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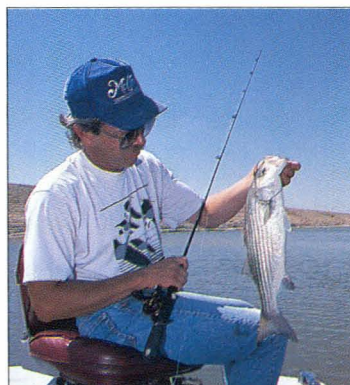
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About the Cover: A great blue heron is frozen just as it flips a crayfish in the air to position it for swallowing. Mike Blair caught the scene with a 600mm lens, f/5.6 @ 1/500 sec.
Back Cover: A windsurfer at Cheney Reservoir catches some air in the ultimate sailing experience. Mike Blair photographed the sailor with a 400mm lens, f/5.6 @ 1/500 sec.

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Loyal To My First Love

When I read Jason Wang's interpretation of windsurfing (Page 9), I admired his passion. I can relate to those feelings through my own outdoor activities. Most of my outdoor interests have been life-long, beginning from curiosity at a young age and growing to consuming preoccupations. But none are as strong nor as satisfying as fishing.

Staff photographer Mike Blair visited Cheney Reservoir on a windy day to photograph the sailboard fanatics. "I got there and the wind was kicking up huge whitecaps, and these guys were mulling around complaining that the wind had just died down," Blair related. "You'd probably like windsurfing," he said to me, grinning. "When you finally learned to control the board and could sail across the waves."

Maybe, I thought, but there is a conflict. I don't think I could enjoy being on the water and not fishing. I've tried before. When I was a boy, our neighbors invited us sailing. Our families sailed around Cedar Bluff Reservoir on a beautiful day. It was pleasant, but I couldn't shake the nagging feeling that I should have been fishing. I spent most of the time inspecting the water along the boat, looking for fish. To make matters worse, I even saw several, swimming just under the surface. It was almost the worst kind of torture: Water, water everywhere, but not a fishing pole in sight.

"It'd be like you sitting in a photo blind without your camera, watching wildlife parade by," I told Blair. He stared past me, mulling my statement and at least feigned agreement.

Since that day of sailing, it's been hard for me to consider spending time on the water without fishing. I've waterskied a couple of times, but I would have rather fished. I might manage on a fishless lake, but that alone is a bothersome thought.

It all started when I was a baby, I think. Mom says my first word was "fish." There was a mysterious attraction to water and fishing, and it's never subsided. I've learned to control it better (my wife might not agree), but it's always there. I can remember, as a young boy, convincing Dad there might be trout in a little brook along a Colorado picnic area. Maybe I didn't convince him there were trout, but I did persuade (I begged) him to let me fish. I didn't catch anything, but my passion was appeased for the time.

When I was 6 years old, Grandad and Grandma took me fishing. I remember wondering why Grandad was so worried about me along that river. He constantly pulled



Dana Estes illustration

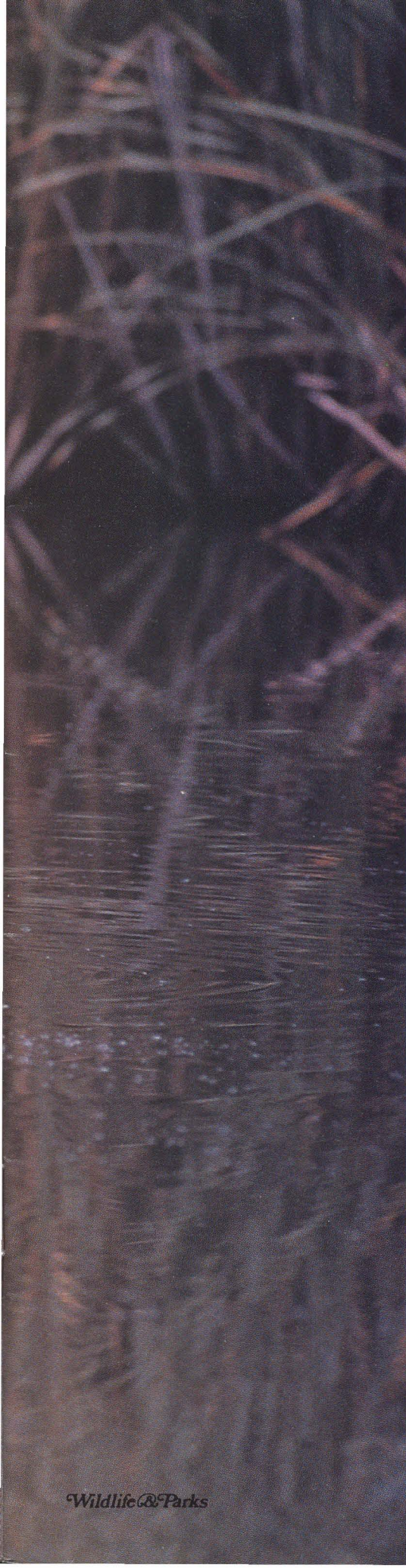
me back. I had no fear of the water—only fascination, knowing there were trout in the clear water that rushed by only feet away.

Instead of maturing and growing out of the fishing phase, the attraction grew stronger through the years. I think my happiest summer was the year we moved to Greensburg. Having previously lived in a large Illinois city, being able to ride my bike to a fishing lake in this small Kansas town was like waking up to Christmas every day. I dragged my cousin along to the state fishing lake every morning. We caught mostly bluegill and bullheads, and I was as near paradise as I've ever been.

The passion to fish is as strong today as it was when I was six. So, while I can understand the sailboarders' love, I'll respectfully decline any invitations to try. It just wouldn't be right to enjoy myself on the water while ignoring my first passion in life. And besides, as I've accepted more responsibilities, time fishing has become even more valuable. I think being on the water without a fishing pole would be more painful today than it was 20 years ago.

Mike Mill





Blue Shadow In The Shallows

by Mark Shoup
associate editor

photos by Mike Blair

Perhaps the avian version of the Terminator, the great blue heron can easily be seen in ponds, streams, lakes and wetlands across Kansas as it hunts for prey.

Four feet tall, 7-foot wingspan, and foot-long spear-head beak—the great blue heron (*Ardea herodias*) is a formidable bird. It can stand stock still for hours, as if welded in place, then strike like lightning—a fact not lost on other creatures, both large and small, that occupy the same habitat as the largest of all herons.

Our agency videographer, Gene Brehm, was filming geese on a Pratt hatchery pond last spring when he witnessed an event that illustrates this fact. He describes an encounter between a great blue heron and one large male Canada goose. A goose nesting structure in the pond had attracted a pair of Canada geese to set up housekeeping there. A great blue heron was standing at the edge of the pond, and the geese were on the opposite bank. The gander took exception to this intrusion:

“In their minds, this pond was their territory,” Gene recalls. “That gander began to posture and strut and honk, generally raising a fuss. Finally, he half flew, half paddled across the pond, flapping and very vocal, repeatedly honking. About 30 feet from the heron, the gander realized that maybe he’d made a mistake because the heron hadn’t budged, so he veered and landed a short distance away.”

Gene cocks his head in his best motionless heron pose. “The heron looked down at that gander like, ‘You want a piece of me?’ and the gander immediately began to stretch and preen. It was like, ‘Ho-hum. Just getting a little exercise.’ That goose wanted nothing to with that heron.”

Indeed, to watch a great blue heron at work is like watching an avian version of the Terminator. Each movement is deliberate, each

pause absolute. They can spear a fish or a crayfish with blinding speed, but the motion ends almost as quickly as it begins. The only time I have ever seen one truly animated was when I caught it on a setline in the Arkansas River.

Apparently, the heron had thought the sunfish on my hook would be easy prey. Freeing the bird definitely did not appear easy, especially with my rambunctious golden retriever, Penny, chomping at the bit to get to the panicked bird.

I stopped Penny, and my other fishing companion, 9-year-old Stafford Redding, held her several yards from the angular, thrashing catch. I can only describe what happened next as pure luck.

As I approached the setline, the heron stopped thrashing and just backed away, extending its neck and pulling the line tight. Slowly, deliberately (perhaps naively) I walked up to the bird until I was in striking distance. The heron was still pulling hard against the line, which was to my advantage. I simply grabbed the bird's beak as quickly as I could and held tight. As I pulled at the hook in the corner of its mouth with my free hand, I realized how much damage the bird could do. Its head was all beak, a javelin point on the end of a spring-steel cord. But its only struggle was a steady pull away from me, and I was able to cut the hook cleanly from the corner of its mouth.

When I let go, the bird beat a squawking retreat downstream with Penny, who had broken free of her young handler, hot on its tail. Fortunately, the heron did not give her the opportunity to test what the Canada goose had thought better of.

In fact, there are many strange stories about great blue herons. They've been known to die from eating fish too big. In a display of abject hunger or stupidity, they have even been observed pounding on ice at fish swimming safely beneath frozen ponds. At least one report has an irate great blue heron driving its bill through a canoeist's wooden oar.

If the great blue heron occasionally seems foolish or cantankerous, only in flight or song does it seem awkward. With slow, wide wing beats and neck cocked back (as opposed to cranes, which fly with necks ex-



Largest of dark-colored herons, the great blue strikes a solitary pose with steel-gray feathers and white breast plumes. Common in freshwater and salt, the blue heron can be seen throughout Kansas.

tended), it labors to reach the tops of trees where it often builds stick nests. Its guttural squawk would hardly endear it to songbird lovers.

It is, however, a magnificent looking bird. Combined with its unusual size, its steel-gray plumage, black cap and white cheeks make a striking figure in ponds, marshes and streams. The fact that they are usually alone makes their presence even more dramatic.

Adaptability and longevity are perhaps the bird's greatest natural attributes. They nest from southeast Alaska to Mexico and the West Indies, and they can live 20 years in the wild. They can be found virtually anywhere there is water—fresh or salt. The great white heron of Florida and the Gulf Coast area, once

thought to be a separate species, is now considered a color phase of the great blue, and they interbreed where their ranges overlap.

The great blue heron's taste is anything but squeamish: it will eat any kind of fish, as well as frogs, salamanders, snakes, crayfish, aquatic insects, grasshoppers, mice, rats and pocket gophers.

In addition to nesting in the tops of tall trees sometimes 80-100 feet high, great blue herons nest on the ground, on rock cliffs or in shrubs. In Kansas, they lay three to seven pale-green eggs from March through May.

Although this bird is known by names such as blue crane, gray crane, long John and Treganza's heron, derogatory names such as big



Stalking through the shallows with deliberate moves and pauses, the blue heron can spear a fish or other aquatic creatures with blinding speed. Nests are often built high in trees or cliffs. Three to seven pale-green eggs are laid sometime between March and May.

cranky and poor Joe reflect a disregard for the great blue heron. I grew up hearing it referred to as “shitepoke.” I don’t know this word’s origin, but the way I heard it used did nothing to elevate the bird’s stature.

In fact, many people are downright antagonistic toward the great blue heron. Fishermen are particularly ornery about them. One of the reasons is that they eat fish, but, like most predators, their toll on game species is minor. The real reason for animosity toward the heron is another critter—the yellow grub. The yellow grub is a flatworm parasite that, in an intermediate stage, penetrates fish tissue and forms cysts. The great blue heron is one of several predatory birds—including kingfishers and mergansers—that help spread yellow grubs.

Here’s how it works:

It’s a case of “Which came first,



Gene Brehm photo

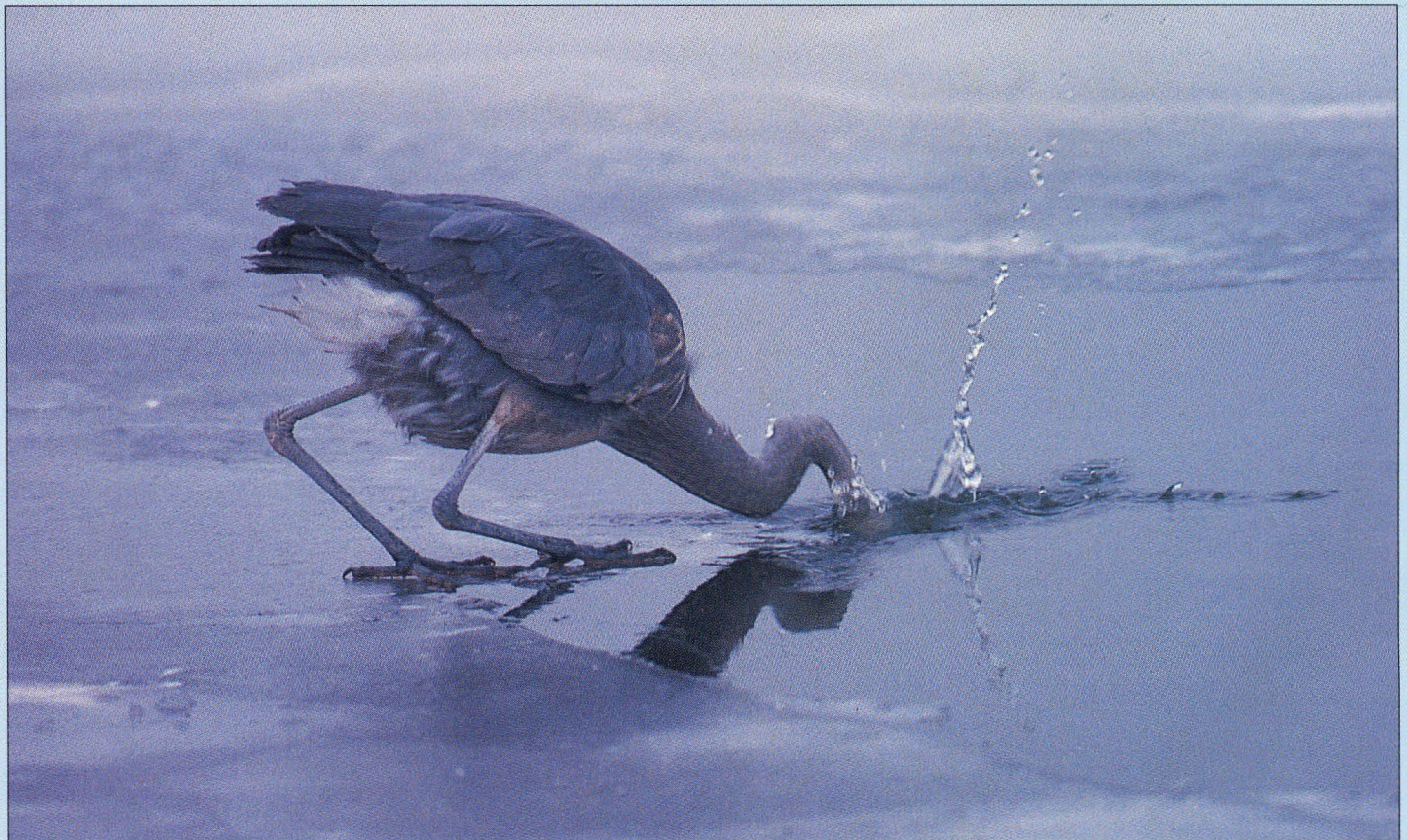


Great blue herons have been known to eat fish too large and choke to death, but, as seen here, quite large fish can be easily swallowed whole. This heron was taking advantage of a fish kill, cleaning up dead carp.

the chicken or the egg?" But let's start with the "chicken"—in this case, the adult flatworm. The adult matures in the digestive tract of the heron (or other fishing bird) after the bird has eaten an infested fish. The worm deposits eggs in the bird, which are then deposited in the water where they float freely until hatching. Once hatched, the larvae (at this stage called miracidium) must find a host snail. Once inside the snail, the larvae go through three different stages before escaping the snail in yet another free-floating form, called cercaria. The cercaria then attach themselves to the skin or scales of fish—usually catfish, but sometimes on bass, sunfish and even crappie.

Once embedded in the fish's skin or flesh, the larvae change to another form, called metacercaria, and form the cysts that so aggravate anglers. When a fishing bird consumes an infected fish, the cycle starts over.

The presence of yellow grubs in fish flesh has led many anglers to curse the great blue heron. Once, in



Great blue herons do migrate south in winter, however, some individuals may stay in Kansas year-round. This winter resident takes advantage of ice to do a little ice fishing. Herons have been seen pounding their beaks on ice at fish swimming below.

a philosophical debate with a friend of mine who owns a bass pond, I was espousing the value of all creatures when the conversation turned to great blue herons. "What about them," he retorted. "They spread grubs. That's all they're good for, isn't it? What else are they good for?"

He wanted an immediate, practical response to the problem of grubs. Unfortunately, I was unable to supply a quick and easy answer. If you are a fisherman, you love fish and hate to see anything disfigure them. However, to blame the great blue heron—or any other fishing bird—for the spread of grubs is not entirely fair. Each host is equally important in the grub's life cycle, including snails and fish. In addition, pond vegetation, important to the survival of bass, contributes to grub infestation by harboring snails.

There is no practical way to rid a pond of grubs. Chemicals aimed at the grubs would kill the fish, as well,

and efforts to eradicate snails have been unsuccessful.

Fortunately, grubs are more an aesthetic problem than a health problem. Studies show that grubs will not harm humans, even if consumed in raw fish. Personally, I'm no sushi lover, and cooking both kills and disintegrates grubs. On rare occasion, a fish may be so infested with grubs that it may be desirable to destroy it.

Of course, I haven't answered the larger question, "What good are great blue herons?" For the answer, I must lean on the eloquent words of Aldo Leopold from *A Sand County Almanac*:

"If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel

is the first precaution of intelligent tinkering."

Of course, many would argue known values for the great blue heron. Like all predators, they serve to keep prey species from overpopulating. They also eat many aquatic insects that prey on young fish, but their value is more than purely functional.

My four-year-old son cries with glee each time he sees one, and he usually spots them before I do. Almost every camping trip provides the opportunity to watch these master predators. So basic, so primitive is the image of a great blue heron rising to the top of a cottonwood at dusk that we are briefly blessed with a sense of attachment to our aboriginal roots, when we were awed by the mystery of wildlife and we understood that nature supports mankind, not the reverse. ♡





Wet, Windy & Wild

by Gary Lucas, Phil Boerstler
and Jason Wang

photos by Mike Blair

Although windsurfing was started on the west coast, these High Plains sailors think they've found the perfect blend of wind, sail and water right here in Kansas.

The Windsurfing Experience

Some call high adventure a drive to the Rockies; cruising around in the comfort of their automobiles, a couple of days of snow skiing, some hours trout fishing, maybe a day or two hiking. Usually their high adventure is finite; too short-lived and infrequent to be real high adventure.

I, on the other hand, find high adventure on the High Plains. I sail. More specifically, I windsurf. To be honest, I surf as many days as I can at a place called Cheney Reservoir, on the North Fork of the Ninnescah River.

In a world that calls 10 mph-winds windy, Kansas is unique. Most consider 10 mph a calm day here. It's getting windy when the wind is

around 25 mph. And we are fortunate to have Cheney Reservoir, in the middle of the state. Farther west might afford more wind but less water, farther east probably wouldn't get as much wind.

I'm content. Twenty miles west of Wichita, I find the windiest nine months of sailing on the Great Plains. I couldn't have it better unless I lived in the town of Cheney itself.

Not many share my enthusiasm for the wind. Most folks, especially boaters, have no use for it. But I love the wind, and the more I sail, the more wind I want.

I know it's a strange concept: sailing in the middle of Kansas. But don't be fooled. Sailing is not Cali-

fornia; it's not America's Cup; it's not a quaint New England harbor nor the billowing of white sails, the sound of a foghorn or taste of seawater. Sailing is more than this.

Roughly speaking sailing is the function of wind, water and boat. All else is frippery. The quality of sailing, though, is very dependent on the size of the boat. The smaller the craft, the simpler it is to operate and the more natural the feeling. Windsurfing is the ultimate in sailing.

Done simply and naturally, windsurfing is the most poetic of sports. Time is your medium. Sails are your palette, and the board is your brush. You canvas the water, and energy is your rush.

But to me, sailing is not just a sport. It is not just an attempt to compete. Rather, sailing is harmonizing with the wind. The essence of this harmony is flying the board so that only your fin has contact with the water. Cascaded with energy, swooping through swells, slicing the peaks, you launch from a transient ramp, formed only once for your jump. Lift. Flight. Silence. Gravity! Smack—the board announces re-entry. Try once again. This time you fail. Splash!

To keep pace, only the rig, wind and water concern the sailor. All else is removed. He has time only to react. If he takes longer, an edge of the board may grab, and he can be thrown over his sail, the board might “lawn dart”. . . splash. There is no time to reconsider, no time to re-evaluate. There is not forgiveness, and mistakes are not overlooked.

The sailor is astounded by the splendor. Nothing compares to the curves of his trimmed sail, with its mast bent back. Perched at the tail of his board, he skis at velocities that overrule laws of displacement. And long after other craft have sought shoreline shelter, he often finds himself boyishly laughing out loud. And then there is the lingering and somehow morbid familiarity in the isolation of an unforgiving, choppy lake. This is sailing.

The high of windsurfing is the sheer excitement of motion. Your body is integral—a machine harmonizing to the wind. It is an uncommon mixture; the terror of plowing nose-first to a harsh stop, the sensation of having no physical limitations. These feelings are most real. From these we derive our awe of the forces and our respect for the wind. This is high adventure.

Jason Wang lives in Wichita only 20 miles from what he considers the finest windsurfing in the midwest: Cheney Reservoir. You can bet that when it's too windy for most water lovers, Jason is out there jumping whitecaps.

Let's Go Windsurfing

Riding over water on a surfboard with a sail attached is correctly called sailboarding. Windsurfing is the name of a company started by the two men who invented the equipment. They not only patented the



Board turned nearly upside down, a sailboarder struggles to stay aloft for as long as possible. High winds and big waves are for the experienced; beginners are smart to start with lessons.

equipment but also copywrote the word “windsurfer.” The sport was conceived in California, where it flourished. From there it spread to Europe and grew tremendously through the 1970s and 1980s.

During the 1980s, sailboarding was discovered in the Midwest, where wind and water were easy to come by. The sport was attractive because transporting the equipment required only a car-top carrier and assembly was easy. As interest has grown, people in Kansas and other midwest states have started enjoying wind, the more the better, instead of complaining about it.

Getting started sailboarding isn't

difficult, but getting started right can be the difference between being frustrated and hating the sport and learning and loving it. Beginning lessons are highly recommended. Some who forego lessons give up before they find out how much fun sailboarding is. It really isn't that difficult, and most people can master it with a little patience. I can barely walk and chew gum at the same time, but I am able to windsurf.

Lessons involve eight hours divided into three sessions. The first two-hour session is spent on a dry-land simulator. The simulator is a tripod set on the ground that supports a board and sail and gives the rider

a feel of what the wind does to the board before you actually get on the water.

The second two-hour session is spent on the water getting the feel of wind and water. You may spend a fair amount of time in the water and climbing back onto the board. The third session is four hours of developing your skills on the water. At this point you become an educated consumer and know if you're interested enough to consider purchasing a board. If not, at least you can say you tried.

In my experience, I've learned that it's usually better to start someone with an intermediate or transition board, rather than beginner equipment. The intermediate equipment is a little more of a challenge, but it prevents you from quickly outgrowing your first board. You will have two or three years of sailing before you reach a plateau and feel like you're not improving.

Once you've mastered the beginning and intermediate phase, we'll introduce you to the next step. Sailing in winds of 30 mph and more is a whole new world.

If you are looking for a fun water sport with lots of excitement and physical challenge, consider windsurfing. The staff at Paradise Sailboarding will be happy to answer your questions and help in any way. Call me, Phil Boerstler, at Paradise Sailboarding, (316) 265-0258.

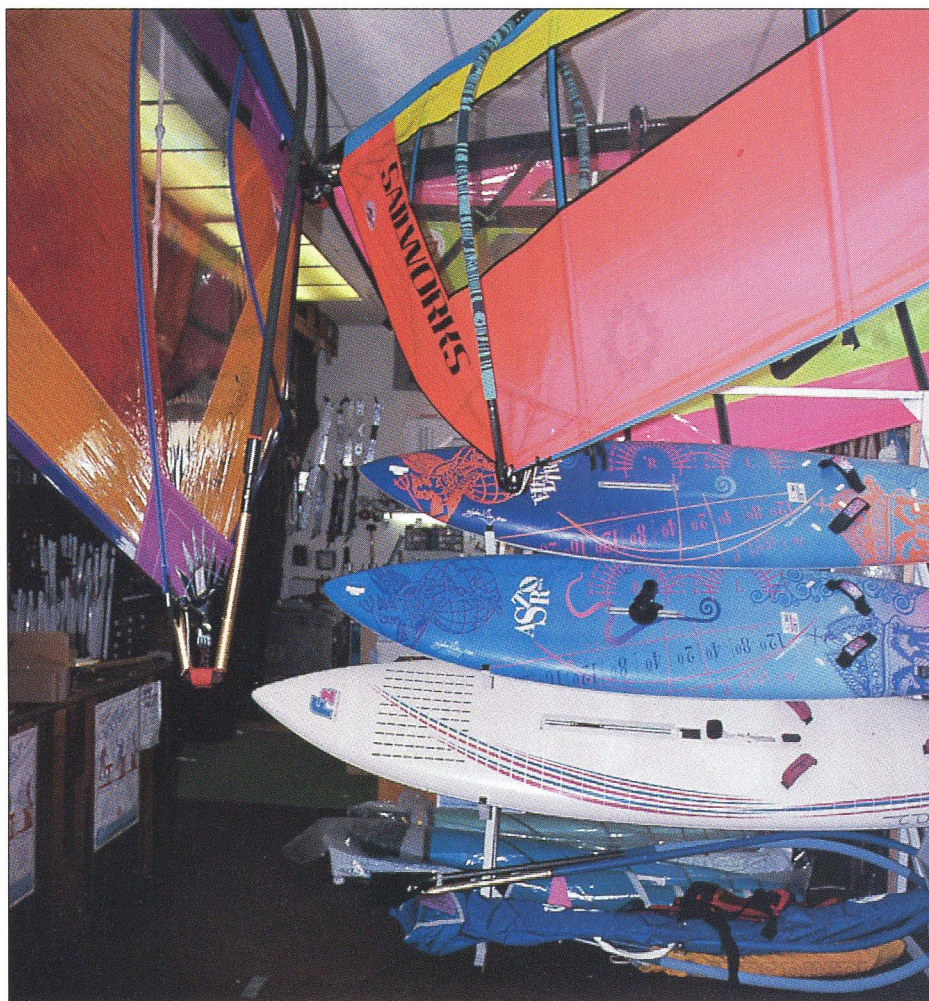
Phil Boerstler owns and operates Paradise Sailboarding in Wichita, dealers for Bic and Mistral sailboards, Thule cartop carriers and other equipment to make your windsurfing experience more enjoyable. He is a frequent visitor to Cheney Reservoir when the wind and waves have sent the traditional boaters home.

State Park Facilities

When I became involved with constructing the Hillsdale State Park facilities, I noticed the list included sailboard/windsurfing beach. The early planning document describes the sailboard beach as a launching area with parking for car and trailers, a restroom facility, picnic tables, rigging areas and a beach. My experience with windsurfing then was limited to observations at the beach



Lessons consist of three sessions. The first two hours are spent on a simulator out of water. The second and third sessions are spent on the water getting a feel for the wind, water and board. After lessons, you can decide if you want to buy a sailboard.





Windsurfing facilities are being developed at both Hillsdale and Cheney state parks. Plans include grassy areas for rigging sails, parking lots and pea gravel beaches.

site.

When the windmeter climbs to 15-25 m.p.h. with steady gusts, serious windsurfers begin to appear. At these wind speeds, the lake develops quite a chop, with white caps giving spray as they beat the fishermen and skiers off the water. Quietly, a gathering of sailboard enthusiasts collect at the beach area. One, two, three, then five vehicles, all sporting odd growths from the luggage racks, pull trailers, and pick-up bed racks arrive carrying one or several sailboards. The adjacent grassy areas are quickly strewn with colorful sails. The boarders are usually attired in the uniform of the committed sailboarder: the farmer John wet suit.

The Hillsdale sailboard beach should be complete next year. The beach site was used by sailboarders before any development was started because it had many necessary features. The area accepts incoming southwesterly winds free of struc-

tures that would create a wind shadow, but is protected near shore to allow shallow water starts without fighting a full chop. Improvements include a temporarily graveled parking lot, a pea gravel beach, a short breakwater with bank stabilizing rock, picnic tables and a single porta-john. Plans include a Clivis Multrum waterless composting toilet to be constructed east of the beach. The handicapped accessible toilet will convert waste to a soil-enhancing compost.

Grass areas will be better developed and maintained as the area matures out of the major construction phase. A sailboarder may have several sets of sails laid out to try, and a grass area keeps expensive sails and fiberglass boards from being damaged. The beach was filled with pea gravel as opposed to sand that would cling to wet sails and boards. Board stands consisting of soft rope strung between posts are planned so boarders can lean the boards against the

rope and keep them off the ground.

A local sailboard club has formed and they organize special events, trips, equipment swaps and information exchanges. Each year club members get together to clean up the beach area. The group also communicates with state park personnel through personal contact and a newsletter that comes to the park office. These exchanges are important in allowing us to better serve sailboarders. Whether positive or negative, the feedback lets us know what works and what doesn't.

As the sport of windsurfing continues to grow, and the wave jumpers find out just how perfect Kansas' windy lakes are for their sport, you'll see similar beaches and facilities at other state parks. Currently, Hillsdale and Cheney state parks have windsurfing facilities available. Gary Lucas is the unit supervisor of the Hillsdale Unit in the Parks and Public Lands Division. ♡

Summertime Is Striper Time

by Mike Miller
editor

photos by Mike Blair



A combination between a speeding bullet and a locomotive the striped bass is Kansas' SUPER fish.

The graph recorder sketched some impressive Vs as the boat passed over a drop-off at Cheney Reservoir. The early-morning sun was already warm, a prerequisite for the hot July day to come. Since the choppy water had made it nearly impossible to fish tree stumps for crappie up lake, this calmer water near the dam was inviting. "Maybe those are stripers," I wondered out loud, studying the graph paper. I tied on a $\frac{3}{8}$ -ounce white jigging spoon and dropped it to the bottom. Glancing at the flasher, I stepped on the trolling motor's foot control and swung the boat to the edge of the drop-off. A couple of cranks on the reel, and my spoon was 2 or 3 feet off the bottom. I raised it several feet and let it flutter back down.

"At least I'm not fighting those waves," I thought as I began to relax. But my calm was interrupted by an anything-but-subtle rap that loosened my grip on the rod. I set the hook and immediately felt a violent surge of weight and strength. My drag slipped and line hissed through the rod guides as the fish ran to my left. When it stopped, I pumped in several feet of line before the fish ran the opposite direction taking what line I had gained and more. "This fish feels huge," I gasped to my boat partners. "Get the net."

After the initial runs, the short fight was over, and a beautiful, torpedo-shaped fish, silver with black stripes, rolled to the surface. It wasn't huge by striped bass standards—maybe 7 pounds, but it fought like it. After releasing the fish, I couldn't put the spoon back in the water fast enough. There's no substitute for the angling rush you get when a striper rips that first run.

Striped bass have been swimming in a select few Kansas waters since the late 1960s when the first fish were stocked. In fact, the striped



Nothing compares to the feel of a striped bass ripping line from your reel. Stripers add excitement to the fishery because they grow big and fight hard.

bass, naturally a saltwater fish, is relatively new to all freshwater lakes. Ocean stripers migrate up freshwater rivers to spawn each spring. In the early 1950s, the gates were closed on the Santee-Cooper dam in South Carolina, however, striped bass had spawned, and they and their hatchlings were trapped above the dam. In 1954, biologists discovered healthy stripers in the freshwater lake, apparently well-adapted to full-time freshwater living. From this discovery, the freshwater striper fishery was born.

Striped bass eggs must be suspended in moving water for 36 hours, and this requires up to 30 miles of substantial flow. While other states have documented successful spawns by freshwater stripers, Kansas rivers don't provide enough flow, and it is unlikely that natural spawns will occur. The Kansas fishery relies entirely upon the stocking program.

While a variety of Kansas lakes have been stocked with striped bass, the most consistent fishing has been in Wilson Reservoir near Russell, and Cheney just west of Wichita. Wilson is perhaps better suited to the temperature-sensitive striper as it provides deep, cool-water comfort zones when shallow reservoirs may be too warm. Cheney has had stripers die

during warm summers. However, both reservoirs support good populations, and both have produced huge fish. The production of gizzard shad in these fertile Kansas lakes provides the open-water striper with plenty of food, and they grow big. Early state record fish, weighing 35 pounds came from Cheney. But the last two state marks have been set at Wilson, with fish weighing 42 and 43½ pounds.

"Our striper population is pretty decent right now," said Gordon Schneider, district fisheries biologist at Cheney Reservoir. "We've recovered pretty well from a striper die-off that occurred several summers ago. Most of our fish are in the 5- to 7-pound range, but there are a few larger ones left."

The potential for Cheney stripers to grow big is evidenced not only by the former state record marks, but by two fish weighing more than 48 pounds that were caught by Schneider in test nets.

The best months to catch stripers may be January and February, either through the ice, or in shallow water when there is no ice, and late May through June. But, mid-summer, when most other fishing has slowed can be a great time to catch stripers, especially at Cheney. Wilson, be-

cause of its depth fits a different pattern.

“Our best months are May and June, with most of our big fish, I mean fish over 30 pounds, usually caught in June,” district biologist Bruce Zamrzla said. “By August, our striper fishing is pretty slow. July can be a good month to vertically fish live bait at Wilson.”

Zamrzla said that most Wilson stripers are caught in 18-25 feet of water, but has heard of fish being caught as deep as 55 feet. Wilson has a pretty fair population of big fish this year with several over 30 pounds reported last February. The most numerous stripers are those weighing 5-10 pounds according to Zamrzla.

One of the reasons stripers are catchable in the summer is related to their sensitivity to temperature. Generally, striped bass are found in the

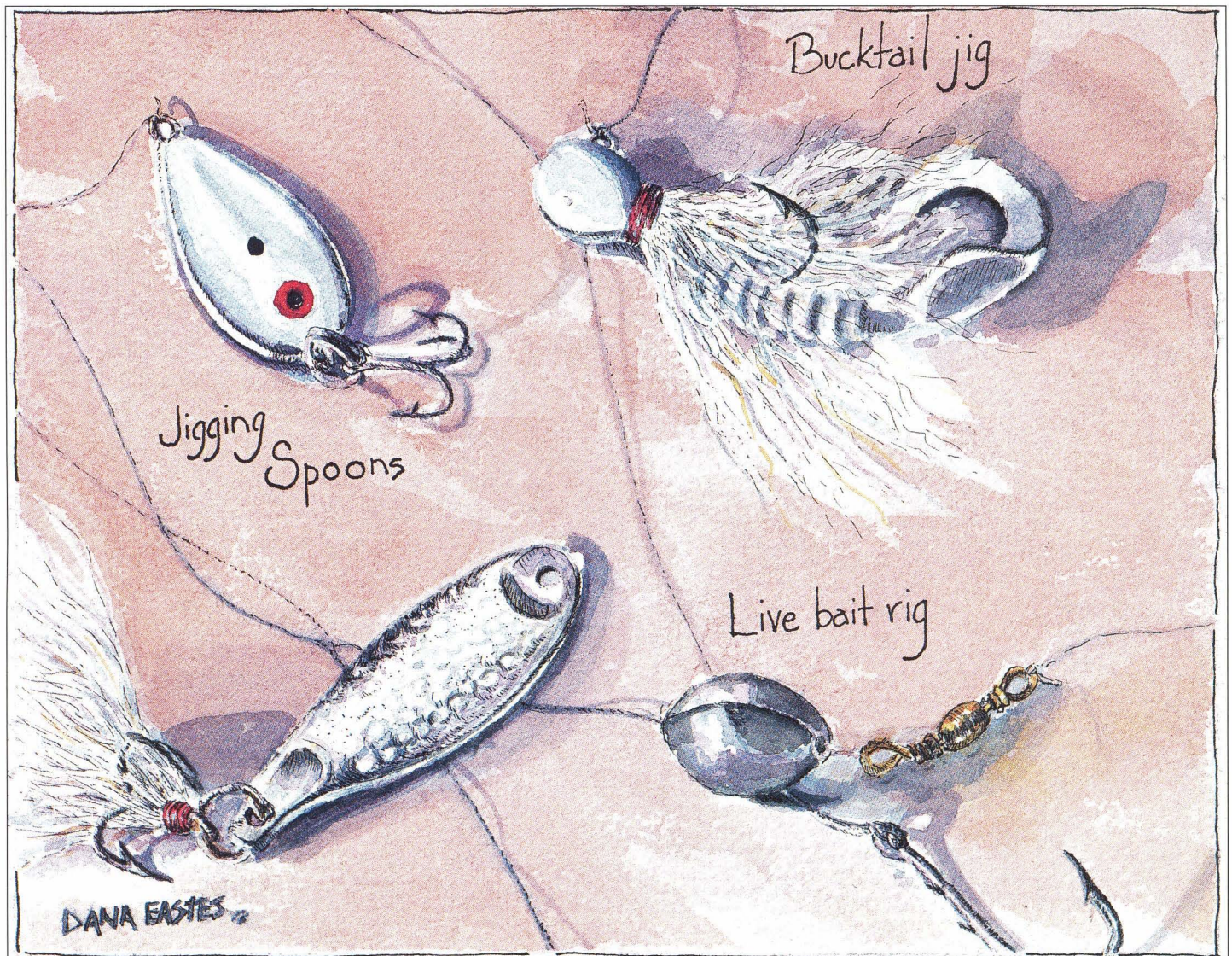
open water 20 feet deep or deeper. By nature, they are on the move, cruising for schools of gizzard shad. It takes a lot of experience to find these roaming fish consistently. They will, however, use favorite points, creek and river channels (especially wide bends in the channel) and drop-offs as travel ways. Submerged brush may also make a ledge or channel more attractive to stripers. But in the summer, when water temperatures warm, stripers seek structure at a comfortable depth and roam less. A fisherman with a depth finder can find these fish and get a lure in front of them.

That’s exactly how we were fishing on Cheney Reservoir last summer. Using the graph, I checked several known striper haunts before finding one that held large fish. Since heavy wave action makes it difficult to keep

a boat over fish, I was also looking for sheltered areas. Using a flasher with the transducer mounted on my trolling motor, I kept the boat over the fish as much as I could. We simply vertically jigged the spoons . . . and held on.

Spoons are popular and easy to fish, but 3/8-ounce to 1/2-ounce bucktail jigs with plastic trailers are also good for vertical fishing. Since shad are the top item on the menu, white, yellow and chartreuse are the general colors of choice.

Another popular and sometimes more effective way to catch these warm-weather stripers is with live bait. Kansas fishermen have traditionally used hardy baits like green sunfish, goldfish and carp. They’re easy to catch and easy to keep alive, and they’ll catch stripers. However, many Kansas striper fans are taking



notes from southern striper fishermen who've refined the art of catching and keeping shad alive. Using cast nets, shad are caught and immediately put into oval bait tanks (shad will congregate in corners and die in square tanks) that aerate and circulate water. A small amount of rock salt is added and the water is kept as cool as possible. It's a lot of trouble to keep bait alive, but on some days it's worth it. Live gizzard shad are extremely effective striper bait.

The most popular way to fish shad, or any live bait, is to rig a 3/8-ounce to 1-ounce egg sinker above a barrel swivel, add 18 to 30 inches of leader and a 3/0 bait hook. The rig is best fished vertically, bouncing the sinker along the bottom. If the wind is strong, the rig can be drifted over ledges and humps, taking care to keep the bait near the bottom. Depending on the mood of the fish, you may have to set the hook immedi-

ately, or wait several seconds while feeding line to a running fish. As a general rule, the larger the shad, the larger striper you'll catch.

Striper tackle is generally heavy, with 7-foot, heavy-action rods and 20-pound line common. However, when jigging spoons, lighter bass tackle, and even spinning tackle will suffice, and it's a real challenge to land a large fish on the light outfit. I wouldn't recommend using lighter than 10-pound line, and a good drag is absolutely necessary. If you're not sure about your drag, make sure your spinning reel's anti-reverse is off so you can back-reel when the fish runs.

The daily creel limit on stripers is two, so, you might want to catch and release some fish. When you want to release a fish, it's best not to totally exhaust it. Don't use a net if possible as the webbing can injure a struggling fish. Simply lip and fish and unhook it as soon as possible. When releasing it, make sure the fish is re-

vived before letting it go. Hold it by the tail and gently push and pull it through the water to get oxygen to the gills. Stripers aren't particularly hardy, so gentle handling is necessary.

I was able to revive my first striper last summer, and I quickly returned the boat to our ledge. As we dropped our spoons down to the drop-off, one of my fishing partners groaned and I whirled to see his 6-foot bass rod straining. His drag hissed in a repeat performance of my first fish. I leaned over the gunnel and lipped the 7-pound tiger as Bob grinned ear to ear. It was his first striper and one neither of us will forget.

Tips From A Guide

Bruce Coate has been guiding fishermen on Wilson Reservoir for eight years. Although he guides for a variety of fish, stripers are one of his specialties. And he spends enough time on the water to really learn about a fish. "I used to fish about 300 days each year, but I've cut back to only about 285 days for the last few years," he said chuckling.

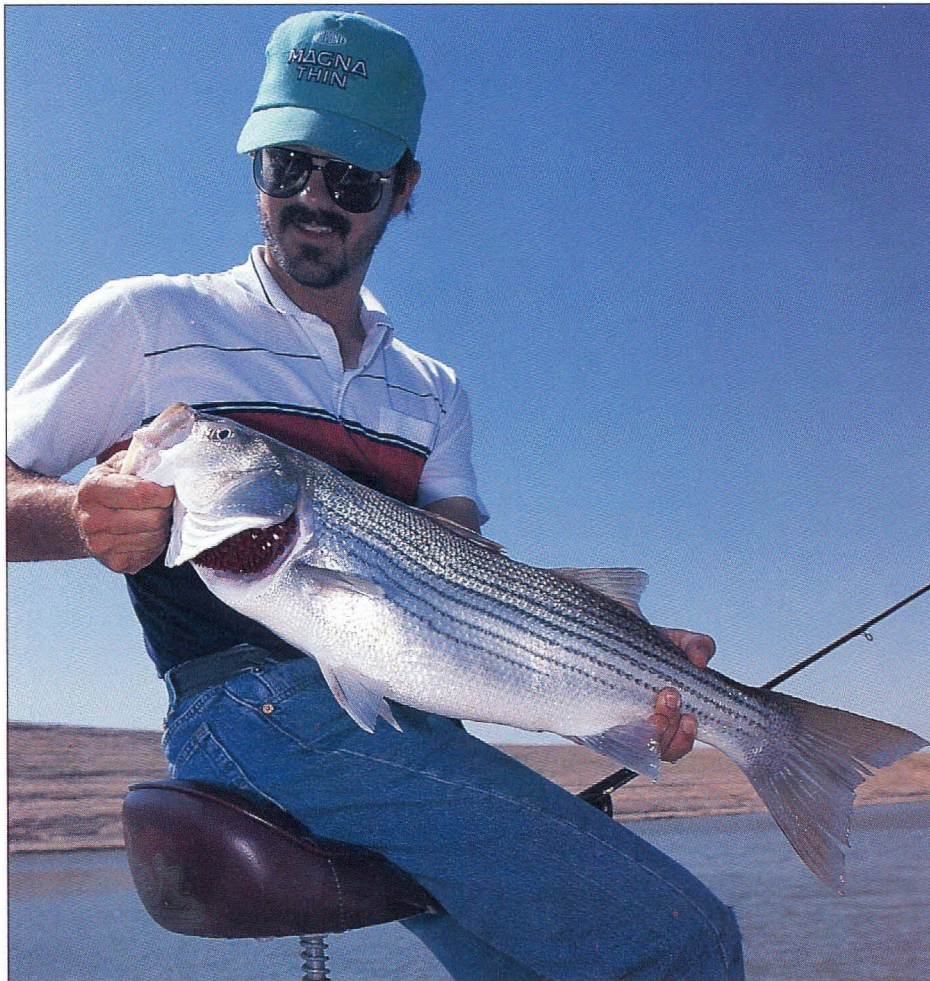
With that much time on the lake, Coate can keep track of the stripers' movements. "Wilson stripers will start around midlake in early summer and move toward the dam as the weather warms. We've got some 90-foot water in this lake, so it's quite a bit different than Cheney. Our stripers continually move to the deeper water to find a comfortable temperature."

While Coate concedes that June is probably the best month to catch Wilson stripers, he does quite well in early July.

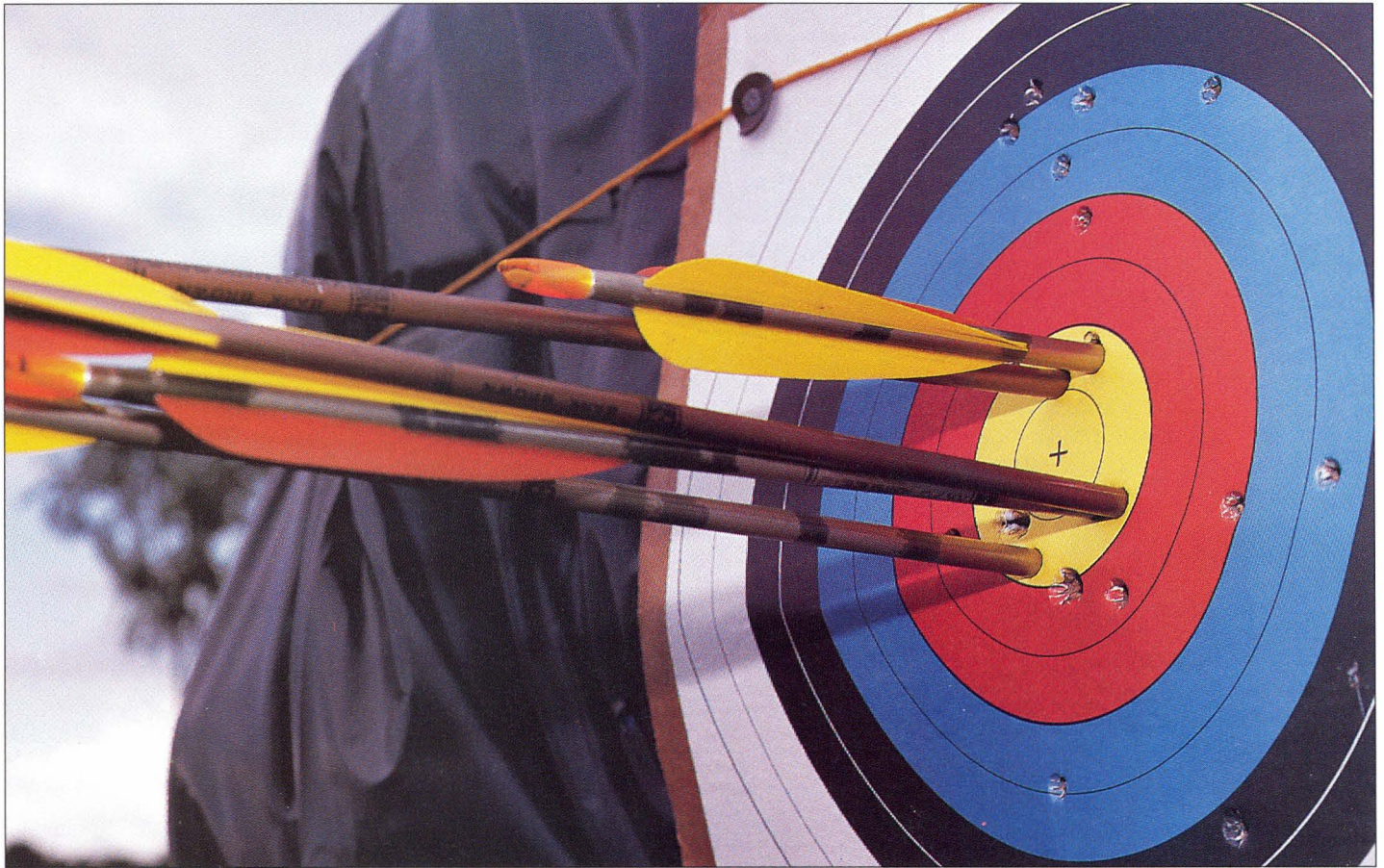
In midsummer, Coate either trolls with downriggers or uses live bait. "If I find some big fish and the downriggers don't turn them on, I'll mark them and we'll go back and fish them with live bait. In early summer, I like live shad the best, but green sunfish can be awfully good. And sometimes carp will work well. I usually keep several different types of live bait on hand."

Striper fishing at Wilson usually slows in late July and doesn't pick up again until October.

For more information about Bruce Coate's guide service, call (913) 658-3678.—Miller



Just an average striper for Cheney or Wilson, but packed in that stream-lined body is a lot of power. Midsummer is the time to vertical fish with jigging spoons or live bait.



Tuned To Shoot

by Gene Brehm
videographer, Pratt

photos by Mike Blair

Modern compound bows are extremely accurate, but they must be tuned right to shoot consistently.

The call of a cow elk stopped me in my tracks. Dropping to my knees, I looked beneath the oak brush screen but could see nothing. I'd been paralleling a herd of elk for more than an hour, hoping to get a shot at the five-by-five herd bull. The cows and calves in the herd were constantly calling to one another, keeping pace in the heavy cover. Each animal's call was unique, yet they all reminded me of an urgent cat's meow.

The calls told me that I was finally in front of the herd . . . and close. I had already tried calling the bull from behind with no luck. The bull answered but wouldn't leave the cows to meet my challenge. In fact, he seemed to push the herd ahead each time I bugled. Now that I was in the herd's path, maybe things would change.

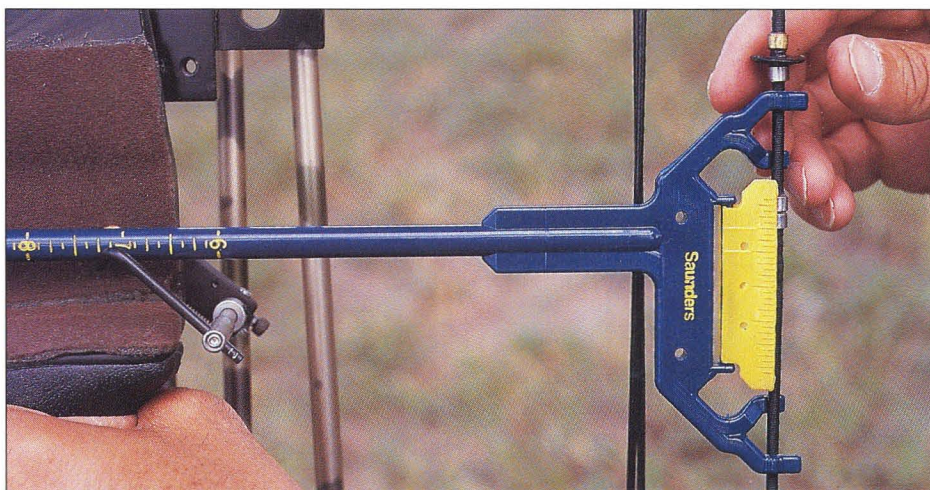
I nocked an arrow and prepared to bugle. A rustling sound told me to take another look beneath the bottom canopy. Leaning close to the ground, I could see the legs of an elk about

20 yards away. I positioned the diaphragm call in my mouth and raised my resonance tube to my mouth, but a glint caught my eye. The brushy screen was difficult to see through, yet I realized the glint might be antlers, and those legs belonged to the bull. After six days of gruelling mountain hiking, a little good luck had finally come my way. No need to bugle. Time and position were on my side.

Suddenly the bull was moving toward an opening at a fast walk. In an instant, my bow was drawn and ready. The bull noticed the movement and stopped in the center of the opening. In that moment of excitement, instincts took over, and the arrow was on its way. I watched in total disbelief as the shaft passed beneath the bull, trimming hair from his chest. It was over in a cloud of dust as the herd thundered away.

The long hike back to camp gave me plenty of time to think. To my surprise, the disappointment quickly passed. I'd had a quality hunt. Yet, I'd traveled there to harvest an elk and my time was up. More than 20 miles of backpacking, and nearly 100 miles of hiking had come down to one shot. I'll never know why I missed, however, when practicing in camp, I wasn't happy with the flight of my broadheads. They had seemed unstable in flight. As a result, my shooting confidence had been low. By the time I reached camp, I vowed to never again worry about the tune of my bow.

That experience in the Colorado Rockies began an obsession to learn how to properly tune my compound bow. Fortunately, a lot of information is available for even a beginning archer to accomplish this task. Modern archery equipment is capable of amazing accuracy. A properly tuned compound bow, using quality arrows designed for that bow's draw weight, is capable of hitting a 4-inch target at 20 yards 100 percent of the time. The goal of every hunting archer should be to tune his or her bow so that any shot not striking the target is a result of shooter error, not improper arrow flight. A tuned bow removes luck from archery and allows the archer to concentrate on shooting technique. A well-tuned bow will shoot where it is pointed, forcing the



The rest pictured above allows total fletch clearance. Note the arrow shaft is resting centered on the plunger button. Once this is accomplished, measure for your nock point (middle). Lightly crimp the nock in place three-eighths of an inch above the "bottom of the arrow" mark on the bow square. Now you're ready to shoot through paper.

shooter to take credit for any miss. Yet, it also allows the shooter to practice and adjust his or her shooting technique with confidence.

The best way to learn is to go to a pro shop with an indoor shooting facility. The help of a professional and his tuning equipment will benefit even the seasoned hunter. A pro shop will have charts indicating the proper arrow spine (stiffness) for your bow. If an indoor shooting facility is not available in your area, head to the nearest outdoor range. But *never* attempt to tune your equipment outdoors on a windy day.

The first step in tuning your bow is to set the draw weight and tiller height. Tiller is the distance between the string and the bow's limbs where they meet the riser (handle of the bow). For most compound bows the distance between the bottom limb and the string should be $\frac{1}{8}$ inch less than the distance between the top limb and the string. To adjust your bow, consult your owner's manual or seek advice from a professional. Whenever a professional assists you, insist that he explain each adjustment. Or better yet, have him or her teach you to make the adjustments. While this adjustment is being made it is best to also set the draw weight. Any further change in draw weight may change the tune of the bow. Select a draw weight you're comfortable with and will hunt with, and leave it there.

Next, you'll need an adjustable arrow rest that will allow total fletch clearance, meaning that when the arrow is shot, the fletchings, or vanes, don't hit the riser or rest. These types of rests have been available to hunting archers for the last five or 10 years. (Previous to that time, it was a necessary to use feather fletchings, which compress at release and are deflected less than plastic if they brush the bow or rest.) There are many total clearance rests available. Some are designed for mechanical release shooters and aren't suitable for finger shooters.

One of the more popular total clearance rests can be shot with fingers or mechanical releases. The design has two important features. The first is a plunger that runs through the riser of the bow, keeping the arrow far enough from the riser to al-



This paper holding device allows the shooter to tune the bow easily in the field. Set the paper far enough from the shooter so that the arrow will just clear the bow before striking the paper. Proper shooting technique is extremely important.

low fletch clearance. This plunger should be designed with an adjustable spring pressure feature.

The second feature is the launcher arm which supports the arrow shaft so that it rests with its center against the plunger button. Adjusting a rest for this alignment is always tedious, yet well worth the time spent. This launcher arm should also have an adjustable spring tension.

Once you have installed a rest and have it adjusted so that an arrow rests against the center of the plunger button, you are ready to determine your beginning nock point (The point on the string where the nock of the arrow will always be placed). Place a bow square on the string so that the arm of the square rests on the launcher arm exactly where the bottom of an arrow would. Using the rule on the bow square, lightly crimp the nock $\frac{3}{8}$ of an inch above the

“bottom of the arrow” line.

Next, check your shooting technique. Holding the bow steady before, during, and after each shot is the most important aspect of accurate shooting. If the archer fails to follow through on each shot, it is impossible to tune a bow. Have someone watch while you shoot to check your follow through. If your bow arm does not remain stationary after the shot, you must stop the tuning process and develop the proper shooting technique before you continue. Many top archers shoot with a loose grip on the bow. If they re-grip the bow as they shoot, the proper follow through is destroyed. To solve this, they install a wrist sling which loosely wraps around the shooter's wrist so that the bow cannot fall from the hand after the shot. The bow may tilt forward after the shot, but it cannot fall from your hand:

Many finger shooters complain that follow through is not their problem. They fight to make a consistent release. In most cases poor release technique is actually caused by an inability to hold the bow arm steady during and after each shot. In short, a bad release is often the result of poor follow through.

Once follow through is checked, you are ready to continue the tuning process. There are several methods to check the tune of your bow, but the most exact method is to shoot through paper and inspect the tears your arrows make. Most archery shops will have an apparatus to hold paper for this purpose. Saunders Archery Company makes a simple portable device for this purpose. Such a device is simple to make at home once the principle is understood. A properly tuned bow will result in a tear that indicates that the point has passed through the paper in the center of the three fletching tears.

Shoot through the paper from a spot just far enough away so that the arrow has totally cleared the bow before the point of the arrow strikes the paper. Shoot through the paper at least three times. All three tears


should be identical. If they are not, your shooting form is inconsistent and is proof that your follow through, or your release motion, is unsatisfactory. Once your form allows you to shoot consistent tears, use the tears to fine tune the nock point. If the fletches are tearing a hole above the point's entry, lower your nock on the string. If the fletching tears are below the point's entry, raise the location of your nock. Continue to shoot and adjust the nock until the point entry tear is on the same plain as the fletching tears.

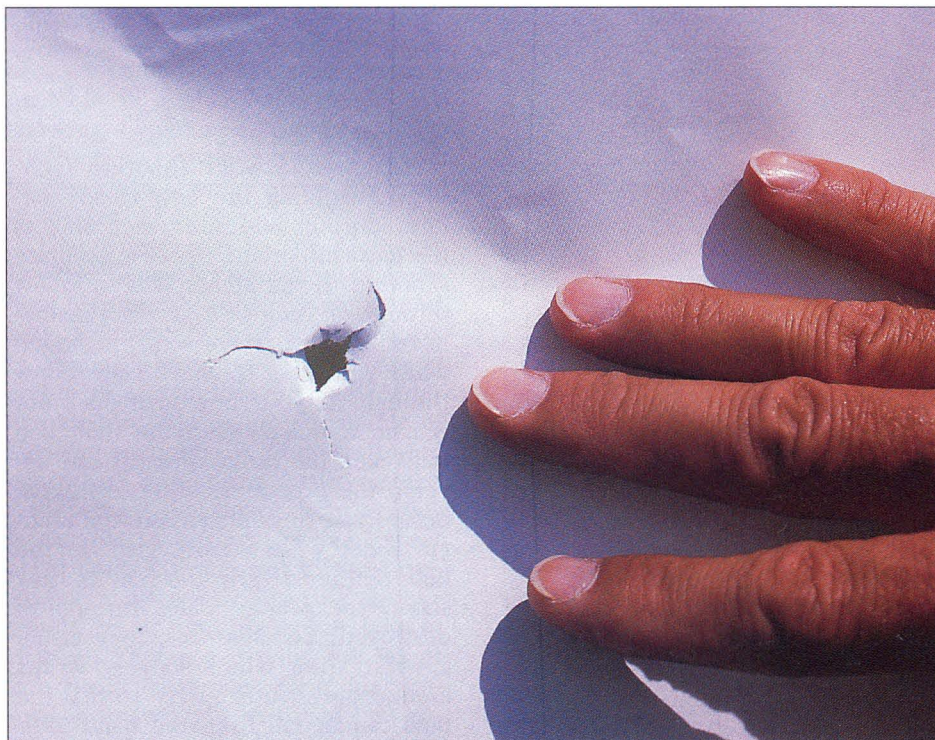
Next, the horizontal, or rest position, is adjusted. If previous tears show the fletchings are left of the point, the plunger button must be extended farther through the bow. Screw the plunger one turn farther into the riser. (These adjustments are true for a right-handed shooter; a shooter that draws the string with his or her right hand. The opposite is true for a left-handed shooter.) If the fletching tears are right of the point's entry, the plunger button is protruding too far. To correct this, unscrew the plunger assembly one turn. Each time the plunger is moved, the arm rest must be readjusted to hold the arrow against the center of the

plunger. Continue to make these changes, one turn at a time, until the point's entry is in the center of the fletching tears. This will be a tedious process. When you feel like giving up, reread the introduction to this article and consider the results of hunting with an untuned bow. Then continue.

An archer's first attempt at this process may take many hours. However, with experience, a bow may be tuned in as little as 15 minutes. One of the greatest rewards of shooting a properly tuned bow is that a shooter can expect an arrow to hit exactly where it is aimed on a properly sighted shot. This allows the shooter to pick a small spot and fully expect the arrow to hit that spot. With this confidence comes a greater ability to follow through, resulting in the further improvement of archery skills.

A terrible error made by some archers is to assume that a bow tuned in this manner with field points will shoot broadheads in the same manner. This is an irresponsible error. A hunting archer should retune his or her bow at least 30 days before a hunting season, using broadheads instead of field points. It is common for broadheads to cause more arrow flex than field points, even when they weigh the same. This demands a slightly different bow tune for optimum arrow flight. No conscientious archer should ignore this fact. The bad news is that tuning with broadheads may be even more tedious than tuning with field points. The good news is that a bow tuned for broadheads will usually shoot field points with superb accuracy and stability.

Every developing archer has watched in awe as a fellow archer repeatedly shot arrows with an accuracy they feel they cannot achieve. They are wrong. While athletic abilities do vary, archery is 90 percent mental. Archers achieving great accuracy are primarily doing only two things better: First, they are holding their bow arm steady, before, during, and after every shot; and second, they are releasing the arrow from the string in a consistent motion every time. And, of course, they are shooting a well-tuned bow. It's that simple. 



This is the tear the shooter is striving for. This tear tells the shooter that the fletchings are passing through directly in line with the arrow point. If the fletchings are to either side or above or below the point's entry, adjustments need to be made.



Ken Brunson photo

After The Flood

by **Tommie A. Berger**
district fisheries biologist, Dodge City

photos by **Mike Blair**

A Pratt County flood in 1991 allowed us to observe the effects of flood waters on a small county fishing lake. The results may surprise you.

What happens when heavy rains cause high waters to flow in and out of a small lake or farm pond? Or worse yet, what happens when the entire lake is inundated by flood waters?

Everyone has been told that fish move when water begins to rise. They move upstream, don't they? Species such as channel catfish, wall-eye and wipers are very susceptible to moving, right?

The truth is, we're not really sure

how flood waters effect fish in small lakes and ponds, but we learned a little last spring.

Pratt County Lake, located just east of Pratt, is a unique body of water. The original lake was built back in the WPA days. Fed by the Ninnescah River, it was silted in, shallow and the dam had structural problems by the late 1960s. The dam was eventually breached and the lake was reduced to the stream running through a large mud flat.

In the late 1970s, the rebuilding process began. To avoid past siltation problems, engineers suggested that the dam not be built across the river. The plan called for building the lake adjacent to the river with a dike between them so that river water could be diverted into the lake to fill it and maintain a stable water level. A drain structure near the river would allow the lake to be drained. Wonderful—a lake in western Kansas that should not have serious water problems or

widely fluctuating water levels . . . a fisheries biologist's dream come true.

There were only two or three problems with this lake design. One, taking water from the river meant immediate contamination with undesirable river fish including carp, bullheads, crappie, gizzard shad and a few others. A good fisheries biologist could live with this problem by stocking the lake heavily with predators and setting regulations that would maintain high predator densities. The predators would control problem species.

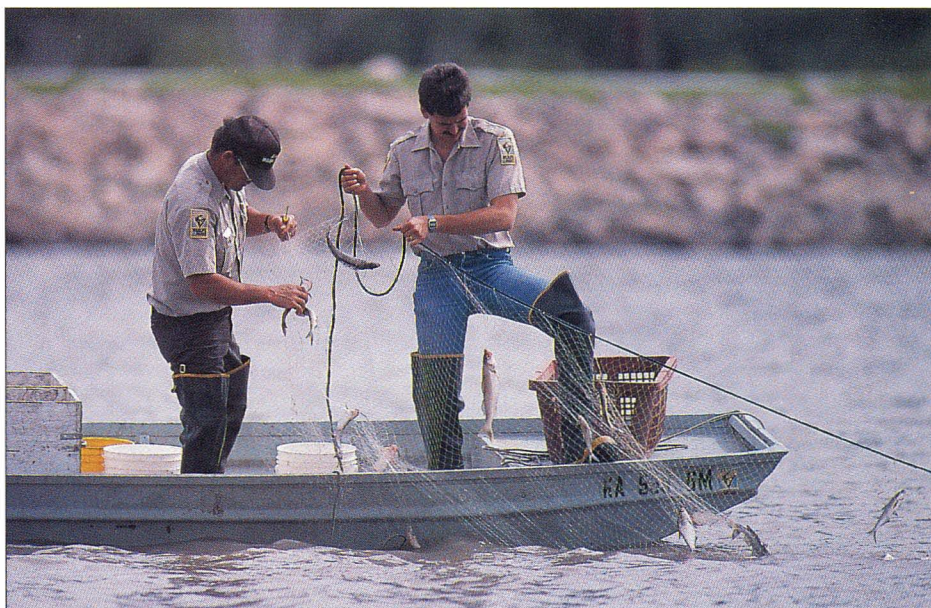
A second problem would be muddy water at times of high river flow, but that could be easily solved. A gate valve at the inlet which can be closed as soon as turbid waters flow in the river. The city of Pratt and the Department of Wildlife and Parks operations office and fish hatchery are close by, so surely someone could go close the valve during times of high water.

The third problem was flooding. How high should the dikes around the lake be to prevent inundation during high water? The cost of constructing high dikes and rebuilding existing roads was prohibitive. We decided to deal with flooding if and when it occurred.

Occur it did! One minor flooding incident was in 1986 when about 6 inches of water trickled over the low roads and dikes. The lake turned muddy, but there was little concern over fish loss. Local residents were far more concerned about carp and other rough fish entering the lake than what might have escaped.

Then came the BIG FLOOD of April 12-13, 1991. Five to 7 inches of rain fell just west of Pratt and the Ninescah River rose rapidly by late evening. At the time, the lake was the least concern. Houses in low-lying areas in and around Pratt were threatened. The Pratt Fish Hatchery was in line to take a direct hit by flood waters, and several operations buildings were flooding. Through the next few days, few people were concerned about the fish in the lake.

Still, water was nearly 2 feet deep over the roads and dikes around the lake. For a short period of time, there was no lake—just one large flooding river flowing east. However,



District fisheries biologist Tommie Berger and his summer aide pull test nets set last spring to learn what effects the flash flood had on Pratt County Lake. Little is known about fish movements in high water, but some insight was gained.

the flood was almost a flash flood by definition. Within 24 hours, the water had receded back into the river banks and the lake reappeared.

I remember my visit to the area several days later. The lake looked like heavily creamed coffee—well maybe more like chocolate pudding. I had the feeling you might be able to walk across it. Being a fisheries biologist, my first thought was one of sorrow for the poor fish that had to live in and breathe all that silt. Oh well, I thought, there's probably not much left there anyway. (I kept trying to suppress that thought because we'd just drained and renovated the lake a short three years before.)

All I could do was give the lake time to settle out, then conduct a netting survey to evaluate what was left. After cleanup operations around the area, lots of attention was focused on the lake. The agency was bombarded with questions about the effects of the flood on the building fish population. Of course, fishing the rest of April was poor, primarily due to the muddy water. All those questions and comments rolled downhill to the fisheries biologist.

By mid-May, the water in the lake had cleared considerably and sampling surveys were scheduled. Three gill nets and four trap nets were set to collect fish overnight. These were the same nets set each fall in our

standard test-netting procedure. The nets were also set in the same standard locations, so that we could compare the spring sample to the previous fall sample.

The nets were pulled the next day, and we also conducted an electrofishing sample of our largemouth bass population in the same manner we do each spring.

Numbers of fish collected in the May netting survey by species is shown in Table 1, along with fall 1990 and fall 1991 data. The May sample was a one-night set, whereas the two fall samples were two nights. Therefore, the number in parenthesis is the catch doubled to reflect a two-day set.

The overall analysis of the information collected shows that the flooding of the lake had surprisingly minor effects on the overall fish population. It should be noted that this situation involved a quick rise and fall of the floodwaters. A long-term flow-through or inundation may, however, cause quite different results.

Species that showed significant increases in numbers in the May sample, gizzard shad, green sunfish, and bluegill, are fish that one would expect to be moving better with warmer spring water. Catfish numbers went up as compared to 1990, but that was because the 1990 fall catfish stocking occurred after the fall

test netting.

Predator numbers did not reflect much change. Largemouth bass numbers were slightly higher in 1991. Walleye numbers in the fall 1990 and spring 1991 samples were about the same. Numbers were better than double in the fall 1991 sample. Wiper numbers were down somewhat in the spring sample and reflected a downward trend again in the 1991 fall sample. The average size of the wipers fell in the spring, perhaps indicating that the larger wipers were the ones that might have moved. Electrofishing data for bass (Table 2) were nearly identical for 1990 and 1991, and the size of the fish reflected some growth from one year to the next.

Carp numbers almost doubled in 1991 over 1990. Two species of fish were collected in the fall 1991 sample that had not been documented in the lake before that time. Both probably entered with the high water. They were river carpsucker (a carp relative) and black crappie. These two species should not reach abundant numbers with current predator densities.

Pratt County Lake has provided some interesting information on fish movement, or lack of it. With the inlet tubes and flow from the river into the lake, many anglers have found that many fish species tend to move toward and concentrate around the inflow area. Often wipers, walleye and bass take advantage of shad and other baitfish concentrations in this area. It has become one of the more popular fishing spots on the lake, especially in the spring when river water temperatures are a few degrees warmer than those in the main lake.

When the lake was drained in April 1988, a catch basin was constructed in order to salvage game fish during the operation. The screened box was monitored 24 hours a day while the lake was draining. To our surprise, very few fish of any kind exited the lake during the release of the first three-fourths of the lake volume. Walleye were the only species that seemed to want to move downstream until the water level dropped to fairly low levels. The next time the lake is drained, we won't have to babysit the outlet until the water is nearly gone.

Table 1. Numbers of each fish species taken with standardized gill nets and trap nets from Pratt County Lake, pre-flood 1990 and post-flood, spring and fall 1991.

Species	Fall 1990	Spring 1991	Fall 1991
Largemouth Bass	16	11 (22)*	26
Walleye	84	44 (88)	196
Wiper	111	33 (66)	73
Channel Catfish	34	55 (110)	116
Bluegill	142	185 (370)	57
Green Sunfish	28	56 (112)	17
White Crappie	69	50 (100)	237
Black Bullhead	2	4 (8)	4
Yellow Bullhead	2	1 (2)	10
Carp	13	11 (22)	22
Gizzard Shad	113	163 (326)	92
River Carpsucker			2
Black Crappie			2

*Number in parenthesis reflects a 2-day sample for comparison to 2-day samples each fall.

Table 2. Largemouth bass data collected by electrofishing in the spring of 1990 and 1991.

Year	Number	Hours	Bass/Hour	Avg. Length	Avg. Weight
1990	158	1.7	93	9.6"	.64
1991	183	2.0	92	10.5"	.77

Table 3. Average Length in inches of each fish species taken with standardized gill nets and trap nets from Pratt County Lake, pre-flood 1990 and post-flood, spring and fall 1991.

Species	Fall 1990	Spring 1991	Fall 1991
Largemouth Bass	10.0	12.4	12.2
Walleye	11.8	12.3	14.6
Wiper	15.6	15.8	15.9
Channel Catfish	14.9	11.4	10.4
Bluegill	5.9	6.5	6.0
Green Sunfish	6.7	6.6	6.1
White Crappie	6.6	8.8	8.0
Black Bullhead	10.4	10.3	9.9
Yellow Bullhead	8.7	9.7	8.6
Carp	17.3	16.9	17.1
Gizzard Shad	9.1	10.1	9.6

And flooding, even inundation of the lake did not appear to have a significant effect on the fish population. A few wipers and perhaps some larger walleye may have escaped, and a few carp and other river species may have found their way in. But overall, from a sport fish standpoint, Pratt County Lake is still in fine condition and will continue to provide quality angling for years to come.

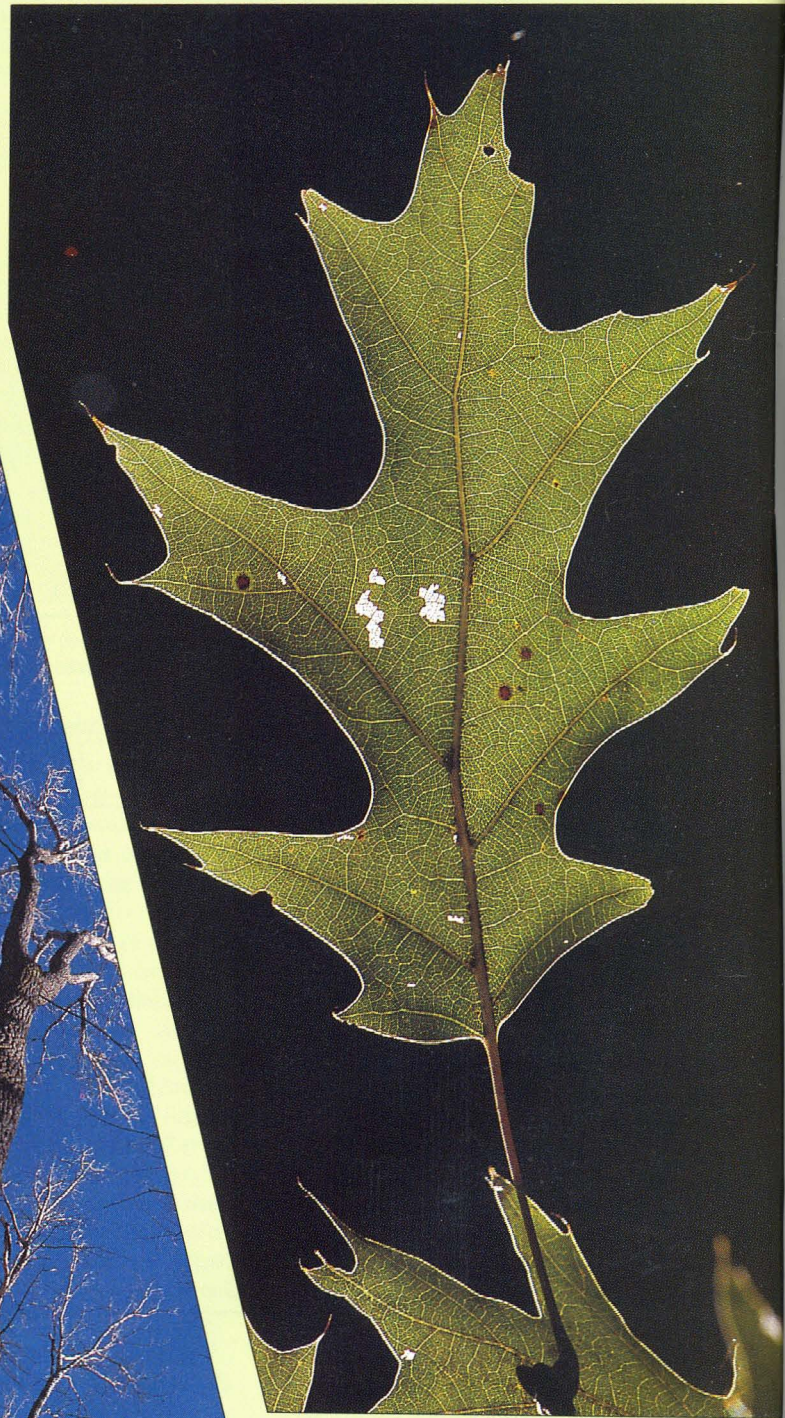
So, if your local pond or lake catches a high amount of inflow due to heavy rains, don't automatically assume that the fish all left with the excess water. Rises in water levels

and moving water will cause fish to be more active and perhaps go on a feeding binge, but they don't necessarily leave the impoundment. They'll likely be pretty hard to catch as the water recedes and until the water clears back up, but the fish will still be there. ♡

gallery

by Mike Blair

Trees



Trees: soil saving, oxygen replenishing, air purifying, wind breaking, wildlife food and cover, shade producing, fuel providing, and land beautifying plants.
Left: 13 mm lens, f/14 @ 1/60 sec.
Above: 105 mm lens, f/11 @ 1/125 sec.
Right: 50 mm lens, f/5.6 @ 1 sec.
Far right: 50 mm lens, f/16 @ 1/60 sec.





Squirrel Calls That Work

by Mike Pearce
Manhattan

photos by Mike Blair

Calls and lures come and go every year, but if the early results with this squirrel call are any indication, it will be around as long as squirrel stew is a desired menu item.

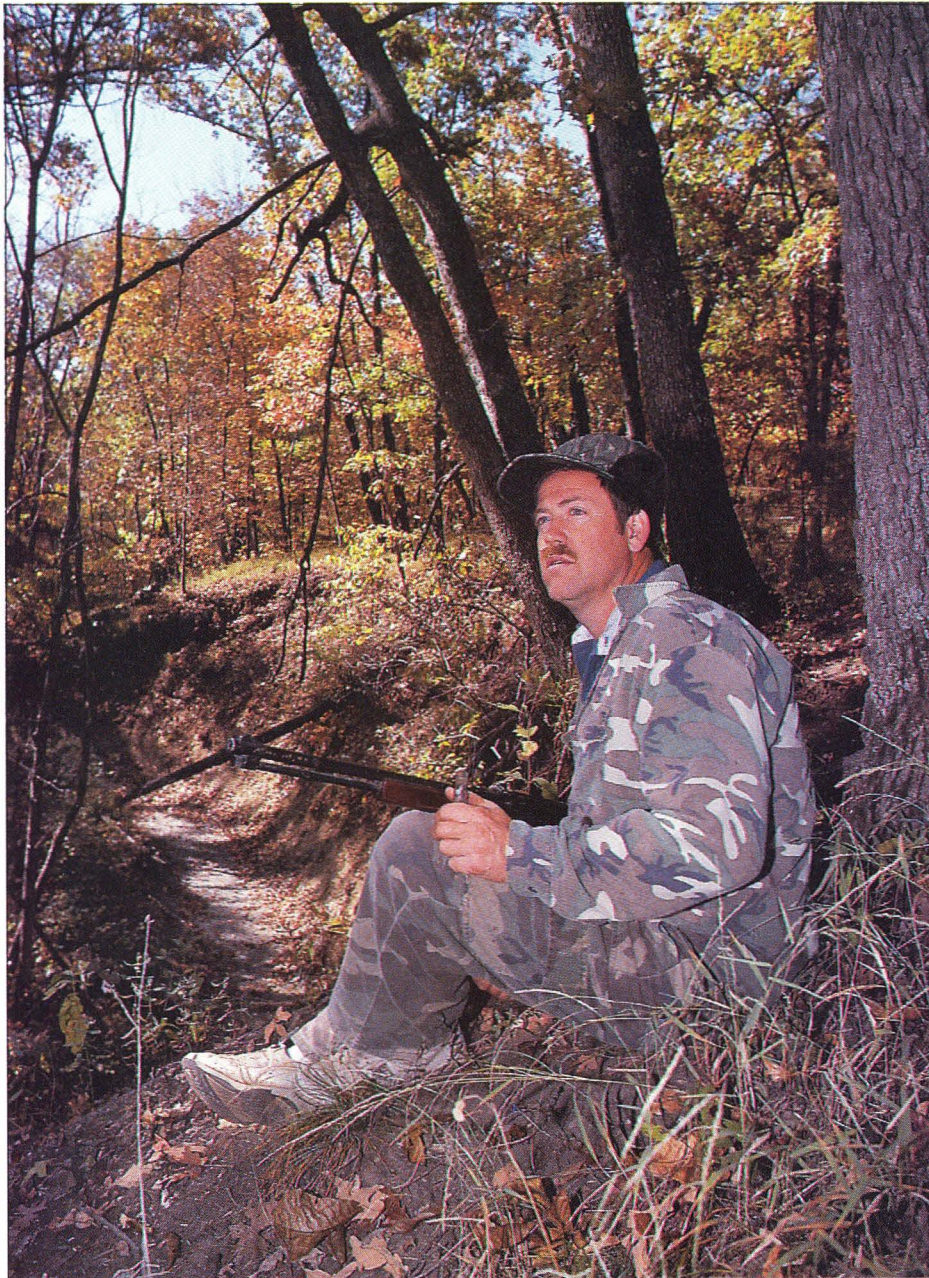
At first look and listen, the Riley County woods appeared to be void of life. The strange, almost total quietness of the setting reminded me of a midhour high school hallway in the depths of final examinations.

Like such a locker-lined corridor when the bell rings, those same tree-tops instantly erupted with life at the prompting of a particular sound. Instead of freedom-bound teenagers, the oaks and elms came alive with the raucous screams of bluejays, the cawing of crows and the assorted calls of woodpeckers and other forest birds.

But the avian din was simply background noise to the racket being made by a half-dozen or so fox squirrels. Leaning against a gargantuan oak, I scanned the tree-tops and readied my gun.



The Mr. Squirrel distress call is pictured at left. On the right is a bark call by Haydel. Both can be effective in calling squirrels out of cover.



Another call that can be used in conjunction with the distress call is the barking call. The hunter may convince a silent squirrel that other squirrels are in the area and bring it into the open. The best bark calls have a rubber bellows.

I soon saw a squirrel jump from branch to branch 60 yards away. The young bushytail was chattering non-stop as it sprinted to close the distance. When it finally stopped, the squirrel was but 15 yards away. It was a shot that even I couldn't miss.

I could hear other squirrels drawing near as I hurriedly reloaded my squirrel rifle, a .36 caliber muzzle-loader. When I looked up from the minute-long chore, I spied a squirrel moving up an elm 25 yards away. I rushed the shot, missed, and went through the whole powder, patch,

ball, ramrod and cap process again. The entire time, I could hear the squirrel getting closer.

Peeking around the oak, I could see the squirrel in plain sight on a limb not 10 yards away, its mouth and its tail both going non-stop. This time I took my time sighting down the gun's long barrel, and when I touched the hair-trigger, I knew I'd connected.

The smoke of the three shots sat like a low-hanging cloud in the breeze-free woods. By the time I'd reloaded and retrieved my pair of

squirrels, the timber had returned to virtual silence.

Within 10 minutes I again found myself facing the noisy charge of an obviously irate fox squirrel. Within an hour I was connecting with my fifth squirrel of the morning. I was on one side a kitchen-sized clearing and the squirrel was on the other, at the very top of a limb, barking for all it was worth.

As I neared my Bronco, a limit of squirrels in one hand and the empty rifle in the other, I again noticed that the treetops were barren of movement and noise. Like the ornery boy who rounds the corner and sees his kid sister wearing her first-ever ponytail, I just couldn't resist. Two squirrels responded to the shrill squeals of my call. It was fun just to watch and listen.

Game calling is far from new. Indians were doing it in various forms centuries before the Pilgrims hit Plymouth Rock. The earliest of Kansas' pioneers tolled in ducks, geese and wild turkeys.

The last few decades has seen a surge in predator calling and the recent wide-spread use of deer calls. Though seldom taken seriously in the past, squirrel calling has also been around for years. Now there's a relatively new kind of squirrel call that makes the sport as productive and fun as any other kind of game calling.

It all began back in the early 1980s when a pair of hunting buddies from L.A. (lower Arkansas) saw a hawk grab a squirrel off a limb. The two hunters', Shannon Talkington and Jerry Seamons, first response was to bag a few of the bushytails that had come out to bark at the commotion. Their next reaction was to figure out a way to duplicate the situation.

A good deal of trial and error later, the hunters developed a small metal disk called "Mr. Squirrel" that would imitate the shrill cries of a squirrel in distress. The simple calls, they learned, weren't enough. To be effective the call had to be used in conjunction with the sounds of a tussle. They learned that the sounds of flapping wings and struggling in the leaves could be duplicated by thrashing a small, leafy sapling or low-hanging limb against the ground.

Unlike the relative complexities of turkey and duck calling, the tools and



The distress calls often infuriate the squirrels so much that they may come in quite close. Not only has the call provided the author with a new dimension to squirrel hunting, but the close range shots have allowed him to hunt with a .36 caliber muzzleloading rifle.

techniques of squirrel calling are so simple that anyone can use them properly the first time out.

Getting the right sounds from a Mr. Squirrel are as easy as putting the call to your lips and inhaling. Lohman's new Mr. B's Squirrel Whistle is a little easier to use and can be sucked on or blown through.

Either way, it only takes a little creativity to simulate a squirrel that's just fallen prey to a predator. Personally, I start off with a shrill scream of about two seconds then trail off with shorter cries until I'm out of air. I'll usually smash the ground with a bent sapling in conjunction with the first few squeals.

Like all hunting, squirrel calling has its share of variables that make it unpredictable. Most of the time if a squirrel is going to respond, it'll do it after one good series of calls.

Sometimes I'll wait a half-minute or so and give the call and sapling another try. In the past I've had squirrels that were silent after two series of calls erupt with barking and activity after my third try.

How they react after they respond can also vary from day to day and from squirrel to squirrel. Several years ago I had probably the premiere squirrel hunt of my life on my grandfather's and parent's farm between Lawrence and Tonganoxie.

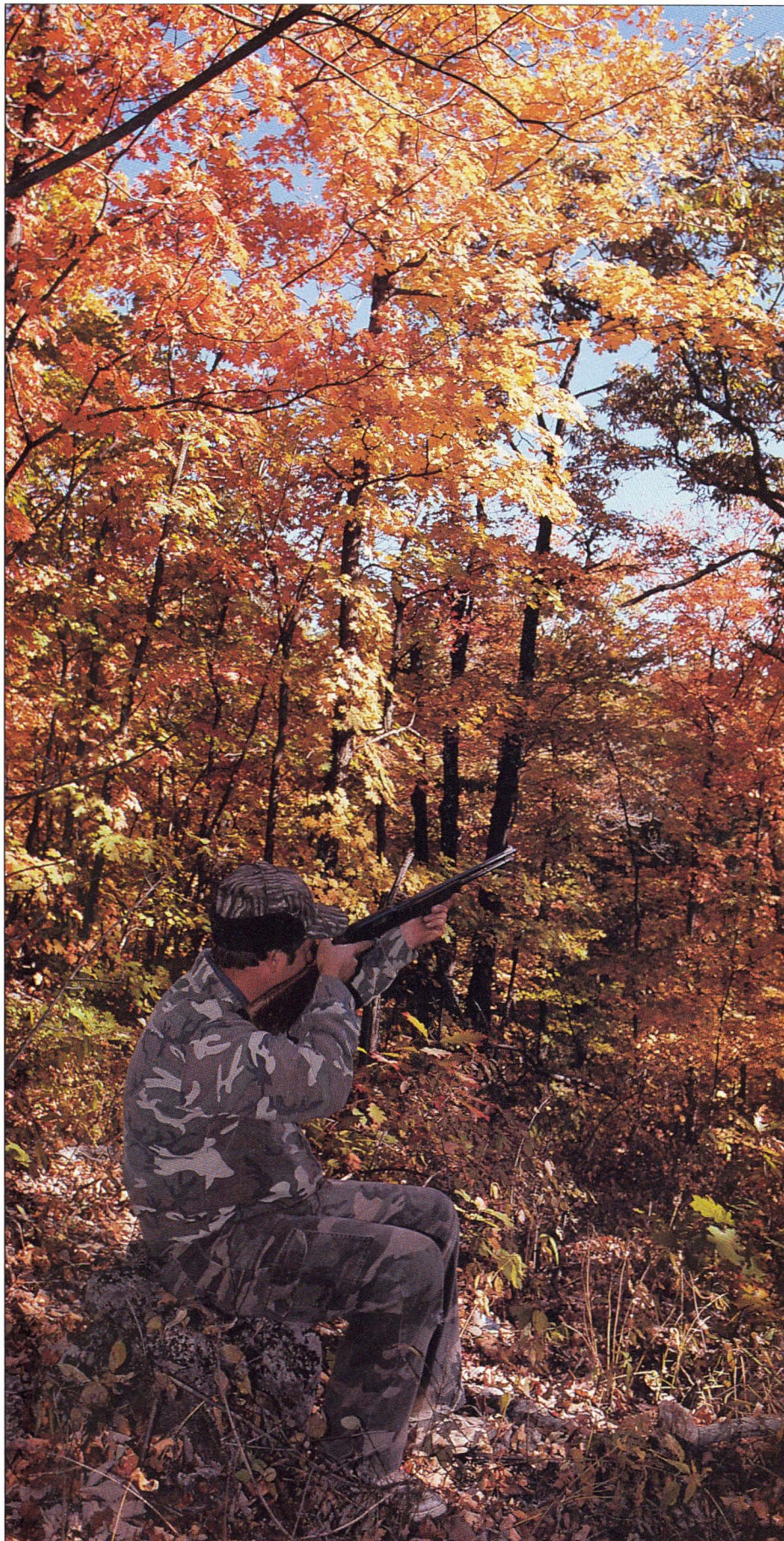
Standing at the edge of an old logging trail, I had not one but five squirrels come charging through the treetops after my first series of calls. I stood in one spot and made my choices, much a like a shopper at a vegetable stand, taking the prized gray squirrels when they'd come within 25 yards. I basically shot the muzzleloader three times as fast as I

could load it. Two fox squirrels were still chattering away when I picked up my trio of fallen grays and headed deeper into the timber.

I finished my limit with two more grays that came charging in within the next 20 minutes. I was back at my parents' house, the quintet of squirrels cleaned, before it was even time to eat breakfast.

During the soft light of pre-dawn the next morning I quietly eased into a different corner of the farm. Having not been hunted for a year, I figured the local squirrels would be real suckers for the call. That wasn't the case.

That morning they wouldn't budge and to make matters worse, they would only chatter a time or two before shutting up. Many times I've brazenly walked up on a chattering squirrel, but not that day. An hour



into the morning, I finally figured out that I'd have to circle around and quietly come in from behind. It was a very satisfying and successful hunt. It's worth mentioning that I wouldn't have seen a single squirrel if it hadn't been for the call.

When you use the call can be as important as how you use the call. As with turkeys, squirrels are generally the most vocal during the first hour or so of the morning. Naturally calm conditions are preferable to wind. On the best days squirrels can only hear the calls for about 100 yards. (If a breeze is blowing, you'll need to travel shorter distances between calling sights.)

Time of year also plays a determining factor. Squirrels remind me a lot of a tiny dog my family once owned. As long as it was out of sight in the house, it was as brave as a sow grizzly. Let her get caught in the open yard and the sight of another dog would send her scurrying for cover. Squirrel calling is far better when the bushytails are under a canopy of leaves.

Since I started using squirrel calls six years ago, I've had fantastic hunts from the June 1 opening well into early October. Often the summer hunts are a feast or famine situation with much of the action being finished by two hours after dawn. Late August through mid-September can be super productive.

In addition to a seven-month season, Kansans are also blessed with plenty of places to try squirrel calling. Unlike with pheasant and quail, most public hunting areas see few squirrel hunters. Though our woods hold some fine densities, squirrels are pretty much an underutilized resource here. Most of the public hunting areas in the eastern half of the state offer good to excellent squirrel hunting along the timbered riverbottoms and the adjoining ridges.

Squirrel callers can take their squirrels in a variety of ways. Some hunters use a shotgun while others opt for a scope-sighted .22. The ability to bring squirrels to within a few

Since the distress call is relatively new to the squirrel hunting scene, hunters are still learning how and when to use it. The author has found, however, that the call works well from early summer to early fall, but it may work best in mid-summer.



The calls worked for these bushytails, which made a delicious supper. The author carries several of the calls with him, and some days may use a combination of distress, barking and cutting calls. He stresses, though, that when using the distress call, you must thrash the brush with a branch or nearby sapling. The sound of a struggle completes the call.

yards helped me switch from my venerable scoped .22 to the Hatfield muzzleloader. For those who're wondering, the blackpowder gun is more than accurate enough for squirrel hunting, producing dime-sized groups at even the longest squirrel hunting ranges. The caplock ignites instantly and is very reliable as long as I keep it properly cleaned.

Today's powerful and super accurate pellet rifles could also be used while squirrel calling as could be a .22 handgun in the hands of an accomplished shooter. If an archer picked his shots, he could have a blast flinging flu-flus at barking squirrels, too.

No matter what they hunt with, those who spend enough time using a squirrel call will eventually see things that their unknowing friends will never believe.

My list includes the following:

—Watching an excited gray squirrel miss a limb during a jump and fall 15-20 feet to the forest floor. Unhurt, it immediately sprang back up into the trees and returned to non-stop barking.

—Before I learned how to keep my muzzleloader clean, I once snapped six consecutive percussion caps at a fox squirrel that was barking 15 yards away. In desperation I finally removed the nipple and used a small wire to poke a hole through to the breech. The job completed and totally confident that the Hatfield would fire, I proceeded to miss the shot. The squirrel continued to bark as it ran off while I reloaded.

—Several times I've missed a squirrel twice only to have it keep coming closer and closer. As the old saying goes, "The third time was a charm."

—Many times I've walked down an open path or across a barren pasture and right up to a barking squirrel. I've also had them come as close as four or five feet.

—Not a year passes that I can't stand in one spot and take three squirrels as fast as I can load and shoot my muzzleloader. Nine is the most squirrels I've ever had responding at once. Thirty-two is the most responses I've ever had in a single morning.

—The calls will also bring a variety of other wildlife on the scene. I've called in countless owls and hawks,

and I've even fooled sharp-eyed crows. I've counted as many as six different songbirds coming to investigate at once, and I've had coyotes and whitetail does both come racing in.

Yet with all it has to offer, I'm amazed at how few people give the calling a try. My best hunting buddy, Jon Hawkinson, gave it a whirl three years ago, and now he's hopelessly addicted and very proficient. Though he didn't have much faith at first, another friend, Mike Enoch, now claims that calling has spoiled him from ever still-hunting or taking a stand for squirrels again.


I even managed to convert possibly the king of all doubters, Jim Spencer of Arkansas. An accomplished outdoor writer and a true squirrel-aholic, Spencer showed no interest in the sport, continually referring to my calls as "gadgets."

I pulled a Mr. B's from my pocket on a fall turkey hunt in Missouri with Spencer last year and coaxed my buddy into letting me give the call a try. I'd no sooner hit the call than Spencer's eyes widened and he hissed, "Gotta a gray squirrel coming in." Though it didn't bark much, the squirrel held tight while Spencer took his magnum load from his gun and replaced it with a field load.

I could see the smile on Spencer's face as he brought the squirrel over to where I was waiting. "Let's hurry up and get our turkeys," he whispered. "I wanna get to calling in some more squirrels."

"Spencer," I replied. "I didn't think you cared for these 'gadgets'."

Lifting the call from around my neck he held it in front of my eyes. "This is no longer a gadget," he said as he beamed a grin, "it is now a very effective tool of predation."

"More importantly," I added. "It's a heck of a lot of fun." 

Editor's note: Mike Pearce is a freelance outdoor writer from Manhattan. He grew up in northeast Kansas and has spent countless days stalking squirrels in Kansas timber.

Other Calls

Distress calls aren't the only calls that can add excitement to a Kansas squirrel hunt.

For years a number of call manufacturers have produced "bark" calls that were made to imitate the excited barking of a squirrel. Some inexpensive models sound pretty poor. Others, particularly those which incorporate a wooden barrel with big rubber bellows, sound real.

The call is best used by cupping the fingers of one hand around the end of the call while the fingers of the other tap the rubber bellows. Callers will need to reproduce both sharp barks (by forcefully smacking the call) and the chatter (quickly patting the bellows). Spend a little time listening to the real thing and you'll quickly learn the proper volume and cadence. You'll also learn the quicker and longer the chatter the more responses you'll receive.

The barking calls can work well on their own or in conjunction with the distress calls. If I try a few series with a Mr. Bs and don't get a response, I'll try to liven things up with some barking and chattering. Many times a previously silent squirrel has spoken out, thinking other squirrels were on the scene.

A third type of call simulates the sounds of a squirrel cutting on a nut hull. Appropriately called cutting calls, most are as simple to use as dragging a striker along a serrated edge. They sound surprisingly realistic.

Such calls are also excellent confidence calls. Last year Brad Harris, Lohman's product developer, and I happened onto a pair of shagbark hickories that were crawling with squirrels. But after we bagged the first two, the other squirrels seemed to go into hiding. Harris brought out a cutting call and within seconds squirrels were again scurrying to the tree tops for nuts. The call helped us to combine for nine squirrels from those two trees.—Pearce

WILD CURRENTS

letters

Edited by Mark Shoup

Snakes Defended

Editor:

I am writing to express outrage at an incident that happened to my family and me at El Dorado Reservoir on April 5. We were fortunate to encounter what I believe was an eastern massasauga rattlesnake. We were unfortunate in meeting a person who did not share our respect and admiration for the highly evolved predator.

He dispatched the snake with a simple comment: "Yep, that's a rattler. The only good rattlesnake is a dead one."

My children and wife were extremely upset, and I had to walk away to control my anger and disgust at this person and his act of malice, fear and prejudice. He had robbed us of a special moment.

Could you outline what the laws are regarding nongame species, especially what protection they are given in regards to state parks, municipal parks and Corps of Engineers land holdings? I believe this beautiful predator deserves a better shake of the stick than on his head.

John Quinby
Wichita

Dear Mr. Quinby:

I share your sentiment concerning the reactionary killing of any species. Rattlesnakes fall into the category of "certain wildlife" under Kansas regulations. A hunting license is required to take them, and no more than five may be taken per day.

Other nongame species falling into this category include prairie dogs, ground squirrels, woodchucks, moles and gophers (no license required), kangaroo rats, wood rats, armadillos, porcupines, feral pigeons, other rodents (except furbearers), invertebrates, amphibians and other reptiles. The daily bag limit of five applies except in cases where the wildlife is going to be used for fish bait. In addition, no hunting license is required to take invertebrates.

Migratory nongame birds are protected under federal law and may not be taken or

possessed. This includes any part of the bird, including feathers.

These laws and regulations apply to all land within the state's borders. However, hunting on state-managed lands is only allowed in areas designated for public hunting. Most areas of state parks are not open to public hunting, except by posted notice. If the incident you describe occurred in a state park, chances are the man was in violation of the law on that count, if nothing else.

City parks and Corps of Engineers recreation areas may have other restrictions. -*Shoup*

Mad At Attitude

Editor:

I'm a very active and avid sportsman, and I read your article in the March/April issue of KANSAS WILDLIFE AND PARKS (Page 1), "Attitude Adjustment Needed." I was very disappointed by the time I got to the end of the article, not so much with fellow sportsmen but with the bureaucracy and politics involved in the Department of Wildlife and Parks.

Although I recently moved to Nebraska, I was born and raised in Rawlins County. Out in this area of open pastures and fields, the average so-called "deer hunter" drives through the field or pasture chasing deer in vehicles and shooting from vehicles. I have witnessed this many times, and more than half the people I visit with during or shortly after deer season admit to some form of illegal pursuit and killing of deer. I have reported this many times, but without some proof, the conservation officer can't do much about it.

My big gripe is this: Why is the sportsman always asked to take the responsibility, both ethically and financially, to fund and support the laws and programs while we have to stand by and watch the annual slaughter during deer season. I support the lowering of deer permit numbers last season, but I feel there are some other things that could be helpful. Most importantly, put some plainclothes officers in the field with unmarked vehicles.

Next, don't allow any vehicle traffic, including ATVs, more than 50 feet from public road right of way. Finally, the deer or turkey

hunter must be a minimum of 150 feet from his vehicle before shooting.

I just don't think it's fair to keep asking the sportsmen and women of the state to patrol our own forces when the laws won't change to meet the changes of our lazy society.

Ron Howland
Gibbon, Nebraska

Dear Mr. Howland:

This is the very thing our law enforcement officers are trying to combat. However, stepped-up enforcement (even if we had the manpower and budget) and newer, stiffer laws alone will not remedy the situation. Until people's attitudes toward natural resources change, there will be a problem. Education is the key to such change, through articles such as the one you read and through hunter education courses sponsored by the department.

You should really be disappointed in those "sportsmen" you describe. --*Shoup*

Write Romanian Reader

Editor:

Thanks again from the bottom of my heart for your wonderful magazine. It helps me wander through the wilderness where I can better understand the dignity and sensitivity of life. Ever since I was a small boy in a small town in Romania, called Court of Arges, I have been fascinated with the outdoors and the natural world. Memories of those scenes are being steadily recalled by the wonderful pages of your publication.

As far as Mr. Anthony Sinatra is concerned (the gentleman you mentioned in the "Letters" section of the Nov./Dec. issue), I would be much grateful to you if he could send me his address. I wish to thank him personally for having intended to help me.

Life in Romania is getting worse. I do not know any other country more isolated and more lonely in Europe than the island of Romania. Still, it's no use to go on looking for the guilty persons. All we may find would be the same old alchemists. The communist alchemists who took over the enormous pas-

sionate explosion of Dec. 1989 (together with the courage of the nation) and pitilessly turned it to ashes.

Under the circumstances, any contact with anyone from the outside world is a small step out of our solitude. Loneliness converts us into Christopher Columbus sailing to the continent of our own heart. How many masts will there be growing up in our blood if only endless seas connect us to the rest of the world?

For me, wandering through the fantastic natural world has become a way of life. Anyone who loves the outdoors, the woods, the rivers and the roaring campfires and who would like to write letters to me would be much helpful for a man from a world where liberty is still the attribute of the future:

Dan Popa
Str. Pajurei, Nr. 4
BL6, Apt. 12
Sec. 1
78414, Bucaresti
Romania

Pheasant Double Hatch?

Editor:

I would like to state that I enjoyed Randy Rodgers' article, "Pheasant Odyssey," in the March/April issue of KANSAS WILDLIFE AND PARKS (Page 2). I am an avid hunter with pheasant at the top of my list.

The question I would like you to answer is, "Do pheasant or quail have a double hatch?"

I can recall riding around with my father as a boy in late summer and catching the glimpse of a hen and a few small chicks scampering across the road. My father would comment that the hen must have had two hatches of chicks because of the small size of the chicks compared to the larger chicks previously seen. I can also recall my grandfather telling me that a pheasant could have two clutches in one season. Of course, if a hen has her nest destroyed or the young killed, she will re-nest and try again, but will she have two sets of chicks in one season?

Scot G. Moeder
Great Bend

Dear Mr. Moeder:

You are correct in stating that both bobwhite quail and pheasants will re-nest

if their clutch of eggs is destroyed. Scientists know that bobwhite will also re-nest if a brood is killed shortly after hatching, but it is unclear whether pheasants will also do this.

As you point out, laying a second clutch and raising a second brood is another question. Recent radio tracking studies of bobwhite in other states reveal that these birds do, in fact, raise second broods although the extent of such activity has not been determined. At this time, it does not appear that pheasants will actually raise second broods, but before the research just mentioned, the same was said for bobwhite.

Of course, if a pheasant or bobwhite is forced to re-nest, its chicks will be younger in late summer than other young of the year. This could be what your father and grandfather observed. --Shoup

Don't Hunt Coyotes

Editor:

After reading in the May/June issue of KANSAS WILDLIFE AND PARKS (Page 33) of the great coyote hunters, I could only wish it had been two coyotes and one hunter. If it can't be eaten, the senseless killing just for the sport of the kill is just that -- senseless. Hunters of this sort only foul up nature's way of balance for their own macho image.

P.N. Sanders
St. Joseph, Mo.

Dear Mr. Sanders:

Nature's balance was disrupted long ago by many of man's activities, from industry and agriculture to development that built the homes you and I live in. While early market hunting aided this disruption, regulated hunting today has no such effect, whether the prey is eaten or not. The few hunters who call coyotes certainly have no effect on the population of this prolific and adaptable species.

I do not hunt coyotes, but I would much rather see them hunted than poisoned, which many ranchers would do to protect livestock if hunting were not allowed. Poisoning, of course, would kill much more than coyotes. Savengers, other predators and a variety of other species would also be indiscriminate victims. --Shoup

Landowners Say "Listen"

Editor:

My wife and I are not sportsmen, but we are certainly wildlife enthusiasts. We also own several hundred acres of land, but we are not farmers. We care for our land and make every effort to maintain it properly. We have been reading with great interest your campaign for a better relationship between the landowner and the sportsman. I feel your campaign is somewhat in vain, or maybe the sports people in our area do not read or condone your efforts.

Until recent years, our land was open for hunting and fishing alike. This has certainly changed, as have the people wanting to use the land. Each year, more people are using the land without permission, and each year we find fence damage from trespassers greater, and each year it has become more expensive to replace items stolen. Beer cans, empty bait containers, cigarette butts, human waste, etc., have become a real problem.

It is disheartening to think that one or two inconsiderate people may damage the image and privileges of most sportsmen and women.

Continue with your campaign because we feel someone will benefit from it. In no way are we anti-sportsman; it has just become too expensive and too much of an increase in our workload to continue to tolerate trespassers.

Thank you for listening.

Dale and Emma Mae Crawford
Baldwin

Dear Dr. and Mrs. Crawford:

I empathize and share your disdain for those who have trespassed on your property. In no way can they be considered sportsmen.

As you point out, I'm sure they are a small minority. Considering your apparent natural inclination to allow responsible use of your land, I would like to offer a suggestion that may help solve your trespass and vandalism problems while encouraging use and appreciation of your land: allow access to a small group of active hunters and/or anglers whom you can trust in exchange for help picking up and keeping watch over the land.

After all, the more eyes the better. --Shoup

Clean Biker

Usually, when you think of vehicles used for hunting, you probably think of a four-wheel drive truck or some other rough-terrain vehicle. This past hunting season, I saw a couple of interesting variations.

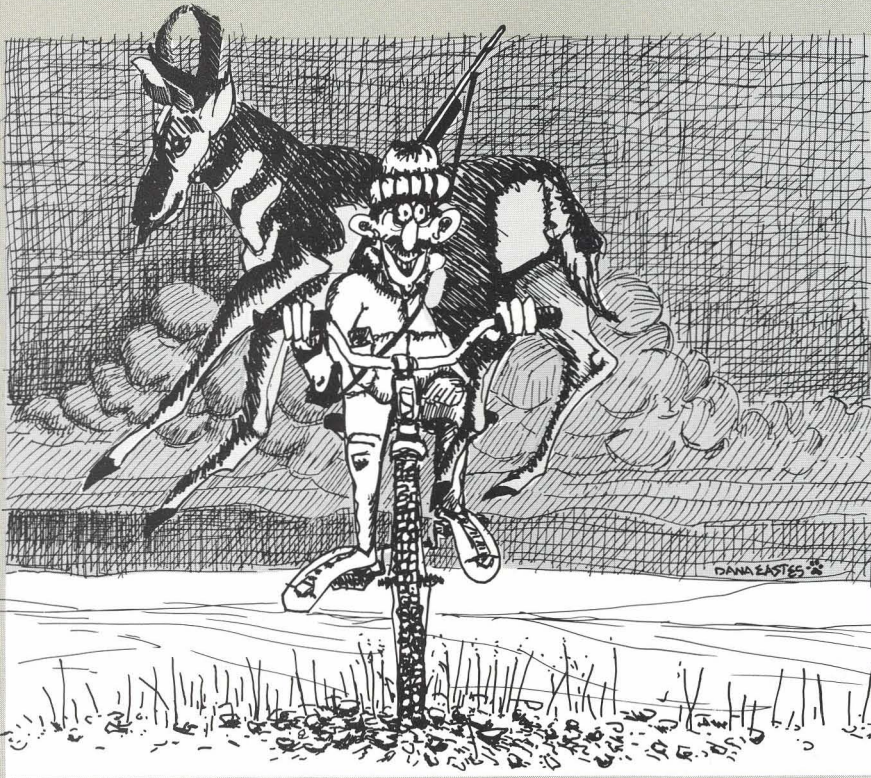
I was fortunate to be assigned to western Kansas during the antelope season last year. I scouted the area the day before season to locate bands of pronghorns. The next morn-

again during the opening week of pheasant season when I came upon a large tour bus parked on a muddy side road in Mitchell County. A large group of hunters had chartered a bus to take them hunting. The driver would drop them off at one end of a field and pick them up at the other. As I sloshed by the bus with my truck in four-wheel drive, I wondered, What next? --Kevin Couillard, conservation officer, Concordia

were on the permits. By season's end, the case was solved: the man who bought the permits shot deer for his mother and father and put their tags on them. He was convicted of two counts of shooting deer for another, had to pay \$1,032 and lost hunting privileges for two years. Deer and permits were also forfeited.

Meanwhile, Cathey investigated an Osborne County man who had purchased a deer tag for his mother. Unfortunately, her son had harvested a deer with her permit. Cathey issued her a citation for illegal transfer of a game permit. Her son was cited for taking deer for another, but it got more complicated.

When Cathey confiscated the illegal deer, he discovered another deer at the same location that was tagged with a permit issued to a woman down the road. As it turned out, her husband had shot that deer for her. She and her husband received the same citations as their friends had. The two men were fined \$132 each, and their deer were confiscated. --Shoup



ing, my helper and I staked out a likely-looking spot well before daylight.

As the sun began to lighten the sky, we noticed something moving in the road about half a mile away. At first, we couldn't make out what it was, but soon we saw that it was a man on a bicycle. As he got closer, we saw that he was dressed in camouflage clothing and had a rifle slung over his shoulder. It was cool that morning, and the 30-m.p.h. wind was driving a light sleet into the face of the hunter. I checked his license and antelope permit, marking the first time in 10 years of wildlife law enforcement that I had ever checked a big game hunter riding a bicycle. I saw the man later that day, and he had harvested a trophy buck. Maybe he'll start a new fad.

Thinking I had seen it all, I was surprised

Family Scams

Employees at Glen Elder State Park became suspicious last year when several people came to their office to buy hunt-on-your-own-land deer permits. What made them suspicious was that individuals weren't just buying permits for themselves but for their wives, parents, grandparents, brothers, sisters and all children older than 14.

Park employees contacted conservation officers Kevin Couillard, Concordia; Shane Cathey, Glen Elder; and Dick Kelly, Oberlin, to investigate. Couillard informed Kelly of a man who had purchased five deer permits before deer season. The officers then worked in tandem, interviewing the man who purchased the permits and those whose names

Bar Room Bobcat

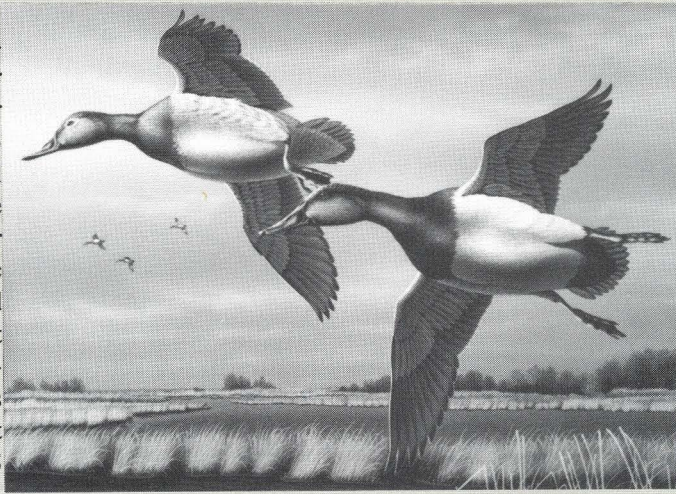
On Nov. 16, 1991, conservation officers Mark Johnson, Pleasanton, and Doug Whiteaker, Fort Scott, were returning from a meeting at the Region 5 office in Chanute when they heard a strange message on their radio. The Bourbon County sheriff's dispatcher was calling deputy sheriff Taylor about a disturbance at local tavern in Bronson. A local man who had been banned from the bar had an animal in a burlap bag -- a bobcat, the man claimed -- and had threatened to let it go in the bar if he was not admitted.

Johnson and Whiteaker also responded to the call, and when they arrived, Taylor had already arrested the man for disorderly conduct but had declined to look in the bag. Whiteaker did the favor and discovered a live adult raccoon.

At the Bourbon County jail, the man admitted to Whiteaker that he had caught the animal in a wheat field earlier in the day and had decided to "have a little fun." On top of the disorderly conduct charge, Whiteaker cited the man for taking a furbearer out of season and without a license. Because the man refused to give his address, the judge ordered him to stay in jail until he had posted \$250 bond. He spent two days in jail and paid a \$232 fine. --Shoup

Canvasback Canvas

A pair of canvasbacks in flight over Milford Reservoir grace the 1992-93 Kansas Waterfowl Habitat Stamp. The stunning, near photorealistic acrylic original was painted by Manhattan artist Jerry Thomas. Thomas won the Kansas Waterfowl Habitat Stamp contest over 18 other entrants on Feb.



7.

Originally from Scott City, Thomas has a bachelor's in business administration from Southwestern College in Winfield and has completed graduate work at K-State in urban design and planning. For the past two and one-half years, he has operated his own gallery and studio in Manhattan. He is completely self-taught.

In addition to this most recent award, Thomas was the 1988 Kansas Department of Commerce's Wildlife Artist of the Year, the 1991 National Ducks Unlimited Guest Artist, the 1991 Kansas Ducks Unlimited Sponsor Artist, the 1992 Waterfowl USA Golden Waterfowl Artist and the Waterfowl USA National Ticket Artist. He was also recently commissioned to paint the Award for the U.S. Fish and Wildlife Service's Corporate Stewardship Award.

Everyone concerned with wetlands and the hundreds of wildlife species supported by wetlands can help these species by purchasing a Duck Stamp. Such purchases help whooping cranes, least terns and a wide variety of shorebirds and mammals by protecting wetlands -- the ever-diminishing habitat upon which these species depend.

The 1992 Kansas Waterfowl Habitat Stamp will go on sale in late summer from the Department of Wildlife and Parks. Although prints are not yet available, inquires concerning print orders can be made through Jerry Thomas, 3000 Gary Ave., Manhattan, KS 66502. The 1991 stamp, a pintail, will be available until all are sold. For more information, contact the Kansas Department of Wildlife and Parks, RR 2, Box 54A, Pratt, KS 67124, (316) 672-5911. --Shoup

Cancer Drug Found in Northwest Tree

As the debate over saving endangered species and ecosystems rages, the media, the public and even public servants often question the value of rare species. Secretary of the Interior Manuel Lujan pronounced early in his tenure, "Do we have to save every subspecies? No one's told me the difference between a red squirrel, a black one, or a brown one." Ironically, the value of all species should not be judged as much by what we know about them as by what we may not know.

A perfect example is the Pacific yew. The

Pacific yew is an evergreen that grows along the northwest coast of the United States from northern California into Alaska. It grows best at high altitudes where there is a lot of rain. It also grows best as understory amongst big timber such as Ponderosa pine and Douglas fir -- namely, the habitat most desired by the lumber industry in the area. Of course, this is also the habitat of the famous northern spotted owl. Like the spotted owl, the yew has traditionally been considered a "trash" species.

The case of the Pacific yew, however, puts the lie to the concept that the controversy over logging the old growth forest of the northwest is a question of jobs versus owls.

About 25 years ago, a drug called taxol was found in the bark and leaves of the Pacific yew. While scientists speculated that the drug may help protect the tree from predation and fungi, a more important property was discovered -- a treatment for cancer.

Extensive research was conducted, and two years ago, the National Cancer Institute held a symposium in Washington, D.C., to discuss results of studies with the drug on cancer patients. Lester Mitscher, professor of medicinal chemistry at the University of Kansas, was invited to the symposium.

"This is one of the most exciting cancer drugs to come along in the last 20 years," Mitscher says. "These studies have shown that 40 percent of cancer patients responded to taxol when no other drug had worked. It could be a major drug."

Scientists at the symposium presented research indicating taxol is an effective treatment for ovarian cancer. Other research on breast and lung cancer also looks promising.

Unfortunately, if you strip the yew's bark to obtain the drug, it takes two or three trees to treat a patient for one year. Obviously, this method would mean disaster for the trees and the cancer patients.

The good news is that Mitscher's research reveals that yew needles also contain taxol, adding a potential renewable source for the drug. Although other subspecies of yew yield varying amounts of taxol, Mitscher points out the importance of protecting our country's own source for the drug. Destruction of the old-growth forests of the northwest could, literally, mean death for people as well as trees, owls and other species.

The wisdom of preserving these forests now appears to be medical and economic, as well as ethical. Most important, the Pacific yew reminds us that endangered species are only indicators of the overall health of the entire ecosystem. The spotted owl was the first warning. We now have the Pacific yew to think about. What other species, of what pragmatic value to man, might be lost when we fail to heed such warnings? --Shoup

Bad News For Madtom

Recent surveys of the Spring River for the Neosho Madtom in Kansas, Missouri and Oklahoma indicate that this threatened fish

may now be extirpated from this river. Although there has not been a systematic survey on the river in Missouri, Dr. Bill Pflieger of the Missouri Department of conservation looked for the species at two localities in the river where the madtom was previously observed in 1991 and could not relocate it.

Biologists in U.S. Fish and Wildlife Service regions 2, 3 and 6 hope to initiate a water quality study on Spring River to help determine why the species has apparently been extirpated. Biologists in Kansas, Missouri and Oklahoma agree that there is a desperate need for cross-regional cooperation and coordination to further study and recover this species.

If apparent trends continue in the Neosho and Cottonwood Rivers in Kansas and Oklahoma, it may be necessary to downgrade the Neosho madtom from threatened to endangered. --*River Crossings, Mississippi Interstate Cooperative Resource Agreement*

Hope For Wetlands

To address the nation's continued loss of wetlands, Representative Don Edwards of California recently introduced legislation intended to strengthen and amend the Clean Water Act. The Edwards bill, H.R. 4255 (**The Wetlands Reform Act of 1992**), is to date the most impressive wetlands protection legislative effort. The bill contains sincere conservation measures and is politically viable, and a reasonable, strong alternative to earlier legislation, such as H.R. 1330 [introduced by Rep. James Hayes, D-LA). In addition to strengthening the Clean Water Act, H.R. 4255 improves the 404 permitting process, making it more efficient, and establishes a sound, scientific basis for wetlands delineation -- consistent with the definition standards of the 1989 Federal Manual for the Identification and Delineation of Jurisdictional Wetlands.

H.R. 4255 contains provisions for protecting wetland resources, as well as speeding delineation processes and ending the regulatory uncertainty (what is or is not a wetland) which some farmers and landowners currently find problematic. In addition, the bill streamlines the permitting process.

H.R. 4255 is the best wetlands conservation bill introduced thus far. It is a bill that has received widespread endorsement from the conservation community. --*Sport Fishing Institute*

Truth About Turtles

For several years, the controversy surrounding the required use of turtle excluder devices (TEDs) by shrimp operations off the southeastern United States coast has generated much heat but little light. Shrimpers claimed that TED requirements would spell doom for the industry.

A report commissioned by the Center for Marine Conservation, the Environmental Defense Fund and the National Wildlife Federation reviews the apocalyptic claims of TED opponents by examining what has actually happened as a result of TED requirements, after two full seasons.

The National Academy of Sciences has estimated that, without the use of TEDs, as many as 55,000 threatened and endangered sea turtles may drown annually in American shrimp nets. Requiring the use of TEDs reduces sea turtle mortality by an estimated 97 percent. Despite the clear conservation need for TED requirements, opponents fought their adoption with dire predictions, claiming the following catastrophes would ensue if TEDs were required in their nets:

--TEDS would result in excessive losses of shrimp from nets.

--TEDs would result in significant increases in gear loss or damage.

--TEDs would result in increased injuries to shrimpers.

--TEDs would provide little benefit to sea turtles because shrimpers rarely catch them.

After two full seasons of required TEDs, it is clear that none of the opponents' predictions was accurate. A review of the actual experience with TEDs reveals these facts:

--In 1990 and 1991, shrimp catch in the Gulf of Mexico, measured in pounds caught per days fished, was actually higher than the previous three years when TEDs were not required. Similarly, in the Atlantic Ocean off the South Carolina coast, total shrimp catch in 1991, when federal TED requirements were in effect, was the highest in six years.

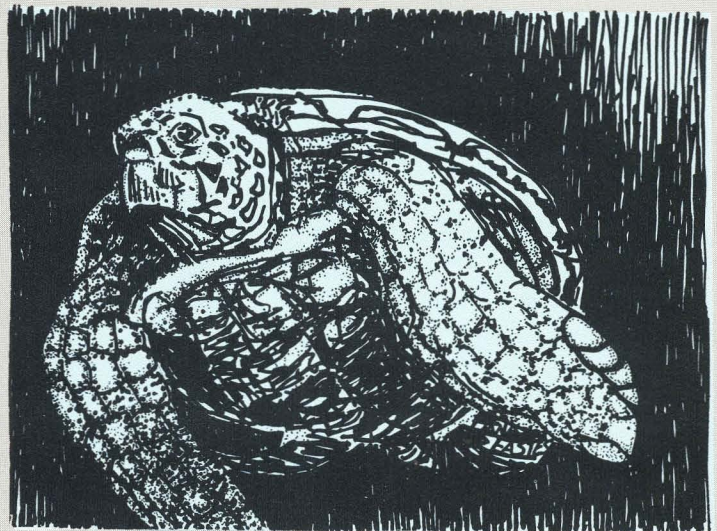
--Claims for gear loss and damage have actually declined in number since the advent of TED requirements.

--In the two years that TEDs have been required, there have been no reported injuries associated with TEDs.

--Strandings of drowned threatened and endangered sea turtles in areas of historically high strandings were dramatically lower during periods in which TEDs were required. Sea turtle nesting activity on two key beaches increased considerably during the two years in which TEDs have been required.

It is clear that, contrary to TED opponents' dire predictions, the adoption of TED requirements has not resulted in the demise of the American shrimp industry. Furthermore, TED requirements have resulted in significant conservation benefits for threatened and endangered sea turtles.

In light of this record, there is simply no rational justification for the Bush Administration's continued delay in extending TED requirements to all waters, from North Carolina to Texas, at all times of the year. In addition, at a time when the Endangered Species Act, under which the TED requirements were adopted, is often criticized for failing to balance the conservation needs of endangered species with the socio-economic demands of the nation, the TED requirements provide a dramatic example of the Act's remarkable ability to achieve precisely that balance. --*The TED Experience: Claims and Reality*



hunting

Big Game Dates

Deer (Archery)

Purchase Permits: **July 1 - Dec. 31** (sold over the counter)

Season: **Oct. 1 - Dec. 1 and Dec. 14 - Dec. 31**

Fees: \$10.50 - Landowner/Tenant (hunt own land only)-not available Unit 17 & 18

\$15.50 - Landowner/Tenant

\$30.50 - General Resident

Deer (Unit Archery)

(same as above), Units 6, 10, 11, 12, 13, 14, 15

Deer (Game Tags)

(Unit 12 only) up to 2 tags, \$10.50 each

Deer (Firearms)

Application period: **July 1 - July 10**

Season: **Dec. 2 - Dec. 13**

Fees: \$10.50 Landowner/Tenant (hunt own land only)-not available Unit 17 & 18

\$15.50 - Landowner/Tenant (unit permit)

\$30.50 - General Resident

\$50.50 Nonresident Landowner (hunt on own land)

Deer (Muzzleloader)

Application period: **July 1 - July 10**

Season: **Sept. 19 - 27 & Dec. 2 - 13**

Fees: \$10.50 - Landowner/Tenant (hunt own land only)-not available Unit 17 & 18

\$15.50 - Landowner/Tenant (unit permit)

\$30.50 - General Resident

Antelope

Application period: **June 1 - June 12 (Firearms)**

June 1 - Sept. 18 (Archery)

Season (Archery): **Sept. 19 - Sept. 27**

(Firearms): **Oct. 2 - Oct. 5**

Fees: \$20.50 - Landowner/Tenant

\$40.50 - General Resident

Turkey-fall (Archery)

Purchase Permits: **July 1 - Dec. 31** (permits sold over the counter)

Season: **Oct. 1 - Dec. 1 & Dec. 14 - Dec. 31**

Fees: \$10.50 - Landowner/Tenant (permits sold over the counter)

\$20.50 - General Resident

\$30.50 - Non-resident (unlimited units only)

Turkey-fall (Firearms)

Applications accepted until **Aug. 21**

Season: **Oct. 14 - Oct. 25**

Fees: \$10.50 - Landowner/Tenant or hunt own land

\$20.50 - General Resident

Elk

Application period: **Aug. 1 - August 14** (Cimarron Unit)

Season: **Sept. 26 - Oct. 4 (Cimarron Unit)**

Oct. 31 - Dec. 31 (9 days to be decided) Ft. Riley Unit (firearms)*

Sept. 12 - Oct. 12 (9 days to be decided) Ft. Riley Muzzleloader & Archery*

Fees: \$38.00 - Landowner/Tenant

\$75.50 - General Resident

*Apply 8 a.m., July 1 through 3 p.m. July 31 for Ft. Riley. Must have access permit from Ft. Riley; --*Bev Aldrich, secretary, Education and Public Affairs*

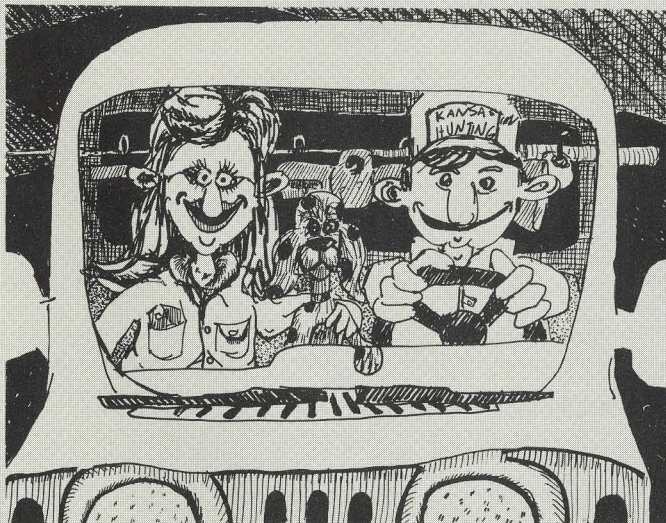
target practice and basic woodsmanship, and yield the perfect hunting partner. More than likely, you will be irritated at yourself for not taking this action earlier in your relationship.

Just think, from now on when you want to go hunting, your hunting partner will be right in your home. Better yet, remember that special hunt when you dropped that trophy buck or the first time you got that wary gobbler to come into your call, and no one was there to share that moment with? Come on, guys. Truthfully, wouldn't you have been even more elated if your spouse had witnessed these accomplishments?

While I'm on the topic of special moments, you might envision the kinship you will have with your spouse when she bags her first game or the first time she nails the bull's-

eye during target practice. However, you men with tender egos, be forewarned that teaching your wife to hunt may not be for you. She may master certain hunting skills in one year, versus the five that it took you.

Take your spouse, or better yet your whole family hunting, and you will be pleasantly surprised to find that "A family that hunts together, stays together." --*Brent Hurst, Wichita*



Lifetime Hunting Partner

During my lifetime of hunting, I could probably count on one hand the number of couples I have seen hunting together. This absence of hunting couples baffles me, since the last three years my wife and I have hunted together. We have enjoyed our time afield tremendously. Those who already hunt with their spouses can relate to my feelings, but for those men who do not, I say, "Give it a try because you are missing out on some of the most memorable times of your life."

Sure, there can be many frustrating obstacles on the path leading to the initiation of your spouse into the realm of the hunter, and on occasion, patience with each other will wear thin. However, perseverance will allow you to overcome the trials of hunter safety,

Orange For Turkeys?

In what may be a trend for other states, Pennsylvania has responded to the problem of turkey hunting accidents by requiring turkey hunters to wear hunter orange in both spring and fall seasons.

This spring was the first for the new regulations. Hunters had to wear at least 100 square inches of orange while moving to and from their calling locations. In the fall season, they will have to wear 250 square inches of orange while turkey hunting.

These new rules were adopted after the state had 53 turkey hunting accidents in 1991, including two fatalities. Fortunately, the Kansas turkey hunting accident rate is among the lowest in the nation. --*Shoup*

Fishing Ethics

Vandalism, trespassing, littering, fishing law violations, crowding of waterways, improper handling of catch, wasting of catch and abuse of non-target fish species are among problems found on a long list of common complaints about fishermen compiled at the 1987 International Conference on Outdoor Ethics, sponsored by the Izaak Walton League of America. Anglers can help curb these complaints by following a few simple rules.

-- Always get permission from the landowner when fishing in private waters. Obey his or her rules and offer to share your catch.

-- Practice proper catch-and-release fishing techniques to protect the resource for the enjoyment of others.

-- If a hook cannot be removed easily, it should be left in the fish, where it may be broken down by the fish's digestive system. If the fish has teeth, use a pair of long-nosed pliers to remove the bait. Use barbless hooks, especially when catch-and-release fishing, because they cause less damage when they are removed from the fish.

-- Do not play fish to exhaustion. Lactic acid buildup caused by protein breakdown during vigorous exercise can be fatal to fish. While the fish may swim away normally after release, it can die later from lactic acid poison-

ing.

-- Wet your hands before handling a fish and treat it gently. Fish are covered with a protective slime, and removal of this coating can make fish susceptible to infections.

-- Hold fish by the lower lip in the water and avoid touching its eyes and gills. If you must remove the fish from the water, grip it by the lower lip and under the belly.

-- Increase the number of fish released during spawning season.

-- If you keep your catch, take only what you can use and never more than your legal limit.

-- Gather and recycle all used fishing line and retrieve sinkers from shallow water.

-- Observe all boating laws and use courtesy with respect to boat speed, rights of way and boat launching and loading.

-- Do not release live bait in fishing waters or introduce exotics. --*Izaak Walton League*

Walleye On The Move

In late April, biologists with Wildlife and Parks' Division of Fisheries and Wildlife completed the spring walleye egg-taking program, collecting eggs, producing walleye fry and stocking them in seven Kansas lakes.

The heart of the program is walleye egg collection. Fertilized eggs are taken from wild walleye and hatched at state fish hatcheries, greatly increasing the survival rate of the eggs. This year, 50 million eggs were collected from Kingman State Fishing Lake and from Cheney, El Dorado, Lovewell and Milford reservoirs. An additional 20 million eggs were obtained in a trade with the State of Michigan for channel catfish fingerlings.

Approximately 2.5 million eggs were then traded to the State of Virginia for striped bass fry, and 9.4 million were traded to Texas for wiper (white bass/striped bass hybrid) fry. About 1.2 million were used for research, and one million were stocked at the Pratt and Farlington hatcheries to raise to fingerlings.

About 24 million eggs hatched and were stocked in Cedar Bluff, Clinton, Hillsdale, Marion and Milford reservoirs, Wellington City Lake and Wyandotte County Lake.

By the mid 1900s, walleye were extirpated from all of Kansas but the Missouri River and lower reaches of its tributaries. It wasn't until the 1950s that walleye reintroduction began. In the current program, walleye brood stock are trapped in nets along the dams of large

Record White Bass

It was early afternoon on March 7 when Jeffery Clark flipped his spinner bait into a private sandpit near Clay Center. Clark was bass fishing, and previous experience told him that bass fishing in this sand pit could yield white bass as well as largemouth. The pit had likely been "stocked" with whites by the nearby Republican River during times of flood. Clark had caught them here before. Today, however, would really be his lucky day.

Clark soon felt an unusually hard strike, and when the battle was over, he had landed a monster white bass. Just how big, he wouldn't know until the official weigh-in at Clay Center and confirmation of the catch by Wildlife and Parks fisheries biologist Tom Bowman, Wakefield. As it turned out, the fish was 22 1/8 inches long, 15 5/8 inches around and weighed a whopping 5.59 pounds -- besting the previous record set in 1966 by nearly 5 ounces.

The Department of Wildlife and Parks' 30-day waiting period for state records has passed, and the agency has confirmed Clark's catch as a new state record. The old record -- 26 years old, to be precise -- was taken from the spillway below Toronto Reservoir by Henry A. Baker of Wichita. That fish weighed 5.25 ounces and was 17 inches long. --*Shoup*



reservoirs where they spawn. Both males and females are "milked" for their milt and eggs, respectively. Time is of the essence because of the short life of the milt, so eggs and milt are quickly mixed to allow proper fertilization. They are then further processed and left undisturbed for two to four hours before transportation to the hatchery.

By the eighth or ninth day, some of the eggs hatch and the fry swim or are siphoned from the hatching jars into holding tanks. They are kept here for two to four days until their mouth parts are well developed. The young fry are then ready for stocking. Occasionally, lake or reservoir personnel will request fingerlings (2-3 inch fish) instead of fry. In these cases, the fry will be held in rearing ponds for an additional two months before stocking. --Shoup

Statewide Creel Limits

As the name suggests, the 1992 Kansas Fishing Guide is not a complete list of regulations, although most laws affecting Kansas fishermen are covered in the book.

However, creel limits on streams and lakes other than those listed in the chart were not covered in the 1992 brochure.

Statewide creel limits not listed in the fishing guide include the following:

- channel and blue catfish (single species or in combination) - 10;
- walleye, sauger, saugeye (single species or in combination) - 5;
- rainbow trout, brown trout (single species or in combination) - 5;
- black bass (largemouth, smallmouth or spotted; single species or in combination) - 5;
- flathead catfish - 5;
- northern pike, tiger muskie, muskellunge (one species or in combination) 2;
- striped bass - 2;
- paddlefish - 2;
- wiper - 2;
- crappie - 50;
- white bass, bluegill, bullhead, and all other legal species - no limit.

This information is included in fishing regulation signs posted on individual waters.

Length and creel limits on all state- and federally-managed waters are posted. Anglers who are uncertain of any fishing regulation should consult these signs or contact their local Wildlife and Parks office. --Shoup

UNDER CURRENTS

A Mother's Touch



by Mark Shoup

The other day, my mother asked in mock seriousness why I never write about her in this column. "You always write about your *father*," she said. Was that mock seriousness?

"But Mom," I protested. "It's a nature magazine. Golf is about as close as you get. Our readers like stories about hunting or fishing or birdwatching. You don't even like yard work."

She was unconvinced.

"Besides," I stammered, "you and I never did much outdoors when I was growing up."

"Hmmp," she replied, and the matter was dropped, sort of.

After each issue, it was always Mom who made a point of mentioning this column.

"We really enjoyed the article about your *father*," she might say.

Or "I've had so many comments about the article on *Logan*."

Was I really fielding hints in that inflection, or was I just the victim of a guilty conscience? I had to reflect.

Mom did teach me lots of things necessary for outdoor adventure -- how to pack a lunch, how to dress properly. She even taught me how to clean game: she wasn't about to do it.

Her greatest influence, however, was more subtle. Mom is a proud, strong-willed woman who always wanted her children to exceed her accomplishments. She knew it was an uphill battle, but she wanted her boy to be cultured, to develop some class. When I was six, this meant art classes at a small-town summer park program.

I attended dutifully. There were finger paints and papier-mache, but mostly I remember the bright sunlight pouring through the old stone building's many windows, and the lin-

gering smell of days-old ashes and woodsmoke from a fireplace at one end of the room. The sunlight, especially, made it seem unnatural to be inside in summer.

Art classes were after lunch on weekday afternoons, and the park was just a couple of blocks from home, so I walked. One day, Mom was busy in the basement when I left. As I stepped out the back door, I saw my fishing pole lying on the patio. It was a ripe summer day, the sunlight so bright the air held a golden hue. It was no day for a kid to be inside.

Now, besides being a cultural mecca for young Picassos, the park also had a creek running through it. I gave the art building a wide berth as I made for the creek. There I was, under an old railroad bridge that crossed the creek, fishing pole in one hand, stepping across logs that were snagged between the pilings. I didn't even know how to swim, but I was sure a lunker waited just under that next log if I could just reach . . .

Perhaps it was the shade of the bridge that brought me to my senses, or perhaps it was the flutter in my stomach as the next log gave way under foot. Whichever the case, I turned just in time to catch myself, chest deep, on a still-anchored log.

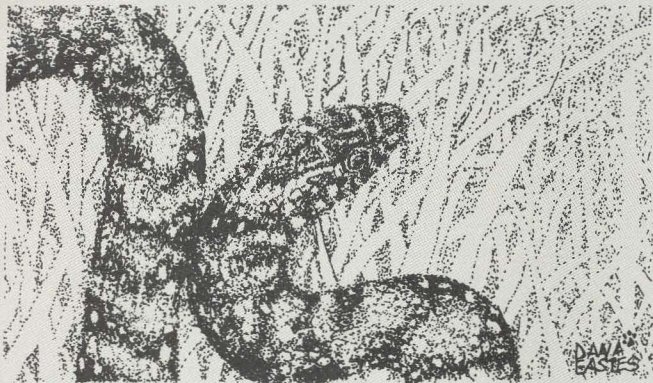
Then I remember standing on top of the bank, still clutching my pole, shivering in the hot sun, tears streaming down my face. At that tender age, death had stroked my hand, and I was frightened beyond delirium. Miraculously, Mom had reached the bank at that same instant. How she got there, I did not know. I did not care. It was Mom, her arms around my dripping little body. Safe.

Mom didn't panic -- admonishment was unnecessary. Love overcame fear, and in the summers to follow, she fostered my passion to be outdoors, even if she didn't share it. She packed lunches for fishing expeditions and, although she couldn't swim a stroke, made sure I became an excellent swimmer -- all this, knowing the art lessons would never take.

Now that was class.

Ophidiophobia

Probably no group of animals both attracts and repels people more than snakes. I heard a man react to our live snake display at Elk City State Park by saying, "The only good snake is a dead snake." In what may have been a futile effort to unseat this deep-rooted attitude, I



revealed to the gentleman a snake that even he might consider good. It was a beautifully-marked yellow- and black-speckled king snake -- a true farmer's friend, a Kansas native and a predator that will feed voraciously on rats and mice. But that's not all. This snake is willing and capable of preying on venomous species of snakes like copperheads and rattlesnakes.

As a youngster growing up on a farm, I had both a fascination with and fear of snakes. My family acquired a new set of encyclopedias when I was six years old. Volume 15 had several glossy, colored pictures of snakes, which I looked at so much that the pages began to fall out.

On forays into nearby fields, nothing would cause me to evacuate an area faster than seeing a snake. My older brother was the same way. On one dash back to the farmhouse after being surprised by a snake, he was shocked to see another one crossing the path on his retreat. But the farmhouse was not always a safe haven from snakes. The basement sometimes harbored milk snakes, much to the chagrin of my mother.

E. O. Wilson, a Harvard professor, writes in his book, *Biophilia*, about man's fear of snakes. It seems that children under five years have no special anxiety about snakes. At that age, or soon after, a fearful experience regarding snakes can instill a lifetime of anxiety. Simply being surprised by a snake, hearing a

scary story, or watching a frightening movie about a close encounter with snakes can initiate a fear response.

Unlike childhood fears of the dark, thunder or strangers, which are usually overcome by the time the child reaches seven, the fear of snakes often grows stronger as time passes. It can become so severe that a person becomes physically ill at the sight of snakes. This extreme reaction is termed ophidiophobia. It is possible to lessen this apprehension by handling harmless snakes, but even with this special effort it never completely goes away.

Because snakes are sometimes venomous, can easily hide and use seemingly effortless movements without the aid of limbs, these creatures are both alluring and repulsive. The fear of snakes is passed down through the generations to help prevent careless attitudes toward a potentially dangerous reptile. The attraction to snakes is evident in the fact that Kansas naturalists report the highest public turnout at programs featuring live snakes. --Ed Miller, nongame wildlife biologist, *Independence*

What's a Wetland?

Simply put, wetlands are the areas on the landscape where land and water meet. In general they are lands that are either inundated with surface water or saturated with groundwater long enough during the growing season to make it necessary for the vegetation to adapt to growing in saturated soil conditions. This periodic or permanent wetness is the fundamental factor that makes wetlands different from uplands.

While most people picture wetlands as marshy areas with lush aquatic plants and constant water, there are actually many more kinds of wetlands than this. In fact, in certain seasons, many ecologically important wetlands may be dry or lack signs of plant life. The following list describes some examples of wetlands.

Bogs typically have a thick layer of floating root masses or peat on the surface and are highly acidic. They may have no regular inlet

or outlet of water; thus, they are dependent upon precipitation for water. Most floating bogs are found in the northern U.S.

Bottomland hardwoods are deciduous forested wetlands found along rivers and streams, generally in the broad floodplain of the southeast and southcentral U.S.

Emergent wetlands are characterized by free-standing, nonwoody plants. They can be either freshwater or saltwater. Emergent wetlands are found throughout the U.S., particularly in coastal areas, adjacent to major lakes and in the West.

Fens have a defined outlet and are supported by mineral-rich groundwater that has seeped to the surface. Like bogs, fens have large amounts of peat. They are found in the northern U.S.

Mangrove swamps are coastal saltwater shrub or forested wetlands that may be flooded with water all year round or only during high tide. Mangroves are found along the coast of the southern U.S.

Marshes are emergent wetlands, typically with a regular inlet and outlet of water. They can be either salt or freshwater, inland or coastal. They are dominated primarily by nonwoody vegetation. Marshes are found throughout the U.S.

Swamps are dominated primarily by trees or shrubs and are found throughout the United States.

Prairie potholes are depressional wetlands found in the Upper Midwest, especially North Dakota, South Dakota and Minnesota. They are major waterfowl breeding and migration resting areas.

Playa lakes are periodically-flooded wetland basins that are common in parts of the Southwest and Plains states. Only Texas has more playas than Kansas.

Pocosins are broad-leafed evergreen shrub bogs found in the Southeast. They may not be readily apparent because the thick underlying peaty soils dry out rapidly after the early part of the growing season.

Vernal pools are naturally occurring depressional wetlands that are covered by shallow water for variable periods from winter to spring but may be completely dry for most of the summer and fall. --*Environmental Protection Agency*

Not the End of the World

It's Not the End of the World, But You Can See It From Here, by Roger Welsh, is a delightful blend of fact and fiction, making the subtitle, *Tales of the Great Plains*, an accurate description of this easy-reading, very human book. The tales are the sort that become legend for families and small towns. The author draws on his own experience of life on the plains, but the universal quality of human behavior will catch you when you least expect it.

If you enjoy leisurely evenings reminiscing, you will find this book to your liking. If you have ever lived in a small town or rural area, you will find at least one character that will make you say, "I know someone just like that."

The Great Plains provided the early settlers with a multitude of situations that tested all and weeded out all but the strong. Welsh poses the question concerning survivorship that I found intriguing: Did the survivors laugh because they had survived where others failed, or did they survive because they were able to laugh?

It's Not the End . . . is the kind of book that will put a smile on your face or a lump in your throat. Above all, you will come away with a feeling of kinship and tolerance for others and an appreciation for the often extraordinary conditions of ordinary people. --*Pat Maloney, purchasing assistant, Pratt*

Outdoor Calendar

July 4th Weekend

Fourth of July celebrations at the following:

Glen Elder State Park (913) 545-3345. Day to include beach activities and annual mud volleyball tournament followed by fireworks in the evening.

Lovewell State Park (913) 753-4305. Fireworks start at dusk on Saturday. Interpretive programs all day.

Pomona State Park (913) 828-4933. Water Ski Show sponsored by Lighthouse Bay Marina. Saturday evening, open to public.

Perry State Park (913) 945-6615. Two boat parades and a fireworks display

July 10-12 -- Bluegrass Weekend at **Eisenhower State Park** (913) 528-4102.

Tenth annual bluegrass weekend, starts Friday at 8 p.m. ends on Sunday at 1 p.m., separate admission fee, located in Blackjack Campground, bring your lawn chair.

July 17-19 -- Vietnam Veterans Appreciation Concert at **El Dorado State Park** (913) 321-7180. Sponsored by the Vietnam Veterans Association.

July 18, 19 -- CCSA White Cap Regatta at **Cheney State Park** (316) 542-3664. Sailboat races all day, to be held at Sailboat Cove sponsored by Ninnescah Sailing Association.

Webster Carp Derby Webster State Park (913) 425-6775. Fishing tournament, two man teams, prizes, 8 a.m. Sat. to 2 p.m. Sun.

July 24 - 26 -- Prairie Port Festival at **El Dorado State Park** (316) 321-7180.

Friday evening July 24, concert. Saturday July 25, beach volleyball tournament, all day. Sunday July 26, beach party, activities all day to include disk jockey, "Anything That Floats" race, and sky diving demonstration.

July 25, 26 -- Annual mud and sand volleyball tournaments at **Webster State Park** (913) 425-6775.

Aug. 8 Lovewell Fun Days at Lovewell State Park (913) 753-4305.

Variety of activities for kids and adults to include: softball, volleyball, and horseshoe tournaments, bicycle races, and a dance. All day.

Aug. 14-16 -- Bluegrass Jam Festival campout and craft show at **Pomona State Park**

(913) 828-4933. Friday evening to Sunday afternoon. Main stage show Saturday.

Aug. 29 -- Catamaran Sailboat Race **Cheney State Park** (316) 542-3664.

Sailboat races all day, to be held at Sailboat Cove, sponsored by Ninnescah Sailing Association.

Aug. 31 - Sept. 4 -- Prindle Nationals Sailboat Races at **Cheney State Park** (316) 542-3664.

National championship catamaran races all day, to be held at Sailboat Cove, sponsored by Ninnescah Sailing Association. --*Ed DeTrude, program specialist, Pratt*

Fishing Fun Comics

Some folks claim that every kid is a born fisherman. Whether this is true or not, it surely seems that every kid is at least initially inter-

ested in fishing. All too often, however, parents do not know how to introduce their children to fishing, even if they would like to. Now the Kansas Department of Wildlife and Parks has an easy, kid-friendly way to stimulate this natural interest.

It's called "Fishing Fun," and it's a comic book produced by the Future Fisherman Foundation, a nonprofit organization formed "to promote participation and education in fishing as well as the enhancement and protection of aquatic resources."

The comic book features Lisa and Joey, two friends who learn how easy and fun fishing can be. It all starts when Lisa's Uncle Joe gives her a tackle box and rod and reel. Impressed, Joey rigs up a simple cane pole and the two take off on their adventure, learning how to buy and use equipment, prepare line, catch bait, catch fish when they bite, find fish, and, finally, how to care for a catch.

The comic book is filled with activities and illustrations that clearly explain everything a youngster needs to get started in America's favorite outdoor sport. There is even a section on fish identification. It was a great help to those celebrating National Fishing Week and Kansas Free Fishing and Park Entrance Days in June.

"Fishing Fun" is free of charge from the Kansas Department of Wildlife and Parks, RR 2, Box 54A, Pratt, KS 67124, (316) 672-5911. --*Shoup*

WILDSCAPE Elects Officers

New KANSAS WILDSCAPE Foundation board of directors include the following:

Chairman -- William A. Anderson, Jr., insurance and financial management, MassMutual, Overland Park.

Vice Chairmen -- Robert L. Ring, president, The Coleman Company, Wichita; Michael G. Vineyard, president, Alex R. Massan, Inc., Linwood; and Sandra L. McMullen, president, Hutchinson Community Foundation, Hutchinson.

Secretary -- Robert M. Beachy, attorney, Van Osdol, Magruder, Erickson & Redmond, P.C., Kansas City, Mo.

Treasurer -- Fred DeVictor, director, Parks and Recreation Department, City of Lawrence, Lawrence. --*Rich Bailey, KANSAS WILDSCAPE*

by Dana Eastes

PRONGHORNS on the prairie.....

The only place you can see an antelope is on the plains of Wyoming. That's what I always thought, but I was wrong. You can see and hunt antelope right here in Kansas. They aren't as abundant as they are in Wyoming and other western states, but you still can catch a glimpse of their sleek beauty as they run across the Kansas prairie.

A couple of years ago on a brisk March morning, I was helping to trap turkeys in Commanche county. Riding along the back roads, we stopped abruptly. The wildlife biologist, Charlie Swank, pointed to a small herd of antelope in the distance. What looked like white specks to the naked eye turned into graceful antelope when looked at through a spotting scope. Seeing these antelope sparked my interest to learn more about them.

PRONGHORN PROFILE

You can call it a pronghorn; you can call it an antelope; you can even call it a prairie goat.

Actually prairie goat would be a closer description than antelope. Although antelope is what most people call them, they are not related to any antelope species. Like cheeseburgers

and french fries, pronghorns are an American original. The scientific name is *Antilocapra americana*, the only member of the family *Antilocapridae*.

Males are known as bucks or billies and females are known as does. Unlike deer and elk, pronghorns have horns, not antlers. Both bucks and does may have horns. A mature buck's horn

can be more than a foot tall, but a female's horn is rarely more than six inches long. The sheaths of the horns are shed annually leaving only a spike.

The breeding season, or rut, begins in early October. Mature bucks defend their territory and begin to collect harems or groups of females. After the rut, both bucks and does shed



their horns, and small breeding groups join to form larger herds. Females break off from the herd when it is time to give birth, usually in late winter and early spring. Does usually give birth to a pair of fawns. The newborn fawns are scentless and spend their first week lying flat in the prairie vegetation, camouflaged from predators. The doe only visits at feeding time to avoid attracting predators to her newborn. By the end of the week, it is able to follow its mother, and in three weeks it is feeding on vegetation. Pronghorns are not picky eaters; making use of all plant species on the prairie. They hunt out the richest, succulent grasses, and in doing so, can go without water. Water becomes more important in late summer and fall, when they drink as much as a gallon a day in hot, dry weather.

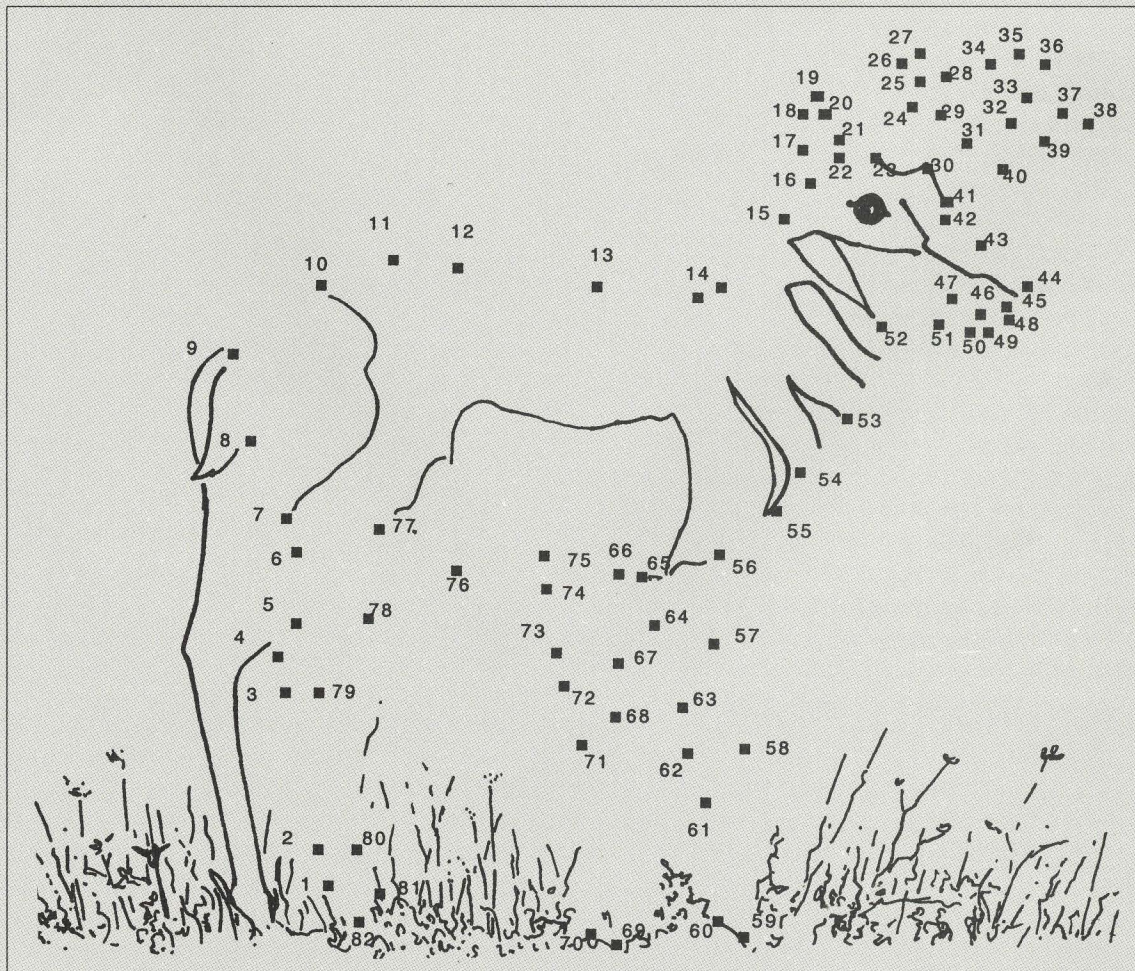
A mature buck weighs about 125 pounds and a doe 110. They stand 34 inches high. Bones are slender, but very porous. Hooves have pads that absorb the rough terrain. Large hollow hairs keep the pronghorns warm when the winter wind blows. They can erect the hairs at will on any part of the body, increasing the insulating effect. The large white rump patch is often erected when danger is sighted.

Their look is sleek and elegant, but don't let that mislead you; they are tough animals, surviving in severe weather and sparse country. They have incredible eyesight. It is said they can detect movement at

four miles. They position themselves in areas where they can see great distances and are wary of any vegetation that may hide predators. Second to eyesight, speed is their best defense against danger. Pronghorns can reach speeds up to 60 m.p.h. in a short sprint. If confronted, they defend themselves with their sharp, pointed hooves. Animals that prey on young pronghorns include coyotes, feral dogs, cougars, bobcats, and eagles. Besides man, these predators can rarely bring down a healthy adult.

Early travelers reported pronghorns as far east as Emporia. In 1867 Lt. George A. Custer recorded seeing antelope in abundance in what is now Ness county. The rush of civilization in the late 1800s pushed the pronghorns close to extirpation. Conservation efforts allowed only token herds to survive in the state. A 1962 aerial survey found only 56 antelope left in the state, all in Wallace county. Since then, wildlife biologists have transplanted animals from other states. Their numbers have gradually increased, allowing for a limited hunting season. This management technique controls herds, while providing an exciting challenge to hunters and delicious meat to those who are lucky enough to fill their game tag. The largest populations of pronghorns are in Wallace and Logan counties. Most recently, pronghorns have been transplanted from Colorado to the Flint Hills and Cimmaron National Grasslands. Like the wind, the big blue sky, and the little bluestem, pronghorns are a part of the Kansas prairie.

.....DOT - TO - DOT-ALOPE.....
 Complete the picture by connecting the dots.





Channel Cats and Horses: A Deadly Duo

As a seventh grader, I envied my cousins because they lived on a farm.

Two of the main attractions of the place were the river that coursed along the south side of it . . . and horses. I loved fishing for channel cats. I loved horses. But, one eventful July 4th family picnic on the farm taught me that this innocent pair of down-home ingredients can be a dangerous combination.

It all started with a simple suggestion to saddle a couple of ponies and ride down to the river to catch some channel cats. It was my idea, as I recall . . . the first in a series of mistakes I made that day.

Poles and tackle boxes in hand, we mounted our trusty steeds and clomped past the relatives and neighbors finishing off their cherry pie and homemade ice cream in the shade of the cottonwoods towering over the lawn.

The mile-long trek to the river was uneventful. Once there, we tied the horses off to some streamside trees and began casting worms into the shaded holes up and down the river. A few channel cats later, after deciding that the fishing was a bit slow, we began a search for water snakes and softshell turtles. Before the afternoon was out, we digressed into a rowdy game of two-on-two football in the shallow, sandy river. Finally, wet and tired, we decided to head back.

Karen warned me that Stormy, the horse I was riding, would probably take off at a run toward the farmstead once it came into view and that I probably wouldn't be able to slow him down.

"No problem," I said, swinging into the saddle and grabbing the reins. But, as I switched my fishing pole to the opposite hand, I accidentally whipped the tip of Stormy's ear with the rod. Before I could say "Oops!" he was approaching full speed, and I was clutching for a handful of anything that would help me stay on this runaway hayburner.

I wasn't the best horseman under good circumstances but, after I finally got a grip on the saddle horn, I figured there was a reasonable chance that I could manage the one-mile sprint to the barn without falling off. Just as I was beginning to squelch my panic, the saddle slipped ever so slightly to the left. The cinch wasn't tight enough! I was desperately wishing to be anywhere but on the back of this renegade oater who was obviously intent on punishing me and my fishing pole.

It was no use. Stormy had me right where he wanted me. The jostling of his full-bore sprint finally caused the saddle . . . and me . . . to twist 90 degrees. The saddle was now pointed straight south instead of up. I jet-tisoned my fishing pole and tackle box at the head of the last turn onto the backstretch and frantically grasped for



Dana Eastes illustration

something that would save my pride and prevent a whole lot of pain.

I knew I had to bail out. I knew it was going to hurt. Worst of all, I knew a couple dozen witnesses would see the whole gory deed. Finally, I let Stormy go his way and I went mine. By the time I stopped cartwheeling down the road, Stormy was already at the barn and my relatives were looking on incredulously, with some horror in their faces, from the opposite side of the road.

It's a good thing I was young and resilient. The same fall today would kill me. By the time Dad got to me, I had pretty much figured out which way was up, and was inventorying a batch of fresh bruises and scrapes. Once he realized I was not profoundly injured, Dad asked the obvious question.

"You okay?"

"I think so," I admitted meekly.

"I wasn't so sure you were going to get up from that one," he offered, as he helped me up and put his arm around my shoulders.

We walked back toward the spectators who had witnessed my inglorious unseating. As we did, their stunned silence erupted into a sort of giddy relief that the worst that could have happened hadn't. I knew I was in for some heavy ribbing for my horsemanship. The sympathetic hugging and kissing Mom and my aunts inflicted on me didn't ease my embarrassment, but I gladly accepted their attention. After all, it's not often one gets a chance to confront both of life's greatest fears—death and humiliation—in front of this many kindred witnesses.

And, like all of life's little, unexpected traumas, this one taught me a valuable lesson: You can lead a horse to water . . . but you can't reason with him once you've whipped him with your fishing pole. ♡

