, look for bottlenecks in the habitat that seem to funnel deer toward a certain travel lane. Watch the corners of feed fields, since corners often prove to be high traffic areas. Also watch intersecting habitats, such as areas

Gene Brehm photo

Hunters scout for different reasons. Some look for trophy-sized bucks and others merely want a good opportunity to take a doe. Regardless of your hunting preference, adequate scouting will improve your success. If you have the time, scouting can be an integral and enjoyable part of the hunting process.

where tree rows come together or where heavy cover projects into a food source.

Many great stand sites can be hunted when only the wind blows from a specific direction. Never hunt a stand if the wind will blow your scent toward a suspected bedding or feeding area. If you don't see much deer movement from your scouting stands but you know deer are using the core area, move your scouting stand closer to the core habitat and begin the observations again.

Generally, you'll know when to move closer. If you see the chance to set up a great hunting stand and the wind is right, set it up and get in it. A stand is best hunted with a crossing wind so that non-target deer can approach and pass your location without smelling you. If you are after a mature buck, the last thing that you want is to alert area does of your presence.

Walking through core bedding areas often proves counterproductive, but it's okay to scout travel areas outside known bedding zones. Look for trails that lead through natural saddles in the terrain. Deer often like to travel in slight depressions or draws to get from bedding to feeding areas. Check such areas for tracks.

For those hunters who care nothing about antlers, scouting should be concentrated mainly on feeding areas. Undisturbed does and fawns often move to feed well before dark. It is often possible to scout near feed without disturbing deer as long as it's done during late morning or early afternoon. Walk the edges of feed fields looking for heavily-used entry trails. When choosing stand sites, pay close attention to potential wind directions. Mature does are no less wary than mature bucks. They are just less nocturnal. One whiff of human scent can trigger a doe to blow warning calls that will alert every deer in the area. Just like bucks, does will avoid areas where they repeatedly encounter human scent.

The author learned that merely finding deer sign wasn't enough to ensure bowhunting opportunities. By scouting throughout the season, he has been much more successful.

The amount of scouting that you do should be gauged by the amount of joy that it brings you. If it feels like work, don't do it. And remember, no amount of success at deer hunting is worth missing a son's or daughter's ball game. Life must be kept in perspective.

The next time you plan an evening scouting trip, you might even ask your spouse to take a quiet drive in the country with you. You can promise to take a short walk and watch the sun go down together. The spouse may become a little suspicious when you load your spotting scope but you can promise that the scope is just to better detail your nature study. Isn't that what scouting is really all about anyway — enjoying nature year-round?

CALL 1-800-BIRD

text and photos by Mike Blair
staff photographer, Pratt

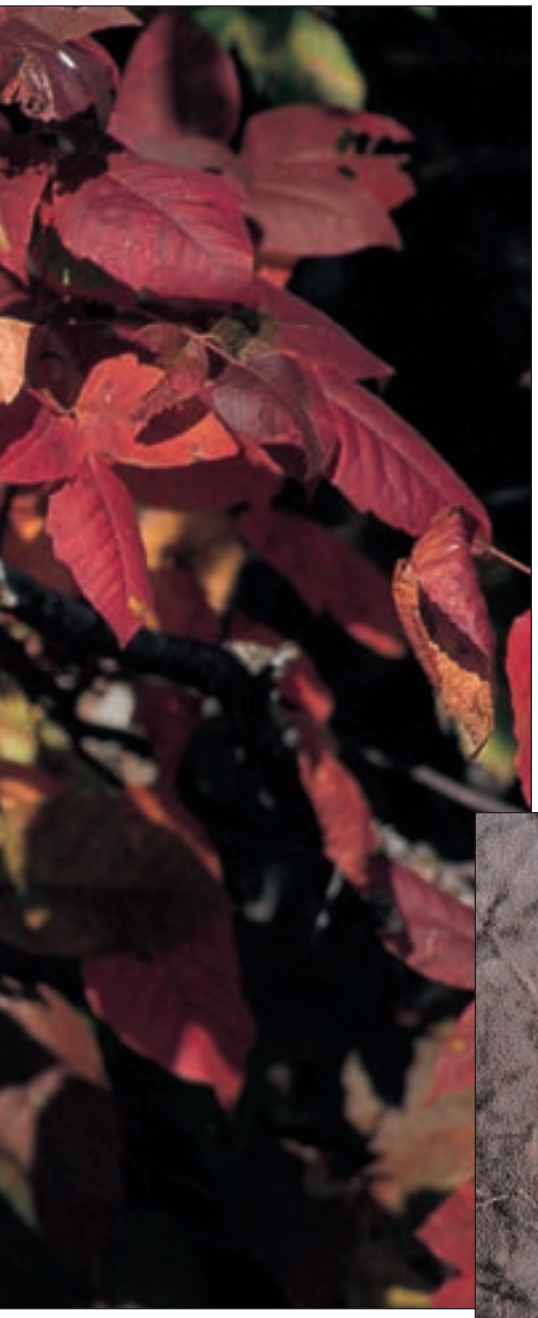
While professional wildlife photographers don't normally advertise tricks of their trade, we'll let one out of the bag. Anyone who loves to watch birds can use an electronic caller to bring all kinds of birds up close.

Many are excited these days about Lasik surgery. Those once forced to wear glasses or contact lenses may now undergo a quick and painless operation to help them view the world with perfect natural clarity. Twenty-twenty vision is the goal, and some are lucky enough to reach 20-15. For humans whose primary sense is sight, that's about as good as it gets.

Now imagine vision 10 times better than this; far greater detail; better color perception; and instantaneous recognition of the slightest motion. That's how it is with birds. And it's the reason that birds, common as they are, are seldom seen close-up. A bird's keen eyesight is its first line of defense.

Being perhaps the favorite animals of wildlife watchers, birds are normally viewed in the treetops and distant shrubbery at whatever comfort distance they choose. Granted, the technology of modern binoculars and spotting scopes can help even the score on these elusive winged beauties, but there is always the problem of finding a bird through optics. Even with 10X magnification, most songbirds are small enough to present a disappointingly small image when glassed from more than a few yards away. Add to this a bird's tendency to play hide-and-seek in deep shadows, and it is little wonder that birders must often be content with mediocre glimpses of their favorite subjects.

There is a way to beat this frus-



tration, though. Rather than chasing birds, you can bring them to you. It's done by calling and is the trick used by wildlife photographers to get many of the splendid bird portraits seen in books and magazines. Many kinds of birds respond to their own or other calls and will boldly approach the right sounds. A hidden observer can study or photograph these curious responders from point-blank range.

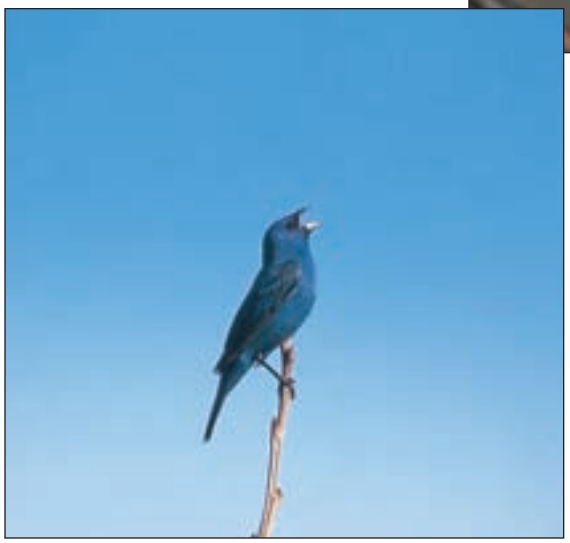
Fortunately, the technique works on a wide range of avian species. Calling is a familiar tactic to turkey and waterfowl hunters, and there are a variety of mouth-blown or friction calls to lure these gamebirds close. These calls mimic the sounds of geese, ducks, and turkeys to invite them to join with others of their own kind. The calls may simply authenticate decoys that are set up to fool living birds, or they may suggest a potential for mating. Either way, calling is a common method of bringing these large birds into close range — for hunters or wildlife-watchers alike.

Calling works for other birds as well. Bobwhites can be lured for close-up viewing by a lonesome hen call, especially during summer months. Driving a country road and listening for quail in early morning, I use a continuous-loop cassette tape played through a game caller to lure flying bobwhites from hundreds of yards away. I've used the same tape to call bobwhites to a home patio where they could be viewed close-up through window panes. The proper sounds can be whistled by mouth, but are best played through an amplified speaker. Recorded sounds are accurate and easy — you simply turn on a tape and enjoy the show.

Owls respond vigorously to the

A screech owl call played during daylight hours is a powerful attraction to many kinds of birds. Bluebirds (far left), cardinals (left), bluejays (above,) and nuthatches (below) often respond quickly to mob the small "owl" that would dare betray itself. Preoccupied birds can be lured into beautiful settings close to observation or photography blinds.

Indigo buntings normally occupy dense cover and are hard to observe in the shadows. Using the electronic call of a male bunting, these males (above and below) responded to defend their territories. The caller can also attract subjects to a specific area, such as a colorful perch, above. The black-capped chickadee, right, was drawn to the screech owl tape for a beautiful winter portrait.



calls of their species, sometimes allowing them to be viewed during daylight hours. The barred owl offers a fine example. This owl, an inhabitant of the deep woods that is rarely seen in sunny situations, can't resist the excited calls of its own kind. Though it is somewhat unnatural for barred owls to call during bright daylight, they will aggressively respond to loud imitations of their voices regardless of the time of day. This makes it possible to call them to a selected perch in wide open conditions. So focused do they become when called, that they tolerate the almost-certain crow attacks that result from daytime movement.

Owl calls work even better at night. On full-moon evenings when the silhouettes of flying owls can be seen among the trees, spotlights can be switched on to offer beautiful views of these secretive raptors. Screech owls, barred owls, and great-horned owls respond well to the voices of their own kinds, whether imitated by mouth, blown calls, or audio tapes. Arriving owls often answer from trees, helping to pinpoint their locations. To a certain degree, owls can be coaxed to land on a desired perch when calling electronically if the speaker and volume are adjusted correctly. Night owls aren't overly light-shy, but red cellophane fitted over the lens of a spotlight softens glare and may increase viewing time.

Another bird-calling technique almost always successful is hooting for crows. The great-horned owl is a hated enemy, and crows rally from

A variety of woodpeckers respond to several electronic calls. The red-bellied woodpecker, left, came to the sounds of a distressed flicker which is normally used to call predators. The ruby-crowned kinglet, above, posed in a fall setting as it searched for the screech owl call.

great distances to chase any owl foolish enough to show itself. Other owls are also harried, but it is the voice of the great-horned owl, mixed with excited crow calls, that bring these large black birds at sprint speeds. It is common for a dozen or more crows to dive-bomb through trees in search of this call. The show is entertaining, since crows are skillful aerialists. Mouth-blown crow calls are also very effective in attracting these large, intelligent birds.

Perhaps most surprising of all is the response of songbirds to calls. The courtship songs of male birds attract females, of course, but they also attract aggressive resident males that believe their territories are being challenged. Males hearing an electronic call within their breeding claim seek to drive away competition. Cadence and melody must be perfect, so it's not likely calling by mouth will be very successful. Instead, actual recordings of the male's voices must be used. In some cases, commercial tapes are available, but most of the time, personal recordings must be made in the field. This is technically difficult and quality is often lacking. Even so, such tapes may yield spectacular results.

Buntings are good examples. For years, I tried to get close enough to film the shy and diminutive indigo and painted buntings, always without success. However, using these species' courtship calls amplified through a speaker, the male birds came readily to whatever perch situations I chose. Not only did they come close, they could be drawn into full light for the best photographs. Even better, they could be filmed singing as they answered the unseen challenge from the electronic speaker.

While it's common sense that birds answer their own calls, it is not widely known that many songbirds and woodpeckers are attracted to the whinnying call of the screech owl. This small owl is a nest predator and therefore despised by many bird species. Though the owl is rarely active by day, its call usually elicits a mob of angry visitors. Using this call, any observer hidden beneath a camouflage tarp or blind is in for a parade of birds at close range.

A screech owl/songbird calling

tape is available from Johnny Stewart Game Calls and plays continuously for 30 minutes each side. It works in any cassette recorder, but I use it with the Johnny Stewart Gamer Caller. This tough, waterproof plastic caller has a large speaker that can be removed and placed a short distance from my photo blind. The large horn amplifies the sounds and directs them toward the calling area. The fully-charged battery provides up to 25 hours of play under most field conditions, making it ideal for a day of birdwatching.

In my opinion, the screech owl/songbird tape is the best single tool available for viewing many kinds of wild birds. Birds can be brought close for amazing study with the naked eye, if the observer will take the time to hide carefully. Actually, called birds are often so intent on the sounds that they will come surprisingly close to a car full of observers, or those simply standing still in shadows. Birds tend to flit around while searching for the calling source, so photography is challenging. But there is no better way to sample a variety of birds at a random observation point. Generally, a successful calling exercise takes 10 minutes or less.

The beauty of this call for photography lies in the opportunity to attract birds into desired surroundings. In autumn, birds can be called into beautiful, sunlit foliage for remarkable color photographs. Likewise in spring, flowering trees offer wonderful backdrops. I've called birds into colorful fruit trees such as cherry, plum and peach, whose fruits added interest to a bird portrait. Or sometimes, the call can be used to lure a bird into snowy berries.

Male bobwhites are easy to call in June and July. A "lonesome hen" bobwhite tape on a continuous loop sometimes lures as many as half a dozen males at once.

The screech owl tape works throughout the year but is less effective in winter. It works best during the nesting season, when birds respond in dramatic fashion to the possible danger of a nearby "screech owl." However, a matter of ethics must be considered at this time. Parent birds become upset and leave their young unguarded and unfed while the call is playing, so long calling sessions pose a danger. It's best to call for a short time and avoid calling the same area again and again.

It's always a surprise to see which birds respond to the screech owl tape. You can count on bluebirds, robins, cardinals, bluejays, chickadees, titmice, and a variety of sparrows and woodpeckers. But lesser-seen species respond as well. I've photographed vireos, towhees, kinglets, warblers, gnatcatchers, brown creepers, and

Tufted titmice (above) are quick to arrive and sound the alarm when a screech owl call is played. Other birds such as the rufous-sided towhee (facing page) may come and go silently.

thrushes. The amazing thing is how these birds will intermingle as they search for the electronic sounds. Most utter their alarm calls as well, making for a noisy and fascinating opportunity to sample a habitat's birds.

Bird calling works surprisingly well for group hikes as well as solitary birdwatching. If participants stand or sit against shaded tree trunks and remain quiet and still, called songbirds will often come close enough for meaningful observation. Birds usually begin to arrive in less than five minutes and may stay for as long as half an hour.

Like all pursuits today, bird calling can be simple or sophisticated, modest or expensive. Some calls can be learned and whistled by mouth. Particularly for gamebirds, mouth-blown or hand-operated calls can be purchased for less than $15, making an inexpensive way to call some of nature's largest and grandest birds. The screech owl tape and other actual bird recordings can usually be obtained for $10, and they can be effective when played even in toy cassette players. Or, for serious enthusiasts, calling systems can be used with remote, radio-controlled volume to call birds to a precise location for photos or study.

As a place where East meets West and North meets South, Kansas offers a birding paradise. Calling is an effective means of maximizing observations with a minimum of skill and equipment. Try it for yourself, and you'll come away with a better understanding of these beautiful animals.

Editor's Note: The screech owl/songbird tape mentioned is item CT130, available for $9.95. Call (800) 728-0321, or access the distributor's website at www.hunterspec.com.

Kansas State Champs

by Jim Strine, district forester,
Kansas Forest Service, Hays

photos by Mike Blair

State champion trees, that is. While Kansas isn't known for timber, there are some outstanding specimens, including an elm that was the national champion at one time.

When the subject of Kansas champions comes up in a conversation, most people automatically think about an outstanding high school or university sporting team. Very seldom will trees come to mind. But there are champions in the state that most Kansans have neither seen nor even heard of. These silent champions are giant trees located in the communities and countrysides of Kansas. Yes, we do have champion trees in Kansas!

A champion tree is the largest one of its species that has been measured and recorded. Some champion trees are massive. The champion eastern cottonwood located near Ozawkie has a trunk circumference of 28 feet, 4 inches, and is 113 feet tall. The co-champion black walnut, located at Fort Leavenworth, is the tallest measured tree in Kansas. It reaches a total height of 128 feet.

At the other end of the scale, some champions will never reach a large size. The champion Washington hawthorn located in Pratt measures 2 feet in trunk circumference and is 20 feet tall. Although this tree is dwarfed by the champion cottonwood, it is still an impressive tree for its species.

Currently, there are 114 champion trees registered in Kansas. As expected, the majority of them are located in the eastern part of the state. Leavenworth County is king when it comes to champion trees. Currently, there are 42 Kansas champion trees in Leavenworth County. The soils and climate of Leavenworth County are ideally suited for tree growth. However, this is not the only reason for the

area's numerous champions. Jack Smith, who retired from the Kansas State University Research and Extension Service in Leavenworth County, has a passion for large trees. He is considered the local authority of big trees in Leavenworth County. Of the 42 champion trees in Leavenworth County, 34 have been nominated by this tireless individual. His dedication to the Champion Tree Program has recently been recognized by the Kansas Forest Service.

Champion trees are not restricted to the northeastern portion of the state. Labette county in southeastern Kansas is the home of the champion northern catalpa and shellbark hickory. In far northwestern Kansas, one can find the champion quaking aspen at Bird City in Cheyenne County. The champion incense cedar and Colorado blue spruce are located at Hays in Ellis County. In Riley County, the champion blue ash, horse-chestnut, and pitch pine are found on the campus of Kansas State University. The champion chestnut oak is located in the city of Manhattan. Sheridan County is the home of the champion limber pine. Champion trees in south central Kansas can be found in the Riggs Arboretum in Kingman County. The champion chittimwood, laurel oak, loblolly pine, and yellowwood reside in this arboretum. The southwestern region of the state is represented by the champion Chinese (lacebark) elm located at Garden City in Finney County. Thus, all parts of Kansas are potential growing sites for champion trees of various species.

Though Kansas is not widely known for its trees, there are giants here that would be impressive in any state. Height, trunk circumference, and crown spread are considered. Anyone can nominate a tree.

Perhaps the largest tree in Kansas is the current state champion eastern cottonwood at Ozawkie (top and facing page.) It is 113 feet tall and 28 feet, 4 inches around. The huge Louis Vieux American elm (middle) near Oskaloosa was twice national champion for the species and is now more than 300 years old. The state champion sassafrass (right) is located near Leavenworth.

To be considered a Kansas champion, a tree must be listed on the National Register of Big Trees. This Register is sponsored by the Davy Expert Tree Company, and it is maintained by American Forests. Only trees that are native to the United States or have become naturalized qualify for the National Register and the Kansas Champion Tree Program.

In Kansas, the Champion Tree Program is sponsored by the Kansas Forest Service. The purpose of the program is to locate and measure large trees in Kansas. Hopefully through this program, people will become more appreciative of the significance and role that trees play in improving our lifestyles. The Kansas Forest Service has no control over the champion trees in Kansas. If a tree is designated a Kansas champion, the ownership and responsibility of the tree remain with the current owner.

The Champion Tree Program is dependent upon the citizens of Kansas to locate and nominate champion trees. Nominations are judged on the same point system used for the National Register of Big Trees Program. Three measurements are added together to provide a total point score for a tree. These measurements are trunk circumference, total height, and crown spread.

The trunk circumference is measured in inches at 4 1/2 feet above the ground. If the tree is located on a slope, the trunk is measured at 4 1/2 feet above the ground on the uphill side of the tree. If the tree forks below 4 1/2 feet, the largest stem is measured and this measurement is the circumference for the tree. If there is a swelling or if the tree forks at or slightly above 4 1/2 feet, the circumference is measured below the swelling.

Height is measured in feet from the base of the tree to the highest live branch tip. Crown spread is the distance in feet from the tip of the branches on one side, through the trunk, to the tip of the branches on the tree's opposite side Two measurements are taken at right angles and then averaged to determine the total crown spread.

To determine the total point value for a tree, one point is awarded for each inch of trunk circumference, one point for each foot of height, and one quarter point for each foot of crown spread. Once a tree's total point value has been determined, it is compared with the other trees within its

State champion trees are often very old and in poor health. When one dies, the next largest tree takes its place. Records include most species, such as the state champion western cottonwood in Kingman Co. (above); Ponderosa pine at Leavenworth (left); and Osage-orange at Olathe (below.)

species. The tree with the highest point value is designated a Kansas champion tree for that species. In rare instances two trees may share champion status. If total point values are within five points of each other, both trees are considered equal.

Anyone can and is encouraged to submit a nomination for the Kansas Champion Tree Program. However, the official measurement must be obtained by a forester from the Kansas Forest Service or someone trained by the Kansas Forest Service to measure trees. If a tree is not large enough to become a Kansas champion, the measurements are kept on file. Many of the champion trees are past mature, and their health can be in a state of decline. File data provides information on alternate trees in case of the death of a current champion.

For a list Champion Trees of Kansas or more information on nominating a tree for the Champion Tree Program please contact: Jim Strine, District Forester, Kansas Forest Service, 1232 240th Avenue, Hays, Kansas, 67601, (785)625-3425, Ext 220. A listing of the champion trees and program information is available on the web at www.kansasforests.org

THE RISE AND FALL OF A NATIONAL CHAMPION

Most people find it impossible to believe that at one time the largest American elm in the nation and in the world was located right here in Kansas. The Louis Vieux elm located near Louisville in Pottawatomie County held that distinction. Not only was the tree impressive in size, it had quite a historical background.

The tree was located adjacent to the Oregon Trail and was named after one of its early owners. Louis Vieux, of French and Native American parentage, settled in the area and operated a ferry on the Vermillion River. Thousands of migrants passed by this tree on their way westward and Louis Vieux became a wealthy and prominent citizen of the area.

The elm was first "discovered" by Ted Cunningham, an area resident, in 1976. He realized that it was special and brought the tree to the attention of Gary Naughton, who at the time was an assistant state extension forester. Naughton's initial measurements revealed that the tree was 99 feet tall, had a trunk circumference of 277 inches, and had a crown spread of 133 feet. In 1978, the elm was declared the state champion and on October 3, 1979 it was declared the national champion American elm. A small tract of land surrounding the tree was deeded to the Kansas Forest, making the elm a "state forest." This deed shall remain in effect until the death of the tree.

The Louis Vieux elm remained a national champion until it was dethroned in 1986 by an American elm in Virginia. In 1988, the Louis Vieux elm regained its status as national champion when the Virginia elm died of Dutch Elm Disease. In 1994, the Louis Vieux elm suffered substantial storm damage. After the storm, the tree was 87 feet tall, 313 inches in trunk circumference, and had a crown spread of 76 feet. In spite of the reduction in tree height and crown spread, the Louis Vieux elm still reigned as the national champion.

It remained national champion until 1997. Due to further massive storm damage and an act of vandalism (the tree was set on fire), it was removed from the National Register of Big Trees. At present, the Louis Vieux elm is a living relic with only one small limb and a fire-scarred base. A tribute and history of the landmark tree can be found in the Pottawatomie County courthouse at Westmoreland.

All that now remains of the Louis Vieux elm is a huge stump with one living branch. Storms and vandalism felled the national champion.

A Decade Of Steel

text and photos by Marc Murrell
staff development specialist, Great Plains Nature Center, Wichita

To prevent lead poisoning in our waterfowl, Kansas hunters have been using steel or non-toxic shot for waterfowl hunting since 1990. How much do you know about non-toxic shot and how to shoot it? Take the quiz and find out.

NON-TOXIC SHOT QUIZ

1. **True or False:** Non-toxic shot was mandated because waterfowl that were shot and not killed eventually died from lead poisoning.

2. **True or False:** Kansas mandated the use of non-toxic shot for all waterfowl hunting in 1990.

3. **True or False:** Non-toxic shot refers only to steel shot.

4. **True or False:** You have to use non-toxic shot for all migratory birds, including doves.

5. **True or False:** It's okay to have lead shot with you while you're hunting waterfowl, as long as it's not in your gun.

6. **True or False:** There are no statistically significant differences in wounding losses for hunters using lead versus non-toxic shot.

7. **True or False:** Steel is the most widely used form of non-toxic shot.

8. **True or False:** Hunters using steel must always choose two shot sizes larger than lead loads formerly used to achieve the same results.

9. **True or False:** There are approximately the same number of pellets in the same load of No. 4 lead and No. 2 steel.

10. **True or False:** Steel shot will likely damage my shotgun barrel.

11. **True or False:** The effectiveness of steel shot is determined by its pattern and penetration at various distances.

12. **True or False:** The shot string in a steel load is shorter than in a comparable lead load.

13. **True or False:** Hunters must learn to shoot steel with different leads since it is initially faster than lead and slows more rapidly.

14. True or False: Steel shot isn't as effective as lead.

ANSWERS

1. False: Lead poisoning occurs when a bird ingests lead as it feeds by probing the bottom. The lead is ground in the gizzard and subsequently absorbed into the bloodstream. Secondary lead poisoning occurs when infected birds are eaten by other predators such as hawks and eagles.

2. True: Non-toxic shot is required for all waterfowl hunting on public and private land. In addition, some state and federally-owned wetlands require non-toxic shot for all hunting.

3. False: Non-toxic shot refers to other forms approved for use including bismuth-tin, tungsten-polymer, tungsten matrix, tungsten-iron and steel shot coated with copper, nickel, zinc chromate or zinc chloride.

4. False: Doves and woodcock may be hunted without the use of non-toxic shot, providing the hunting does not take place on a non-toxic shot-only area.

5. False: It is illegal to possess lead shot while hunting waterfowl. Possession includes in a hunter's gun, pockets or within reach while hunting.

6. True: Other than during the first couple years of implementation of non-toxic shot, hunters using steel did not wound any more birds than hunters using lead shot before the mandated use of non-toxic shot.

7. True: Steel shot was the first, and continues to be the cheapest, non-toxic shot alternative.

8. False: Steel shot two sizes larger than lead will have similar down-range energy, but a lethal load must also have an adequate pattern density at the desired range and for the

size of the game bird. Consult the lethality table for shot size selection.

9. True: A 1 1/4-ounce load of #4 lead will average 169 pellets. The same load of #2 steel will average a pellet count of 156, a difference of only 13 pellets. Steel shot cups hold more pellets so that load weights can be attained.

10. False: Modern firearms are capable of handling all non-toxic loads.

11. True: Effective killing potential is achieved with a combination of these two factors (see the CONSEP Lethality Table for more information).

12. True: Steel shot is harder than lead and does not deform as much. As a result, it develops a shot string that is 50-60 percent shorter and 60-70 percent more narrow than lead.

13. True and False: Shooting steel is different and hunters should practice with it prior to the season. If you select loads with velocities within 50 feet per second of your lead loads, you won't have trouble with changing leads. However, steel pellets don't deform as they pass down the barrel, making the shot string shorter and the pattern denser. Lead is softer and the pellets deform easily, making the shot string longer and the pattern broader.

14. False: Actually, steel arrives on target in a shorter shot string with a tighter pattern, thus delivering more energy. And since steel pellets aren't deformed, they will penetrate deeper than deformed lead pellets. With the correct-sized pellet and adequate pattern density, steel is as effective as the hunter's ability to shoot.

It's been more than 10 years since non-toxic shot was mandated for all waterfowl hunting in Kansas. Initial implementation actually began in 1978 when six state and federally-owned areas required waterfowl hunters to use steel shot. However, this initial requirement only pertained to 12 gauge shells. All gauges were added a few years later on these and several other areas. Steel shot was required statewide in 1990,

one year before it was mandated nationally by the U.S. Fish and Wildlife Service.

Likely one of the biggest changes ever implemented by wildlife managers, non-toxic shot was required to prevent lead poisoning in waterfowl and other animals. It was estimated that up to 2 million ducks and geese died of lead poisoning each year. Dabbling ducks and other bottom-probers would ingest lead and die. Secondary consumers such as bald eagles, were affected when they ate animals killed by or dying of lead poisoning.

It wasn't an easy transition, and many die-hard waterfowlers balked at the change. Little was known about the most available form of non-toxic shot, steel, except that it was lighter and harder than lead and that it was more expensive. Rumors that steel would damage shotgun barrels and increase wounding losses fueled hunters' fears. A decade later, most waterfowlers have learned to use some form of non-toxic shot effectively.

Approved non-toxic shot types now include bismuth-tin, tungsten-polymer, tungsten matrix, tungsten-iron and steel shot. However, the predominant non-toxic shot used by waterfowl hunters is steel due to the availability and lower cost. A box (25 shells) of 12 gauge steel can cost anywhere from $6-$12 for 2 3/4-inch shells, depending on shot size and load. Other non-toxic shot alternatives vary from $13-$19 for a box of 10 shells.

One of the biggest myths concerning the implementation of non-toxic shot, particularly steel at the time, was that it would increase wounding loss in waterfowl due to its differing characteristics from lead. Studies during and following the implementation of steel shot showed a slight increase in wounding loss during the first two years. This isn't surprising since few were familiar with shot size and choke changes steel shot required. By the third year of shooting steel, wounding loss rates returned to levels seen with lead shot and have remained virtually unchanged since.

Although the number of waterfowlers are down (currently about 1.5 million) compared to historical figures (once about 2.1 million), numbers have increased in recent years as duck and geese populations have increased. The last few years have seen record numbers of ducks and geese in the Central Flyway. Many species of ducks are at or above the long-term averages for their species. Goose numbers are rapidly expanding in many areas. Waterfowlers are the true benefactors of such incredible renewable resources, and waterfowl and many other species of wildlife are the ultimate benefactors of the implementation of non-toxic shot.

Wounding Loss

Although fear of an increase in wounding loss during the years of steel implementation were unfounded, wounding loss remains a concern for many waterfowlers. Estimates from trained observers and interviews with hunters show that one out of every four ducks or geese shot is not recovered. Although this loss is factored into harvest figures and management plans by the U.S. Fish and Wildlife Service, it is still a wasted resource. There is also a danger that high wounding loss is unacceptable to the majority of Americans who don't hunt. This could threaten the waterfowl hunting tradition. Following are several factors that contribute to wounding loss in waterfowl:

Behaviors Causing Wounding Loss

- Poor shooting skills
- Poor distance estimation skills
- Using the wrong load and choke for the bird and shooting distance common to the hunt

• Failing to properly pattern test load and choke choices against the scientifically proven minimum pattern density standard for the bird being hunted; see the CONSEP Lethality Table

• Shooting beyond one's personal maximum shooting skill distance

• Shooting beyond the maximum distance at which one's technology choices can meet the minimum pattern density standard for the bird being hunted; see the CONSEP Lethality Table

• Shooting into large flocks

• Shooting at the front bird in flocks

• Taking going-away shots at waterfowl beyond 30 yards

• Dropping birds in heavy cover

• When hunting wetlands, failing to carry and use swatter loads to immediately dispatch wounded birds falling on water

• More than two hunters shooting simultaneously

• Poor retrieving strategies

•Not using a trained dog when waterfowl hunting

• Failing to consider struck but unretrieved birds as part of the harvest and continuing to shoot at birds until "limiting out," thus actually impacting more birds than a daily legal limit

Reducing Wounding Loss

• Become a skilled wingshooter by systematically and regularly practicing with the shot type to be used afield on clay targets thrown at the distances, angle,s and flight speeds of the birds being hunted

• Learn the subtending method and/or use a rangefinding device when hunting to determine distance; stop guessing

• Use scientifically proven loads and chokes for the bird and shooting distance common to each hunt; refer to the CONSEP Lethality Table

• Properly pattern test your choke(s) and load(s) to be sure your technology can reach the minimum pattern densities listed in the CONSEP Lethality Table

• Avoid shooting beyond your maximum shooting skill distance

• Never shoot beyond the maximum distance at which your technology choices can meet the minimum pattern density standards as listed in the CONSEP Lethality Table

• Never shoot into large flocks; whenever possible shoot only at single birds

• If a small formation of birds comes within range, target an isolated, outside or back bird in the group

• On waterfowl never take going-away shots beyond 30 yards

• When hunting wetlands always select hunting sites on open ponds; pass up all shots where struck birds may fall into heavy vegetation

• Always carry and use swatter loads; dispatch wounded birds on water immediately

• Limit shooting to two hunters per attempt; in larger hunting parties take turns

• If you are the shooter, never take your eye from where a struck bird enters heavy cover of any type. Move rapidly to the entrance point or use hand signals to direct a fellow hunter or your dog to the entrance point

• Use a trained dog whenever hunting waterfowl

• Voluntarily count struck but unretrieved birds as part of the daily bag

Patterning Testing

All waterfowl hunters should pattern their shotguns. A variety of chokes (most open) cylinder, skeet, improved cylinder, modified, improved modified and full

(tightest) should be tested with various loads and brands. Check the minimum requirements for pattern and penetration performance (see CONSEP Lethality Table) in order to determine the best combination. Individual hunting scenarios with various distances and species can be obtained from the table to determine the equipment's potential to provide a lethal combination. However, remember that most equipment's ballistics are capable of performing farther than most shooter's maximum effective distance.

In order to accurately pattern a shotgun, hunters should shoot sheets of paper (tacked to 1/4-inch plywood held up by two t-posts works well) at least 4 feet wide by 4 feet tall at distances encountered under actual hunting conditions. If you plan to hunt mallards over decoys and you plan to limit your shots to 30 yards, pattern your gun at 40 yards so that you have some room for error.

Begin by measuring the distance to the target. Avoid shooting with a cross wind. Shoot one time at the center of the paper and replace it with another and shoot again. Mark each sheet with the load, distance and choke selection. A minimum of three shots should be shot with each load and choke combination.

Using a 15-inch piece of string and a pencil, draw a 30-inch circle around the most dense area of the pattern. Count, using a marker to cross through pellet holes, the number of hits within or touching the circle and record on each sheet. Don't worry about "holes" in the pattern. The pattern will be different each time you shoot, and remember that the shot string is three-dimensional.

Using the CONSEP Lethality Table, determine if the load and choke combinations meet the minimum pellet count requirements to humanely kill ducks and geese under the conditions and distances being considered.

CONSEP-An acronym for the Cooperative North American Shotgunning Education Program, CONSEP has amassed an incredible data base on the performance of lead shot vs. steel. Included in this study was an x-ray analysis of over 16,000 ducks and geese shot at various distances using different loads and chokes. Much of the information was used to form the CONSEP Lethality Table.

CONSEP 2000 STEEL SHOT LETHALITY TABLE©

Proven Steel Shot Loads For Waterfowl & Upland Game Birds[1] *Load Velocity: 1,225 - 1,450 FPS* ACTIVITY	Typical Shooting Range of Activity (Yards)	Most Effective Steel Shot Size(s) for Activity	Minimum Load Weight (Ounces)	Minimum Pellet Hits Needed on Lethal Areas for Clean Kills	Minimum Pattern Count Needed at Any Distance for Clean Kills (Number Of Pellets in 30" Circle)	Most Effective Choke(s) (Given in Lead Shot Designations)
Large Geese At Long Range[2] Giant, Western, Atlantic and Interior Canadas	50-65	BBB to T	1-1/4	1-2	50-55	Improved Modified
Large Geese Over Decoys[2]	40-50	BB to BBB	1-1/8	1-2	50-55	Modified
Medium/Small Geese Long Range[2] Snow, White-front, Lesser Canadas	50-65	BB to BBB	1-1/4	1-2	60-65	Improved Modified
Medium/Small Geese Over Decoys[2]	40-50	2 to BB	1-1/8	1-2	60-65	Modified
Large Ducks At Long Range Mallard, Black, Pintail, Goldeneye, Gadwall	45-65	2 to 1	1-1/8	1-2	85-90	Full
Large Ducks Over Decoys[3, 4]	20-45	6 to 2	¼ - 1	1-2	85-90	I.C. (20-35 Yds), Mod. (35-45 Yds)
Medium Ducks Over Decoys[3, 4] Wigeon, Scaup, Shoveler	30-45	6 to 3	1	1-2	115-120	Improved Cylinder (20-35 Yards), Modified (35-45 Yards)
Small Ducks Over Decoys[3, 4] Teal, Ruddy, Bufflehead	30-45	6 to 4	1	1-2	135-145	Modified (20-35 Yards), Full (35-45 Yards)
Ring-Necked Pheasants	20-50	3 to 2	1	2-3	90-95	I.C. (20-30 Yds), Mod. (30-50 Yds)
Turkeys (Head and Neck Shots)	20-40	4	1-1/4	3-4	210-230	Full or Extra Full
Swatter Load For Wounded Birds	20-35	7 to 5	1	1	175	Mod. or Full (7's or 6's), Full (5's)

This table summarizes analysis to date of the waterfowl and upland game bird lethality data base of the Cooperative North American Shotgunning Education Program (CONSEP). Responsible shotgun hunters not only engage in thorough pattern testing and ample target practice, but also restrict shooting to ranges less than 45 yards.

Note: To date, steel #BBB (.190") has exhibited the best all-around performance for taking geese; steel #3 (.140") the best all-around performance for taking ducks.

1 These findings are derived from testing 3" 20-gauge and 2¾", 3" and 3½" 12-gauge steel loads. As additional pellet sizes, load configurations, and gauges are tested and data bases completed, findings will be updated and may change.

2 Steel #F (.220") in all 12-gauge load configurations has exhibited the highest crippling rate on geese of all steel pellet sizes tested. Due to inadequate pattern density, steel #F has not proven lethal on geese beyond 55 yards.

3 Steel #4 (.130") has exhibited good all-around performance for taking small and medium-sized ducks, but has not proven lethal on large ducks beyond 45 yards.

4 Steel #6 (.110") has proven lethal out to 40 yards on all ducks tested. It has proven particularly effective out to 35 yards when used with chokes no tighter than modified.

This terminal ballistics information is provided courtesy of the members of CONSEP. CONSEP is a research and information service currently funded jointly by 25 U.S. state fish and wildlife agencies; the U.S. Fish and Wildlife Service; the Canadian Wildlife Service; the British Association for Shooting and Conservation (BASC); the Office National de la Chasse, France; the Victoria Department of Natural Resources and Environment, Australia; the Danish Hunters' Association, Denmark; Winchester Division/Olin Corporation; and Remington Arms Company. Contributing members include Larry Gore's Katy Prairie and Eagle Lake Outfitters, and Briley Manufacturing Company.

A Hunting Legacy

Youth Hunting Seasons

Youth Deer Season	September 29-30
Youth Waterfowl Season	Saturday-Sunday prior to opening day in each zone
Youth Upland Bird Season	November 3-4

I remember how fresh the crisp air felt in my lungs, the sting of the cold on my fingertips. It was 30 years ago, but I've never forgotten that fall morning.

November 13, 1971 — my first pheasant season opening day. I was 12 and what I knew about hunting, I'd gleaned from the pages of *Outdoor Life*. Pheasant season was an event in my new hometown in southcentral Kansas. I'd never seen "No Vacancy" signs in the town's four motels lit up before, and the normally sleepy streets had never been so busy at 5:30 a.m. There was electricity in the air, and it surged through me.

Breakfast seemed to take forever, but everyone gathered at the VFW for the "Hunter's Pancake Breakfast" enjoyed it immensely. Men dressed in tattered hunting pants and tan jackets or vests talked and laughed. I was wide-eyed and so excited I could hardly sit, let alone eat. As we drove out of town, I could see vehicles going in all directions, plumes of dust glowing in red taillights.

The landscape was rich sepia as the sun tinted the eastern horizon. Strips of dark green winter wheat alternated between pale yellow stubble, overgrown with weeds, and strips of milo stalks. Our caravan snaked off the dirt road along a weedy draw, and hunters sprang out and began putting on vests and loading shotguns. Everyone was grinning with anticipation. As we waited for the group to assemble, Dad took me aside and sternly reminded me of gun safety.

I remember the stickery weeds pulling at my legs and boots as I walked, trying to keep up with the line of hunters. And most of all, I remember how startled I was when a rooster flushed near me. Adrenaline shot through my veins, my vision tunneled, and I didn't mount the gun or even think of shooting. I watched, shaking with excitement as hunters called out "Rooster!" Shots popped and the bird crumpled. "Mark it," someone yelled. A hunter hurried to the spot and picked up the prize. Our pace quickened and more birds flushed. I couldn't stop shaking.

That morning lit a fire in me that still burns. It confirmed what I suspected — that hunting was something I wanted, no, needed to do. From that day on, I craved early mornings, the smell of burnt gun powder, and the adrenaline rush of a bird flushing at my feet. I've never lost that passion, and I've since enjoyed many other types of hunting.

I can see now that I was fortunate. I'm not sure Dad could have left the house without me if he had wanted to, but I was usually the only youngster in our group. I also realize how lucky I was to have hunted with both my father and grandfather.

Those early experiences shaped my life and taught me valuable life lessons. Limits of birds were never our measure of success. There was no instant gratification. We walked miles, and sometimes we found birds and sometimes we didn't. I loved every minute. I never killed a bird that first season, but I had the time of my life.

One of my favorite hunts was with Granddad. It was a cold and blustery day, and we walked the land he had farmed years before. We flushed only one rooster — our shots rang as one. The bird fell dead, but disappeared in head-high grass. We paced back and forth for what to me was an eternity without finding a feather, but Granddad wouldn't give up. I had all but lost hope when Granddad hollered and I saw him grinning widely, holding a rooster high .

Warming up at the house that evening, Mom, Dad, even little sister heard the story more than once. One bird for three-hours of walking on a cold, dreary afternoon, but I was as happy and proud as I've ever been.

Every youngster should have the opportunities I had. Take advantage of our youth hunting seasons this fall, and spend some quality time with your kids. I guarantee they'll never forget it — and neither will you.

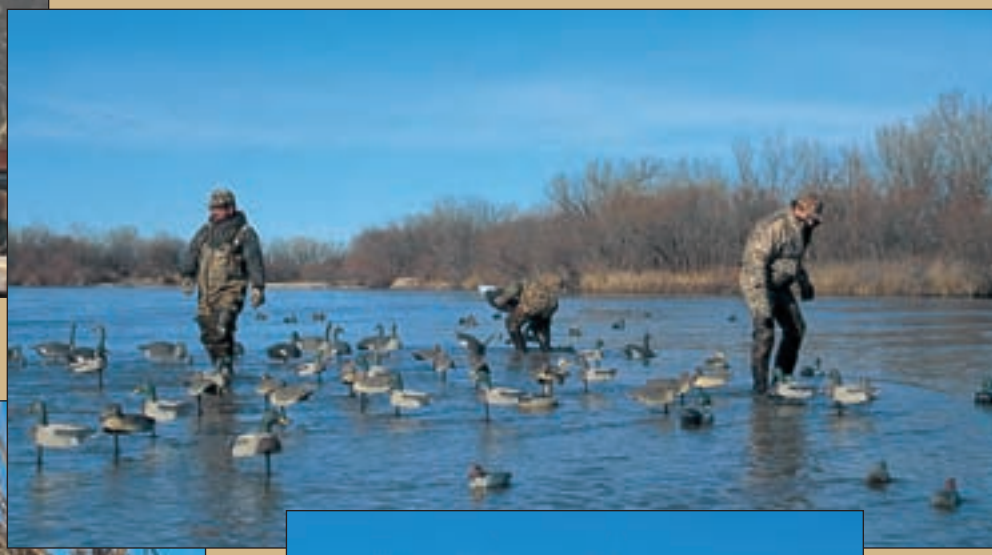
Mike Miller

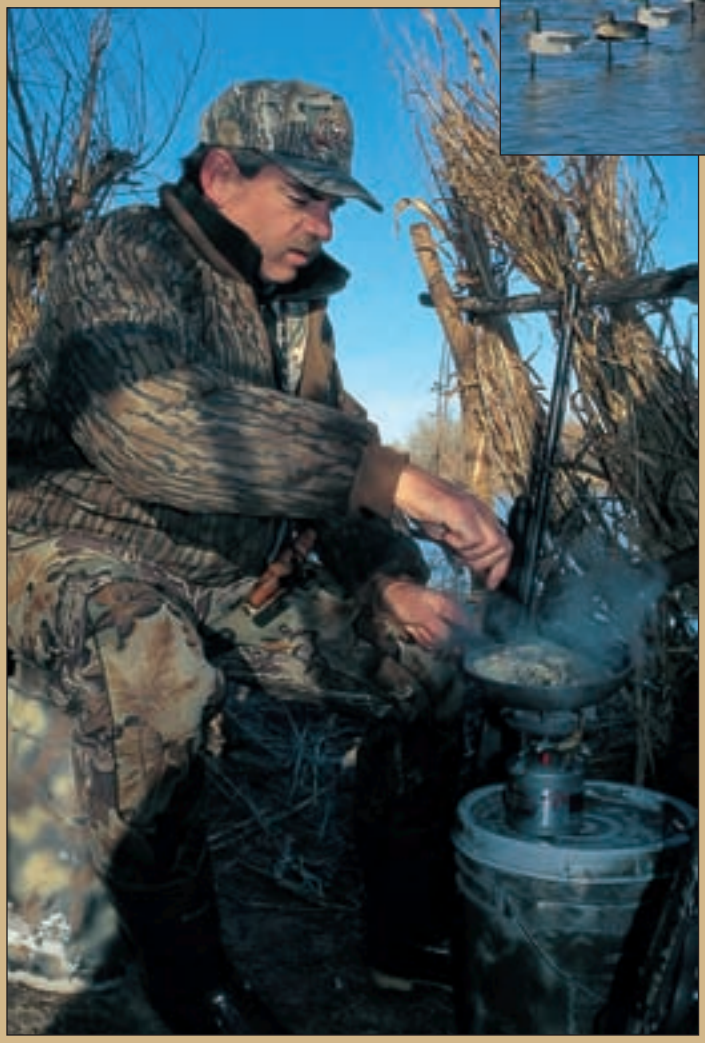
Waterfowl State of Mind

by Marc Murrell

Few types of hunting are as steeped with history and tradition as waterfowling. Tricks of the trade are passed down through generations. Waterfowlers know the magic of a crisp morning, the excitement of blue-winged teal rocketing by and mallards cupped and committed over a spread of decoys. To many, it's simply a way of life.

Dedicated waterfowlers are only as content as their garage is full of gear. When not hunting, they are almost as happy tinkering with decoys, blinds, calls, and other "necessary" equipment. Preparation, strategy, setup and the "fixin's" are as important as birds in the air.





Wildlife Conservation Officer

text and photo by Matt Stucker
conservation officer, Larned

Veteran officer calls Hiawatha home for his entire 29-year career enforcing wildlife-related laws.

When you ask conservation officers why they decided to become a "game warden," you're bound to get some varying answers. But there are a couple of reasons that seem to always be part of the mix. Having a deep respect for the environment and especially the role that wildlife plays is always pretty close to the top of the list. Dave Hoffman is no exception. His dad introduced him to hunting at an early age and taught him that respecting the resource was the most important part of the hunting tradition.

Hoffman has been a conservation officer in Kansas for 29 years, stationed in Hiawatha his entire career. His district includes Brown and Doniphan counties with a combined area of about 1,000 square miles and a population of just over 21,000. He has seen a lot of changes during his service, including the use of computers and digital cameras, and communication has improved. Another modern tool is the science of wildlife forensics, of which he is an instructor for the state. Forensics allow officers to identify blood and hair samples, determine when and where crimes took place, and link violations to suspects.

Hoffman sees education about conserving our natural resources as our biggest challenge in the future. Involving the public in natural resource issues, especially those involving wildlife, is his biggest concern. He believes that wildlife is an indicator of the health of the environment. He wants people to understand that someone who illegally takes wildlife is a thief and should be turned in.

Throughout his long career, Hoffman has had some interesting things happen. He remembers being in what he calls, "the right place at the right time" when he acted on a tip about suspects spotlighting deer in Missouri and Kansas. He and other officers set up surveillance for several weeks. The vigil paid off when the subjects were caught illegally hunting in Kansas while possessing a deer they had shot in Missouri. Another deer was later found in the suspects' freezer.

Hoffman also recalls an incident where he ticketed an individual for fishing without a license. Later the same year, checking the same spot, he ticketed the individual for the same violation. The day after the second citation, the subject's father confronted Hoffman, telling him he would not be giving his son a ticket again. Hoffman was ready for an argument when the father grinned and said, "me and the family have taken up a collection and bought him a fishing license."

One of the most rewarding incidents in Hoffman's career was rescuing four people from dangerous floodwaters. After torrential rains, a family tried to drive through a flooded roadway. When the vehicle stalled, they were in danger of being swept away. Hoffman and another law enforcement officer boated to the family as the waters rose around the truck. There they fitted two children and two adults with life jackets and loaded them on the boat. With the extra weight and the current, the boat began filling with water. The sinking boat drifted down the swollen river until the current pushed it up against a tree. The other officer climbed up the tree and pulled the two children and two adults to relative safety. Every time someone left the boat, it rode a little higher in the water. As the last person left, the boat flipped and threw Hoffman into the river. The boat was pinned against another tree and Hoffman was able to crawl onto the boat and hold on until a larger boat arrived to rescue them. While they were waiting for the other boat, the family's truck drifted by.

Hoffman has done a weekly radio program on a local radio station for 15 years. It airs at 5:45 p.m. on Fridays and 6:15 a.m. on Saturdays. If you're in the Hiawatha area, it can be heard on KNZA, 103.9 FM. If you are around Seneca, tune your radio to KMZA, 92.1 FM. You'll hear Hoffman doing what he does best — educating the public and trying to get people involved in wildlife issues.

Edited by Mark Shoup

LIFE SAVING EDUCATION

Editor:

On Memorial Day weekend of this year, my family decided to go to Marion Reservoir and spend the weekend with my mom and little sister Jenny, who is 10. On Saturday morning after breakfast, my husband, Chris, and daughter, Misty, took Jenny out for a boat ride on the lake. Going into French Creek Cove to the bridge and beyond, my husband suffered an insulin reaction.

Thankfully, Jenny kept a calm head and drove the boat back to the camp to seek help. This trek is almost 5 miles, with French Creek being very shallow in spots with submerged hazards. I am so thankful that Jenny's father, Ronnie Lee, started teaching Jenny at a young age the do's and don'ts of boating and to always pay attention to your surroundings. If he had not done that, my husband would not be here today to enjoy the Kansas waters with us.

I also want to thank Marion Reservoir ranger Neil Whitaker for showing up and staying calm. His presence helped to calm me after getting my husband out of his insulin reaction.

I just want people to take the time with their kids and show them. It may be boating, camping, fishing, or just hanging out together, but they do listen to you. And Jenny, I thank you.

Dawn Hromek
Augusta

OTHER ITCHES

Editor:

Thank you for your informative article on poison ivy in the May/June issue of ***Kansas Wildlife and Parks*** magazine (Page 21). I'm not sure if the author was trying to be humorous or what, when he said, "but, if you learn to identify its different plant forms . . . you can enjoy the Kansas outdoors itch-free."

Ha! I got a good laugh out of that! Maybe he's not spent much time outdoors. There's no such thing as an itch-free summer in northeast Kansas, not with the high numbers of chiggers and many species of blood-sucking ticks – unless, of course, a person is willing to douse on the toxic chemicals found in the bug repellents.

My son just moved here from Washington state, and that state doesn't have either pests, so they can enjoy walking through waist-high grass without a single bite.

Delene Wiseman
Ottawa

Dear Ms. Wiseman:

We stand corrected again. I should know better – chiggers are my most hated outdoor pest. Fortunately, we don't have many this far west. However, I have found my way into eastern Kansas occasionally, and chiggers have found me. Give me 100 mosquito bites to one chigger bite any day. Thanks for reading and taking the time to write.

-Miller

PHOTOS IN STEP

Editor:

Congratulations on another excellent photo issue of ***Kansas Wildlife & Parks*** magazine (Jan./Feb. 2001). Your picture on Page 41 of Sedgwick County turkeys was especially interesting. If No. 6 turkey (almost hidden by No. 5 in line) could have been in step with everyone else . . .

Oh, well. There's always someone out of step. Best wishes and thanks to Mike Blair for bringing us lots of joy with his good work.

Jack Graves
Pleasanton

LIKES WASPS, WANTS TOADS

Editor:

I enjoyed your article about mud daubers in the July/August issue of ***Kansas Wildlife & Parks*** magazine (Page 8). I would appreciate it very much if you could write an article about plain old garden variety toads. Have heard stories all my life, I am 81, about when people dig basements sometimes they find a toad buried 3 or 4 feet below the surface, and when they dig him out, he hops away. How old do they live to be? How can you attract them to your yard? I know they are different than frogs but not how. I have seen one large one in my garden here in Salina and one small one over the past 20 years. I know several people who are interested in toads.

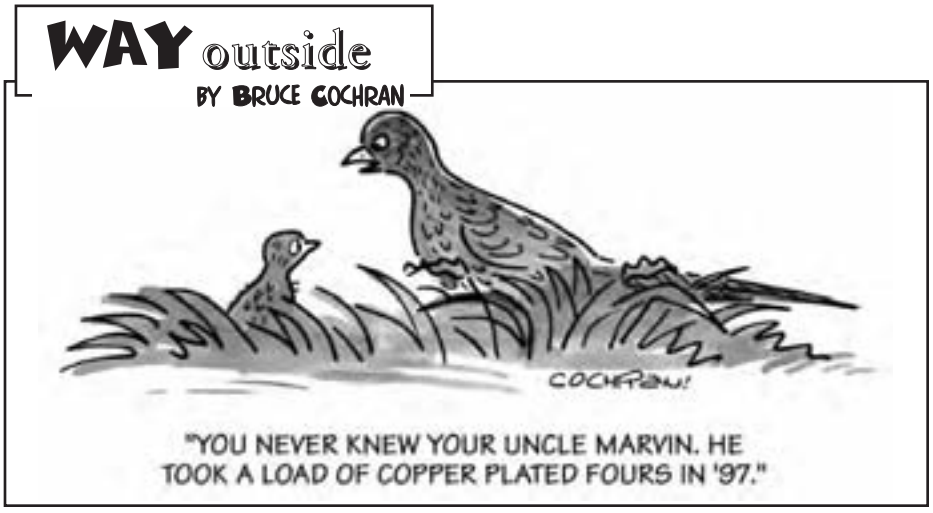
I hope to see something on the matter in your magazine soon.

Elmer L. Jones
Salina

Dear Mr. Jones,

Glad you like the wasp article. Check the March/April 2000 issue of *Kansas Wildlife and Parks* magazine (Page 2) for an article by Ken Brunson on frogs and toads titled, "Heartland Hoppers."

-Shoup



In Memory

The Department of Wildlife and Parks lost a strong supporter and longtime hunter education instructor on Friday, June 22. Larry J. Hastings, Sr., Topeka, passed away at Midland Hospice House. Mr. Hastings loved the outdoors and shared that love educating youth. He began teaching Hunter Education in Shawnee County in 1978 and continued to teach, despite his illness, until the date of his passing.

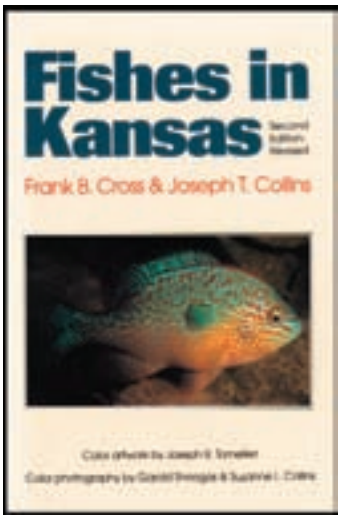
I feel fortunate to have known Mr. Hastings, who took me in under his wing when I first began teaching hunter education. I learned more about teaching young people from him in a short time than I could ever have learned in ten years of hands-on experience. Mr. Hastings played a major part in nearly every Hunter Education clinic conducted in Shawnee County and was also very active in the Hunter Education Instructor Association.

Two things come to mind immediately when I reflect on my experiences with Mr. Hastings. First, he was as devoted to outdoor education and teaching as anyone I have ever known. He continued to give his time and expertise right up until his passing, including volunteering to take a youngster turkey hunting this past spring. Second, Larry was a mechanical genius who could build or fix anything. I spent several evenings with him last summer making, from scratch, gun mockups to be used on the trail walk portion of our Hunter Education course. When we were done, the "guns" looked as if they had come from a professional custom gunsmith. He never did anything halfway.

Fortunately, Mr. Hastings' love of Hunter Education and the outdoors will not be lost. His enthusiasm lives on in his children, one of whom is a conservation officer, his grandchildren, and the thousands he touched through Hunter Education.

–Chris Tymeson,
department attorney

Frank B. Cross, the greatest fish biologist in our Kansas history, died on Thursday, July 19, at Lawrence Memorial Hospital. He was born in Kansas City, Missouri, and served in World War II. In 1951, he accepted a joint appointment as Curator of Fishes at the Museum of Natural History and professor of systematics and ecology in the Division of Biological Sciences at Kansas University. He met and married Marie Zeppelin in 1954. They raised three children, Frank, Jr., Betty Sue, and Julie.



Mr. Cross spent a lifetime traveling across Kansas to observe and study fishes, and he inspired so many people along the way. He supervised the graduate degree programs of numerous students specializing in fish biology. One of them, James R. Triplett, is currently chairman of the biology department at Pittsburg State University, and another, Don A. Distler, became a faculty member at Wichita State University.

Although Mr. Cross retired in 1991, he continued to visit the museum each week, teaching students and colleagues to identify various species of fishes.

His interest in and concern for students was exceptional. Once, when Travis Taggart, now adjunct curator at the Sternberg Museum of Natural History, Fort Hays State University, was a freshman in Mr. Cross's class at KU, he came to me expressing concern because Taggart was spending so much time catching snakes and so little time in class. I advised Taggart that time spent listening to Mr. Cross lecture would prove as valuable as field work – he agreed.

Most biologists need to examine fish under a microscope to identify them; Frank Cross would wade into a stream, seine them up, and identify them alive in the net. He was exceptionally skilled at identifying the plethora of small minnows and darters that are found in the waters of Kansas, and his infectious grin always lessened the humiliation when he corrected your initial assessment of a Topeka shiner to a sand shiner.

Mr. Cross was so patient when my preoccupation with snakes and other creatures intruded on his ichthyological pursuits. I remember when he and I seined the Arkansas River from the Oklahoma border clear out to the Colorado line. We seined a lot of fishes, trying to assess changes in the species composition since the last time Mr. Cross had checked those spots along the river. He was always tolerant of my abrupt stops to chase serpents, and during that trip helped spot the first eastern rat snake from Barber County.

Mr. Cross wrote the book on Kansas fishes. His first book, entitled *The Handbook of Fishes in Kansas*, was published in 1967 and became a classic that was used nationwide by ichthyologists. He later co-wrote with me a second, semi-popular book, *Fishes in Kansas* in 1975; it was revised and reissued as a more academic second edition with color plates in 1995.

Kansas has lost a scholar of kind and gentle demeanor whose excellent sense of humor will be long remembered. He has gone seining for the final time, to a place where waters are ever clean and clear and fishes abundant and fat.

Joseph T. Collins
A Friend

STAFFORD COUNTY DEER

Last November, I received a report from Stafford County witnesses who told me that they had heard shots, had driven to where the shots came from, and found three men standing in the ditch looking out across a green wheat field. The men quickly left, and it was dark when I arrived, so I used a flashlight to find a freshly killed doe.

The witnesses had written down the license tag number from the vehicle. The vehicle owner lived in Great Bend. The Barton County Sheriff's Office helped me look for the vehicle in Great Bend, and they found it at the owner's home.

I went to the house and talked to the man. He told me that he had been hunting but did not get anything. When I asked him about the blood dripping from the back of his pickup, he told me that his grandson and a friend had been in Stafford County and had been pheasant hunting. I told him that there was too much blood for it to be pheasant blood, so he told me that they had shot a deer, and his grandson was dressing it. He also gave me the rifle they used to kill the deer.

The Barton County Sheriff's officers went to the grandson's house. His fiancee told the officers that the grandson was dressing a deer but didn't know where he was. There was a lot of fresh blood on the driveway and in the backyard.

The sheriff's officers and I searched for the grandson and his friend for the next three hours. I went back and told the fiancee that when the grandson came home he needed to contact me.

About 10:30 p.m., the sheriff's office contacted me and said that the two men were waiting at the jail to talk to me. The first man I interviewed was the friend of the grandson, and he said that he did not know anything about any deer.

Then the grandson claimed to know nothing about any deer but when confronted with the evidence, he admitted to knowing about a doe that was left in a field in Stafford County. After telling him about the blood at his house and the blood in the back of his grandfather's pickup, he decided to take me to where they had dumped the deer.

There were two freshly killed deer lying together in the ditch. He said that they had only killed one of the deer.

After I had necropsied each doe, I was confidant that they had killed the two in the ditch and the one left in the field.

Five days later, the friend of the grandson told me the whole truth. He said that they had killed all three does and were going to eat them, but when the witnesses scared them off, they knew that they were caught and decided to dump the does. They used a rifle to shoot the three does, but Nov. 24 was archery deer season. They didn't have valid deer permits or permission from the landowner, and they were in possession of untagged deer and wantonly wasted the deer.

The friend of the grandson received a $600 fine and $54 court cost and 150 days in jail. The grandson received $800 fine and $54 court cost and a 30-day suspended jail sentence. Both lost their hunting privileges for one year.

–Phil Kirkland,
conservation officer, Stafford

DEER 2 GEESE

In March, 1999, the Johnson County Sheriff's Office broke up a party in a field following a fight between party goers. When deputies returned the next morning, several people were still there, including a Spring Hill man who had the meat of a deer in the back of his truck.

The man told the officers he got the meat from an individual who killed a deer during the season and stored the meat in a freezer. He had no tag or donor note to accompany the meat. The deputies called me, and CO Glenn Cannizzaro and I went to the scene.

There was considerable blood and deer hair in the truck, and I told the man that it was obvious the meat was from a fresh kill and had not been frozen. He then changed his story, saying that he took one of two freshly killed deer from some strangers he met at the party.

I told him his statements were not credible or consistent with the evidence, placed him under arrest, and searched his vehicle. I found loaded and spent rifle, pistol, and shotgun ammunition; a spotlight; a pistol; and drug paraphernalia, which was turned over to the deputies.

The man stuck to his last story awhile but then decided to tell Cannizzaro the truth:

The night before the party, the man had borrowed a 9 mm rifle, drove his truck into a field where he had no permission, and used his headlights to locate and shoot a doe. He removed the meat and discovered that the doe was carrying twin fawns. He put the unwanted parts of the deer in a bag, drove to a bridge at the edge of Spring Hill, and dumped the bag.

He said we would find numerous deer carcasses there, but he was responsible for only one. He showed us the kill site and dump site, and we found the evidence expected. Remains of eight or nine deer littered the creek and banks below the bridge.

We asked if he had deer meat at his residence. He said he did and agreed to show us. He said the meat was a gift from a bowhunter who killed the deer during the past season, but he had no donor notice, legally required to show the origin of the meat, but I later confirmed that the bowhunter had been issued a deer tag.

The man was cited for killing a deer in closed season, spotlighting, trespassing, and littering. He paid $897.50 in fines and costs.

Two months later, evidence and witness statements revealed that this same man had deliberately driven his truck through a flock of Canada geese in Olathe. He was cited by the U.S. Fish & Wildlife Service special agent and fined $500 for this wildlife crime.

–Bruce Bertwell,
conservation officer, Olathe

BOTTOMS HONORED

Cheyenne Bottoms Wildlife Area has been officially named one of 100 "Globally Important Bird Areas" (IBA) by the American Bird Conservancy (ABC) in recognition of its significance in the ongoing effort to conserve wild birds and their habitats. The Bottoms has previously been designated a "Wetland of International Importance" by the Ramsar Convention, and it has also been tagged as a "Hemispheric Shorebird Reserve" by the Western Hemispheric Shorebird Reserve Network.

These distinctions result from the fact that the Bottoms is located in the narrowest portion of the Central Flyway. This flyway is used by millions of ducks, geese, shorebirds, and other migratory birds in both spring and fall.

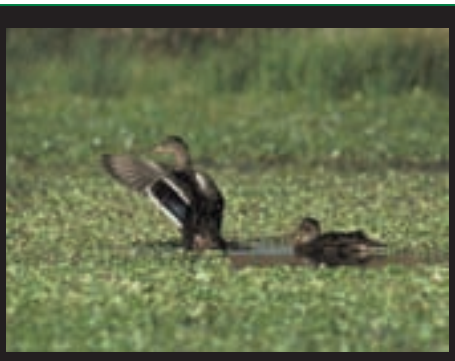
Cheyenne Bottoms will also be included in ABC's forthcoming book, *The Bird Conservation Handbook: Globally Important Bird Areas of the U.S.*, to be published by W.H. Freeman. The book will contain detailed site descriptions and species information for each of the 500 IBAs, as well as illustrations of some representative birds.

ABC's Global IBA program, funded in part by the Disney Wildlife Conservation Fund, aims to identify and protect a network of key sites to further bird conservation efforts. IBA programs have been initiated throughout Europe, the Middle East, Africa, Canada, and Ecuador, as well as the United States.

For more information about Cheyenne Bottoms, phone (620) 793-3066. For information about the IBA program and the American Bird Conservancy, phone (540) 253 5780.

–Karl Grover, manager, Cheyenne Bottoms Wildlife Area

FLYWAY COUNCIL HISTORY



In the course of fulfilling its mission, the Central Flyway Council (CFC) has demonstrated its philosophies annually by words and actions backed by dollars. The post-World War II years brought many challenges, not the least of which was to figure out how best to conduct business and build communications links across North America. During this decade, the number of waterfowl hunters increased, and by 1960, drought in the prairies sent duck populations to a low level.

The CFC adopted their first management plan in 1957. But it was not until the late 1960s that innovative ideas were initiated. By 1970, the High Plains Mallard Management Unit for duck harvest management was being formed, and a new system for establishing the duck daily bag limit, called the Point System, was being adapted.

The CFC funded their first formal, joint project in 1973, when 10 states contributed $150 each to a study of mallard sex ratios (the number of males per female). Between 1975 and 1978, they contributed more than $54,000 to goose banding projects in the Arctic. Since then, the CFC has contributed funds for projects related to goose research and management, duck recruitment, non-toxic shot educational efforts, intensive management of small areas, dove research, and computer modeling. Through 2000, the CFC has spent more than $900,000 on their own projects and in cooperation with other entities on larger projects.

Through its involvement in issues and projects and a steady philosophy associated with improving the status of migratory birds, the Central Flyway Council continues to exert significant, positive influence on migratory bird management in North America.

–Central Flyway Council

SHINER RECOVERY

It's slow going down a rocky two-track to the Pecos River. The corrugated road bisects low hills rounded off by incessant winds. Only stiff, scrubby creosotes that stand unyielding to the wind break a monotonous view. You can see for miles across this part of New Mexico – and it looks the same in any direction. Were it not for landmarks like the river, one could easily get lost.

The shallow Pecos River makes a wide swath across the landscape. It's typical of plains streams: slow flowing over a low gradient of sand. The banks are sand. The bottom is sand, and it's transitory, always moving. The river elbows its way into the foot of a hill, eroding in one place, depositing in another. Only alien salt cedar that rim the river hold the banks in place, and even that's temporary.

Another alien species, the object of our foray, lives here. The Arkansas River shiner (*Notropis girardi*) was brought to the Pecos via an inadvertent bait bucket introduction some 22 years ago. It's become established here while in its native range – the Arkansas River from Kansas down to Arkansas – it is threatened. Dwindling water, poor water quality, and flood flows tempered by reservoirs have all contributed to the species' decline, which led to a

threatened designation in 1998.

The Pecos River itself is a reservoir -- a reservoir of Arkansas River shiners. I've made the trip with other U.S. Fish & Wildlife Service (USFWS) biologists from Oklahoma and New Mexico, as well as New Mexico Game and Fish, to make what could be a milestone in the shiner's road to recovery. Our purpose: collect shiners and carry them back alive to Tishomingo National Fish Hatchery in Oklahoma for captive propagation.

"Hatcheries are increasingly important to endangered species conservation," said Brent Bristow, biologist for USFWS, Oklahoma Fishery Resources Office. "Witness the successes with paddlefish in the Mississippi basin or trouts in the Southwest. There's a hatchery component to all, but hatcheries cannot go at it alone. In front of any successful conservation project is habitat restoration."

Advancing ridges of sand across the stream bottom are where you find the Arkansas River shiner. Inflowing summer streams flush and erode, keeping that ridge moving.

"These transitory ridges provide two things: a place to eat and a place to rest," said Chris Hoagstrom, biologist for USFWS, New Mexico Fishery Resources Office. "Flows with the right amount of turbulence are paramount to maintain habitat for this animal. The turning sand turns up food for shiners that lie in wait. Stop the flows and you essentially stop feeding fish."

While the USFWS works to restore habitat for the shiner, Tishomingo National Fish Hatchery tries to make the turn needed to get this fish down the right conservation path. That is, learning to feed and spawn this wild fish in captivity. It's never been done before; the learning curve is steep and the stakes are high.

In the end, after three days of seining, 300 shiners made the 500-mile trip to the hatchery where they are doing quite well. It's a long way from southeast New Mexico to the hatchery in Oklahoma. And long, too, is the road to recovery for the shiner, but concerted conservation efforts like this one can get us there. *–Craig Springer, U.S. Fish & Wildlife Service, Albuquerque, NM*

SHOOTING RANGE SYMPOSIUM

Proceedings from the fourth National Shooting Range Symposium are now available. This 400-page volume provides information from more than 70 experts who presented at the symposium held last June in Phoenix, Arizona, on all aspects of operating successful shooting ranges. The proceedings are sponsored by the International Association of Fish and Wildlife Agencies, U.S. Fish and Wildlife Service, and Wildlife Management Institute.

The cost of the 2000 Proceedings is $25. Send a check, made payable to National Shooting Range Symposium, to Hannah Kirchner, NSRS, P.O. Box 144, Paoli, Indiana 47454, (812) 723-0088. Also, the *1996 National Shooting Range Symposium Proceedings* – a 525 page resource – provides other relevant information; it is available for $15.

–Outdoor News Bulletin

Where your $$$ Go

Are fishing and hunting important to the economies of the United States, and Kansas in particular? Take a look at the following 1996 statistics from the U.S. Fish & Wildlife Service and decide for yourself.

Economic Impact Of Sport Fishing

	Kansas	US Total
Angler Expenditures	$180,018,571	$37,797,062,032
Total Economic Impact	$356,981,567	$108,449,124,406
Wages and Salaries	$85,216,003	$28,259,358,131
Jobs	4,922	1,210,083
State Sales Tax	$8,820,910	$1,241,634,000
State Income Tax	$2,108,149	$261,137,000
Federal Income Tax	$7,954,256	$2,420,131,000

Economic Impacts for All Hunting

	Kansas	US Total
Retail Sales	$374,945,337	$22,104,313,660
Output	$715,581,010	$60,998,344,806
Earnings	$169,746,410	$16,120,559,638
Jobs	9,553	704,601
Sales Tax	$16,718,729	$1,068,110,791
State Income Tax	$4,244,204	$322,236,505
Federal Income Tax	$16,075,757	$1,725,812,994

• Economic Impacts for Deer Hunting

Retail Sales	$139,093,751	$10,324,904,373
Output	$236,360,094	$27,858,958,706
Earnings	$48,450,389	$7,200,082,463
Jobs	2,867	311,904
Sales Tax	$6,578,953	$581,054,859
State Income Tax	$1,186,593	$148,594,333
Federal Income Tax	$4,451,176	$763,392,226

• Economic Impacts for Migratory Bird Hunting **

Retail Sales	$44,792,958	$2,996,257,139
Output	$86,855,948	$8,154,525,482
Earnings	$22,743,567	$2,116,177,982
Jobs	1,246	95,748
Sales Tax	$2,438,420	$178,480,197
State Income Tax	$574,775	$37,995,873
Federal Income Tax	$2,187,733	$216,155,138

**** Small sample size; results should be used with caution.**

• Economic Impacts for Quail, Grouse and Pheasant Hunting

Retail Sales	$105,752,587	$1,895,704,348
Output	$217,659,212	$4,903,780,081
Earnings	$53,241,753	$1,201,073,493
Jobs	3,123	55,546
Sales Tax	$7,571,953	$123,803,838
State Income Tax	$1,308,787	$22,524,049
Federal Income Tax	$4,918,183	$125,587,037

--restorewildlife.org

MAIL IN EITHER-SEX

For the 2001-02 deer seasons, the Kansas Department of Wildlife and Parks is offering a number of resident deer permits that may be purchased without going through a drawing. The only permits awarded through drawing were the Any Deer permits, which allow the harvest of a mule deer.

Perhaps the most sought-after permit that now may be purchased without going through the draw is the Whitetail Either Sex permit ($30.50). This permit may be purchased at Wildlife and Parks offices or through the mail. Hunters are urged to buy early or order by mail to avoid long waiting lines.

Two other types of "permits" may be purchased over the counter at county clerks' offices, Wildlife and Parks offices, and many vendors of hunting equipment. These include the Whitetail Antlerless Only permit ($30.50) and Whitetail Antlerless Only Deer Game Tags ($10.50). Hunters may purchase one Whitetail Antlerless Only deer permit and as many as four Whitetail Antlerless Only Deer Game Tags (two Deer Game Tags valid for units 1-18 and two Deer Game Tags valid for units 1-16). The game tags are not valid on land managed by the Department of Wildlife and Parks.

Copies of Kansas deer permit and tag applications are available for download at the department's website (www.kdwp.state.ks.us), by phoning (620) 672-5911, or by emailing feedback@wp.state.ks.us.

--Shoup

REFERRAL PROGRAM ONLINE

Kansas landowners have expressed interest in allowing additional antlerless deer hunting during legal seasons. However, they have indicated difficulty in locating hunters interested in harvesting antlerless deer and have expressed support for a system by which they may contact hunters who are willing to harvest antlerless deer.

That system is the Kansas Department of Wildlife and Parks' Hunter Referral Program. Through this program, hunters add their names and addresses to a data base from which landowners may draw. Interested landowners may then contact participants and make arrangements for them to hunt on their land.

Interested participants may now register online. Anyone who would like to have their name provided to landowners may register online at the department's website, www.kdwp.state.ks.us. Just click "Hunting," then choose the "Hunter Referral Application" button. Those who don't have internet access may obtain a registration card at any Kansas Wildlife and Parks office.

The department will maintain and provide the list of hunters to requesting landowners. Hunters will be contacted by the participating landowner.

--Shoup

A GREAT TRADITION

What began 30 years ago as a fledgling promotion has today developed into a national celebration. Like the tradition it represents, National Hunting & Fishing (NHF) Day annually introduces millions of Americans to the outdoor sports. This year's celebration will be Sept. 22-23.

The focus of NHF Day events is not just on ensuring a bright future for the outdoor sports, but also on recognizing the past conservation efforts and achievements of American hunters and anglers, who were the first to recognize that rapid development and the unregulated use of wildlife were seriously threatening the future of many species. In the 1930s, sportsmen supported taxes on their equipment, with the revenues earmarked for wildlife conservation.

The first to put forward the idea for an official day of thanks to hunters and anglers was Ira Joffe, owner of Joffe's Gun Shop in Upper Darby, Pennsylvania. An ardent outdoors enthusiast, Joffe's goal was nothing less than a coast-to-coast celebration of the outdoor sports.

In 1970, Joffe's concept was adopted by Pennsylvania Gov. Raymond Shafer, who proclaimed "Outdoor Sportsman's Day" in his state. Rising interest carried the idea to the floor of the U.S. Congress.

At this point, the job of promoting NHF Day at the national level was taken up by the National Shooting Sports Foundation (NSSF). The NSSF soon won the support and assistance of more than 40 other national conservation and sportsmen's organizations, including the National Wildlife Federation, the Izaak Walton League, and The Wildlife Society.

On May 2, 1972, President Nixon signed the proclamation making official the first NHF Day. "I urge all citizens to join with outdoor sportsmen in the wise use of our natural resources and in ensuring their proper management for the benefit of future generations," said Nixon.

National, regional, state, and local organizations made plans for events across America, and NSSF promotions encouraged editors of newspapers, television, and radio stations everywhere to publicize NHF Day. By late summer, all 50 governors and over 600 mayors had joined in by proclaiming state and town Hunting & Fishing Days.

In addition to the thousands of NHF Day open houses and other local events held at sportsmen's clubs, shopping malls, and nature preserves, state wildlife agencies now organize regional outdoor fairs that attract tens of thousands.

--National Shooting Sports Foundation

MY FATHER'S WRIST

by Mark Shoup

In a boy's eyes, his father's shadow looms large. When I was about six, I asked my dad if he could whip Rocky Marciano. In all seriousness. Such hyperbolic awe is not unusual. Ironically, it usually takes a rite of passage offered by the father to break this spell. In the offering, sadly perhaps, the son's eyes are opened to some frailty in the father, however minor. He becomes human.

It was 1959, the beginning of my sixth grade school year, when Dad presented me with what would be the first step in such a passage. "How'd you like to go to Wyoming?" he asked.

Wyoming, of course, meant big game hunting. Dad often went in the fall. He had pictures hanging in the den, and each year, he'd bring back some horns or antlers, which I would mount on a block of wood from an old orange crate.

The question must surely have been rhetorical, but I jumped on it like a cat on a mouse. "Yes!" I screamed joyfully. "Yes! Yes!"

For the next week, Dad set me upon one chore after another, which I attacked with uncharacteristic glee. He had timed things well. When I ran out of chores, it was time to leave.

Early that September morning, Dad, his friend Jim Ware, and I piled into the cab of our '51 Studebaker pickup and headed north, the back filled with tents, cookware, rifles, and hopefully enough food to last a week.

Bouncing along in that old buckboard, we made Oshkosh, Nebraska, about dark. I was nodding between the two men when I heard Dad say, "Oshkosh, b' gosh!" as we pulled into a motel for the night.

We were up bright and early the next morning, and by nightfall, we rolled into the Haefle Ranch north of Bill, Wyoming. Dad and Jim raised their big umbrella tent on the flat plains not far from the ranch house, and I pitched a pup tent nearby.

The sky opened above these High Plains like nowhere I'd ever been, and the landscape lay out as if the hand of God had smoothed it. To me, it was comforting. The openness contributed to a general sense of freedom I felt the whole trip. Although I was closely tied to Dad and Jim, I felt a certain autonomy. When they went hunting, I went because I wanted to go. Around camp, I pretty much did as I pleased, which in part meant sitting around listening to the men talk about game, hunting, guns, and camp food.

Dad was full of surprises this week. While cooking supper one evening, he nonchalantly told me to go take a crack at the .30-40 Krag.

"Really!" I asked with a mixture of excitement and apprehension. I had never shot a high-powered rifle, but I had dry fired and gone through the motions often.

"Go ahead," he said with mock impatience. "You've shot a shotgun enough. This isn't much different. It'll kick kicked pretty good, but just hold 'er tight and aim like you would a .22." So I took the Krag away from the campsite, loaded it as Dad had shown me many times, leveled on a small cactus, and squeezed the trigger.

Ka-Whooom! The muzzle kicked up hard, but the cactus exploded, and I remained standing. The shot carried across the plains an eerily long time before being swallowed by a distance echo. I took a deep breath and startled myself with a laugh. This was FUN! I fired several more rounds before returning to camp.

"Supper's ready, son." Dad must have seen the satisfaction in my eyes. No other words were needed. Although unaware of the significance, I had crossed a bridge.

The trip was also defined by the normally mundane – namely, food. Whether a cold steak sandwich in the middle of the day under a scraggly pine tree or hot potatoes and gravy over the campfire at night, I reveled in each bite. I especially remember breakfast. After boring of adult conversation in the evenings, I would retire to the pup tent and burrow into my sleeping bag with comic book and flashlight. Then before I knew it, the sound and aroma of sizzling bacon would waken me. Still inside my sleeping bag, I'd pull on jeans and flannel shirt to parry that first burst of crisp morning air.

Potatoes, eggs, ham, bread, and hot coffee – stuff that would stick to your ribs – welcomed each morning. Dad and Jim would already be up, putzing around the campfire. After splashing water on my face, I'd eat my fill, and we'd be off for the hunt.

The days were filled with long-distance rides in the pickup and seemingly longer-distance hikes across arroyos and foothills and through rare outcroppings of streamside trees. One day, Jim made a shot across a canyon that must have been 400 yards, dropping a mule deer in its tracks. The rest of the day was spent reaching the deer and hauling it out.

Despite growing my sense of freedom, I often found myself turned around. Dad would ask me what direction we were heading, and I would have it opposite. This was disconcerting because I thought my sense of direction keen.
By the last day, Dad and Jim had each taken an antelope. Jim had filled his mule deer permit, but Dad had been skunked. It was getting late in the afternoon when Mr. Haefle told us that he knew a good-looking draw that had not been hunted.

"No, I think we'd better get packed up," Dad replied.

"Please, Dad," I pleaded. "Let's just try that one spot." I was not ready to leave, but I also had a feeling about this tip. Dad acquiesced.

We jumped about 15 mule deer from that draw. At 30 yards, Dad dropped the biggest buck he had ever taken. Half an hour later, the deer dressed and loaded, we trundled down a dusty cowpath road, the Bighorn Mountains silhouetted against the setting sun behind us.

I remember little about packing and leaving Wyoming, perhaps because Dad's big muley loomed so large in my mind. I do remember bouncing back toward Kansas in the cab of that old Studebaker, half asleep in the seat between the two men. I was secure in the darkened cab, but as I looked up to my father's hand upon the wheel, I noticed how small-boned his wrist was and realized for the first time that he was not a big man.

This thought struggled into the back of my mind, where it would remain dormant. For now, the road bounced along behind us – to the west, I noted – sound disappearing into my dreams like that first rifle shot.

DROP SHOT RIG

The drop shot rig is an easy rig to tie and fish, and it catches bass. It is especially good for suspended fish or pressured bass that will not hit any other rig. The drop shot is simply a way of tying your hook up the line and putting the lead on the bottom. Raising the bait off the bottom gives fish a different look, and it is often easier for them to see it.

The drop shot is best fished on light line and spinning outfits, such as a 6-foot light action spinning rod with a fast taper and the reel spooled with 6- to 8-pound test line. Although there are many specialized hooks and weights available to tie this rig, any small worm hook and any kind of weight will work. A 1/0 offset hook and a 1/8- to 3/8-ounce bullet weight work well.

Start by tying on the hook using either a palomar or clinch knot. Leave the tag end the length you want the worm to be off the bottom. Start at 16 to 20 inches up the line unless you see fish suspended a certain distance off the bottom.

After tying the hook, bring the tag end back through the eye of the hook from the top down to make the hook stand out.

Tie on a weight at the end or simply slide a bullet sinker on the end of the tag line. Tie an overhand knot right on the end of the line, let the sinker slide back down to it, and then peg it with a toothpick. Cut the toothpick off even with the lead to keep it out of rocks. A bell sinker or drop weight also works.

If fishing open water, hook a small plastic worm or grub on by running the hook through the nose. (If there is brush, you can rig the worm Texas style, making it weedless.) Start with smaller 4-inch worms.

Drop shot rigs excel in deep water when the fish are suspended off the bottom. Deep points, road beds, and humps that are smooth are classic places to fish them. Rigged weedless, you can also fish it in brush and around rock piles.

If bass are suspended off the bottom, a drop shot rig is perfect because you can vary the length of the leader and put the bait right in front of them. Also, when there is heavy fishing pressure and the bass are spooky, the drop shot gives them another look to consider. It also helps that you can keep the bait right in their face for a long time. Fish the drop shot anytime, especially when bass are suspended or under a lot of pressure.

The drop shot works well at any speed, but a slow presentation is best. You can drop it down to fish in deep water, tighten up your line, and shake the worm right in front of the bass. And when you shake the rod tip, the bait shakes and jiggles more than on any other rig.

In shallow water, it is best to keep your rod tip high to raise the bait farther off the bottom. The higher the angle, the more distance between the bait and the bottom. Hold the rod tip high and shake the worm in one place.

–Ronnie Garrison, fishing.about.com

Trophy Cat Survey

The media has directed attention toward the trophy potential of catfish species through magazines such as *In Fisherman* and *Catfish In-Sider*, television shows such as "The In-Fisherman," and newspapers with pictures and stories of trophy catfish.

An increasing contingent of catfish anglers may place emphasis on trophy catfish angling. In response, the Mississippi Interstate Cooperative Resource Association (MICRA) funded a catfish angler survey to gain an understanding of the attitudes and demographics of catfish anglers in the 28 MICRA states.

One discovery from the survey is that 70 percent of catfish anglers plan a trophy catfish trip annually, even though only 31 percent consider themselves trophy anglers.

About 75 percent of catfish anglers are in favor of developing trophy catfish fisheries, and 65 percent would favor increased regulations to improve trophy catfish catch rates.

The greatest portion of catfish anglers feel that a channel catfish must be at least 29 inches long to be a trophy, that a flathead catfish must be at least 40 inches long, and that a blue catfish must be at least 45 inches long.

Most (66 percent) catfish anglers, including Kansans (53 percent), feel that their state does not place enough emphasis on catfish management.

Residents from 24 of 28 MICRA states identified a river as the water body with the most trophy catfish potential in their state or region. Eighty-five percent of catfish anglers use traditional pole-and-line as their primary catfishing gear.

Young trophy anglers that target flathead and blue catfish were more likely to travel for trophy catfishing opportunities than older non-trophy anglers who target channel catfish.

About 65 percent of the responses were from anglers who were 25-54 years old, and 44 percent said that they had been fishing for catfish for more than 30 years. Most (95 percent) were male, 60 percent traveled up to 50 miles to fish, and about 50 percent went fishing 10-49 times each year.

–from report by John E. Arterburn, Daniel J. Kirby, and Charles R. Berry, Jr.

FINE FUNGUS

Burning and grazing practices are vital components for sustaining the tallgrass prairie ecosystem, but an organism under the earth's surface is also essential for the growth and regrowth of dominant plant species. Unlike fungi that are usually thought to cause harm and kill many plants, a certain type of fungus provides numerous benefits to prairie plants, according to David Hartnett, professor of biology at Kansas State University and director of the Konza Prairie Biological Station.

Hartnett said the symbiotic association between the fungi and the roots of prairie plants is called mycorrhizae, a Latin word meaning "fungus root."

"Fungi colonize the roots of the plants and help plants take up nutrients, help increase plants' resistance to disease, and help increase drought tolerance – all contributing to markedly enhanced growth," he added. "Plants return the favor by providing a food source to the fungus because the fungus is an organism that doesn't make its own food by photosynthesis."

After studying about 100 tallgrass prairie plant species, scientists have found all to exists in this symbiotic relationship.

"There is quite a bit of variability between the species in the prairie regarding how critical the symbiosis is to their production," Hartnett said. "The dominant tall grasses of the prairie absolutely require the fungus. If they don't have the fungus infecting their roots, they won't survive at all. It's an absolute requirement."

The dominant native grasses, such as big bluestem, Indian grass, and switchgrass, are also grasses that cattle consume as forage.

"When plants are grazed by cattle or bison, they must have enough resources – water and nutrients – in the soil," he said. "If you took the fungi away, the plants wouldn't be able to take up enough nutrients to regrow. If it weren't for these fungi, you wouldn't have beef to eat."

Hartnett said many times researchers assume that the vegetation on tallgrass prairies is responding to grazing or the effects of fire, but some of these influences on the ecosystem are indirect effects of the fungi.

--Farmer Stockman of the Midwest

Circular Slurping

The crab spider captures flying insects such as bees and butterflies without benefit of a web. Even more impressive, it devours the insect like a chocolate malt.

First, the crab spider will position itself on a flower that matches its coloring or, as happens with some species of crab spider, alter its own coloring to match the flower. Next, the crab spider will remain perfectly still until an insect visits the flower. Often, the insect climbs right over the all-but-invisible spider in its effort to drink nectar. At this point the crab spider strikes.

It seizes the insect with its front legs and plunges its curved fangs into the insect's head or neck to inject a nerve poison that renders the insect helpless. The fangs thereupon become the straws through which the crab spider drinks its victim's internal juices. And when the crab spider's stomach is filled with these juices, it pumps them, combined now with digestive fluids, back into the insect. The crab spider waits for the insect's tissues to dissolve before resuming its slurping.

The result is a hollow insect carcass with two small holes being the only visible wounds.

--enature

TREE COMMUNITIES

Clay Center, Dodge City, Junction City, and Newton were singled out for special recognition among the 104 Kansas communities honored in Great Bend last April during Tree City USA award ceremonies.

The Kansas Forest Service and National Arbor Day Foundation cited the four for their "foresight and determination to improve and maintain their tree resources."

Clay Center, Dodge City, Junction City, and Newton have earned Tree City USA status for each of the past 25 years. They were among 11 Kansas communities that qualified the year that Tree City USA introduced its program for improving communities' quality of life. The four's commitment traces from the year 2000 back to 1976, when the United States celebrated its bicentennial.

To become among the first Tree City USA winners in the nation, Kansas communities had to complete the following:

- pass a local tree ordinance;
- organize a tree board or department;
- celebrate Arbor Day with a proclamation; and
- maintain a tree budget of at least $1 per resident. (Today, that budget is $2 per person.)

The National Arbor Day Foundation proposed the Tree City USA program and helped create it in cooperation with the National Association of State Foresters and USDA Forest Service. In Kansas, that automatically made it a program also supported by the Kansas Forest Service and by Kansas State University Research and Extension, both of which can provide more information about how communities can participate today.

--Kansas Forest Service

CAT CAMPAIGN

Are you...

- Tired of your neighbor's cats killing birds and other wildlife on your property?
- Concerned about the health and well-being of your outdoor cat?
- Interested in learning how to turn your outdoor cat into a contented indoor pet?
- Concerned about the impact of cats on wildlife in your local park or community?
- Interested in getting local cat ordinances passed to address cat overpopulation?

Then visit the American Bird Conservancy's (ABC) website, www.abcbirds.org. The organization's "Cats Indoors! The Campaign for Safer Birds and Cats" was initiated by ABC to end the unnecessary death of birds and other wildlife caused by free-roaming domestic cats. Cats Indoors! seeks to educate cat owners, decision makers, and the general public that free-roaming cats pose a significant threat to birds and other wildlife, suffer themselves, and pose a threat to human health.

Cats Indoors! encourages cat owners to keep their cats indoors and advocates laws, regulations, and policies to protect cats and birds, including the humane removal of free roaming cats from areas important to wildlife. The campaign promotes grassroots efforts to address the issue at state and local levels.

Educational materials developed for Cats Indoors! include a 4-color brochure and poster titled "Keeping Cats Indoors Isn't Just For The Birds" and an education kit complete with 10 fact sheets and several brochures. To download copies of the fact sheets, the complete kit, the brochure, or a poster, visit the website and click on "Cats Indoors Campaign." Camera-ready advertisements and public service announcements are also available for use in newsletters and local papers.

--American Bird Conservancy

CARA WIN PREDICTED IN HOUSE

The U.S. House of Representatives Resources Committee held a hearing June 20 on the Conservation and Reinvestment Act (H.R. 701) and announced that 223 Representatives are cosponsoring the bill. This demonstrates broad bi-partisan support for state-based conservation and may ensure House passage of a historic conservation bill. The Conservation and Reinvestment Act (CARA) proposes to reinvest a portion of the revenues from federal offshore oil and gas for state-based wildlife conservation, coastal conservation and impact assistance, historic preservation, urban parks, and the Land and Water Conservation Fund.

CARA would annually provide $3.1 billion, of which $350 million would be dedicated to state wildlife programs. Nearly $15 million would come to Kansas.

Proponents of the measure say these funds will save taxpayers money by avoiding the high costs of wildlife recovery efforts as well as ensuring an economic future for nature-based tourism and the outdoor recreation industry.

Congress first recognized and acted on the need for state-level wildlife conservation funding in 1937 with passage of the Pittman-Robertson Act and again in 1950 with the Dingell-Johnson/Wallop-Breaux Act to provide ensured funding to the states for conservation. CARA will almost double current federal funding for state-based wildlife conservation, recreation, and education.

CARA has generated tremendous support from a coalition of more than 6,000 organizations, businesses, and elected officials, including governors, mayors, and county officials. This support led to CARA passing the House by an overwhelming 3 to 1 majority last year. However, in spite of a letter signed by 63 Senators urging Senate action, CARA was stalled before reaching the Senate floor. The June 20th House hearing was the first legislative action to occur in the 107th Congress.

For more information on the Conservation and Reinvestment Act of 2001, including a copy of IAFWA testimony provided at the hearing or additional information on state wildlife funding needs, visit www.sso.org/iafwa, www.teaming.com, or phone IAFWA at (202) 624 7890. To receive IAFWA news releases and tip sheets online, email teaming@sso.org and type "Get News Online" in the subject line.

For bill summary and status, including a list of current CARA cosponsors, visit the Library of Congress website, http://thomas.loc.gov.

--International Association of Fish & Wildlife agencies

NRA GRANT TO SALINE

The Saline County Hunter Safety Instructors Association has received a $900 Friends of the NRA Grant to help with local hunter education efforts. The Saline County instructors group is a dedicated organization of approximately 35-40 volunteer instructors who help teach hunter education to 400-500 students in the county each year.

Additionally, the group works with Salina Safekids in presenting an information booth at the Safety Fair every spring, assists with numerous fun shoots, and held a firearm safety booth at the Saline County Fair last summer.

This year's grant money will be used to purchase shotguns for hands-on shooting at hunter education classes and to purchase 3-D targets for the safety walk-through course. Students interested in enrolling in this year's workshop may drop by Worth Appraisal at 111 E. Iron, Salina; contact Mrs. Worth at (785) 827-0027; or contact conservation officer Greg Salisbury at (785) 825-4969.

All hunter education classes are also listed at the Department of Wildlife and Parks website, www.kdwp.state.ks.us.

--Greg Salisbury, conservation officer, Salina

by Mark Shoup

TURNING OVER A NEW LEAF

Autumn is on the way, and soon the leaves will be turning color, drying up, and falling. Before that happens, however, you can preserve some of these beautiful works of nature and learn more about trees in the process. You can even make a T-shirt with your favorite leaf on it.

In Kansas, there are basically two types of trees: coniferous and deciduous. Coniferous trees, or conifers, have needle-like leaves that stay green year-round. Pines and cedar are conifers.

For this exercise, however, we will look at deciduous, or broadleaf, trees. These include many varieties found in Kansas, such as oak, hickory, ash, walnut, maple, cottonwood, elm, and many more. Each has a different kind of leaf, and trees can be identified by their leaves.

Some trees have leaves that are entirely separate from each other. These are called simple leaves. Other trees have leaves that grow in groups, called compound leaves. Two types of compound leaves are pinnate and palmate.


American Elm (Toothed)


Redbud (Entire)


Burr Oak (Lobed)

In addition, there are three types of leaf shapes: entire (smooth), toothed, and lobed.

The illustrations on these pages will help you identify these different types of leaves. To identify the tree, you need an expert or a good tree book. (Two that are available from the Kansas Department of Wildlife and Parks Outdoor Store are *Trees, Shrubs, and Woody Vines In Kansas* and *A Golden Guide To Trees*.)

Using your expert (dad, mom, teacher, neighbor) or book, do the following exercise and make your own leaf T-shirt!

The first part of the exercise is, well, exercise. Take a walk in the woods. Bring a paper grocery sack or basket along, anything that won't break or tear the leaves you collect. Collect leaves from different trees. Try to identify the trees as you go, but don't worry if you can't. You can look them up later.

Once you get back home, gently spread the leaves out on wax paper or a magazine, mak-

Black Walnut
(Pinnate)

ing sure you don't tear any. See if you can identify which ones are simple and which ones are palmate compound or pennate compound. Which ones are entire, toothed, or lobed? Use your book to identify the trees from which the leaves came.

Now you'll need some rubber bands, T-shirts, fabric paints (different colors), foam rubber (soft and 1/2" or less in thickness), a film canister about 1 inch in diameter, and pieces of cardboard.

Choose leaves and a color of paint for printing. Match the color to the actual summer or fall color of the leaf or be creative and pick your own color. (A purple maple would be cool!) Cut out a foam pad and attach it to the bottom of your film canister with the rubber bands. Using fabric paint, press the padded end of the film canister into the paint and paint the back of a leaf.

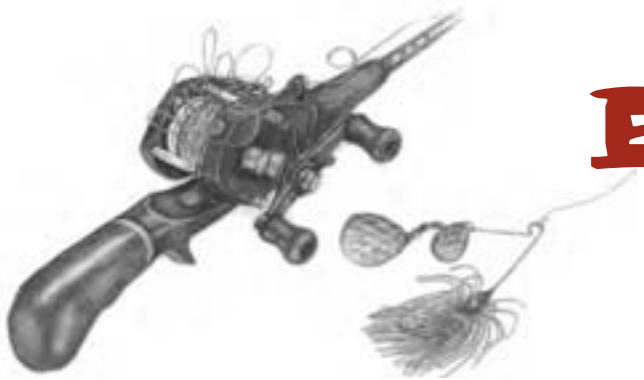
Now place the piece of cardboard inside the T-shirt so the paint doesn't bleed through to the back (or front, depending on where you want to print the leaf). Print the shirt by carefully laying the paint side of the leaf down and pressing it with a paper towel on top of it. Press gently but firmly with a book or cold iron, being careful not to twist the leaf.

Remove the leaf carefully and allow the print to dry thoroughly.

If you do this with a group, make up games with your T-shirts. For example, study everyone's shirt carefully, then have everyone cover their print with a piece of paper. Have a leader call out someone's name. See who is first to put a tree with that person's name. Or play "leaf tag," where a touch on the back must be accompanied by the name of the touched person's leaf.

Make this autumn one to remember and put yourself in touch with the natural world. Next time you go for a walk in the woods, you'll amaze your friends with your knowledge of Earth's most magnificent plants.

Buckeye
(Palmate)



Backlash

by Mike Miller

Standing Traditions

It was one of those September days that make hunters restless — warm, but cool enough to know that fall was on the way. Unfortunately, doves had left the country for the most part, and lack of rain made teal scarce. With no other options, I was actually mulling over mowing the yard when the phone rang.

"Whatter you up to?" Lennie said, before I even finished my hello.

"I was thinking about mowing the yard," I answered with no conviction. "Why, what did you have in mind?"

"Oh, if you need to mow the yard, I'll call back another day," Lennie teased. "If you weren't busy, I was going to see if you wanted to help move some deer stands. We could take our poles and try the pond across the river from my slough stand. But you better mow."

"What time were you thinking?" I interrupted. "I'll drive."

Lennie chuckled at how easy I was and went on to describe his treestand dilemma. It was a familiar conversation. Every year Lennie threatens to move stands he's been hunting from for 10 years. I picked him up and as we drove down the highway, he described every deer he saw last year — where they came from, which fence they jumped, and how they passed by just out of range. I'd heard it all before, but I was glad I wasn't mowing, so I listened intently.

"I can't hunt the slough stand with a south wind," Lennie said. "And a north wind is better for the junkyard stand, too. I need to find a south wind stand."

"Yeah, since it blows from the south on most days," I jabbed. "But then you wouldn't have an excuse to go back to sleep on those cold November mornings when, 'the wind is wrong,'" I added.

"You're a funny guy," Lennie sneered. "You should get a red nose and join the circus," he quoted from his favorite television character, Barney Fife.

We arrived at the riverbottom and parked in the same place we always do. As we walked along the trails, Lennie continued play-by-plays of last year's deer sightings. He also added detailed accounts of several of the deer he's killed. When we the reached the junkyard stand, he looked up and, just like every other year, looked at me and said, "Whatta ya think?"

I tried to help, thinking about what he'd said, considering where the deer were coming from and wind direction.

"The trails look pretty good here already," I said. "But if the deer are coming from the west, we need to look for a tree on the north side of trail. That way you could hunt with a south wind."

It was de javu all over again. I'd said almost the same words last year — and the year before. We wandered through the woods to the west, looking for trees that were straight and not too far from the trail. We found several that might have worked, but like every other year, we decided to wait to move the stands.

"I suppose I could put a stand in that one," Lennie said, staring intently into the branches. "But I'd need a chain saw to clear shooting lanes. Maybe I'll wait and hunt a few times — see where the deer are traveling. Then if you have time, we'll come back and move the junkyard stand over here. I hate to move that stand, though. It's been so good."

"Whatever you want," I said. "Let's grab our poles. We can check the slough stand on the way to the pond."

I'm one to talk. I also hunt the same two stands each fall. I've threatened to move on many occasions, but I never do. I usually see deer, and I've had plenty of opportunities to shoot, so it's just my imagination of what I might be missing that makes me want to move.

Oh well, to each his own. It's about time for Lennie and me to begin our in-depth stand location strategies. Just a little cool weather is all we need to get in gear. I think I'll go put new line on my bass reel.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