KANSAS Wildlife & Parks

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The View From Here

by Mike Hayden

A Difficult Balance

Deer are a public resource our agency is tasked with managing. We take this responsibility seriously and strive to formulate rules and regulations that balance needs and opinions of all stakeholders. These decisions are not created in a vacuum. We solicit input at public meetings across the state throughout the year. Our agency examines biological data, hunter success rates, public surveys, as well as input from landowners, and the Legislature before presenting our recommendations to the Wildlife and Parks Commission .

For nearly a decade, the department has focused on reducing white-tailed deer numbers, while increasing hunter opportunities and maintaining a healthy deer herd. These three goals are deeply integrated, but a perfect balance can be disrupted by many factors such as management decisions, laws passed by the Legislature, and hunter access.

Management practices appear to have stopped the increase in the deer herd, as deer/vehicle accidents, one of the indices used to track population trends, declined in 2000 for the first time in fifteen years. This statistic is a tribute to our resident hunters who have harvested more does, while being limited to a single buck-type permit each year. In fact, whitetail antlerless deer harvest has increased fourfold in the last seven years, while total harvest has doubled.

Hunter opportunities have also flourished. In 1995, resident hunters were restricted to one, unit-specific permit obtained through a lottery, and the opportunity for a second permit, also through a draw. Neither of these permits were guaranteed. Today, hunters may obtain one buck-type permit and, in some areas of the state, up to five antlerless whitetail permits. The structure of the deer permitting system, with the overwhelming majority of whitetail permits valid only for antlerless deer, has also made it possible to maintain a healthy buck/doe ratio, while reducing the overall size of the herd.

Hunters have reported seeing fewer deer than in past years. This was expected with such an aggressive management effort. Another factor worth consideration comes from a study conducted by Richard Sage Jr. and a group of researchers from the Archer and Anna Huntington Forest, a campus of the University of New York. This study found that hunters harvest the highly visible animals from the deer herd, and the surviving deer become even more evasive to the hunting pressure. In that study, the deer herd was decreased by a factor of 1.8, however, visibility of the remaining deer decreased by a factor of 7.9. Where deer behavior is involved, we can't always trust our eyes to give us the complete story.

Our effort to direct hunters to reduce the white-tailed deer population has entered a new phase. In recent years efforts were made with a broad brush and heavy strokes. However, in the future these efforts will become more precise and measured, focusing on problem areas and adjusted annually.

For the 2002-03 deer season, the Wildlife and Parks Commission approved allocating only two white-tailed antlerless-only game tags in Units 1, 2, 5, 10, 11, 14, 17 and 18. Four game tags will be valid in all other units. Also, units 1, 2, 17 and 18 will not be open to deer hunting during the January 1-12, 2003 antlerless season. These decisions were made based on data from department biologists on population indices and deer-related vehicle accidents in each management unit, as well as public input.

As mule deer are more susceptible to hunting pressure, they require a more intensive management effort. Permit numbers for mule deer have increased approximately 25 percent over the past five years, but hunter success rates for "any deer" permits remain extremely high, with initial reports of a 56 percent success rate for the 2001-02 season. While hunter success is only one of the many indicators considered when authorizing mule deer permits, it is a strong indication that the population is sustaining the pressure. The department will continue to closely monitor mule deer populations for quality and quantity, adjusting permit numbers accordingly.

While the department will continue to gather input from all sources, we are also taking a proactive approach to plotting the future of deer hunting in Kansas. Our agency is forming a working group to take a hard look at the future of deer management in Kansas, including providing adequate opportunities for hunter access. This group will present their outcomes to the public and the 2003 Legislature. The department anticipates that deer management will be a major topic during the next legislative session.

Help the department make informed decisions on the future of deer management by getting involved in the process. You should consider contacting your legislator, the Wildlife and Parks Commission, and the department to express your feelings. We owe it to this tremendous resource to ensure it is managed properly.

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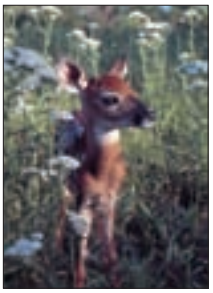

About the covers
Front Cover: A day-old whitetail fawn faces many perils, including ticks (see related story on Page 2). Mike Blair filmed this scene with a 55mm lens, f/11 @ 1/125 sec.
Back: A largemouth bass is a springtime reward for anglers eager to enjoy Kansas fishing. Blair photographed the moment with a 55mm lens, f/16 @ 1/125 sec.

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

Out For Blood

by Dr. Don Mock,
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photos by Mike Blair

Villains of the outdoors, ticks must feed on blood to survive. But they're more than a nuisance when they transmit diseases to man and animals. Knowing how they live and feed can help avoid problems afield.

Nearly everyone recognizes a tick – even those who don't know a wasp from a bee or a beetle from a cockroach. There is something distinctive about a tick's melon-seed body, its sprawling legs, and, of course, the way it attaches and sucks blood. Many people think of ticks as the filthiest, most disgusting creatures on earth. A few years ago, I gave a lecture on ticks at a community meeting. A good friend and neighbor came up before I started and apologized for his wife's absence. He told me, "She said she already knew how disgusting ticks are, and she didn't want to know anything else about them." That represents a common view on the subject.

Let's try to subdue the nausea, though, and take a closer look at ticks encountered outdoors in Kansas. After all, they are a part of nature, and learning more about them may save your life. As nature's little blood-sucking syringes, it's not surprising that ticks are notorious transmitters of disease. Lyme disease gets most of the press, and there are several cases of it each year in Kansas. But there is also human concern with potentially deadly tick-borne diseases like Rocky Mountain spotted fever, tularemia, ehrlichiosis, and relapsing fever. Dogs may contract Lyme disease, tularemia, hepatozoonosis, and canine ehrlichiosis. House cats suffer 100 percent mortality from tick-borne cytauxzoonosis. Livestock productivity can be reduced by tick infestations or related diseases. Humans and animals alike can become paralyzed from toxins in tick saliva. Most tick bites don't cause disease, but leave welts that can itch for days or weeks. With all these considerations, it's wise to know something about such common outdoor parasites.

Male and female ticks often don't look alike, and immatures are different still. It might seem there are several thousand kinds, but only 20 tick species are documented in Kansas. Most familiar are the so-called "hard ticks" encountered in wooded, grassy, or other densely-vegetated areas. Other ticks resemble little gray beanbags and are called "soft ticks." Most of them are associated with nests of birds, rodents, or bats.

Most ticks require one to three years to reach adulthood, but they make up in prolificacy what they lack in speed of development. The number of eggs laid by a female varies among species and depends upon the size of the blood meal taken before detaching from the host. Typical egg numbers range from 3,000 to 11,000, produced in one mass beneath leaf litter or in a crevice.

The tick life cycle is fascinating in its complexity and length. After hatching, a hard tick feeds only three times – if it's lucky. The hatchling is scarcely larger than a speck of pepper, has only six legs, and, is referred to by entomologists as a larva and by laymen as a "seed tick." If it can find a host (usually a rodent or ground-inhabiting bird,) it feeds two to four days, detaches, molts, and becomes an eight-legged, pinhead-sized nymph. Nymphs feed four to six days on hosts ranging in size from mice to humans and then molt to adults. Here's the catch. Immature ticks must have a blood meal before each molt, and they must sometimes wait without feeding for months or years before finding a host opportunity. Some ticks never reach adulthood.

Those that do, mate and reproduce. In some species, mating occurs in the host animal's burrow



Twenty tick species are found in Kansas, including "hard" and "soft" ticks. Hard ticks are most familiar and include the lone star tick, named for the white spot on the female's back, above left. In Kansas, this tick is found mainly in eastern portions and is particularly hard on deer and other wildlife. Tiny juvenile lone star ticks are often mistaken for the deer tick, which is feared for its association with Lyme disease. Deer ticks are found only in a few counties of eastern Kansas, though ironically, most of the cases of human Lyme disease that show up in the state are contracted from lone star tick bites. The most abundant tick statewide is the American dog tick, center, sometimes called the wood tick. It attacks dogs, humans, and other large wild and domestic animals. This female is identified by the characteristic white shield just behind the head. Both lone star and dog ticks are most troublesome spring through early summer. The winter tick, right, is common on deer during winter months. This species stays on its host in all stages (except egg-laying,) rather than dropping to earth after feeding, as do lone star and dog ticks.

or den, but most Kansas ticks mate on the host as the adult female feeds. The female engorges for five to eight days, mates, detaches from the host, lays her egg mass within a few days, then dies.

Obviously, it is the feeding activity that affects man and animals. Immature ticks swell to several times their original size while feeding. Adult females become greatly swollen, sometimes attaining the appearance of a medium-sized, purple-gray grape. Males have little capacity, and one can scarcely distinguish an unfed male from one that is sated.

Various tick species use mammals, birds, and even reptiles as hosts. An animal quite commonly harbors two or three species of ticks at the same time. Although many kinds of ticks bite people, none depend on humans for survival. Some species are quite host-specific or accept only a few closely related species of hosts. Others, including virtually all that bite humans, can parasitize many different kinds of hosts.

There is much confusion in the common names of ticks. Entomologists sometimes use official common names that refer to animal hosts, such as the American dog tick and deer tick. However, since ticks seldom discriminate between hosts, a tick on a deer is not necessarily a true deer tick. Deer ticks can infest many species of birds and reptiles as well as mammals, and many other species of ticks infest deer. Non-scientists may be confused by the common names. The only way to precisely identify ticks is through their scientific names.

The most common statewide tick in Kansas is the American dog tick, *Dermacentor variabilis*. It has tolerance for a wide range of humidities, and this enables it to inhabit not only eastern Kansas forests and grasslands but also the brushy and grassy creek bottoms of western counties. Juvenile dog ticks (larvae and nymphs) feed exclusively on rodents. Adults are the common "wood ticks" or "dog ticks" that parasitize us, our hunting dogs, cats, cattle, horses, sheep, deer, coyotes, raccoons and just about any other mammal in the state. They are not found on birds. Adults are active from the first warm week of March until the heat of midsummer. Some may be encountered in August or later, but most are dormant at that time.

Another common Kansas tick found statewide is *Dermacentor albipictus,* the winter tick. It prefers hooved mammals and doesn't bite humans, but occasionally parasitizes dogs. This tick is unusual in that it stays on the same host through larval and nymphal stages, adulthood, and mating. In Kansas, it is not a summer parasite, but rather is active through fall and winter. Winter ticks are often found in abundance on deer killed by hunters in December. They are usually mistakenly called "deer ticks." This same tick species is often called "horse tick" by horse owners, "elk tick" by hunters in Wyoming and Colorado, and "moose tick" in Canada.

The lone star tick, *Amblyomma americanum,* is named for the single bright spot on the female's back. The species is present only in the eastern third of Kansas (except for recently discovered populations in creekside habitats in Clark and Meade counties.) Where it exists, it is often extremely abundant. Its impact as a nuisance and disease

The male American dog tick, *above,* is easily distinguished by the white stripes covering its back. Though the male is important for reproduction, it feeds little when compared to the egg-laying female. At right are fully-fed male and female dog ticks for comparison.

transmitter is magnified by the fact that larvae, nymphs, and adults feed on a wide choice of hosts. All stages infest anything from chipmunks to humans. Recent KDWP research in which I cooperated showed that nymphal lone star ticks are common to abundant on wild turkeys. Lone star tick nymphs and adults are active from March or April until frosty fall weather. Larvae are present from mid-July through early October. When people or domestic animals acquire pin-head-sized ticks in Kansas, the parasites are virtually always lone star tick nymphs. And the hundreds of "seed ticks" (larvae) that someone may find crawling up pantlegs are also of this species.

Lone star ticks can have a significant impact on local deer populations. One study in eastern Oklahoma found that these ticks parasitized white-tailed deer fawns so heavily, clustering around their eyes and ears, that up to 30 percent of fawns died annually of resulting complications. On adult deer, lone star ticks infest the ears and the area around the anus, but they may be found at nearly any anatomical site. In April, 1999, KDWP personnel sent me a sample of several dozen ticks from an adult deer in Crawford County that was burdened with thousands of ticks. All were lone star ticks. The deer died, apparently of blood loss, shock, and possibly the onset of tick paralysis, a condition resulting from toxins in tick saliva.

Tick paralysis is worthy of special note. Nearly any kind of tick can cause tick paralysis, but the *Dermacentor* ticks are notorious for it. The paralysis can affect humans as well as animals. Tick paralysis is usually associated with heavy tick burden, but even one tick attached for several days along the spine, especially at the base of the skull, can cause it. Paralysis starts from the toes and works upward, but unless the involuntary breathing muscles become too involved, the victim rapidly recovers upon removal of the tick that caused it. This is illustrated by the following event. A veterinarian received a German Shepherd that could drag itself around by its front legs but could not walk. Since the animal was loaded with ticks, the vet suspected tick paralysis and applied a tick-killing agent. Within a few hours, the dog was happily romping about the pen.

Other Kansas hard tick species worthy of mention include the Gulf Coast tick, the blacklegged tick, the rabbit tick, and the brown dog tick. These are less widespread and less commonly recognized throughout the state, though each may cause problems at times.

The only "soft tick" of importance in Kansas is the spinose ear tick, *Otobious megnini*. This species is common in Mexico and arid western states of the U.S. Although primarily a parasite of cattle, horses, and deer, it is not uncommon on dogs and cats. The tiny larva creeps deep into the host's ear canal, becomes a nymph, and feeds for months. The tick's body is covered with tiny spines, making removal quite difficult. Secondary infection and great discomfort are common. The host animal may paw at its ear, rub its ear against the ground, or hold its head at an odd angle. Occasionally, a doctor sends such a tick to me after having removed it from a human's ear. Easternmost

Ticks have an amazing ability to wait long periods between feedings, sometimes going months or even years without a blood meal. But this rarely happens, since most larvae and nymphs can feed on a variety of hosts ranging from birds and lizards to small and large mammals. To hitch a ride, they crawl to the tip of a leaf or twig and wait with outspread claws. Then, when an animal brushes past, they simply climb aboard.

Kansas records are from Harper and Russell counties.

The best way to reduce risk of contracting tick-borne disease is to avoid tick-infested habitat. However, that is often impossible. Whether hunting mushrooms or game, photographing wildlife, fishing, or going on a picnic, the very nature of such activities leads into prime tick habitat. Therefore, take advantage of ticks' habit of crawling upward on the host. Tuck pantlegs into stocking tops and shirt into pants. For extra protection, tape such clothing junctures with duct tape, then twist the tape so the sticky side is out and make one more wrap. Light-colored clothing makes it easier to see ticks crawling before they find skin.

You may want to use a repellent. Most repellents on the market contain deet. It's good for mosquitoes, chiggers, and gnats, but not much help against ticks. Look for a product with the word "tick" prominent in the product name. Then read the active ingredients to be sure it contains 0.5 percent permethrin. Such products are to be sprayed on items of clothing which are then allowed to dry before putting them on. The permethrin remains bonded with clothing fibers even through laundering and is an excellent tick repellent.

You can unwittingly share ticks with the rest of the family. When you get home from jaunts in the wild, leave your camping gear, hunting jacket, etc. outside until you can inspect them thoroughly and remove ticks from them. Once inside, remove your clothing and do a thorough whole-body inspection for ticks. Inspect your clothes, too, or launder them immediately.

Outdoor dogs need protection from ticks. Commercially available dog dips containing amitraz or permethrin provide protection for two to three weeks. Be sure to follow the label directions. Tick and flea collars are helpful but generally less effective than dips. [By the way, do not wear tick and flea collars around your legs. Your sweat will dissolve insecticide from the collar resulting in a much more concentrated pool of the material on the surface of the collar. You may incur toxic effects as well as chemical burns to your skin.]

The very best tick prevention for canines, however, is available only by veterinary prescription. In recent years a number of long-lasting systemic pharmaceuticals have been developed. Each treatment lasts for a month or more. Active ingredients in some such treatments

More About Tick-Borne Diseases

Most of us have removed plenty of ticks and never suffered ill effects, but we should not assume such good luck will last. All common Kansas tick species are capable of transmitting either Lyme disease, Rocky Mountain spotted fever, Tularemia, or ehrlichiosis. Human cases of all these occur every year in Kansas. Lyme disease may progress several weeks without signs of illness after the tick bite, and diagnosis can be difficult. Years of pain and physical and mental impairment may result. The other three diseases often show signs within two to five days of a tick bite. They may progress so rapidly that a day or two of delay in diagnosis and treatment may result in death. For up to three weeks after the bite, signs of severe or persistent headache, fever, soreness or stiffness in muscles and joints, appetite loss, "just feeling lousy," or a skin rash, should prompt an immediate trip to the doctor.

include selemectin, fipronil, and imidacloprid. Whatever treatment the dog is on, however, you should pat the dog down daily to be sure that no ticks survive.

Especially on humans, it's important to remove a tick as soon as it is discovered, since disease transmission increases with time of attachment. Be watchful and check yourself frequently for ticks. The less time they're on you, the less difficult they are to remove. Many people have sent me fully engorged ticks they had removed from themselves. Such ticks would have been attached from 3 to 8 days.

According to some, the best way to remove a tick is with a hot match (or lighter fluid, gasoline, fingernail polish remover, fingernail polish, or petroleum jelly). Such folk remedies are sustained by the fact that many ticks are removed while still in the process of attachment and can back out and try to escape unpleasant stimuli. Actually, these tactics can cause bodily injury and are often ineffective.

Instead, research trials have shown that the best method is to grasp the tick close to the skin with fine-tipped tweezers. Watchmaker's forceps are best. Place the tweezers close to and parallel to the skin so that you grasp the base of the tick's mouthparts rather than its body. Grasp it from "back to belly," not from side to side. Pull gently but firmly, straight away from the skin until the tick comes free. Then disinfect the bite site. Although many doctors have been taught to jerk the tick, or to use a "jerk with a twist," such methods virtually guarantee that mouthparts will remain imbedded in the skin and cause prolonged irritation. Several gadgets have been designed and marketed specifically for tick removal. A few of them may be effective, but none are superior to fine-tipped tweezers, and many of them are junk.

There are a number of myths about ticks that are simply false. For instance, ticks cannot jump onto you from trees. It does not help to pass through vegetation quickly to avoid ticks, since the tick's primary host-finding strategy is to wait at the tips of vegetation to catch a ride on passing victims. The more plants encountered, the more ticks encountered. For the same reason, staying on trails does not prevent ticks, unless the trails are well-maintained and have no adjacent plants to brush against. In fact, ticks gravitate to trails due to increased animal travel and the resultant scents along them. Ticks do not feed on plants while waiting for a host. They simply do not eat until a host is available.

Ticks may not be among Kansas' most loved fauna, but they do play an important role in outdoor checks and balances. Contact with humans and pets or livestock ranges from nuisance to life-threatening. If unusual symptoms should appear in conjunction with tick bites, or even weeks afterward, it's useful to tell a doctor who may then be alert to tick-borne disease possibilities. Dress wisely in tick country, use appropriate precautions, and thoroughly inspect yourself and your pets after each outing to remove unwanted hitchhikers.

Preventive measures are important to avoid problems with ticks. Shorts and loose-fitting clothes spell trouble when hiking or working in dense vegetation. Instead, wear long pants and socks, duct taping the junctures to prevent tick entry. Repellents are helpful, especially permethrin-based products that are sprayed on clothing. Pets and livestock should be protected with veterinary products to avoid the possibility of tick-borne diseases. Always check hair and body for crawling ticks after each outing. Fortunately, ticks are slow to fasten on, making it possible to remove them before they burrow into the bloodstream.

About the author: Ticks were Dr. Mock's primary focus for the last 13 years of his career as a specialist in veterinary and medical entomology at Kansas State University. Now, as Professor Emeritus, his insights into these important parasites are shared with our readers.

A Man For All Seasons

text and photos by J. Mark Shoup
associate editor, Pratt

What makes a good fisheries biologist? Well, aside from being scientists, they are welders, mechanics, carpenters and people managers. Oh yeah, they are good communicators, helping the public to understand fisheries management, as well as catch more fish.

Fish Squeezer: a term sometimes applied to fisheries biologists. It's probably not meant to be derogatory, but like someone calling me a "pencil-pusher" because I have a desk job, "fish squeezer" doesn't begin to describe the duties of this fascinating and important profession.

I witnessed this first-hand when I met fisheries biologist Lynn Davignon at Ellis City Lake last October. October isn't a month when the average angler thinks about fishing, much less that biologists would be busy. But busy they are. It's test netting time, and Davignon test-nets seven lakes, including community lakes, state fishing lakes, and Cedar Bluff Reservoir.

Ellis City Lake is a narrow 100-acre lake twisting through the city on Big Creek. When I arrive, Davignon and his Americorps assistant, Heath Littrel, are preparing the boat to check nets they set out the night before. Data gathered on this day will help Davignon make stocking and management deci-

Fisheries biologists do most of their sampling in the fall, which is the end of the growing season and provides valuable data on what has happened during the year.

sions, as well as provide information for the department's annual *Fishing Forecast*.

Two types of nets are set. Gill nets are essentially 100-foot by 8-foot seines with 1- to 2 1/2-inch mesh. Trap nets resemble giant versions of those metal mesh vegetable baskets that fold in on themselves and are frequently used in kitchens to hold fruit and other items.

It's a clear but chilly, windy day, so I bundle up and step aboard, and Davignon guides the boat out onto the water. As he works, I ask questions, and he answers enthusiastically, one subject often reminding him of another, as if he is always planning, always has the future in mind.

To check the massive nets, each of them must be pulled onto the boat and the fish removed. Davignon and Littrel then separate, count, weigh, and measure the fish, and record all this information, all the while taking care to get the biggest, most desirable fish back in the water quickly. October can often provide nasty weather, so the biologists must record their netting results on waterproof paper. Water, however, is the least of worries. Biologists must contend with sharp spines, slippery fish, rain, snow, and wind.

"Measuring and weighing thousands of fish [easily 10,000 each fall] is not all glamour, but the worst thing for a fisheries biologist is wind," Davignon says. "It can literally rock you off the lake, but even moderate winds can make it difficult to hold down paperwork."

As an afterthought, he adds, "I prefer to use a laptop computer, but mine's not working right now."

Davignon explains that this time of year is the best time to test-net because it's the end of the growing season. In this particular lake, predators have been heavily stocked to control the natural influx of carp and bullheads from the river system, and test-netting can provide one measure of how successful such stockings have been.

"Fall is best because it lets us assess what has happened during the year," he explains. "We test some lakes with electrofishing equipment in the spring because that's the only time the fish are up shallow enough to catch them. We'll also do things like GSI [Gonadosomatic index] sampling to check the reproductive condition of fish right before a spawn."

Which brings him back to the subject of laptops and computer data entry, but not without a little sidetrack — one of many compliments he often has for others.

"Doug Nygren [Fisheries Section chief] has been the best thing that has happened to fisheries biologists," he declares. "He has computerized us and made data keeping much more accurate. That's why I think laptops are in our future. We will be able to enter data on the water and then punch it into the main computers when we get back to the office."

The place to which such information will be "punched in" is the Aquatic Data Analysis System (ADAS). This is a computer program developed by retired biologist Bob Hartmann that allows biologists to enter their test-netting data on their desktop computer or directly into their laptop in the field, eliminating paperwork. They can then generate a report immediately that lets them know the population dynamics of the lake tested and make management decisions — from stocking plans to length and creel limits — in a timely fashion. This is a far cry from the old days when written reports were sent into the Pratt Operations office where a computer section responsible for all the workings of the agency might require six months to generate a report.

As we work the nets, Davignon explains that this is not the only way to test-net. "There's also a technique called short-setting that we use on reservoirs," he explains. "We set gill nets for short periods, maybe one-half to one hour, then run and reset them. It's a lot more work. For me, it means an extra week's work, but the information I get is so much more valuable, and it reduces mortality."

Davignon has been using this intensive short-setting for 15 years, creating a good data base each year to compare to data gleaned from overnight setting. Always quick to give others credit, he adds that Region 1 Fisheries and Wildlife supervisor Steve Price was the first to use short-setting in Kansas while he was a fisheries biologist at Stockton.

One of Davignon's pet — and

ongoing — projects is educating the public. He believes that the angler plays an essential role in fisheries management. Sometimes this means not doing certain things. Take stunted fish, for example.

"All it takes to stunt a crappie population is for one angler to dump a bucket of small crappie in a lake. They do more harm than good when they do that because the fish reproduce so fast, their numbers outgrow the available prey."

Which brings Davignon to the larger role a fisheries biologist must play.

"A fisheries biologist isn't just a scientist," he explains. "He's got to be a mechanic, a carpenter, a welder. It just depends on how good you want to be. My dad taught me welding and mechanics, and I use that stuff every day. In fact, he wanted me to be a mechanic, but I couldn't stand to get grease under my fingernails all the time. Still, nothing bothers me more than equipment that is dirty or in bad shape."

Davignon believes a variety of experience is necessary before becoming a field biologist. "I believe we should all have to spend six months at a hatchery before we begin managing lakes, just to learn the physiology of fish and how to handle them. The Fisheries Section needs great coordination between the field and the hatcheries, and I look at my years on the hatchery as invaluable experience — from learning about fish diseases to dealing with the public. You just learn what makes a fish tick. I wouldn't trade that experience for anything."

Davignon, himself an avid fisherman, also wants to know what makes anglers tick, and how that affects fish populations. Of particular interest to him is the relationship between bass tournaments and fish mortality. In 1999, he did some of the first Kansas research on this subject, which resulted in recommendations that many bass clubs and tournament organizers have adopted: 1) have one weigh-in official for every 10 anglers; 2) shorten the length of the tournament by an hour or more; and 3) require electrolyte (a non-iodized salt compound that helps maintain fish metabolism) in livewells.

For the department, he recommended the development and implementation of a better tournament reporting system, which is now available on the agency's website. This allows tournament organizers to quickly provide data from participants and the agency to get a handle on the numbers of events, anglers, and fish taken.

Again, this was more work for Davignon, but he didn't mind. "Anything that gives us more valuable information to protect the resource is fine with me," he says flatly, as if extra effort is all in a day's work.

(Tournament work largely involves black bass, and Davignon explains that others are working on ways to monitor these fish populations. Jim Stephen, research biologist in the Emporia investigations office, works on a statewide Black Bass Monitoring Program, which yields information valuable to biologists and anglers alike.)

Among his other duties and extra projects, Davignon is also on the Reservoir Vegetation Management Project committee. (See "Bass Habitat: Solving the Puzzle," by Ron Marteney, in the May/June 2000 issue of Kansas Wildlife & Parks.) Members of this committee investigate enhancement of vegeta-

Individual fish are weighed and measured and data is meticulously recorded. Information gathered allows biologists to make management recommendations.

tion in reservoirs, particularly water willow. Davignon has planted one-half million of the plants in Cedar Bluff Reservoir, providing valuable cover for young bass.

"I am very optimistic about this project," he explains. "I think it could help us maintain a stable bass population. I'm just really excited about it." One of Davignon's aides, Dave Spalsbury, is doing a study of the project for his graduate work at Ft. Hays State University.

Davignon has provided me all this information in about three hours, all the while pulling nets and weighing and measuring and recording the results. Once the boat and nets are loaded onto his trailer, he declares, "That's it for test-netting in 2001!"

The end of the test-netting, but not the work. Not even the day's work. It's now about 1 p.m., and there's equipment to clean and paperwork to do. In fact, Davignon spends about one-third of his time at his desk, recording test results and answering email. Even this part, he seems to enjoy.

"Email is really a good way for the public to have easier access to us, and this makes a better informed public and, as a result, makes development of regulations and fisheries management better. Computers also help us with cost accounting, project planning, and the budget process."

As Davignon had informed me on the lake, public information is an important part of his job, and this becomes even clearer once we have a chance to chat in his office at Cedar Bluff State Park.

"I am a department man, and I believe we should portray the best public image we can, just by doing a good job. We are public servants and should keep that in mind at all times. We need to let the people know what we do. We have to be people managers, not just fish managers."

Year-round, he backs these words up by conducting spring and summer fishing clinics, aquatic education programs, and public programs that he has either dreamed up or has been requested to do. One popular example is the annual Fishing Forecast Night held in Hays and Salina each spring before fishing season cranks up. He also teaches the Fish and Wildlife Merit Badge to scouts at the Ft. Hays Campus Scout Camporee each summer and is actively involved with the statewide 4-H Sport Fishing Program, designed to train teachers in counties across the state to pass on angling skills and ethics to youngsters.

In addition to this work (yes, there is more), Davignon investigates fish kills; provides technical assistance for people with private ponds; assists other department sections with dam repairs, boat ramps, and buoys; helps with law enforcement, search and rescue, and other emergencies when asked; and enrolls and polices waters in the Fishing Impoundments and Stream Habitats (FISH) program, in which private waters are leased for public access.

By now, the afternoon is almost gone. I have a two-hour drive back to Pratt, but for Davignon, the day is still young. He must tear the boat down for cleaning and winter storage, and at 8:30 (yes, p.m.) he will meet a fish truck from Colorado to stock rainbow trout in the Cedar Bluff Stilling Basin.

There's an old saw that claims, "Man must work from sun to sun, but woman's work is never done." No one ever told that to a fisheries biologist.

Once the field work is completed, biologists spend considerable time in the office entering data on computers.

KDWP Fisheries Biologists

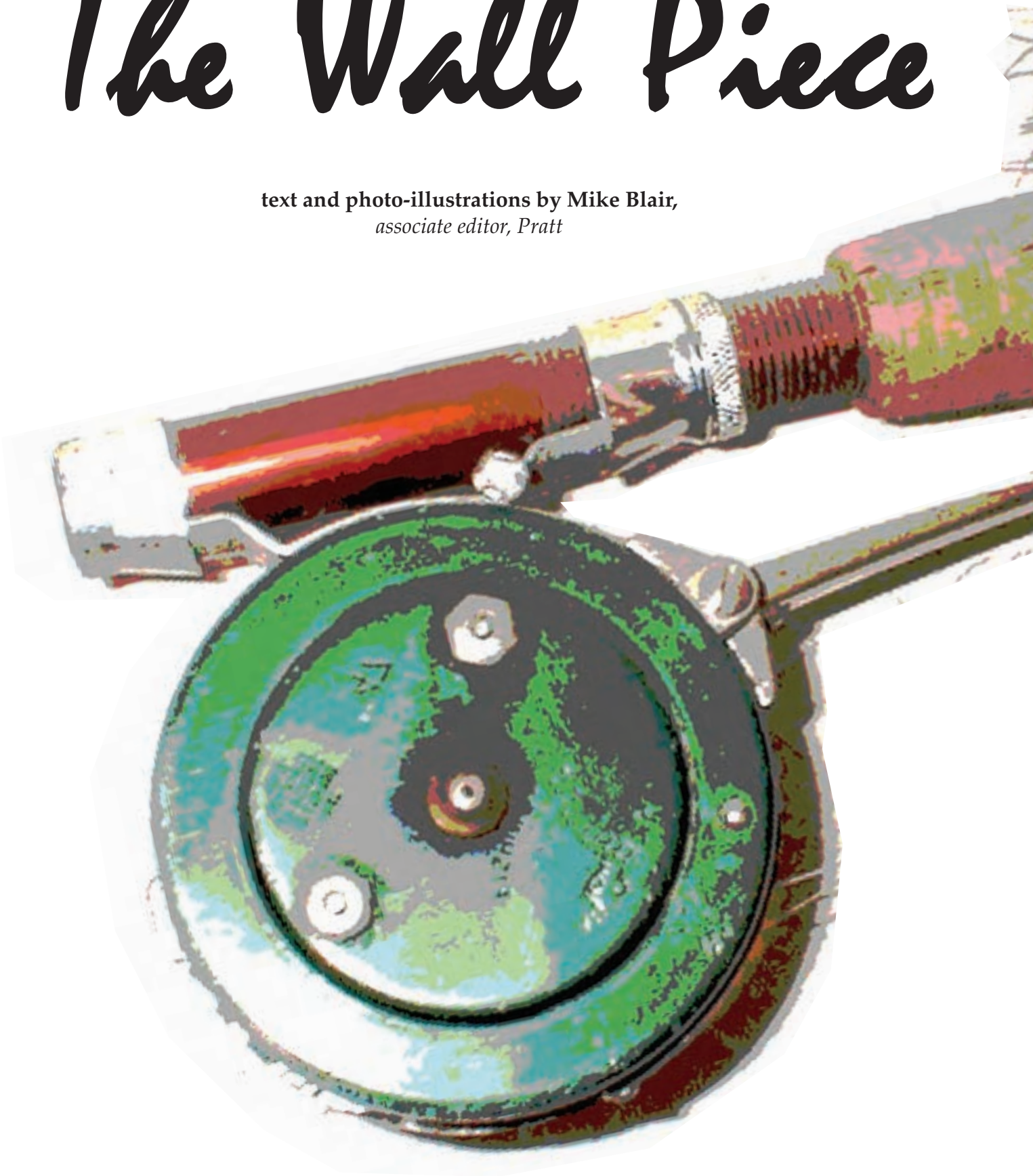
Davignon is one of 30 working fisheries biologists in Kansas — 19 in the field and 11 at the state's four hatcheries. All are dedicated to the resource and the anglers who reap the benefits of their hard work. They manage more than 200 public lakes across the state, in addition to the many other duties mentioned in this article. They also conduct environmental reviews for the agency's Environmental Services Section, as needed.

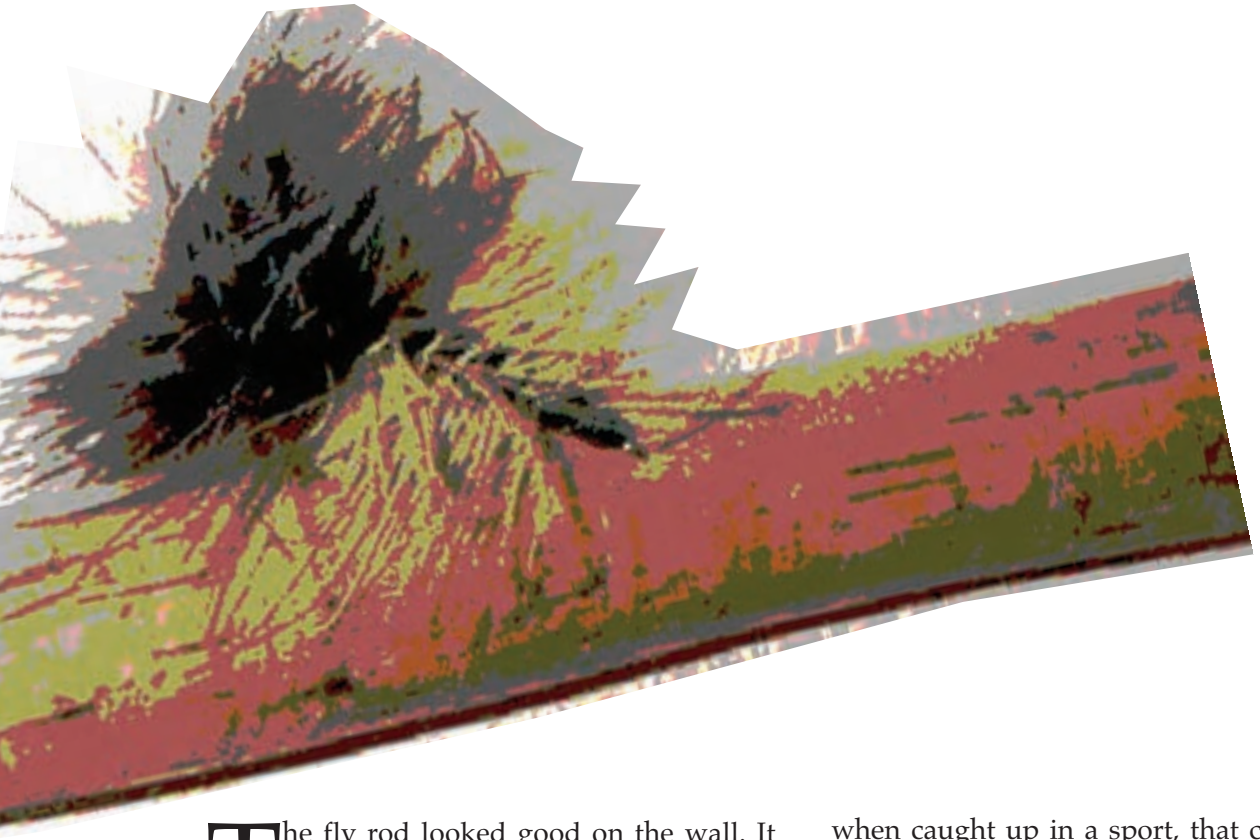
One of the more fascinating new tools fisheries biologists are using is the Fisheries Analysis and Simulation Tools (FAST) software program, developed in conjunction with 20 other states. This program allows the field biologist to use data from the ADAS system and separate age and growth testing to predict what would happen if certain length or creel limits were imposed on a given lake. Tools such as this not only take much of the guesswork out of managing a lake, they allow biologists to spend more time on other projects.

Fisheries biologists are a dedicated bunch. Take time to introduce yourself to one in your area. You'll be guaranteed to learn more about the fish you pursue.

The Wall Piece

text and photo-illustrations by Mike Blair,
associate editor, Pratt





The fly rod looked good on the wall. It wasn't the bamboo I wanted, but then I hadn't been willing to hit the garage and farm sales that might have cheaply netted such a treasure. This was Kansas, where fly rods aren't exactly household items. The odds of finding cane were poor, and besides, there are better ways to spend a weekend than playing hopscotch with the bargaineers. So I passed.

What really belonged was mine already, rediscovered in a dusty basement corner. Too long, I'd forgotten what started it all, the journey from flipping and cranking into the world of cast flies. The trail had inevitably led to higher planes — not to other countries or hemispheres, or even, for that matter, to salt; but certainly to a finer appreciation of the fish I sought and a growing fondness for excellent tools. My current Durascrim rod was a fourth-stage metamorphosis from my first, and its fine graphite had long-since erased all memories of glass. But graphite was too modern for a wall piece, and fiberglass, compared to bamboo's rich traditions, seemed a cheap evolutionary stage. I guess in my search for a rod to display, that's why I overlooked the obvious.

This brings up a point. You've got to be careful, when caught up in a sport, that chase and trappings don't steal the simple pleasures known at the start. That's how it is with fly fishing. You fish and read and talk and dream until suddenly, everything's about what's next: the next purchase, the next trip, the next big fish. Backward glances subside, and earlier milestones are shelved. It shouldn't be this way.

And so, in my plan to adorn the family room with a statement about this wondrous pursuit, three things finally emerged. I hung a largemouth bass, the only fish I've mounted, to remind me of the thrill of the fight. The bass won't make eight pounds, but more than any other, it marked perfection in a fishing experience. I think of the small barbless bugger and light tippet that bested it as a storm brewed over the trophy's flooded glade. Three times the bass cleared water near my float tube, hanging in silver spray. Each jump formed a perfect snapshot in my mind. Everything about the moment promised that there would never be a finer, and I took the fish for that. On the wall, it recalls the best of yesterdays.

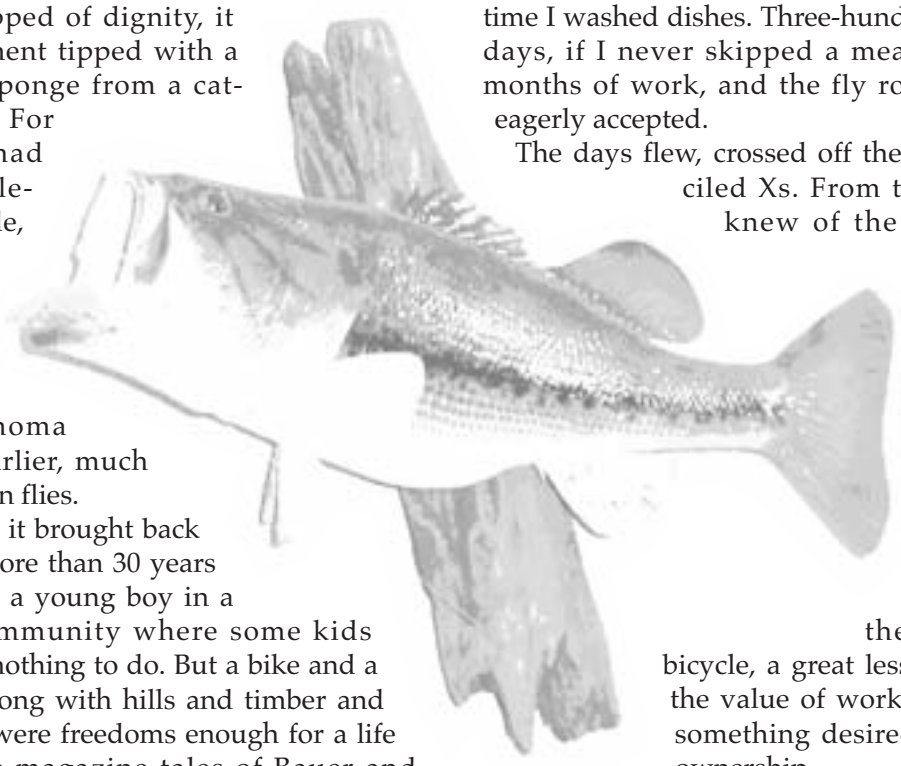
Possessions were meager back then, and most things, I could live without; but the glass fly rod, purchased in youth, wasn't one of them.

I hung beside it a weathered hat, faded and battered by years in the elements. Its band lodges a few grizzled flies. Not trout nymphs, these; all are 0s and twos, bushy creatures to bewitch big fish — stripers and wipers, bass and walleyes. The flies are proven,

rough, and look it for a reason. None are special, simply stuck to the band at odd times for convenience' sake. But along with the hat, they promise stories and invite one into the past. At retirement, the hat's fate was an interesting toss-up: the trash can, or the wall. I drove a nail and let it speak.

So the bass and the hat were appointed. A place remained for a rod. I wanted something special to portray the romance of the sport. Something old and worn. Something that harbored secrets — bamboo. It didn't fall from the sky, so I waited. Then one day it hit me. The rod I needed stood in the corner.

I found the old fiberglass and dusted it off. Stripped of dignity, it sported monofilament tipped with a treble hook and sponge from a catfishing excursion. For years, the rod had served as a doodlesocker and bait pole, until its last official use had been to swing stinkbait beneath roots along an Oklahoma creek bank. But earlier, much earlier, it had thrown flies.



And in my hands, it brought back those times from more than 30 years ago. I was 11 then, a young boy in a small farming community where some kids thought there was nothing to do. But a bike and a Zebco and a .22, along with hills and timber and creeks and ponds, were freedoms enough for a life of adventure. The magazine tales of Bauer and Trueblood kindled dreams and fired a passion for outdoor pursuits. Out of their misty words came dreams of fly fishing.

Mr. Clark owned a sporting goods store, which more importantly had a fishing Wall of Fame. All the old-timers had their pictures there, with big fish or stringers of fish, and knowing looks that put to rest any notions of luck. I stopped often after school to view the photos and talk to the owner, a kindly man who knew all things and was never too busy to talk to a kid. Sometimes I'd buy a lure, but mostly we'd talk.

There came a day we spoke of fly fishing. He showed me the rod, a True Temper Custom Twelve-Fifty, 8 1/2 feet. It was a thing of beauty, a sure passport to the mountains and trout I'd never seen. A green Martin 47 automatic reel outshined the drab single-actions in the showcase. I handled the rod and reel. Together, the combination felt lethal.

The mind of a boy reeled with possibilities. No one fly fished where I lived. Could it be done? Would Bauer and Trueblood dare? Mr. Clark spoke of hungry bass and crappies and bluegills below the dam. There had to be a way.

But $32! That's what it cost for the rod, reel, line, leader, and a number 6 floating leopard frog. I raced home and told my mom, a frugal woman not given to wasting money. It seemed an enormous sum, especially since I already had spinning gear. But she must have sensed a longing deeper than wish-book lust, and offered a proposition: 10 cents payment for each time I washed dishes. Three-hundred twenty jobs; 107 days, if I never skipped a meal; three-and-a-half months of work, and the fly rod could be mine. I eagerly accepted.

The days flew, crossed off the calendar with penciled Xs. From the start, Mr. Clark knew of the arrangement and promised to hold my rod. Over the weeks in after-school visits, he often patiently assembled the gear and explained its operation. In the course of time, I carried it home in the basket of my bicycle, a great lesson, I now know, in the value of working and waiting for something desired. There was joy in ownership.

Then, alone on a spring afternoon at Sugar Creek Bridge, I fumbled my way through the first casts of fly fishing. The water was high and muddy from spring rains, holding little promise of catching a fish. But the thrill and sound of a waving rod were enough, and I worked until sunset. I was a Kansas fly fisherman and a young one at that. In those moments, I fully understood the meaning of satisfaction.

Graciously, a small bass consummated my efforts in the lingering dusk. The plastic frog drifted around a protruding rock and disappeared in a sudden swirl. The Martin buzzed as it picked up line, and the bass was no match for the fly rod. The fish came to hand as the ultimate reward for months of work. And it was there a new journey began.

A month later. Three creek miles from town at a

leaning mulberry, I dropped a hooked fruit from the high bank and watched as a carp rose like a submarine to inhale the berry. The power of the German was incredible, and in a frantic moment of torn clothes and broken shrubs, I was down the bank and waist deep in water. The fly rod swept double as I battled the fish of my life. After minutes, the exhausted carp turned on its side and slid toward me until my hand was in its gills.

Wet and muddy, I secured the slippery giant in my bike's wire basket and rode 30 minutes to Clark's Sporting Goods. There, my friend weighed the fish at 13 pounds, and took a picture for the Wall of Fame. That was as good as it gets.

Years passed, and I'll admit that spinning and baitcasting vied for attention, largely because they seemed the best means of catching local fish. Whitlock and other fly men had not yet popularized warmwater fly fishing, and bass flies were mostly limited to floating bugs. Spinners and plastic worms were efficient and dependable, and that was that. But the fly rod continued to serve up excitement when topwater fishing was good, and I used it then.

During college years in another state, fly fishing finally won first chair. There were trout nearby, and though they readily hit small spinners or spoons, the fish were most fun when taken on nymphs. Here, I learned the challenge of wet flies and the finer understanding required to use them. Fly fishing forced a study of fish and how they fed. There was no finesse in cranking flashy lures across the current, but there was a game in drifting a dubbed hook to a lie. At the same time, my graduate studies in forest entomology spun off an interest in aquatic insects. That naturally led to fly-tying, from which there is no escape.

Fly fishing became a nightly routine to relieve the stress of research and classes. It was simple and inexpensive therapy. Beside my rural mobile home, a small pond held bluegills modest in size but always willing. Many a pleasant evening passed as the tiny fighters danced against the rod. Sometimes, only 15 minutes were enough to soften a rough day. Possessions were meager back then, and most things, I could live without; but the glass fly rod, purchased in youth, wasn't one of them.

The years flew, bringing jobs and a family. I left trout country and settled to the simple bid of fishing still waters. A little girl came with me now, watching and learning the ways of the sport. Once, knee-deep in a clear pond, we stood together as a huge bass engulfed a tiny popper and fought to exhaustion, only to escape as I reached for its lip. The girl never forgot the arc of the fiberglass and the thrill we shared as the

trophy lay momentarily before us. Now a young woman, she recalls it on occasion against her own experiences as a fly fisher.

The Custom Twelve-Fifty had its day. There were fish on that rod I'll never forget, though most weren't large: eight-inch bluegills on a rising moon; two-pound bass that walked on their tails; 12-inch rainbows, dripping silver; ten-inch crappies, black with passion. And somewhere in all, a boy on a creek who lived the adventures he read and dreamed.

These are memories I wouldn't trade, but somehow set aside as the decades passed. Not anymore. I won't forget now the reason I went on to better gear, pursuing new species, living new experiences until lost altogether to the Far and Fine.

So I hung the fiberglass in the place reserved. It was handsome, really, with its marred green reel on an amber wand. Forget bamboo. It's about beginnings, you know, and memories that must live forever. That's the way it ought to be.

And the fly rod looked good on the wall.

Competitive Bass Fishing In The New Century

text by Tommie Berger
district fisheries biologist, Sylvan Grove

photos by Mike Blair
associate editor, Pratt

Tournament bass fishing is more lucrative than ever. However, non-tournament anglers' attitudes about local tournaments hasn't changed. In response to angler concern, the department studied competitive fishing's effect on bass.

Tournament bass anglers have had it darned good in Kansas for the past six years, riding the wave of the 1993 floods into the new century. They no longer have to go to Texas, Oklahoma, or Missouri to bass fish or participate in quality tournaments. We had the best it could be when the western, drought-stricken irrigation reservoirs filled up, flooding thousands of acres of trees and brush and creating instant bass factories.

In the late 1980s, we were in the grips of a severe drought, and western Kansas reservoirs were at all-time lows, making even irrigation releases impossible. Reservoirs that had water were aging, standing timber was rotting away, shorelines were eroding, water clarity was deteriorating, and bass populations were on the decline. Dedicated bass anglers were traveling hundreds of miles to fish lakes in other states.

What a change we have seen over the course of a few years. Something that many said would never happen, happened: western Kansas lakes refilled, creating rich, fertile conditions. We should be thankful for the good fishing we've had, realize that it won't last forever, and ensure that we learn something in the process.

I am a veteran bass angler and fisheries biologist. I guess I am a veteran fisheries biologist, too. I've seen many changes in bass fishing and bass management in my career. In my younger years, bass fishing was primarily a bank fishing venture. The fancy bass boats of today weren't even a dream then. Most bass angling was done on farm ponds and smaller lakes. Bass clubs and tournaments were nonexistent, although some sportsmen's club might have had a black bass division in their annual fishing derby.

Through the 1960s and 1970s, a new federal reservoir was coming on line every few years. As the new reservoirs filled, habitat was inundated and bass populations flourished. Competitive bass fishing was gaining national attention, and local bass clubs formed in Kansas. I can remember fishing with the charter members of the Blue Valley Bass Club of Manhattan and being a charter member of the Boothill Bass Club in Dodge City. Those were the good ole days.

A research project studied the delayed mortality rates of bass caught and weighed in at fishing tournaments.

As more anglers specialized in largemouth bass, we began to see problems of overharvest with some of our bass populations. Biologists were perhaps the first to realize how important bass are in the management scheme of things and how easily they can be caught. We saw bass populations in some lakes decimated in a few short years. Hence length limits were born. Our agency, as well as those in other states, began to experiment with both slot and minimum length limits in an attempt to protect bass populations from overharvest and to provide trophy bass opportunities. Creek surveys provided evidence showing the general fishing public was more responsible for the decline in our bass populations than were tournament bass anglers.

I wrote an article for the May/June 1982 issue of *Kansas*

Non-tournament anglers and park users are sometimes frustrated with congestion at boat ramps during tournaments. Tournament organizers try to avoid these conflicts whenever possible.

Wildlife entitled "Are Bass Tournaments Bad for Bass?" The tournament bass fishing craze had struck, and there were many who thought tournament fishermen were a threat to the bass resource. The tournament community pointed out that they were a tiny minority of anglers and that they released all the bass they caught. Non-tournament anglers weren't convinced that all the bass released survived. Sound familiar? It's amazing how little attitudes have changed in 20 years. Have we learned anything in those 20 years?

It didn't take long for bass anglers to realize they had to protect their precious bass resource. Most supported the length limits and reduced creel limits, and many practiced catch and release. I worked on a committee for the Blue Valley Bass Club designing a length/weight table for largemouth bass which allowed us to measure each bass, determine its approximate weight from a table, and release it. The club still uses this table or a modification of it, and I still have a copy in my wallet.

Small club tournaments often use length rather than weight. "Paper" tournaments avoid weigh-ins by releasing fish after measuring. Some clubs provide valuable data to fisheries managers.

Bass clubs also recognized the deterioration of bass habitat in our aging lakes and reservoirs. When the habitat was gone, so was the quality bass fishing. Club members have volunteered their time to assist biologists with habitat projects, donating thousands of hours and countless dollars in equipment to enhance bass habitat throughout the state. Many continue assisting with

Mortality of Kansas black bass following eight reservoir tournaments.

	Spring	Summer	Fall
Tournament Fish			
Numbered Weighed	375	403	68
Number Held	159	115	52
Initial Mortality	10 (2.7%)	8 (2.0%)	1 (1.5%)
Delayed Mortality	19 (11.9%)	6 (5.2%)	3 (5.8%)
Control Fish			
Number Held	88	67	50
Delayed Mortality	4 (4.5%)	1 (1.5%)	1 (2.0%)
Total Mortality	*10.1%	5.7%	5.3%

* Total mortallity rate 5/22/99 = 27.5%; average total mortality rate for other two spring tournaments = 1.0%.

The study compared control fish collected the day before tournaments with fish caught and weighed in during tournaments. Fish were kept in cages suspended in the lakes for seven days so that delayed mortality could be monitored.

LARGEMOUTH BASS LENGTH/WEIGHT CONVERSION TABLE

INCHES	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8
12	.84	.87	.90	.93	.96	.99	1.02	1.05
13	1.08	1.11	1.14	1.18	1.22	1.26	1.30	1.34
14	1.38	1.42	1.46	1.50	1.54	1.58	1.63	1.67
15	1.72	1.78	1.84	1.90	1.96	2.02	2.08	2.14
16	2.21	2.27	2.33	2.39	2.45	2.51	2.57	2.63
17	2.70	2.78	2.86	2.94	3.02	3.10	3.18	3.26
18	3.34	3.41	3.48	3.56	3.64	3.72	3.80	3.88
19	3.96	4.07	4.18	4.29	4.40	4.52	4.64	4.76
20	4.88	4.99	5.10	5.21	5.32	5.44	5.56	5.68
21	5.80	5.92	6.04	6.15	6.27	6.39	6.51	6.63
22	6.75	6.88	7.01	7.14	7.27	7.40	7.53	7.66
23	7.80	7.96	8.12	8.28	8.45	8.62	8.79	8.96
24	9.14	9.32	9.50	9.68	9.86	10.04	10.23	10.42
25	10.60	10.80	11.00	11.20	11.40	11.60	11.80	12.00
26	12.20							

POUNDS

habitat projects today.

Lets look at the bass situation now. As mentioned, bass fishermen have been riding the wave of the 1993 floods, and there has been a lot going on with bass tournaments. Although many bass mortality studies were done in the early years of bass tournaments, the information was somewhat contradictory and not taken seriously. The main emphasis on protecting bass during tournaments focused on boat design, livewell size and aeration, chemicals to protect bass in livewells, and to some extent minimal handling of fish during weigh-ins. Even though some of the studies showed some bass mortality during tournaments, there was concern about delayed mortality. That concern was renewed after a number of large bass turned belly-up hours after tournament weigh-in at Cedar Bluff several years ago.

Organizers of larger tournaments feel it is important to the anglers and to the public to see the fish weighed in front of a crowd. Many tournament organizers feel that weigh-ins where all fish are weighed on the same scale under the same conditions keep tournaments fair and discourage cheating. Many large bass events like the Bassmaster's tournaments are televised and draw huge crowds at their weigh-in events. Bass fishing can be big business.

District fisheries biologist Lynn Davignon began a tournament monitoring study on Cedar Bluff in 1999. Cedar Bluff was hosting numerous tournaments and Davignon, an avid bass angler himself, wanted to look at tournament mortality of bass during all seasons. He set up a project to assess instant and delayed

SMALLMOUTH BASS LENGTH/WEIGHT CONVERSION TABLE

INCHES	0	1/8	1/4	3/8	1/2	5/8	3/4	7/8
12	.76	.79	.82	.85	.88	.91	.94	.97
13	1.00	1.03	1.06	1.09	1.12	1.15	1.18	1.21
14	1.24	1.27	1.31	1.36	1.40	1.43	1.46	1.49
15	1.53	1.57	1.61	1.65	1.69	1.74	1.78	1.83
16	1.88	1.94	1.98	2.03	2.08	2.13	2.18	2.24
17	2.30	2.36	2.42	2.48	2.54	2.60	2.67	2.73
18	2.80	2.86	2.92	2.98	3.04	3.10	3.16	3.22
19	3.28	3.35	3.42	3.49	3.57	3.65	3.73	3.81
20	3.90	3.98	4.06	4.14	4.22	4.30	4.38	4.46
21	4.54	4.72	4.80	4.88	4.96	5.04	5.12	5.20
22	5.29	5.39	5.49	5.59	5.69	5.79	5.89	6.00
23	6.11	6.22	6.33	6.44	6.55	6.66	6.77	6.88
24	6.98							

POUNDS

mortality of black bass associated with competitive events held in the spring, summer, and fall of 1999. He intended to utilize the finding to determine whether more restrictive creel limits were needed at Cedar Bluff to manage for a trophy bass population.

Fish caught during tournaments in May, July, and September were held in cages in the lake for seven days. A set of control fish were taken just before tournament by electrofishing and also held in cages. Mortality was studied at three other lakes for a total of eight bass tournaments. Results are shown on the table on Page 18.

Several factors affecting tournament mortality were identified. Obviously weather conditions and angler care of bass held in livewells were important. Available manpower at weigh-ins and equipment (or lack of) used during the weigh-ins were factors. The time bass spend in plastic bags after being taken out of livewells and before they are weighed proved to be an important factor in mortality. Hospital tanks along the weigh-in line and adequate manpower to conduct the weigh-in and handle fish immediately after the weigh-in also reduced mortality.

Several factors were responsible for these low mortality figures. Tournament organizers used information gathered at Cedar Bluff to improve weigh-in techniques. The added scrutiny also caused an information blitz among bass clubs, and tournament organizers stressed proper handling of bass in livewells and at weigh-ins. The increased awareness improved fish handling techniques among bass anglers statewide.

The department has also taken some steps to assist tournament organizers with weigh-ins. At some reservoirs, weigh-in kits are available that contain hospital tanks, tubs to hold bass during the weigh-in, chemicals to treat the fish, and bags to transport fish from the boat to scales. Local fisheries biologists can check out these kits for tournaments and can also provide a checklist of equipment clubs can purchase for conducting their own weigh-ins.

So, while tournament mortality doesn't look too bad, even a mor-

tality rate of 10 percent could be significant on lakes with heavy tournament pressure. I am sure most tournament anglers would like to see mortality rates kept as low as possible, so we all need to work together to make that happen.

Throughout tournament mortality studies, paper tournaments are continually suggested. As I stated earlier, we started using measurements for club tournaments back in the 1970s, and many clubs use paper tournaments today. Anglers concerned with the long-term health of bass populations in Kansas' reservoirs need to push for paper tournaments, especially during the hot months. And where weigh-ins are conducted, anglers should insist on adequate manpower and equipment at the weigh-in site.

To assist with paper tournaments, we have developed the length/weight tables (included in this article) for all three species of black bass in Kansas. The data was taken from the actual lengths and weights of bass sampled by biologists throughout Kansas over the past few years and represents thousands of fish. There is some variability in the length/weight relationship of bass from one lake to the next and even from spring to fall. But using information from large numbers of fish taken at all times of the year, these figures should be a reasonable average. If everyone uses the same table, then everything should be the same.

The tables are in 1/8- inch increments and are easy to use. Simply lay the bass flat on a measuring board with its mouth closed and up against the end of the board. Hold the fish with one hand and squeeze the lobes of the tail together with the other and read the length to the closest 1/8-inch. Then find the weight that corresponds with that length of fish on the table. Copy these tables directly from the magazine or contact the Pratt or Emporia offices for copies.

Some anglers may be concerned about the cheating on measurements, but in most bass tournaments there are 2 competitors in each boat. In the club tournaments I used to fish, we required that the other competitor watch or verify the measurement. It could be required that the competitor actually measure the fish. Another advantage of paper tournaments is that fish under a length limit can be measured and counted.

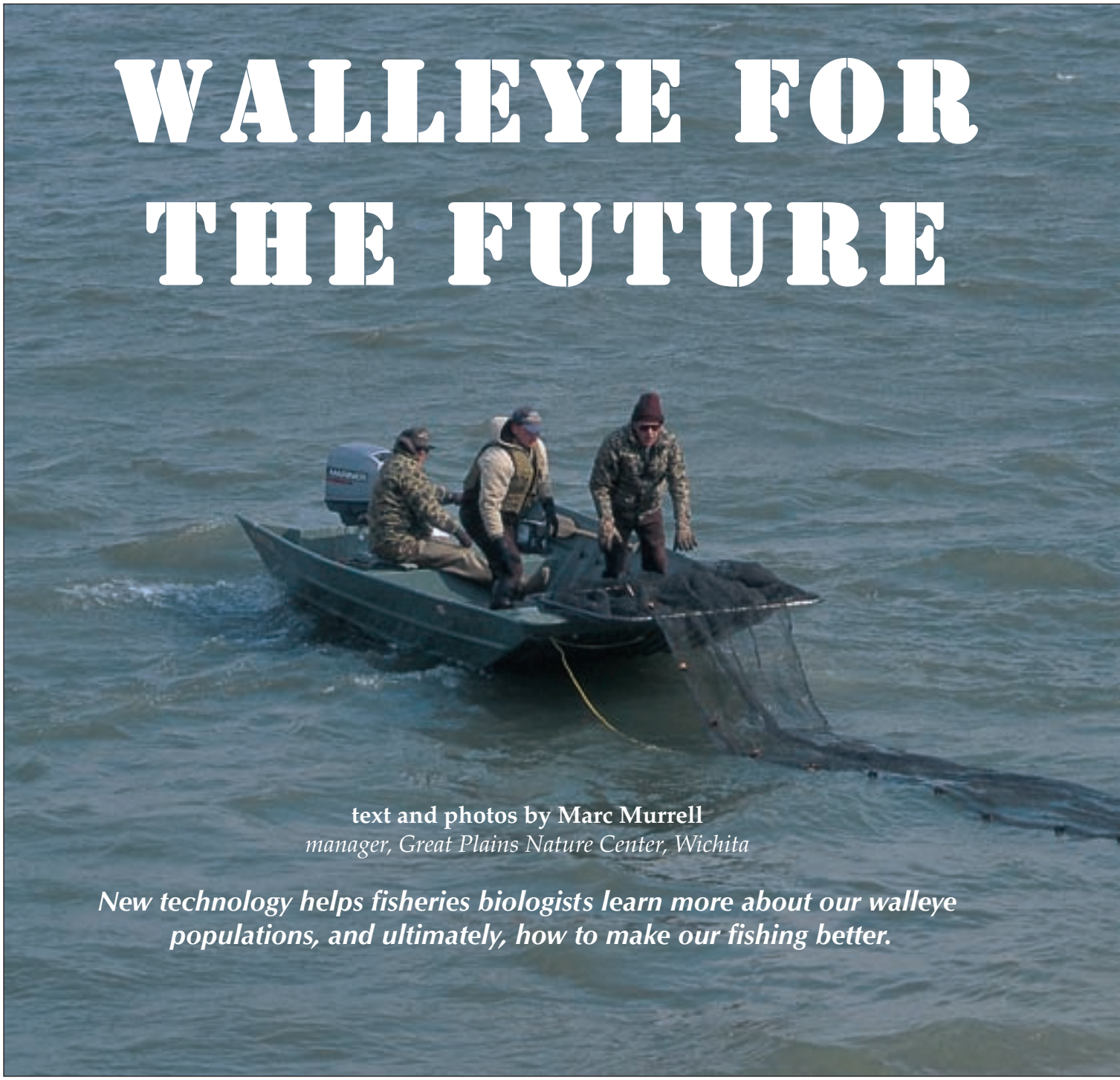
When it gets right down to it, if we trusted each other not to cheat, if big money was not involved, or if our competitive egos weren't quite so large, paper tournaments would be the norm. We have learned a lot in the last 20 years, and we all hope our bass resources will be here at the end of the next 20 years. Let's do the best we can to protect them.

SPOTTED BASS LENGTH/WEIGHT CONVERSION TABLE

INCHES	0	1/8	_	3/8	_	5/8	_	7/8
12	.82	.85	.88	.91	.94	.97	1.01	1.05
13	1.09	1.12	1.15	1.18	1.21	1.24	1.28	1.32
14	1.36	1.40	1.44	1.48	1.52	1.56	1.60	1.64
15	1.68	1.72	1.76	1.81	1.86	1.91	1.96	2.01
16	2.06	2.11	2.16	2.21	2.26	2.31	2.36	2.42
17	2.48	2.54	2.60	2.66	2.72	2.79	2.86	2.93
18	3.00	3.07	3.14	3.21	3.28	3.35	3.42	3.49
19	3.56	3.63	3.70	3.78	3.86	3.94	4.02	4.10
20	4.18	4.27	4.36	4.45	4.54	4.63	4.72	4.81
21	4.90	5.00	5.10	5.20	5.30	5.40	5.50	5.60
22	5.70							

POUNDS

WALLEYE FOR THE FUTURE



text and photos by Marc Murrell
manager, Great Plains Nature Center, Wichita

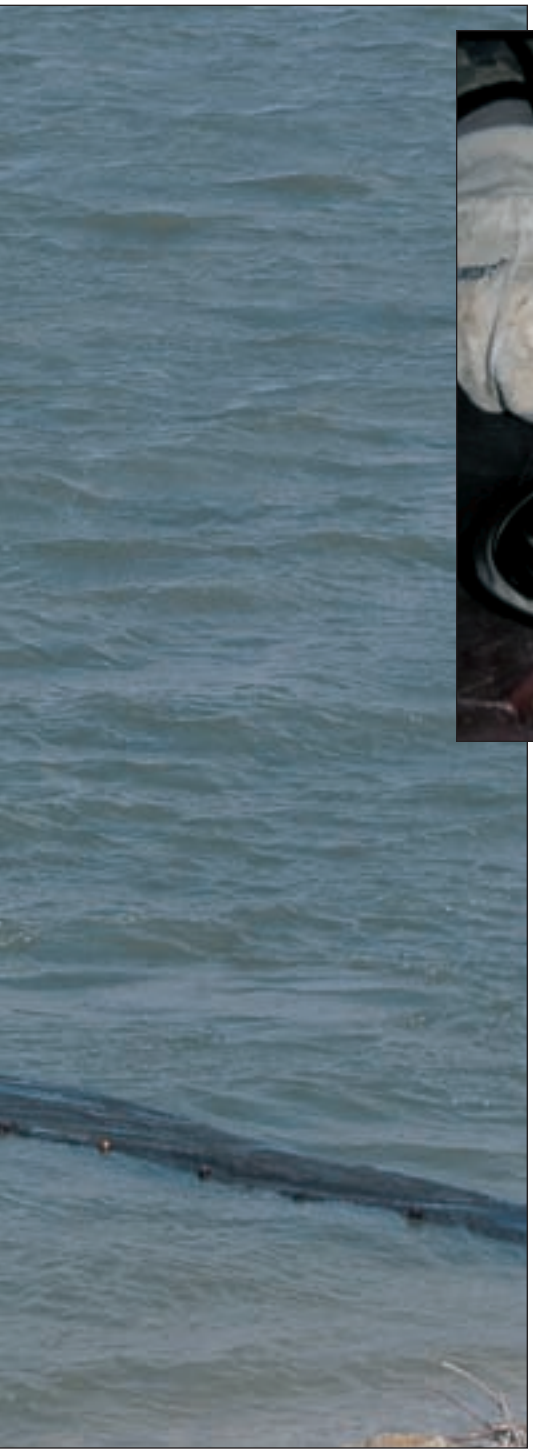
New technology helps fisheries biologists learn more about our walleye populations, and ultimately, how to make our fishing better.

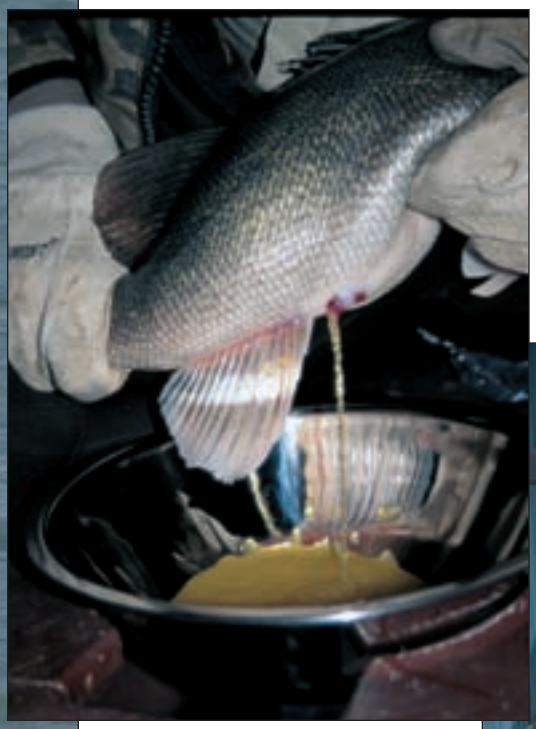
Walleye populations have flourished in many Kansas waters since they were first stocked in Clark County State Fishing Lake in 1949. While populations in some waters never have produced much of a fishery, other areas have produced excellent walleye fishing over the last few decades. So how do we manage this particular species?

"I wish I could say it was having self-sustaining, naturally recruiting (reproducing) walleye, but that doesn't seem to be happening in our state," said Doug Nygren, chief of the Fisheries Section for the Kansas Department of Wildlife and Parks. "We really don't know for sure why we're getting such poor natural reproduction. The bottom line is that our stocking program is absolutely vital to our walleye fisheries in Kansas."

All natural resource agencies use stocking to supplement natural production. While walleye stocking in Kansas has been going on for years, it has recently taken on more importance.

"We started marking fry we stocked with Oxytetracycline (OTC) about three years ago when we





Braving the unpredictable March weather, biologists net walleye. Eggs are taken from the females (left) and mixed with milt from male fish (below). Fertilized eggs are taken to hatcheries at Milford and Pratt where they hatch in about seven days. The resulting walleye may be stocked immediately as fry, kept for several weeks then stocked as intermediates, or stocked in the fall as shorts.

stocked them in the spring," Nygren said.

The fry are placed in a bath of OTC, which is an antibiotic. OTC is absorbed into the bony structures of the fish and can be detected later by examining otoliths (a small bone in fishes' heads). Viewed under a microscope with a blacklight, OTC glows.

"The next fall biologists would sample the lakes and we could check to see how many of the marked fish showed back up in our samples," Nygren said.

The evidence of success was overwhelming. Figures from last year showed that a majority of walleye sampled were a result of fry stockings.

"The results of the OTC markings on fry stockings made up about 50 percent of the year class at Glen Elder Reservoir, 78 percent at Hillsdale Reservoir, 65 percent at Kirwin Reservoir, 66 percent at Lovewell Reservoir, 95 percent at Webster Reservoir and 91 percent at Wilson Reservoir," Nygren stated.

Since it's now apparent that fry stocking works, demand for the little fish from fisheries biologists for their reservoirs and lakes has increased.

"We prioritize the requests and try to put the fish we produce in a lake where they're most likely to result in a good year class for utilization by the public," Nygren said. "Lakes with high flow through, ones that walleye tend to wash out of are going to be a lower priority than others with more stable water conditions."

In addition, some reservoir biologists are hedging their bets by stocking both fry and fingerlings (2-3 inch fish) or intermediates (5-6 inch fish).

"The idea there is, that if the stocking conditions at the time the fry go in are bad, in the past we would have just missed out on the

Biologists have learned that consistent walleye fishing in Kansas can rely on the stocking program. Walleye fry marked before they were stocked made up from 50 percent to 90 percent of that year's young walleye in various reservoirs. Natural production often fails to provide adequate recruitment. Length limits are set not only to provide bigger fish but to allow walleye to remain in the reservoir long enough to spawn. Without length limits, walleye may be harvested before they become sexually mature at four years old.

opportunity to create a year class when we only stocked one or the other," Nygren said. "But by allowing the stocking of bigger fish later in the growing season when conditions might have improved we now have, in essence, doubled our chances to get a year class or a better year class than with just one stocking."

The fish to be stocked don't just appear in the beaks of millions of little fish storks, either. Fisheries biologists coordinate intensive collection efforts with the assistance of other department personnel. Reservoirs are selected for collection efforts based on walleye population estimates. Fish are caught in large nets, then eggs are collected from ripe females and mixed with sperm from males. Most of the donors survive and are returned to the water. A clay suspension is added to remove the natural adhesiveness of the egg mass.

"We move our collection sites around to lakes that have the best adult population," Nygren admits. "But there are a few like Glen Elder, Kirwin, Webster, Melvern, Hillsdale, and Cheney reservoirs that have always been leaders."

The fertilized concoction is then transported to area hatcheries.

"Most of the hatching occurs at the Milford Fish Hatchery, although our Pratt Hatchery does some hatching, too," Nygren said. "Last year we collected over 100 million

walleye eggs which was the best year we've ever had. We probably average 70-80 million eggs but as our OTC marking study has shown just how important stocking is, our stocking requests have gone up. As a result, our efforts to collect walleye have also increased.

"After they're hatched, some of the fish are stocked as fry, and then the rest of them go into rearing ponds at Milford, Pratt and Farlington hatcheries to be raised to fingerlings and intermediates," Nygren said.

While habitat in Kansas reservoirs isn't what anglers think of as ideally suited for walleye, there are several that produce good walleye year classes consistently. These lakes have a mixture of habitat, including shallow mud flats, rocky shorelines, deep water and good water clarity.

"Generally, our good walleye fishing lakes are the ones that don't get the high flow-throughs," Nygren admits. "Lakes like Cheney, El Dorado, Hillsdale, Coffey County, and of course, the western reservoirs and Glen Elder have been perennial good walleye fisheries over the years."

Kansas has a 15-inch statewide minimum length limit on walleye, but some waters have an 18-inch minimum length limit. Recent studies show that a significant portion of the legal-length fish may be harvested in a given year — as much as 60 percent of the legal-length population was removed in one case. This research has caused managers to consider the 18-inch length limit at more lakes. In addition to increasing the size of fish caught, it also has another major advantage.

"It gives those fish a chance to reproduce," Nygren adds. "It takes a female about four years to reach sexual maturity. In some lakes with 15-inch length limits, the females may be harvested before they get a chance to spawn."

The success of walleye in Kansas is evident. Many bass boats have been replaced with deep-sided walleye boats normally at home on northern waters. Fishermen are more species-specific than ever before, and interest in walleye angling has grown. The additional pressure, along with advancements in fishing technology, has increased demand on a renewable resource that must be managed properly in order to ensure its future.

Walleye Stocking 2001

Fry

Top 5 Bodies of Water:	
Cheney Reservoir	9,009,040
Kirwin Reservoir	4,300,000
Clinton Reservoir	3,500,330
Glen Elder Reservoir	3,200,000
Webster Reservoir	3,200,000
Total:	48,050,180

Fingerlings

Top 5 Bodies of Water:	
Cedar Bluff Reservoir	200,952
Milford Reservoir	124,643
El Dorado Reservoir	119,105
Clinton Reservoir	105,000
Hillsdale Reservoir	57,298
Total:	1,1115,08

Intermediates

Top 3 (only) Bodies of Water:	
Melvern Reservoir	25,692
Crawford SFL	756
Overbrook City Lake	502
Total:	26,950

INVASION OF THE WHITE PERCH

text and photos by Marc Murrell
manager, Great Plains Nature Center, Wichita

illustrations by Joseph R. Tomelleri
Kansas City

Non-native white perch have made their way into Cheney and Wilson reservoirs. While the fish resemble white bass in appearance, the similarity ends there. Biologists fear they will have a negative impact on some sportfish.

Introduced species of fish or wildlife often cause problems for native species. More often than not, displacement, competition, or predation by a non-native species proves detrimental to native populations. In the most recent case in Kansas, the invasion of white perch may impact two Kansas fisheries.

White perch were actually discovered in the 1980s in the Browning Oxbow in Doniphan County. These fish apparently originated from stockings in Nebraska. White perch had only be documented in the oxbow and the Missouri River until the 1990s.

"I saw my first one in 1996," said Gordon Schneider, fisheries biologist with the Kansas Department of Wildlife and Parks at Cheney. "We think they were mistakenly mixed in with a stocking of stripers we got from Virginia."

The State of Virginia's hatchery was the initial victim when white perch infiltrated their water supply. Virginia fish culturists had no idea white perch were in their system when they delivered striper fingerlings to Kansas in the early 1990s. As a result, Kansas now has white perch in Wilson and Cheney reservoirs.

"I'd rather not have them," Schneider said directly.

White perch (*Morone americana*) are not members of the perch (Percidae) family like the walleye and yellow perch. Rather, they're closely related to the white bass and striped bass of the temperate or sea

bass family (Percichthyidae).

The native range of the white perch is throughout the Atlantic Slope drainages from the St. Lawrence-Lake Ontario drainage in Quebec, south to the Peedee River in South Carolina. Their westward invasion began back in the 1950s when they moved into the Great Lakes through the Erie and Welland Canals. They've continued to move westward and are now found in all the states surrounding the Great Lakes, as well as Kentucky, Massachusetts, Missouri, New Hampshire, and now Kansas.

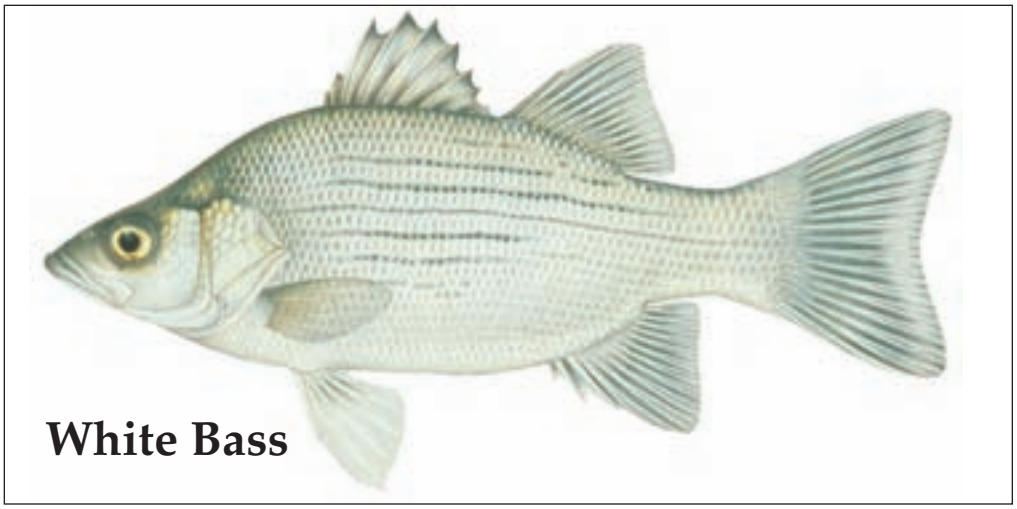
White perch are a highly regarded sport and commercial fish along the east coast, particularly in the Maryland waters of the Chesapeake Bay. Commercial harvest in that area peaked in 1969 when 2.8 million pounds were collected. Since that time, commercial catches have gone down. In recent years the number of white perch harvested by recreational anglers exceeds the total pounds caught by commercial fishermen.

White perch are typically only 6-9 inches long and average 1/2 pound although fish over 2 1/2 pounds have been reported along the coast. They are grayish, silvery green on the sides and white on the belly. While white perch may be mistaken for white bass, they lack dark lines on their side and their spiny and soft dorsal fins are connected.

Populations of white perch that aren't exploited can produce millions of pounds of stunted, small fish. They are prolific competitors and may eat the eggs of walleye, white bass and possibly other species. During the spring, as much as 100 percent of a white perch's diet can consist of fish eggs. In addition, they feed heavily on small minnows and will compete with young sport fish. Due to these potential conflicts with desirable species, biologists don't want white perch.

"Keep 'em," Schneider said when asked what anglers should do with them when they catch them. "They're not bad table fare, better than a white bass but not as good as some other things, and you can catch tons of them with worms."

White perch can also cross with white bass, a hybrid that was first noted in the Great Lakes in the early 1980s. Although hybrids are created



White Bass

- Body deepest just below the dorsal fin
- Six to 10 dark lines hori zontally on sides sides
- When spiny dorsal is pulled up, soft dorsal remains relaxed (not con nected)
- Each of three long anal fin spines are different lengths in ascending order
- Anal fin usually has 11 or 12 soft rays behind the three long spines

White Perch

- Body deepest just ahead of the dorsal fin
- No dark lines or stripes on sides
- When spiny dorsal is pulled up, soft dorsal also rises (connected)
- Second and third anal fin spines are almost exactly the same length
- Anal fin usually has eight or nine soft rays behind the three long spines

Joseph R. Tomelleri illustrations

artificially within this family, namely the fish known to Kansas anglers as the wiper (white bass/striped bass hybrid), this was the first known naturally occurring hybrid in this genus. The fear is that naturally occurring crosses will dilute the gene pool of the parent species.

While a handful of anglers might like their abundance and ease in which they're caught, serious walleye anglers wish they never would have reared their ugly little heads in Kansas. In addition to the concern that they might adversely impact walleye populations, they're a menace on most fishing trips.

"They are a major pain when you're trying to catch walleye with a jig-and-worm," said Doug Duncan, who fishes Cheney Reservoir on a regular basis from April through August. "You can hardly keep a bait in the water without them stealing it. It might be different if they were big and fun to catch, but you can hardly ever hook one, and when you do they're only 6 inches long.

"I wish whoever gave them to us would take them back," he added. "I'd be glad to deliver them, but they might not like where I put them."

Schneider advises anglers to try trolling for walleye if the white perch won't leave your jig-and-worm alone.

"If you troll with a bigger crank bait like a Shad Rap, you won't catch many white perch," Schneider said. "It's not as efficient and you may not catch as many walleye, but you won't be bothered with white perch."

States, such as Nebraska, with white perch populations have tried without success to eradicate the species. Total eradication isn't feasible on large bodies of water, and partial eradication to reduce populations yields poor, short-lived results. In some cases, Nebraska biologists killed entire fish populations in small impoundments to rid them of white perch and other undesirable species. And they've even enacted regulations that make it illegal to transport any live white perch away from the body of water in which it was taken to prevent their spread.

Unfortunately, we're stuck with them, too. Officials strongly advise anglers not to transport fish in bait buckets or livewells and release them in other bodies of water. Never use bait fish caught from a lake with white perch in another body of water. Unused bait should never be released into the lake.

"I really wish they weren't here," Schneider concluded. "They do provide a little bit of forage, but I'd rather that be gizzard shad instead of white perch. I don't think the rest of the problems they bring with them are worth that little bit of food."

Kansas Department of Wildlife and Parks

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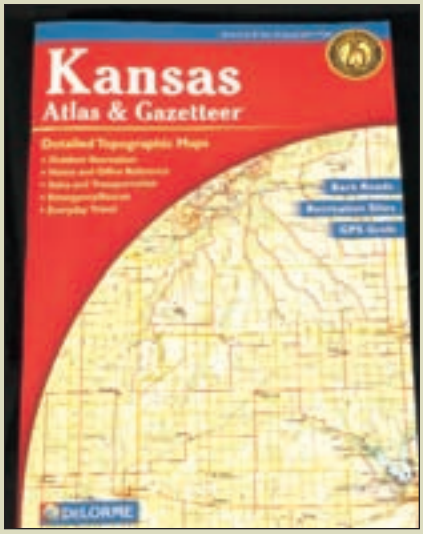

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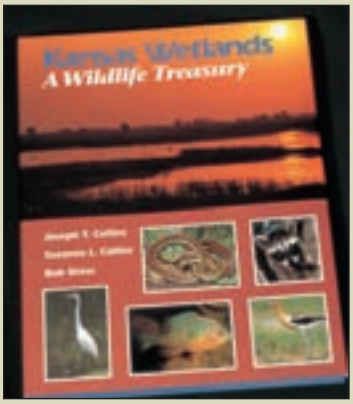

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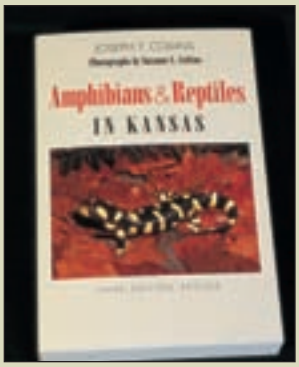

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SPECIAL HUNTS

The* Kansas Special Hunts *pamphlet will be available later in May. The publication will help hunters select and apply for limited special hunts all across the state. Lucky hunters who are drawn for hunts are assured of an uncrowded, quality hunting experience.

Each year, the department provides special hunting opportunities on various public lands. The hunts range from archery deer hunting within state park boundaries to goose hunting from pit blinds. Special hunts limit the number of hunters and hunting pressure on a particular area by drawing names from a pool of applicants. Most of the hunts are organized locally from the nearest department office.

As part of the department's hunter recruitment and retention program, "Pass It On," special hunts provide participants with quality opportunities. Some are limited to youth hunters, while others are open to all age groups. Persons with disabilities can also find great hunting opportunities through the Special Hunts Program.

Why special hunts? Basically, special hunts are designed to provide quality hunting opportunities. Not everyone has exclusive access to private land, and many avoid public land because they fear competition and crowds. Special hunts provide those hunters with a chance to hunt an area that has received little hunting pressure and be assured there will be no competition from other hunters.

Special hunts also provide managers a way to allow hunting on areas that can't support open public hunting. And special hunts spread out hunting pressure, providing quality hunting throughout the season.

How do you get selected for a special hunt? Pick up one of the Special Hunts pamphlets. The booklet includes information on a variety of special hunts across the state, along with application forms. The pamphlet will be available sometime in May. Applications will be due by mid-July. Call your nearest Wildlife and Parks office for a Special Hunts pamphlet.

Edited by Mark Shoup

LOVE THE WEB

Editor:

You folks do a fantastic job of posting fishing info on your website. Especially with the list of state and community lakes. I have printed several of the pages and made myself a book of lakes, which includes directions, lake size, and types of fish. I just can't tell you how impressed I am with your work. Thank you very much.

Chazz Polston
Haysville

LEAVE THE DITCHES

Editor:

We all know money is short, and we, as hunters and fishermen and women, need help in assisting our wildlife. What I am suggesting is for the Department of Wildlife and Parks to get together with the Department of Transportation and figure out a way to mow the highways of Kansas without stripping the roads of all grasses and brush.

Our quail and pheasant numbers are down due to less habitat and lack of money for conservation. If we did not mow more that one tractor strip on each side of the roadways, we could have a lot of free habitat for bird nesting sites and reduce the huge energy and fuel consumption. This seems a no-brainer because we would not have to raise money to increase bird numbers.

Birds bring in nonresident hunters, and even resident hunters, to assist local areas with their economies.

Just the view of our state highways and roadways – showing the true beauty of Kansas wildflowers, songbirds, and green natural grasses – is better than the sight of bare mowed grass. These thousands of miles of strip corridors would enrich our wildlife habitat enormously and, thus, increase wildlife to numbers they were many years ago.

We need to get some heads together and take steps to increase wildlife habitat without asking for more money, so we Kansans can have a successful increase in wildlife numbers. These strips would also help prevent snow drifting.

Gary Linton
Winfield

Dear Mr. Linton:

Good idea. Some mowing is necessary to keep down brush and trees, but there may be a compromise. I believe that mowing once or twice a year – making sure to avoid nesting seasons – might be one alternative.

–Shoup

PHOTO GEAR

Editor:

I really enjoyed the photo issue. I also really liked the little part, "About the covers." I would like to know though, what kind of films, film speeds, and cameras were used to get those great shots. Also, if you could give me an idea of the films, film speeds, and cameras used in the other pictures that would be great. I do not need a picture by picture, but I am really interested in taking those kinds of photos and what it takes.

I have been using a 35 mm Canon Rebel 2000 with 400 speed film.

Jason O'Toole
Arkansas City

Dear Mr. O'Toole:

Nearly all our pictures are taken on Fujichrome Sensia 100, which is slide film. Slides are the industry standard for separation and reproduction, as well as being the overall least expensive way to shoot, view, and catalog images.

I shoot Nikon gear, with lenses ranging from 15mm through 600mm. I shoot 98 percent on fixed focal length lenses, rather than zooms. Zooms are convenient but, especially in the telephotos, are extremely expensive before they provide the quality and uniform light transmission needed for magazine work. My camera bodies are F5s.

For exposure, I choose the slowest shutter speed that allows a crisp image, shooting always from a heavy tripod. To get action shots, my most common exposure in sunlight is f8 @ 1/500th second on 100 speed film. This freezes the action on flying ducks or running deer.

–Blair

DO YOU ACCEPT PHOTOS?

Editor:

I would like to compliment you on the January/February issue of ***Kansas Wildlife and Parks*** magazine. The photos were great to say the least. I was wondering if there would be a chance to let amateur photographers send in work that they have done to have it published in this issue also. Maybe you could put together a calendar made up of the better pictures that could be sold by Wildlife and Parks. Just a thought. Let me know what you think.

Bob Skillin
Blue Rapids

Dear Mr. Skillin:

Typically, the photo issue is made up of some of our best "spillover" pictures taken each year that do not find a home among scheduled stories. As such, we usually have a solid backlog of material. KDWP does not have a budget to buy outside photos, so we rarely publish them unless used with a specific story submitted by the photographer. At present, we have no plans to publish a calendar due to fiscal considerations. However, we'll keep your suggestion in mind for the future.

–Blair

WHY LATE DOE SEASON?

Editor:

I am a young hunter, and I was wondering why there is a late doe season in Kansas. Last year, the people shot the biggest does. When they walked up on it, it turned out to be a buck that had already shed its antlers. Most of the deer that were killed in the late doe season were bucks that had already lost their antlers. Isn't the point of the late doe season to get rid of some of the does, not bucks? So why don't they make the season right after rifle season when most deer have not lost their

antlers. I think the late doe season should either be shorter or sooner.

I have another question for you. I walked into the locker plant near where I hunt to bring in the doe I shot last deer season. The deer they had were just the ones that they shot the last day, and I saw five bucks probably not even more that two years old. The biggest one was not more that 100 inches, and others were only about 50 inches (spikes), small bucks that had the potential to be big bucks in the future.

Now, I know in other states there are laws that if the bucks are so many inches or so many points, you can't shoot them. Why isn't there a law like that in Kansas? I just don't want people to look up on Kansas as a state that has little deer because my dad is an outfitter in Kansas.

I was also wondering why last deer season, I never saw as many deer as I did the year before. I hunted all day Wednesday and Thursday and every day after school and on the weekends. I was outdoors during deer season this year twice as much as I was last year, and I didn't see nearly as many deer. Why is that?

Cody Thurston
Emporia

Dear Mr. Thurston:

The January doe season was established for several reasons. First, when the doe season was first discussed, many hunters felt that it would take some time for the deer to settle down after the firearms season. Hunter opinion was that by January, deer have calmed down, moving from bedding areas to feeding areas in predictable fashion. To avoid infringing on the archery season and the Christmas holidays, the first part of January appeared to be the best option.

Yes, there are bucks that have dropped their antlers by early January. We have been monitoring locker plants for the last two seasons and have found that fewer than 12 percent of the deer brought in are bucks without antlers. I guess that is an acceptable risk when you consider that if we didn't reduce deer numbers across the state, the Kansas Legislature was more than willing to take over management of our deer population. They nearly did two years ago, suggesting legislation that would have dramatically changed deer hunting in Kansas forever.

Then-Secretary Williams and his staff in Topeka worked tirelessly to educate legislators, who were only hearing from those who felt we had too many deer and that there were too many deer/vehicle accidents. Remember that only about 11 percent of the population in Kansas hunts. The majority who don't hunt were telling politicians that they wanted fewer deer, fewer deer/vehicle accidents, and less deer crop damage. The politicians basically said that if the department couldn't make that happen, they would pass legislation that would.

We assured them that regulated hunting was the best way to control deer numbers and that increasing the doe harvest would have an impact. Fortunately, none of the really damaging deer bills passed, and the department was able to maintain control over deer management.

Unfortunately, for someone like you who wants to see more deer, one of the results of our current management program is that some hunters will see fewer deer. Nearly all of our additional hunting pressure has been aimed at antlerless whitetails. Currently, the age structure of harvested bucks is within our management goals, meaning that 1 1/2 year-old bucks make up a small percentage of our annual harvest. Whether you shoot a young buck or not is up to you, but most hunters in Kansas will wait to harvest an older deer.

Kansas has some of the best whitetail hunting in the country, and the department is doing everything it can to keep it that way.

–Miller

GREAT QUAIL HUNT

Editor:

I just wanted you to know that I spent about 10 days quail hunting in Kansas this year and had a ball! I know that it wasn't the best of years for bird hunters, but it was still pretty awesome. We only found one covey of quail. Found several pheasant. I think if we had looked hard for pheasant, we would have had a pretty fair success rate, but we were really looking for quail.

I was particularly impressed with the Walk-In Hunting Areas. To have access to so much public hunting is a remarkable concept to a person from a state (Tennessee) where deer hunters keep all the good hunting land leased. Even if you're willing to pay the lease price, they don't want quail or rabbit hunters to share their lease.

Shot my very first pheasant this year in Kiowa County. Wonderful. I will be back.

Larry Taylor
Buchanan, Tennessee

Smoke, Drink, Swim, Run

Park Ranger Mike Harris had just arrived at work at noon on July 22, 2001, when he was contacted by gatehouse personnel about a drunken swimmer in the Sunset Ridge Day-Use Area at Milford State Park. When Harris arrived at the beach, a witness described the man and his blue, two-toned S-10 pickup truck with the matching topper. The man was stumbling and had a beer bottle with him, but he had left the area about 15 minutes prior to Ranger Harris' arrival.

Harris drove through the park looking for the subject and spotted a vehicle that matched the description exiting the park and driving erratically. Harris caught up to the vehicle and tried to stop it. The driver refused to stop even though Harris' patrol vehicle was behind him with lights and siren. The pursuit finally ended when a Geary County sheriff's deputy forced the vehicle off the road.

The driver told Harris he didn't see or hear anything behind him. Harris could tell the driver, now identified as Anthony Jordan, had been drinking. Harris asked Mr. Jordan to take some standardized field sobriety tests, all of which he failed. He refused to take a preliminary breath test, saying he knew he would fail. He was arrested for suspicion of DUI. A search of the vehicle yielded more than just the empty beer bottle. Harris also found a bag of marijuana.

Then Jordan's attitude changed. He told Harris he had prior convictions for possession of marijuana and couldn't believe he was going back to prison for just smoking some grass. On the way to jail, Jordan bombarded Harris with complaints, verbal insults, and cursing. He told Harris he hated the badge and everything it stood for. Even after arriving at the jail, Jordan still taunted and swore at Harris, who calmly took the abuse.

Jordan was later convicted of possession of marijuana, driving under the influence, transporting an open container, and refusal of a preliminary breath test. He was sentenced to 12 months in prison, of which he served 90 days. He also served an additional year of probation, lost driving privileges, and was ordered to pay $751.50. Jordan's intentions that day were to go for a swim at the lake, but drug and alcohol abuse and a persistent park ranger got him sunk.

In 2001, Kansas state parks had more than 7.5 million visitors. While most visitors don't infringe upon other visitors' peace or endanger others, there are a few individuals who bring their problems and addictions with them. Last year, rangers in our state parks arrested 342 individuals. These arrests were for crimes such as DUI, narcotics possession, domestic violence, assault, battery, and theft. Park rangers also wrote more than 1,500 citations and/or notices to appear for a variety of other violations within the Kansas state parks system.

Considering the total attendance at Kansas state parks, crime rates are considered low by national and state standards. Park law enforcement officers are there to ensure the safety of all park visitors as well as to protect our natural resources.

—Mike Harris, park ranger, Milford State Park

New Co

There is a new resident in WaKeeney. He is Shane Ziegler, and he is the new conservation officer for Trego and Gove counties. Ziegler grew up in Mankato. After serving in the Air Force, he started college at Fort Hays State University in 1996. From 1996 to 1999, he worked as seasonal help for the Kansas Department of Wildlife and Parks (KDWP) at Webster Reservoir. In 1999, he was hired part-time by the Jewell County Sheriff's Office. Then in May of 2000, he graduated from Fort Hays with a degree in wildlife management and took a full-time job with the Jewell County Sheriff. In the meantime, he also worked part time as a KDWP conservation officer at Lovewell.

In the summer of 2001, he was hired as a full-time conservation officer.

Ziegler's interest in wildlife came from hunting with his dad and brother; however, he doesn't have much time for hunting at the present time but still enjoys it.

—Western County World

WEIRD PHONE CALL

As a state conservation officer, I receive more than 100 phone calls a month on my home Wildlife & Parks phone line. I received a call this past year that has to be classified as the most unusual call in my 15 years of wildlife law enforcement.

It was a weekday evening, and I heard the phone ring in my office. When I answered the phone, a lady stated that she wanted to confess. I asked what she wanted to confess to, and she stated that she fished without a license.

At this point, I was expecting a fellow game warden or friend to get on the line and say, "I got you." The expected prankster never came on the line, and I continued the phone conversation.

The lady went on to say that she had fished without a license and was feeling very guilty. She wanted me to issue her a ticket. I asked how long ago this violation took place, and she stated it was between 1992 and 1996. I advised her that our statue of limitations was two years and that I could not cite her on a violation that was over the 2-year limit.

She then asked if there was anything she could do to make things right. I recommended to her that she purchase a current fishing license and that this money would go toward fisheries. We went on to discuss the fine for fishing without a license, which is around $100 in Saline County, and a resident fishing license is $17.

—Greg Salisbury, conservation officer, Salina

SEBELIUS WATER RIGHTS

Last January, the Almena Irrigation District expressed an interest in pursuing the sale of their water rights for Keith Sebelius Reservoir to the Department of Wildlife and Parks. The department is interested in a water right purchase to ensure the best outdoor recreational opportunities at Keith Sebelius Reservoir. Past low water levels, primarily from irrigation, devastated fishing, boating, camping, and other outdoor recreation opportunities. Recent high inflows changed that picture, and there is significant support to prevent the cycle from repeating itself.

While this action may seem simple on the surface, to merely transfer a water right for an agreed-to price, it is a complicated process that will take considerable time to complete. Other agencies with vested interests and responsibilities for water management will need to resolve many issues and concerns before such a significant change in operation of the reservoir can occur. The final package must be favorable to all parties involved.

In the near future, there will be further discussions with stakeholders in the process to ensure that expectations of all parties in such a transfer are clear, realistic, and desirable. Because Keith Sebelius Reservoir is a federal reservoir authorized by Congress for a specific purpose, there would be federal legislation needed to implement the change. State legislation and appropriations to fund the water right transfer would also be needed.

Similar negotiations in the early 1990s yielded the transfer of water rights at Cedar Bluff Reservoir. Today, that reservoir is full and has a tremendous future for outdoor recreation. Hopefully, in the near future, Keith Sebelius Reservoir will also have realized this potential. This project holds tremendous promise for the regional economy and the quality of life for future generations.

—Bruce Taggert, Region 1 Public Lands supervisor, Hays

BRADY BUYS .30-06

Gun-control advocate Sarah Brady bought her son a powerful rifle for Christmas in 2000 and may have skirted Delaware state background-check requirements, the *New York Daily News* has learned.

Brady reveals in a new memoir that she bought James Brady, Jr., a Remington .30-06, complete with scope and safety lock, at a Lewes, Del., gun shop.

"I can't describe how I felt when I picked up that rifle, loaded it into my little car and drove home," she writes. "It seemed so incredibly strange: Sarah Brady, of all people, packing heat."

Brady became a household name as a crusader for stricter gun-control laws after her husband, James, then the White House press secretary, was seriously wounded in a 1981 assassination attempt on then-President Ronald Reagan.

Brady writes in *A Good Fight* that the unnamed gun shop ran federal Brady Law and Delaware state background checks with great fanfare. The book suggests that she did not have her son checked, as required by Delaware state law.

"When the owner called in the checks, it seemed to me he spoke unnecessarily loudly, repeating and spelling my name over and over on the phone," Brady writes.

Amy Stillwell, a spokeswoman for The Brady Campaign to Prevent Gun Violence, said the federal Brady Law does not require background checks for intra-family gun gifts. Stillwell said she did not know whether her son was checked under the state law. The Delaware Department of Justice says the state does not have an exemption for family gifts.

"Scott is not a convicted felon, and he is not prohibited from owning a gun,"

Wisconsin Wins Doves

A Wisconsin judge has cleared the way for the state to hold its first mourning dove hunting season. The ruling lifts an injunction that was issued after animal rightists sued to stop the inaugural hunt.

Dane County Circuit Court Judge Daniel Moeser based his decision on the argument that the anti hunters were not able to factually support their claims about dove hunting.

"Sportsmen worked hard to get dove hunting in Wisconsin, and we continue to work hard to protect it," said Bud Pidgeon, U.S. Sportsmen's Alliance president. "The people of Wisconsin have spoken; the DNR has spoken, and now the court has spoken."

Animal rightists filed the suit claiming that the Wisconsin DNR illegally established the mourning dove season. They said that the DNR had no authority to regulate doves as a game species. Dane County Circuit Court Judge Daniel Moeser disagreed.

"Although we are thrilled to win this battle, this issue is far from over," said Pidgeon. "We fully expect the anti-hunters to appeal the case. They are committed to banning dove hunting and will continue to try to stop the dove season. It is vital that all Wisconsin sportsmen remain vigilant to protect this and all outdoor pursuits in their state."

Tens of thousands of Wisconsin citizens supported establishing dove hunting at the Conservation Congress hearings in April 2000. The Wisconsin Natural Resources Board performed a thorough scientific review and then approved the setting of a season in May 2000. The issue then went to the legislature, which approved the hunt. This allowed the DNR to set a season within the framework of federal guidelines established by the U.S. Fish and Wildlife Service.

—U.S. Sportsmen's Alliance

PRAIRIE DOG PLAN

The Interstate Black-tailed Prairie Dog Conservation Team is about to release its draft plan to conserve prairie dog habitat across the species' historic range. Led by coordinator Bob Luce, the team has spent many months working with state, federal, tribal, and private entities to develop the proposed plan.

The draft document will establish a 10-year framework for managing prairie dogs in the 11 involved states involved.

The plan will prescribe habitat acreage conservation goals, as well as other fundamental management actions, including inventory and monitoring protocols. A key component of the document is its relationship to individual prairie dog conservation plans for each of the 11 states. The wildlife agencies of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming have established individual working groups to develop those state-level plans. The state plans, in turn, will support the range-wide strategies.

If implemented, say proponents, the plans are expected to ensure long-term management and population viability for the prairie dog and avoid the need to protect it under the federal Endangered Species Act (ESA). Successful implementation should benefit many other sensitive and declining species of the shortgrass prairie ecosystem, such as mountain plover, burrowing owl, ferruginous hawk, and black-footed ferret.

More than 140 species are associated with the prairie dog's ecological niche. Due in large part to this "keystone" status, the U.S. Fish and Wildlife Service was petitioned to list the black-tailed prairie dog under the ESA in 1998.

One of five prairie dog species, the black-tailed variety currently inhabits roughly 1 million acres scattered across 10 states, which equals about 1 percent of its historic range. Ongoing threats to the species' well-being include a disease known as sylvatic plague, and in certain circumstances, poisoning under pest regulations, as well as destruction of shortgrass prairie.

The Wildlife Management Institute plans to make the draft document available for viewing on its website at www.wildlifemgt.org. For additional information on the team or its report, contact Bob Luce at (307) 634-3278 or bobluce@wyoming.com, or Rob Manes at wmimanes@prattusa.com.

—Wildlife Management Institute

Stillwell said. "Scott Brady could walk into a store and buy a gun; he is not a prohibited purchaser."

Delaware Justice Department spokeswoman Lori Sitler said the purchase could be illegal under state law if Brady did not also say who she was buying the gun for and submit his name for a full check.

"You can't purchase a gun for someone else," Sitler said. "That would be a 'straw purchase.' You've got a problem right there."

Gun control opponents were surprised to hear of Brady's foray into their world.

"We hope that it's innocuous and there's been no laws violated," said James Jay Baker, chief lobbyist for the National Rifle Association. "It's obviously interesting that Sarah would be purchasing firearms of any kind for anybody, given her championing of restrictive guns laws for everyone."

—Miami Herald, from an article by Timothy J. Burger, New York Daily News

PETA REVEALED

The following advertisement from Consumerfreedom.com is part of a campaign to expose the People for the Ethical Treatment of Animals's (PETA) anything-goes philosophy in their effort to ban all animal use, from hunting to pets to laboratories. The quotation is from PETA spokesman Bruce Friedrich, who in the same speech also said that he advocated "blowing stuff up" as a "great way to bring about animal liberation." Might PETA be considered for listing as a terrorist organization?

—Shoup

CELEBRITIES FOR YOUTH

For four years, the Waconda Lake Association, KDWP, numerous businesses, and other outdoor enthusiasts in the Glen Elder Reservoir (Waconda Lake) area have donated their time and efforts to encourage youth participation in shooting sports. In January 1998, a special pheasant hunt for youth was organized and, as with many good ideas, the event has grown each year. In 1999, David Segui, first baseman for the Baltimore Orioles, and other professional athletes joined the hunt. A separate hunt for women has now been added, and the event has been named the David Segui Youth, Women, and Celebrity Pheasant Hunt.

The Glen Elder Wildlife Area is familiar territory for Segui. As a boy growing up in Kansas City, Kansas, his father, Diego, brought him and his two brothers to Glen Elder to hunt pheasants each fall. Following in that tradition, Segui and the other celebrities donate their time and resources to introduce young people to hunting.

On Dec. 8 and 9, 2001, 17 young hunters were chosen from applications to hunt with celebrities Saturday morning, and seven women and four girls hunted on Sunday. More than 70 young people and adults attended a free trap shoot at the Cawker City Lakeside Park on Saturday afternoon. Many more attended an evening banquet in Beloit where young people were admitted free and received prizes, sports memorabilia, and autographs from the celebrities.

Each day's hunt began with a hunter's breakfast and a time to get oriented and acquainted. The participants were divided into groups sent out to various parts of Glen Elder State Park and Wildlife Area refuge. Each day, the groups hunted for about two hours. They bagged 29 roosters on Saturday and 15 on Sunday morning.

Celebrity participants have included both active and retired professional athletes, including David Segui (Orioles), Mark Arneson (Cardinals football), Ricky Siglar (Chiefs), Jerry Holloway (Broncos), and Mike Matheny (Cardinals baseball), and FOX Sports Northwest broadcaster Angie Arlati.

The David Segui Youth and Women and Celebrity Pheasant Hunt is designed to recruit new hunters and provide a high-quality hunting experience. Plans are already underway for the 2002 hunt on Nov. 23 – 24. For more information, contact the Glen Elder Area Office, (785)545-3345.

—Mike Nyhoff, public land manager, Glen Elder

Hunter Ed, European Style

My thoughts go back to 1972, taking the hunter education course at the Brownell American Legion Hall. Don Storer, the local math teacher, barber, and hunting/fishing expert, taught the room full of 10- to 15-year-olds the proper care and safety involved with handling firearms.

Being 12 years old, I thought that was tough, but last year, I completed the German course for a hunting license. It involved more than 60 hours of in-class instruction where we learned the rich German traditions and history of hunting. The curriculum more closely resembled a college biology course. It emphasized that "hunting in Germany is not considered a sport, but a matter of public concern." This concern centers on animal and forest management.

The test day lasted eight hours. We had to qualify on a 100-meter roebuck target, a running boar at 50 meters, and then on trap shooting. Failing at any of these tests meant automatic failure of the course. Those who passed all three shooting tests advanced to a 2-hour, 100 question written test, which was divided into 5 sections: hunting, wildlife and forestry, safety, law, and wildlife diseases. The test could cover anything, including English and German names of wildlife and trees, animal habits, German names for animal genders, gestation periods, breeding habits, numbers of teeth, horn growth, antler growth, hunting horn calls, hunting dogs, hunting seasons, and regulations, just to name a few.

Students passing the written test were then given the verbal examination. Students must answer questions directed to them by a panel of experts. Questions directed to students by the panel are designed to ensure that the student is knowledgeable and worthy of obtaining the highly prestigious Germany hunting license. The testing board understands that the rights of hunters can only be protected through common sense and good "waidgerechtigkeit" (the strict ethics code of German hunters). This is of the utmost honor and importance. It is the hunter's duty to uphold the traditions and ethics of hunting, as well as maintain a stock of healthy wildlife in balance with nature.

Having met requirements and the testing process, the jugenjagers (young hunters) are knighted at a bonfire ceremony, called a "jagerschlag," the weekend following the test. Dressed in traditional European hunters' clothing, the students are knighted with a hirshfanger, a small sword that was used for euthanasia of elk in days of old.

The ceremony is done with the background heralding of the Jagdhorn Blester Gruppe, a brass choir of European hunting horns. After a meal of wild game, the hunters are given a jagerbrief (diploma), and from here out, the hunters are on their own to put into practice what they have worked so hard to achieve.

—Brian Herndon, U.S. Defense Department schoolteacher, Germany

CAT RANT

by Mark Shoup

I had to chuckle when I saw the following note pinned on the office break room bulletin board: "FREE!! Two female pregnant cats and one male cat. Need good homes." Now there's a bargain!

Seriously, I have to give this person credit for being one of the great optimists of our time, if not all time. At least he (or she) was honest enough to reveal the delicate medical condition of these two adorable creatures and their co-conspirator. But perhaps the offer should have included a reward, or at least a disclaimer.

"No questions asked," comes to mind.

Before our cat-loving readers come unglued, let me just say that I have nothing personal against cats. Some of my best friends have been cats. I had a Persian for 14 years, and he was a fine companion in my urban-dwelling days. Jaspar was a house cat who acted more like a dog than a cat. He would even fetch.

Currently, we have a neutered male farm cat that is a rat- and mouse-catching machine with an affectionate personality. He loves to crawl on top of our tolerant golden retriever, Teller, as she suns herself and he kneads his claws into the thick fur behind the dog's ears.

But like most of us in the business of promoting wildlife, I see cats – free-ranging cats in particular – as the animal world's Phantom Menace. Beneath that sleek, aloof exterior lurks the heart of Darth Maul, bent on the destruction of all that is good in the natural world. Perhaps this attitude is embedded in some childhood trauma, like when a wild cat and her litter laid siege to my pigeon coop, a battle I'd rather not recount.

Some folks, however, have a more romantic view of cats. Take Ralph Waldo Emerson, for example, who once wrote: "Do you see that kitten chasing so prettily her own tail? If you could look with her eyes, you might see her surrounded with hundreds of figures performing complex dramas, with tragic and comic issues, long conversations, many characters, many ups and downs of fate."

Yes, or perhaps you might see the simple-minded illusion of a mouse trying to hide behind your back. (The cat halts, quizzically wondering, *Where'd it go?!*)

Robertson Davies, another literary giant, also romanticized about cats: "The great charm of cats is their rampant egotism, their devil-may-care attitude toward responsibility, their disinclination to earn an honest dollar." Charming? Sounds like one of our ex-presidents.

But Ernest Hemingway (himself purportedly a great cat lover) summed the true nature of catdom when he coined the saying, "One cat just leads to another."

To understand a wildlife lover's position on this issue – particularly a wildlife manager's position – consider the following, from the Second Biennial Report of the Kansas Forestry, Fish, and Game Commission, published in the 1920s:

"By nature, the cat – any cat – is a killer. He knows naught of conservation. The house canary tastes just as good to him as does a mouse; perhaps better. The robin is also fine eating to Tabby. Perhaps the cat prefers quail to meadow lark, if a cat can reason. He will catch a half-grown chicken if sufficiently hungry. It matters not whether the bird is a fledgling or fully grown, just so he can get his paws upon it.

"Kansas has been making war upon stray cats. An animal dealer at Hutchinson bought 3,000 cats last year. That dealer should have competition in every town in Kansas, and the word 'stray' should be enlarged in meaning to include every cat caught outdoors, for the lounge cat is a stray at night. Sacking cats and dumping them out in the country is a mean trick and a direct and deadly thrust at conservation. Cats must eat, and birds are the available food."

Well, it's safe to assume that this sourpuss just doesn't like cats. This poor unenlightened (although strangely articulate for being unenlightened) man of the 1920s probably never heard any of those cute little sayings about "cats and their humans."

All this is a roundabout way of saying, "Please keep your cat inside." Bird feeders are not meant to be cat cafeterias.

Now I will brace myself. I have a feeling the email I get over this column is going to keep me busier than a cat covering crap on a marble floor.

FREE DAYS

Free Fishing Days, which will be June 1 2. On those two days, Kansans will be able to try out a new sport or get started on the fishing season without having to buy a license. This traditional weekend ushers in National Fishing Week, June 2-10.

The weekend – and the entire week – is geared toward youth, but anyone can participate simply by going fishing or by participating in one of more than 2,000 fishing clinics, tournaments, and other special events scheduled nationwide.

For information on Free Fishing Days or Free Park Entrance Days events in your area, contact the Kansas Department of Wildlife and Parks office nearest you.

–Shoup

SPINAL CORD TOURNAMENT

On July 27-28, the 7th Annual Buddy Bass Tournament will be held at Truman Lake, Mo., to benefit the Spinal Cord Society.

The winner of the bass tournament will receive a Ranger boat, complete with motor, trolling motor, and trailer – a $17,000 value. Second place will receive $2,000, and third will take home $1,000. Cash prizes will be awarded to the top 20 participants, and the winner of a drawing open to all entrants will net a $4,000 Yamaha Beartracker ATV.

The tournament is open to anyone 18 years old or older. (Fishing partners do not have to be 18.) The entry fee is $160 per boat and is due at the Spinal Cord Society headquarters by midnight five days prior to the event.

The auction and barbecue will be Saturday, July 27, at the Warsaw Community Center in downtown Warsaw, Mo.

For more information, phone (913) 451-6253 or email imccoy@prodigy.net.

–Shoup

No More Bird Nests!

Have you ever put new line on your spinning reel only to have it twist and tangle the first cast you make? Most anglers have, and it's frustrating. But if you put line on spinning reels right, the line will not twist.

Here's a respooling recipe from Ronnie Garrison at www.fishing.about.com.

1. Pull old line off reel though line guides until you have enough room on spool for new line.
2. Always leave some line from spool through rod guides and past end of rod to tie new line to.
3. Tie new line to end of old line with two clinch knots.
4. Lay spool of new line of floor so line comes off spool just like it goes on reel spool.
5. Hold line tight with left hand just above reel.
6. Reel line onto reel slowly, making sure it is spooled tightly.
7. Fill spool to within 1/8 inch of spool lip.

Note: Don't fill whole spool; you usually need only about 50 yards of line for most fishing. Save money.

–Shoup

5TH ANNUAL HOFNOD KIDS FISHING DERBY

Event Name: 5th Annual HOFNOD Kids Fishing Derby
Date: 6/8/02
Time(s): 7:30 a.m.-12:00 p.m.
Location: Yates Center Lake – Kids Pond
City: Yates Center
Host Organization: City of Yates Center
Description: Fishing Derby for kids 18 years and under. Trophies will be given in three categories in two age groups, plus prizes for the overall first fish caught and most fish caught. Everyone will receive a sponsor pack and win a door prize. Lunch will be served.
Number of People Expected: 100-500
Contact Phone: (620) 625-2118
Contact Name: Becky Boice
Contact Email: yatescityhall@kscable.com

–waterworkswonder.org

Out With Fescue, In With Tallgrass

In the 1940s, the University of Kentucky released K31 tall fescue for planting. This fescue variety caught on as an option for cattle forage before warm-season grasses begin growth in the spring and after warm-season grasses have become dormant in late fall.

There are an estimated 120-140 million acres of tall fescue in the United States, with most occurring in portions of the Midwest and Southeast. In southeastern Kansas, there are approximately 678,000 acres of tall fescue pastures. Nearly 27 percent of this acreage is in just three counties where tall fescue had been seeded into existing tallgrass prairie pastures.

To provide adequate cattle forage, tall fescue requires annual inputs of nitrogen. The grass develops a dense sod that impedes growth of many native plants that normally would provide structural and functional diversity to the prairie. Toxins produced by symbiotic fungal endophyte cause reproductive problems for voles, mice, and various livestock.

Numbers of northern bobwhite quail and cottontail rabbits have declined in areas of extensive fescue, and the greater prairie chicken is nearly gone from the fescue region of eastern Kansas.

In recent years, farmers and wildlife and range managers have become disenchanted with tall fescue and have started looking for ways to convert fescue back to native tallgrass prairie. The conventional methods have been to treat pastures with herbicides followed by planting with grass-forb seed mixtures or to plow pastures and plant crops before reseeding. Both methods are labor-intensive and costly.

A promising alternative for converting overseeded fescue pastures is to withhold nitrogen fertilization, terminate cattle grazing, and burn the pastures in the spring following the cessation of grazing. Withholding nitrogen and spring burning sets back fescue growth, and cessation of grazing protects the warm-season grasses that are present but suppressed by grazing and competition with fescue.

Three years of trials using this protocol in southeastern Kansas show that species richness and abundance of small mammals increase after fescue conversion. After the first year of grazing cessation, tall fescue increased, but by the third year, it declined. The canopy cover of native prairie plants increased over the three years.

The present goal is to convert additional fescue pastures and monitor those that have been converted to determine the long-term efficacy of this technique. If converted pastures continue to be maintained after cattle grazing has been reintroduced, the protocol describe here will provide a less expensive alternative to the traditional methods of transforming tall fescue to native tallgrass prairie. With time, it is hoped that enough fescue will be converted to provide the basis for re-establishing greater prairie chickens in large areas of eastern Kansas.

—Roger Applegate, statewide small game coordinator, Emporia

MOST DANGEROUS CRITTER?

Q. What creatures pose the greatest danger to humans?

A. Flies pose the greatest threat to humans, and among flies, the mosquito is the most deadly of all. The malarial parasite carried by mosquitos probably kills a million people a year in Africa alone. Over the course of history, more people may have died from malarial protozoa than in all the battles of wars. Mosquitos carry at least 100 different viruses that make at least 300 billion people sick every year.

Q. Do fish sleep?

A. Since fish can't shut their eyes, one might think they don't sleep. Though light may play across a fish's retina, that doesn't mean the creature's brain is paying much attention. Most species of fish take time-out during the day or more often at night to stop moving and rest – sleep. Some float in place. Others lie on the bottom. By dawn, schools usually regroup and resume their synchronized swimming.

Q. What is that on your eyelash?

A. They're mites. *Demodex folliculorum*, a tiny eight-legged relative of the spider, makes its home at the base of our eyelashes. The creatures hatch, defecate, copulate, and die. Sometimes, there are as many as six mites to a lash although we don't notice them. Never much longer than a hair is wide, follicle mites feed by puncturing the cells of our eyelash follicles with two tiny needles, then pump out cellular fluid as needed. Better yet, they love mascara. You can find them yourself. Drop a fresh plucked eyelash on a drop of water, he suggests, and examine its thickened base with a large magnifying glass.

Q. Do beaver eat fish?

A. No. Beavers prefer trees and woody species, such as cottonwood and willow and especially expensive fruit and ornamental trees. They also eat parts of agricultural crops such as corn, milo and soybeans.

—Farmers and Wildlife

HAYDEN CONFIRMED

On Wednesday, March 20, the Kansas Senate confirmed Governor Bill Graves' appointment of J. Michael Hayden as Secretary of the Kansas Department of Wildlife & Parks. Secretary Hayden was hired to head the department on Jan. 2.

As a cabinet-level agency, the 400-employee Department of Wildlife and Parks is administered by a secretary of Wildlife and Parks and is advised by a seven-member Wildlife and Parks Commission. The department's mission is to conserve and enhance the natural resources of Kansas.

Secretary Hayden served as Speaker of Kansas' House of Representatives from 1983 until 1987, and as the 41st Governor of Kansas from 1987 until 1991. Soon thereafter, President Bush appointed him Assistant Secretary of Interior for Fish, Wildlife and Parks. In 1993, he became the president of the American Sportfishing Association, a non-profit trade association working to benefit America's fishing resources and the sportfishing industry.

Secretary Hayden graduated from Kansas State University with a bachelor's degree in wildlife conservation and received a master's degree in biology from Fort Hays State University.

—Mathews

INSTRUCTORS OF THE YEAR

The following are the Kansas Hunter Education Instructor of the Year awards:

Robert Lark, Holyrood, was honored this year as the Kansas Hunter Education Instructor of the Year. He was instrumental in development of a mobile hunter skills trail. He also trains young shooters in proper shotgun shooting, and has donated his time, transportation, and dogs to participate in youth hunts. A firm believer in the department's "Pass It On" Program, Lark routinely allows area youth to share in his hunts or takes them to the local sporting clays range.

For his efforts, Lark was awarded a Ruger Red-Label over-and-under 12 gauge shotgun.

Five other dedicated hunter education instructors were also honored. In Region 1 (northwestern Kansas) Tom Witham, Falun, took home the honors.

Dan Affalter, Lawrence, was the hunter education Instructor of the Year in Region 2 (northeast Kansas).

In Region 3 (southwest Kansas) the Instructor of the Year was Dennis Voelker, Larned.

Fred Crandell, Benton, received the Instructor of the Year Award for Region 4 (southcentral Kansas).

In southeastern Kansas, Roger Wells, Americus, received the Instructor of the Year honor.

All five recipients of the regional Hunter Education Instructor of the Year Award received a new Ruger Deluxe 10-.22 rifle in appreciation of their hard work. The awards were paid for from donations to the department's Wildtrust fund.

—Shoup

Special Hunts Application

Special hunts are part of the Kansas Department of Wildlife and Parks' Hunter Recruitment and Retention Program, called "PASS IT ON." Special hunts offer high-quality hunting opportunities. The majority of hunts provide new opportunities on public areas traditionally closed to hunting. These hunts provide a less-crowded experience, with enhanced harvest opportunities, than normally experienced on public lands.

While providing an excellent opportunity to introduce new hunters to the sport, the hunts have also proven popular with some older hunters who are looking for better quality hunting. Persons with impaired abilities also find that this program offers a chance to participate in hunting.

Interested hunters must fill out an application available in mid-June at Wildlife and Parks regional offices, most state park offices, and most wildlife area offices. The booklet will also be online at the department's website, www.kdwp.state.ks.us. Those who applied last year will be mailed applications. The application deadline will be in mid-July.

For more information, phone (620) 672-5911.

—Shoup

FISHING ESSAY CONTEST

Sharpen your pencils – quickly – and win a trip to the 6th Annual Governor's Fishing Classic. The Governor's Classic is scheduled for May 24 at Coffey County Lake near Burlington. A youth essay contest, open to all Kansas youth up to the age of 16, is being conducted as part of the activities for this year's event. The winner of the essay contest will be honored and recognized by Governor Bill Graves during the Governor's Awards luncheon. This luncheon will be held at 12:30 p.m. at the Coffey County Lake facility.

A certificate, cash award of $100, and plaque will be awarded to the winning essay writer. The Kansas Wildscape Foundation, manager of the Governor's Fishing Classic, will also provide an all expense paid trip for the winner and accompanying adult to the fishing classic.

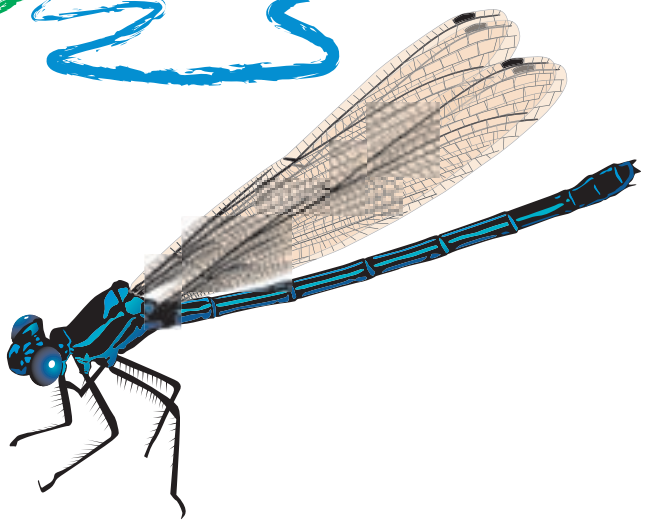
"Why I Like Fishing" is the assigned subject for this year's contest. The essay could cover such subjects as "who taught me to fish;" "how I felt when I caught my first fish;" "what I have learned from fishing that helps me in my daily life," and other similar topics. Essays must be 500 words or less.

Essays must be submitted and in the office of the Kansas Wildscape Foundation, 1 Riverfront Plaza, Suite 123, Lawrence, Kansas 66044, by May 10. Participants may fax their entries to 785-843 6379 or email Kansaswildscape@aol.com.

—Chad Luce, public information officer, Topeka

by Pat Silovsky

Spring and Summer at the Pond

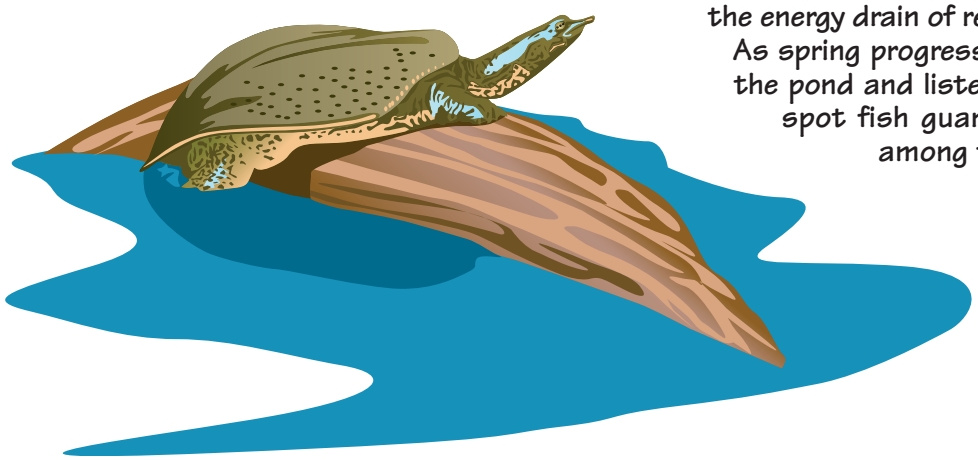


As winter comes to a close, the days start to get longer and daily temperatures rise. Increasing day length (photoperiod) is perhaps the strongest factor in bringing about the rebirth of spring. For some animals, the activity begins as early as February.

As the day gets longer, the pond's water slowly warms from the sun's rays. Activity abounds, and the pond becomes a musical theater as male amphibians and birds call to their mates. Photosynthesis begins again in earnest, and plants begin to grow. Microscopic invertebrates, such as daphnia, hatch from their wintering egg stage. Aquatic insects, including dragonflies, damselflies, whirligig beetles, and water spiders reappear. Their presence means food for other hungry animals. Crayfish, salamanders, garter snakes, and others emerge from burrows. Leopard frogs, bullfrogs, red-eared sliders, and painted turtles dig out from the mud. Crayfish and turtles begin to feed on dead plant and animal material, cleaning up the pond.

Migrating waterfowl and shorebirds return for the summer or just for a brief visit on the way to their summer range. Muskrats and raccoons enjoy the new variety of food the emerging life adds to their diets, including the sunfish that move from the deeper water to the warmer, shallow waters to feed and set territories for breeding.

Spring is the time when many animals mate and have young. With most of their food stores depleted by the winter's end, a warm spring with abundant food is essential for animals to survive the energy drain of reproduction.



As spring progresses, you can walk the shores of the pond and listen to the birds calling while you spot fish guarding their nests, frogs hiding among the aquatic plants, and turtles sunning on logs. Look closely; these animals are well camouflaged in their habitats because they are darker on top and lighter on bottom. The darker top makes it hard for a predator looking down on the animal to see it against the dark pond

bottom. Likewise, a predator looking up through the water cannot easily distinguish an animal with a light underside against the sun.

Even a turtle on a log can be hidden unless you pay close attention. They use the sun's rays to help them digest food. The warmth of the sun speeds digestion for the cold-blooded creatures. You can feel the energy of the sun much like a turtle does by sitting on a bench warmed by the sun, closing your eyes, and turning your face to the sun. Even on a cool spring day, you can feel the sun's warming energy.

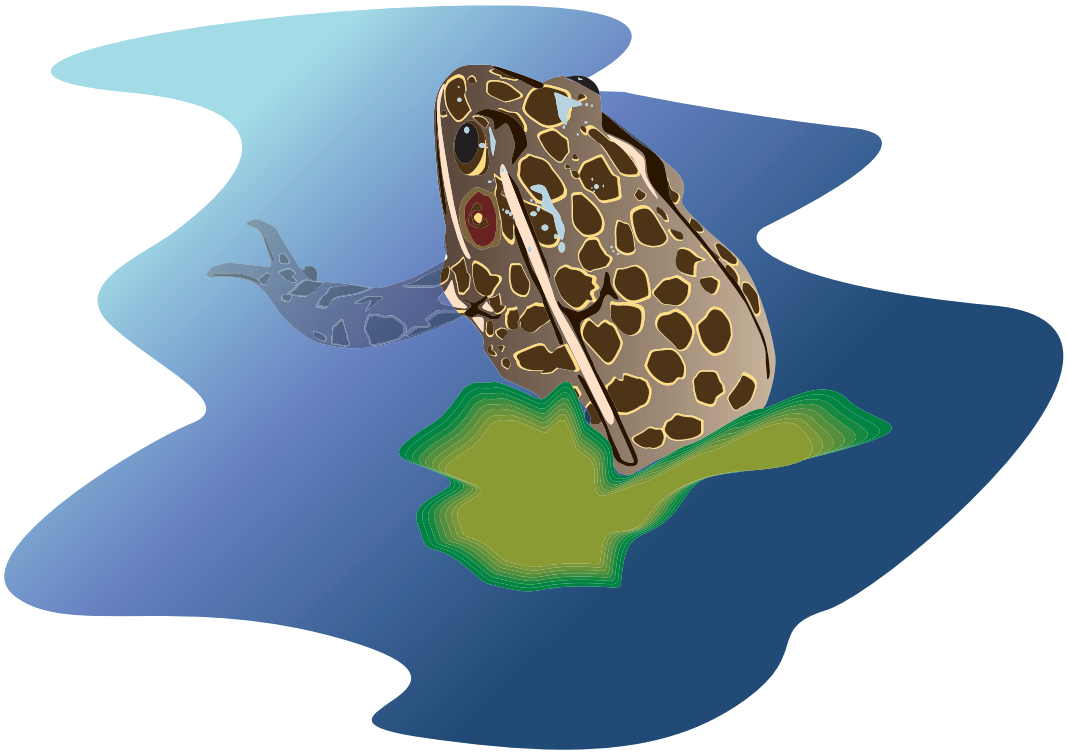
Pick up some algae from the pond and swirl it around in a jar of pond water, remove the algae, and let the water settle. You can see the tiniest of the pond inhabitants that have emerged from their winter sleep: daphnia, rotifers, scuds, planaria, larval dragonflies and damselflies, and others. Some are easy to see with the naked eye; others require close attention to spot their movement. Aquatic invertebrates (animals without backbones) may also be found on rocks or sticks. The pond teems with these tiny creatures, upon which so much other life depends.

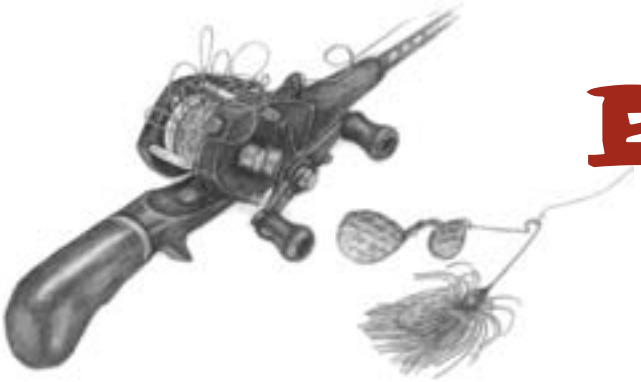
When summer comes to the pond, the busy activities of food gathering and reproduction continue. Frog eggs can be found and birds can be seen on their nests or feeding their young. Goslings, hatched from a nest hidden in the tall grass, can be seen closely guarded from predators by the goose and gander.

Summer can be a very productive time for the plants and animals of the pond, but just as a very cold winter can mean death, so can a summer that is hot and dry. In the pond, drought and oxygen depletion spell disaster. Problems can occur when the sun's rays uniformly warm the pond's water. Warm water holds less oxygen than cool water. A lack of fresh water from little or no rain and uniform warming can lead to an oxygen deficiency in the water.

This can be compounded by two other activities. As aquatic plants can become overgrown, the amount of dead plant material in the water increases. The microbes that help break down the dead plants use more oxygen, depleting the water's oxygen. The result is a stagnant, unproductive pond, and this may trigger a fish kill. Animals able to travel may leave the pond to find fresher waters.

To beat the heat of summer, some animals may enter "estivation," a type of summer hibernation in which body processes slow, requiring less oxygen and energy for survival. Turtles, frogs, and some invertebrates may bury themselves in the cool mud. Many insects with water-dependent larval forms will complete metamorphosis to the adult form. Many other animals will become nocturnal, coming out only at night. This allows animals such as snakes or lizards to hunt in cool twilight conditions.





Backlash

by Mike Miller

Tick Magnet

I'm a tick magnet — not exactly the kind of magnet I dreamed of being. Yep, God's gift to arachnids. Problem is, I hate ticks. Even if they didn't sneak uninvited onto my body and suck my blood, they look too much like spiders to be liked.

But ticks love me. I don't know if it's my odor or sweet disposition, but in the turkey woods, I draw ticks like vultures to dead meat. I've learned to carry the burden. I always spray with repellent, I check my body and clothing carefully after each trip, and I know exactly what a tick crawling on the back of my ear feels like. I know how to remove a tick that's embedded and I've memorized the symptoms of Rocky Mountain Spotted Fever and Lyme Disease.

The only good thing about this attraction is how much fun it makes turkey hunting with Lennie. Not too many springs ago, Lennie took me to his favorite turkey spot on the river. Some years the turkey hunting is good there and some years it's not, but this place is always loaded with ticks.

We set up with our backs against two trees on the edge of an open pasture. Lennie was chirping away on his mouth caller, so I set out my box call and peg and slate. After several series', we listened intently for gobbles. Just that quick, I felt that familiar tickling on the back of my neck. I reached up and pulled a tick off, admired it, then flicked it away. Lennie snorted at me from under his camo face mask. The fun was just starting.

A few seconds later, I spied a tick crawling up my pant leg, looking for bare skin. I gave this one a ride, muttering under my breath. Lennie just glanced at me, but I could tell it was working on him. He started to fidget, then scratched the back of this neck and ran his hand around the inside of his collar. I felt another tick on my ear and went through the same drill. Lennie muttered something I couldn't understand.

I ignored him and scratched out few lonesome yelps on the slate. I noticed Lennie staring intently at his pant leg. Then he took off his hat and ran his hands through his hair, scratching his scalp.

"You see any ticks on me?" he whispers, his eyes wild behind the mesh camo face mask.

"Nope." I say with hardly a glance. "But if you don't hold still, we'll never see a turkey."

"I'm serious. You didn't even look! It feels like they're crawling all over me," he says with panic in his voice.

"Shhh. You'll scare the turkeys," I whisper. "Hold still. Nope, don't see any ticks."

I hit the box call a few licks and the chalky yelps resonated along the riverbottom. Then I felt another tick on my wrist. Making sure Lennie saw, I nonchalantly flicked it away. I didn't look at Lennie, but felt his eyes burning.

"You ready to move?" he asks urgently. "Birds aren't talking here."

"We've only been here 20 minutes," I say. "And I think I heard a faint gobble just a second . . ."

"That was a cow," Lennie says, cutting me off. "Let's set up by the mulberry pond. Usually some birds hanging around there."

Lennie was almost naked by the time we got to the truck, which scared me a lot more than ticks and guaranteed I wouldn't help him look. Hunched over in front of the pickup's side mirror, he scanned his head and ears like he might have some fatal disease. I waited for his panic to subside, leaning against the opposite side of the truck.

"I can't understand it," he said. "I saw you pick a dozen ticks off yourself, and I felt twice that many on me, but I can't find a single one. What's the deal?"

"How long have we been hunting turkeys together?" I ask.

"What are you saying? Lennie says in an offended tone. "Are you saying that this happens every time we hunt turkeys together?"

"Pretty much."

"And are you saying that I should be use to it by now?"

"Pretty much — that's what I'm saying."

"You ain't right," he says. "No human should attract ticks like that."

"It ain't all bad," I say. "Just look how much fun I had this morning. And we didn't see a single turkey."