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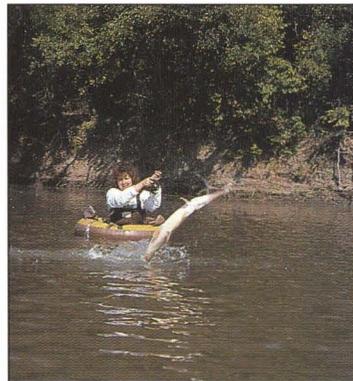
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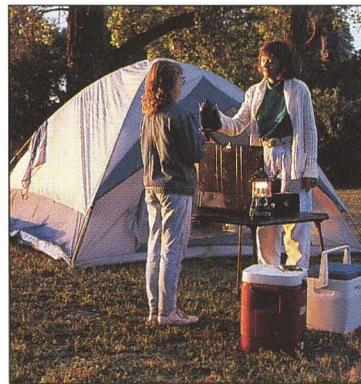
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Front cover: Blue grama seed heads stand against the sun in Wallace County at dawn. Mike Blair took the photo with a 105 mm lens, f/2.8 @ 1/2000. **Back cover:** A 6-pound largemouth bass tries to throw a Zara Spook. Former still photographer Gene Brehm took the shot with 50mm lens, f/5.6 @ 1/500.

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

Equal opportunity to participate in and benefit from programs described herein is available to all individuals without regard to race, color, national origin, sex, sexual preference, religion, age or handicap. Complaints of discrimination should be sent to Office of the Secretary, Kansas Department of Wildlife and Parks, 900 Jackson St., Suite 502, Topeka, KS 66612.

Get Involved With Natural Resource Management



Each Kansan with a stake in our outdoor heritage should ask: What do the citizens of Kansas expect and deserve in the way of state parks, fishing lakes, wildlife areas and natural resource management? What am I willing to do to provide and protect the resources that I find valuable? We must keep these questions in mind

as we chart our course for the future.

Over the long term, we look for constituent organizations, businesses and individuals to have greater involvement in caring for our public lands and natural resources. We have great friends in all of the wildlife, recreational, professional and conservation organizations that support Wildlife and Parks. The Kansans that make up these groups make a strong contribution to Kansas natural resource management. We appreciate their support and hope our relationship continues to grow and prosper.

During the past year, we saw exceptional contributions of time, effort and money to help rebuild our flooded state parks. Many communities around state parks organized "Friends Groups" to help the rebuilding process. These communities and citizens have taken responsibility and pride in ensuring state parks remain open. We appreciate their work and dedication.

There have been exceptional private fund-raising efforts for developing the Prairie Spirit Rail-Trail. Supporters of the trail even raffled bicycles and sold T-shirts to raise money for our longest rail-trail in Kansas. We are thankful for their support and devotion.

The acquisition of the Buffalo Ranch (Lynn Berentz-Max Dick Wildlife Area) in Montgomery County is a prime example of how things must work in the future.

This wildlife area was purchased with private money, and a trust fund was established to provide operating revenues. The property adds a prime wildlife and recreation area to Kansas, at no burden to the taxpayer. We have had several public meetings with local residents to discuss the development of the property. This is a \$1 million project, and it will provide limitless benefits to Kansas far into the future.

For areas like the Buffalo Ranch to exist, the people of Kansas are going to have to become directly involved in supporting, advising and participating in the management of our state parks, lakes and wildlife areas. Citizens must let elected representatives know that wildlife, fisheries, outdoor recreation and natural resources are important in their lives. Moreover, they must be willing to financially support those services they believe are important.

A clear trend in outdoor recreation is "user fees" for public recreation areas. The federal government has placed new fees on the use of Corps of Engineers facilities, Forest Service areas and national parks. These fees are based on a simple principle: The people who use these recreational services must pay for these services. Because of initiatives on social services, corrections, mandated programs and crime control, I doubt we will see additional tax support for wildlife and recreation programs. If we are going to have boat ramps, parks, picnic sites, hiking trails, wildlife viewing areas and good fishing holes, we — those who use the areas and facilities, must help pay for them.

Wildlife and Parks' long range plans must involve increased citizen participation and public/private partnerships. I see this as the future for many government programs. I believe people take pride and responsibility in projects and programs they believe in, support and sustain. We can take pride in our work in Kansas.

Ted Ensley





Native Grass: Lifeblood Of The Prairie

by Dr. Gerald (Jerry) W. Tomanek, *Hays*

photos by Mike Blair

The endless prairie awed settlers when they reached Kansas. Although most were accustomed to a more timbered landscape, they soon recognized the blessings of prairie.

The most important living thing on this planet is a green leaf — a blade of grass — and its potentialities. All animals, including man, could not exist without plants, and among them are the grasses, the most useful of plants. Kansas is indeed fortunate to have native grasses and forbs as its primary vegetation.

When pioneers first ventured into Kansas they found the state was nearly all prairie with only ribbons of forests along the streams and scattered tracts in a few of the mesic, or wetter, areas along the eastern border. The deciduous forest has invaded eastern Kansas since the settlers came due to fire prevention. As a result, a mosaic of prairie and forests is found in parts of eastern Kansas.

There are many accounts of settlers coming west out of the eastern forests and being amazed at the "natural grasslands that flowed before them to the horizon under an incredible reach of sky." There the world was dominated not by trees but by grass — bluestems, grammas and others. One such account relates how settlers travelling through Illinois and Missouri often encountered great forests with occasional islands of tall grass prairie. This pattern continued westward to Kansas City, but from there westward, nothing but a vast

sea of waving prairie grasses. This large open space was frightening to the settlers at first, but as they learned more about the prairie and its dominant grasses, they counted its blessings.

We do get many things from grass. One benefit that comes to mind is red meat. Beef steak is just converted grass. Cattle serve as conveyors of the energy stored in grass by making it palatable to us in the form of meat. However, the most important benefit is that the richest soil in the world is developed under grasslands. One of the reasons for the rich prairie soil is the mass of fibrous grass roots that fill the soil as deep as 5 to 8 feet.

Individual roots live only 1 to 3 years and are replaced by new roots. The dead roots add organic matter and nutrients to the soil.



Sideoats grama is a warm-season midgrass widely distributed in all states east of the Rocky Mountains. Oatlike seeds hang from the side of the 2- to 4-foot stalk. It provides only fair wildlife cover.

Native grasslands also give us clean water. The grass leaves catch the raindrops, break the impact of their long fall and then guide them

gently to the soil surface, where they can follow thousands of root channels into the soil. If the raindrops are not absorbed by the roots, they may follow a rock layer until they bubble out of a hillside as a spring feeding a small clear-water stream. Before the widespread breaking of the sod for crops, the streams all ran clear and deep. Grasslands protect the soil from wind and water erosion. Without grass cover, water runs off more freely, carrying away precious top soil and polluting our streams. The infamous dust storms of the 1930s are grim reminders of the effects of overgrazing and overcultivation — lack of grass.

Grasslands also serve as a home for many wildlife species such as meadowlarks, prairie horned



Big bluestem is a warm-season tallgrass, reaching heights of 3-8 feet. It provides good wildlife cover, but stands can become quite dense if not properly managed through burning or grazing.



Tall dropseed is sometimes called “flag grass” because of how the top leaves wave in the breeze. It is drought resistant and its seeds do provide a valuable wildlife food, especially for rabbits and songbirds.

larks, mourning doves, prairie chickens, hawks, owls, eagles, rabbits, skunks, badgers, prairie dogs, antelope and countless others. The beauty of grasslands is a value rarely recognized. The prairies support one of the richest flora of any plant association on earth. More flowers grow in the prairie than in any other plant formation and their bright colors mixed with the green of the grasses present scenes of striking beauty. Too often we miss this beauty as we travel our super highways at high speeds, and the beautiful countryside turns into a gray blur. One can see for miles on the prairie and get the feeling of vastness — the panoramic view — a large hunk of God’s beauty. It is a good place to restore your soul.

A grass plant has many parts, a knowledge of which is helpful in recognizing them and understanding their usefulness. They may be classified ecologically according to their time of growth, habits of growth, height and dominance. We have cool season grasses which may

start growth in the fall, lie dormant but green in winter, start growth in early spring, mature in May or June and lie dormant during the summer months. Warm season grasses begin growth in the spring, mature in the fall and lie dormant during the winter. Cool season examples are wheatgrasses and wild ryes, while

warm season examples are bluestems and grammas.

Grasses may also be classed as sod-forming or bunch grass growth forms, resulting from their method of vegetative reproduction. Sod formers reproduce from underground stems (rhizomes) or above ground stems (stolons) that extend horizon-



Indiangrass is a tall, warm-season grass that provides excellent wildlife nesting and protective cover. The seeds are also eaten by songbirds and small mammals.

tally a few inches to a few feet from the parent plant and produce new plants (shoots and roots) from the joints (nodes). The result is a continuous sod. Examples of grasses with rhizomes are western wheatgrass and switchgrass. Buffalo grass has stolons. Under ideal conditions these stolons have been known to grow as much as an inch a day. Many grasses form a bunch by erect growth of the stems and leaves (shoots) and spread vegetatively by means of new tillers so that several hundred stems may occur in a bunch. Examples of bunch grasses are little bluestem, blue grama and tall dropseed. Some grasses like big bluestem and sideoats grama reproduce by both rhizomes and tillering and may take on either growth form.

Height classes include tallgrasses (5 to 8 feet), midgrasses (2 to 4 feet) and short grasses (1/2 inch to 1 1/2 feet). Examples of tallgrasses are big bluestem, Indiangrass and switchgrass. Midgrasses include little bluestem, tall dropseed and sideoats grama while shortgrasses include buffalograss and blue and hairy grama.

Certain species of prairie grass are so abundant and vigorous that their influence on the habitat and effect on other species determine, to a large degree, the conditions under which all the remaining species must develop. Such a species is called a dominant.

Although there have been numerous prairie types identified in Kansas, the principal ones recognized by most ecologists are tallgrass prairie, true prairie, mixed prairie, shortgrass prairie and sandy prairie. The tallgrass prairie is restricted to extreme eastern Kansas and its dominants are big bluestem, Indiangrass and switchgrass. Even little bluestem is more than 5 feet tall in this more mesic area. The true prairie is dominated by mid and tallgrasses. Big and little bluestem make up more than 60 percent of the grass cover although many other species are important. The Flint Hills comprise most of the true prairie. The mixed prairie is domi-



Eastern grama is a tall, warm season native that grows in fertile bottomland, swamps and along streambanks. It provides good wildlife cover and a good food source.

nated by tall, mid and short grasses — big bluestem, little bluestem, sideoats grama and blue grama. The short grass prairie is dominated by the two short grasses, blue grama and buffalo grass. The open soils of the sandy prairie support a mixture of tall and midgrasses such as sand bluestem, sand lovegrass, little bluestem and sand reedgrass.

There are some 200 species of native grasses found in Kansas, but probably less than 20 species could be considered dominants. Actually, if we are well acquainted with 10 or 12 species, we would know more than 60 percent of the grass cover in our native Kansas prairies.

Big bluestem is a warm-season tall grass which forms large, continuous sods on the moist lowlands but forms large bunch-like growths on the drier uplands. It begins growth in early April, and seed stalks 3-8 feet tall appear from late

August to October. This grass is sometimes call "turkey foot bluestem" because the seed head branches into three parts resembling a turkey foot. Big bluestem is a dominant on most sites in the tall grass and true prairies but is dominant on only the moist lowlands in the mixed prairie. Few grasses can equal big bluestem in quantity or quality of forage produced. It is the most highly preferred grass by livestock in the prairie and has often been called the "ice cream grass of the prairie." One of the identifying vegetative characteristics is the scattered hair on the sheath and lower 1/3 of the leaf blades. Mature plants have a reddish cast after frost.

Indiangrass is a warmseason, sod-forming tallgrass with golden plumelike seed heads 4-12 inches long on stems 4-8 feet tall. It grows in the normal big bluestem habitats but is not as abundant. However,

like big bluestem, it is very palatable and nutritious. It sometimes forms rather large pure stands but most often is just intermixed with big bluestem. It is easily identified by the large clawlike ligule where the leaf blade attaches to the sheath. Because of its beautiful inflorescence, it is often used in fall flower arrangements.

Switchgrass is also a warm-season, sod-forming tallgrass with vigorous roots and rhizomes. It has a large, open seed head with large seeds that birds eat. It also grows on the same habitats as big bluestem and Indiangrass but is not as palatable to livestock. It is a very popular grass for revegetating worn out cultivated fields and waterways and is quite tolerant of water-logged soils. It provides excellent cover for wildlife, especially ground nesting birds. Switchgrass can be readily identified by a small dense nest of hairs where the leaf blade attaches to the sheath. It seldom gets over 6 feet tall.

Sand lovegrass is a warm-season, bunch mid/tallgrass that can reach a height of 2-5 feet by the end of the growing season. It is a delicate looking grass with a large open seed head (6-12 inches). This tall, leafy grass grows throughout the Great Plains, primarily on sandy soils in the 18- to 35-inch rainfall belt. It is highly preferred by grazers and is also important as a soil protector.

Little bluestem is one of the most widely spread grasses and is native

in all but the four states of California, Oregon, Washington and Nevada. It is a warm-season midgrass and forms large bunches with a dense root system that may reach depths of 5-8 feet. The seed stalks seldom get more than 4 feet tall except in areas of high rainfall such as found in the eastern tall-grass prairie. It is found in every major plant association in Kansas from the tall grass prairie in the east, to the rocky outcrops and sandy soils of the shortgrass prairie in the west. It is a nutritious forage plant most often found on the uplands. Little bluestem is easily recognized in the fall and winter as the red, upright bunch grass scattered over the hills, and earlier in the spring it is identified by its flat, bluish-colored basal shoots.

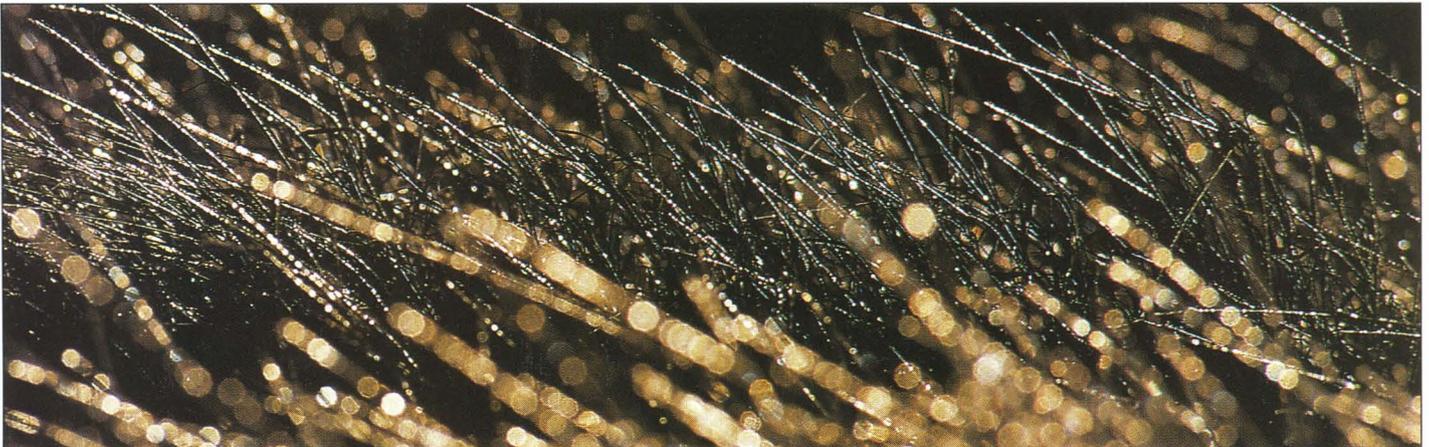
Sideoats grama is a warm-season midgrass with short rhizomes that form an open sod or small bunches or tufts. It is widely distributed — found in all states east of the Rocky Mountains. It grows on well-drained uplands, shallow ridges and rocky areas but may be found on soils ranging from deep to very shallow and from sandy to clay-textured. The oatlike seeds hang down on one side of the 2- to 4-foot high seed stalk — hence the name sideoats grama. It is also easily recognized by the white bumps (pustules) on the edge of the leaf blades with a hair growing out of them. It produces high quality, nutritious, green forage that is well liked by all

classes of livestock.

Tall dropseed is a warm-season, bunch grass that grows to a height of 2-4 feet. It is drought resistant and is a small part of the vegetative cover. In the fall, it produces 3- to 10-inch seeds that are partially encased in a sheath. The upper leaves are short but the basal leaves are long and attenuated — a characteristic of many of the dropseeds. Tall dropseed is not as palatable as the bluestems and grammas but is eaten when the others are scarce. Rabbits relish the small seeds of the dropseeds. It is sometimes called “flag grass” because of the top leaves open up and wave in the wind, especially in fall and winter.

Western wheatgrass is the only native cool-season grass that is dominant in the Kansas prairies. It is dominant on the wetter sites of the short grass prairie and is found on the heavier soils in the mixed prairie. It is a midgrass, forming a dense sod through the spread of its heavy rhizomes. It has bluish-green leaves and stems, and the leaf blades have very prominent veins. Western wheatgrass starts maximum growth in early spring. It is nutritious and is readily eaten by livestock in its early growth stage.

Blue grama is the most widely distributed and drought resistant grass in the Great Plains. It is a warm-season, bunch-forming shortgrass found on the drier sites of eastern prairies, and it is a dominant on the mixed and shortgrass



A grass that provides good winter wildlife cover must withstand the rigors of winter, including snow and ice. Frail grasses are of little winter value if they flatten at the first snow. The nutritional value of the seed to birds is also an important factor.

prairies. Its seed stalks vary from 1 - 1 1/2 feet high, and the leaves are only about 3-6 inches long. It is frequently mistaken for buffalo grass or hairy grama, but its slender leaves are hairless except for a few hairs at the collar area. The other two species have hairy leaves. It provides a nutritious, palatable forage, especially in the winter because it cures well, maintaining its nutrients. Most of the taller grasses leach out and are much lower in nutrients during the winter months.

Hairy grama is a warm-season, shortgrass very similar to blue grama. However, the basal leaves are hairy on the edge and the upper surface, and the seed heads, while resembling blue grama, differ by being more curved and ending in needlelike points. Hairy grama's distribution is more limited, being restricted to shallow sand or rocky sites. It is nutritious and palatable.

Buffalograss is probably one of the most familiar native grasses because of its name and because it is used as a lawn grass. However it is a very important native grass — one of two principal dominants in the shortgrass prairie, especially in the southern Great Plains. It is a warm season, sod-forming shortgrass that was extremely important in the natural revegetation of the Great Plains following the disas-

trous drought and dust storms of the 1930s. It seldom grows over 6 inches tall and even though it is palatable and nutritious, it can withstand heavy grazing since 50 percent of the leaf surface is in the first inch above the soil. Thus it can maintain a good, protective ground cover even under very heavy grazing. The burlike seed pods are often only 1 to 3 inches above the ground.

There are many other important grasses that are fairly common on specific habitats. For example, sand bluestem and sand reedgrass on sandy soils, slough grass on extremely wet soils and inland saltgrass and alkali sacaton (a dropseed) on saline soils. Other grasses are important as pioneer species on disturbed areas. These pioneers occupy areas that have been cultivated and abandoned (often called go-back) or areas disturbed by animal activity (pocket gopher mounds, old badger holes, etc.). They stabilize the soil, add organic matter and generally make the areas suitable for the establishment of permanent grasses. Examples of common pioneer species are threeawns, windmill grass, tumblegrass and sand dropseed. Some introduced grasses such as smooth brome and Kentucky bluegrass have had an economic impact on Kansas.

Perhaps the value of native grassland to our wildlife is best illustrated by the results of the Conservation Reserve Program. The farm program, which paid landowners to return highly erodible lands to grass for a 10-year period, has enrolled more than 3 million acres in Kansas. Surveys have shown that most participants have seen a marked increase in wildlife on these lands. Species that appear to have benefitted from CRP include upland birds, all ground nesting birds, deer, coyotes and many more native grassland species.

We could sum up the importance of grass by quoting a passage from Alan Paton's *Cry the Beloved Country*. "The grass is rich and matted. It holds the rain and the mist feeding the streams . . . it is well-intended, not too many cattle feed upon it, not too many fires burn it, laying bare the soil.

"Stand unshod upon it, for the ground is holy, being as it came from the Creator. Keep it, guard it, care for it, for it keeps men, guards men, cares for men. Destroy it and man is destroyed . . ." 

The author is a past president of Fort Hays State University. He is an expert on native grass and rangeland management. He served as a commissioner for the department from 1987-1991.



Life on the prairie depends upon its native grasses. Much of man's activity also depends upon grasses from livestock grazing to wheat farming. But the pure beauty of the grassland is an immeasurable value that adds to the quality of our lives.



Kansas' Greatest Game Fish?

by Frank Theis
Wichita

photos by Mike Blair

The longnose gar, considered a trash fish to many anglers, can be readily caught with the proper equipment. And, according to the author, it fights and jumps like few other freshwater fish!



There are three species of gar found in Kansas. This Joe Tomelleri illustration shows the largest, the longnose, which may grow to 60 inches or more. The other two species, the shortnose and spotted, aren't as common and usually reach a length of 21-30 inches.

It's been nearly 15 years since I first wrote of the pleasure, sport and technique of angling for gar in Kansas streams. In an article in this magazine, I referred to gar fishing as "Billfishing in the Interior," comparing it to fishing for sailfish and marlin. Since that time, I have fished for barracuda, bonefish, small tarpon and sharks in Florida waters; muskie, pike and salmon in Alaska and Canada; and trout in Idaho, Montana and Wyoming. At home in Kansas, my primary recreation is fly-fishing for stream bass, however, I have continued to fly-fish for gar as an exciting diversion and to experiment with different lures and catching techniques. I can still say that a longnose gar of 5 pounds or more can compete in sheer power, leaping agility and speed with the best game fish in its weight class.

The problem seems to be that few anglers know of and pursue this piscatorial excitement that is available at their doorsteps — a few miles out of our Kansas cities and towns. Longnose gar are common in most streams and rivers of the eastern half of the state including the Arkansas, Kaw, Missouri, Neosho, Verdigris and any of their feeder creeks.

The longnose gar (*Lepisosteus*

osseus) is a predator, feeding on live fish, frogs and snakes, as well as small animals, birds and insects. It feeds by sight and sound, on the surface or below. The gar seems always to be hungry, mean or curious — all enticing qualities of a good game fish. I recall one afternoon several years ago, I was standing on a high bank of a small feeder creek, looking into a clear, deep pool. I could see a number of

5- to 6-pound gar coming to the surface. As I munched the last of a sandwich, I purposely threw a wadded up plastic sandwich bag to the water just to see the fish's reaction — up came a gar, which seized the bag and disappeared. A minute later, the bag came floating up, obviously rejected, and I retrieved it. I then threw a few large yellow grasshoppers down from the bank and the gar quickly took them from



The author, right, and his crew assemble their gear before slipping into a Flint Hills stream. Most of the smaller streams are privately owned so, ask first!



A longnose gar weighing 5 pounds or more is a hard fighter and spectacular leaper. Whether you use spinning gear or fly gear, you'll have your hands full. The author compares gar with tarpon, salmon and muskie.

the surface.

Like a bonefish, barracuda or muskie, the gar has a long, muscular body capable of fast and erratic swimming. Like all good game fish, it will hit an artificial lure. Like a sailfish, tarpon or trout, the gar has spectacular leaping ability. It galvanizes your attention when a 3- to 5-foot fish, weighing 8-20 pounds comes vaulting out of the water. The gar can burn your reel with a long run or be a reluctant, unmoving weight, bulldogging deep.

The configuration of the gar's mouth — a long, hard bill filled with dozens of needlelike teeth — makes it hard to hook on conventional hooks. Since they are classified as rough fish, the gar can be taken with a bow and arrow, providing the arrow is attached to the

bow on a line and the arrow has a barbed point. The most satisfactory method, however, is with a rod and reel, preferably a fly rod.

To "hook" gar, a nylon floss lure

is used, and the nylon strands will tangle in the fish's mouth. Catching a gar usually means killing it. Ordinarily there can be no catch and release for gar since the lure entan-



The gar's bony snout won't allow hook penetration, so, you must use frayed nylon rope. The nylon fibers are fixed on a lure like a streamer or trailed behind a spinner.

gles tightly to the teeth and removing it can be both dangerous and troublesome. If a net is used to land the fish, it must be a large one as common fish will be 30-60 inches long. I prefer to fish from a float tube because of the quality and challenge of fighting them man-to-fish. I carry an 18-inch club or zapper on a thong, so I can hit the spent fish in its only vulnerable area — on its head, directly between its eyes. Ordinarily, I am a catch-and-release man, but I rationalize killing gar as a conservation effort, especially in waters where gar numbers are high and game fish numbers are low.

My appetite for fly-fishing for gar was triggered many years ago when my good friend and colleague, the Judge Templar, and I were bass bugging a clear feeder creek in Chautauqua County. I was using a 6 1/2-foot, 2-ounce fly rod from a float when I got a tremendous boiling strike on the surface. I was sure I'd hooked a big bass. I soon discovered, after a powerful run and jump, that it was a huge gar, which I expected to lose when it



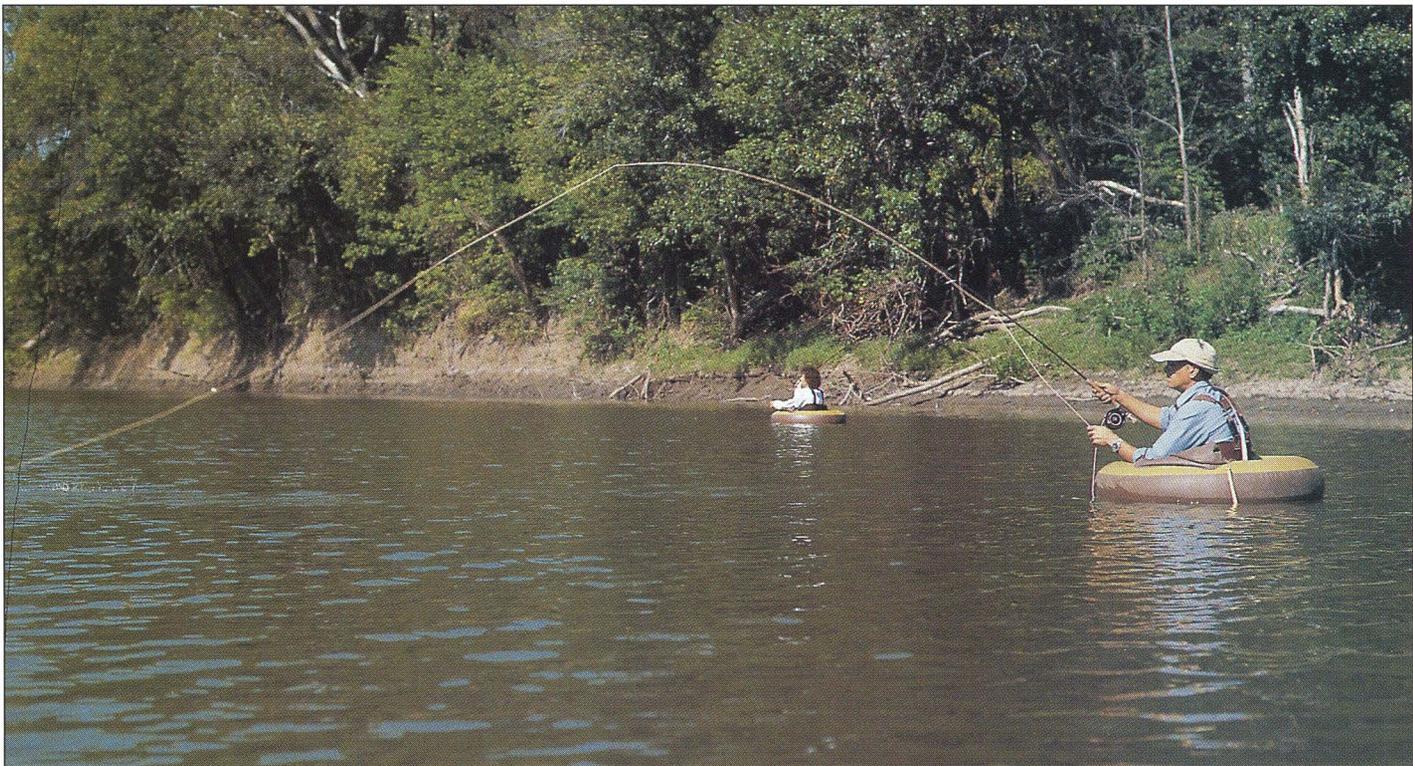
The nylon fibers become tangled in the fish's teeth, but you'll lose many fish.

broke either my leader or rod. About 40 minutes later, I was able to paddle out of the deep water to a sand bar where Judge Templar kicked the exhausted fish onto the bar. Upon examination I found why the fish hadn't broken my leader. The 12-pound monofilament was wrapped around the fish's bill four or five times and the bass bug was

hooked in the lower part of the bill. That first gar was 4 feet, 3 inches long and weighed a little more than 18 pounds. Since then, I've been a real believer that even a wispy fly rod is an instrument of combat.

I still prefer to catch gar on a fly rod, but you can use conventional spinning or casting equipment which will allow a heavier and longer lure. With any method a long rod — preferably 7 to 9 feet — is an advantage for efficiency in casting, enjoyment in playing the fish and ease of landing the fish when you finally address this touchy process. The long rod is especially handy when landing gar from a float tube, since you'll be able to handle a thrashing fish and keep it away from your tube. My present personal preference is a 7- to 9-weight graphite fly rod, which will cast the 4- to 5-inch floss streamer, give it the required action and handle a big fish.

The basic lure is simple, but I've developed some improvements over the years. I use soft nylon rope and fray out the braided strands. Secure a doubled 10-inch strand of



Unlike fishing with hooks, you need to let the gar swim with the nylon lure after the strike. This allows the strands to become tangled and increases your chances for a "hook-up." The author has found, however, that you'll lose about a third of the fish that strike.

this floss to a light metal ring or metal fishing snap and you have a lure. I attach a very light Indiana spinner to the lure and use a 6-inch steel leader. Normally, you'll use, and lose, one lure for each fish.

Similar to any type of fishing, you may see gar and get no strikes, or you may catch one fish or a half dozen. The strikes may vary from a jarring hit to a slight tug — more often the latter, and the strength of the strike has nothing to do with the size of the fish. The important thing to remember on these taps is not to react like a traditional lure fisherman and set the hook. Just let the gar mouth the lure and swim away, giving the strands ample time to tangle in the teeth. Even then, you'll lose about a third of the fish that strike because the nylon strands don't become tangled enough or during the long fight, the fish works the floss loose. The nylon strands will rarely break.

The best time to catch gar is April through November. They spawn in April and May and are particularly pugnacious and

aggressive then. Later on, as the weather heats up, they will often float just under the surface or come to the surface at regular intervals to "breathe." Warm water holds less dissolved oxygen, and since the gar has working lungs as well as gills, it can gulp air to receive oxygen. This surface action is exciting to watch and gives you a good estimate of the size of fish. Surfacing fish will make varying noises from the small splash of a 3- to 10-pounder to the body-off-the-bridge splash of the goliaths you hope to catch. Sometime you can witness a large concentration of gar which will come to the surface like a school of porpoises. Your chances of a hook up are excellent if you can cast just ahead of a fish seen on the surface.

The last several years in warm September, I have caught three or four 12-pounders, several 15-pounders and two 20-pounders in three or four hours of fly-fishing. A companion has done as well. Because of the nature of this fishing, I always fish with at least one other person who has the same avidity

for gar fishing — or someone who is an expert fly-fisherman and wants to get into the "big stuff."

I have read that longnose gar can reach a weight of 60 pounds. I have seen some in large waters that felt would weigh 50 pounds or more and measure 5 feet in length. I do know from numerous measurements and weighings that a gar of 20 pounds measures more than 4 feet. In my opinion, the Kansas rod and reel record of 31.5 pounds is low in relation to the quantity and size of fish I have seen. If I live long enough, I hope to someday set the new Kansas record — on a fly rod!

So, come and enjoy this "heart-in-your-throat" experience of "bill fishing in the interior." Kansas provides excellent opportunities for those who want the unique and exciting fishing challenge of gar fishing.



The author is a U.S. District Court Senior Judge in Wichita, who travels far and wide to fish, specializing in fly-fishing.



As with any type of fishing, you'll catch many gar on some days and only one fish on others. But a day spent wading or floating on a beautiful Flint Hills stream is just reward. Catching one or more of what might be our greatest game fish is a bonus!



Hare Comes Peter Cottontail

by Marc Murrell
public information officer, Valley Center

photos by Mike Blair

The cottontail is a rabbit, not a hare. Jackrabbits are true hares. From east to west three species of cottontails call Kansas home. The cottontail is one of the most common and most watched wildlife species.

Rabbits may be the most widely distributed game animal in the United States and are found on all continents except Antarctica. They share the order of Lagomorphs with hares (which includes jackrabbits) and pikas. Kansas rabbits are widely distributed and their visibility makes them one of the most watched species of wildlife in fields, yards and gardens.

Three species of cottontails occur in Kansas, and each is similar in appearance. They are distinguished by body size, relative ear size and, to a lesser degree, color, which depends on the time of the year. Females are typically larger than males.

The eastern cottontail, *Sylvilagus floridanus*, has the widest distribution and is found in nearly every Kansas county. Their fur is soft, long and rusty brown in the summer, changing to gray with a black tint during winter. Their underside is white and of course, so is the namesake cotton-ball tail. Adult eastern cottontails grow to lengths of 14-17 inches and weigh 2-3 pounds.

Cottontails live near forest edges, brush piles, grown-up pastures, old



The sight of a rabbit streaking to cover is a display of its second line of defense. Holding still and relying on its brown camouflage to hide it from predators is No. 1.

farmsteads, grass draws and near agricultural fields. They prefer areas offering concealment and protection from overhead predators, which explains their attraction to weedy junk yards that have collected old farm equipment or vehicles.

Cottontails are famous for their ability to multiply, and they live up to that reputation. Females, called does, line a shallow depression with their own fur, plants, grass

and leaves, getting a nest ready for the young, which are born after a 28- or 30-day gestation period. About 4 inches long at birth, the young are blind, eyes closed and without hair. Females may return to the nest only once each day to nurse the young, usually under the cover of darkness to avoid alerting predators of the nest's location. The young develop rapidly and are covered with fur in one week, open their eyes in about 10 days and they are able to leave the nest in two weeks but may still occasionally nurse from the female. At four or five weeks old and a full set of teeth later, the young separate from the female.

Does may produce six or seven litters, averaging three or four young each, during the April through September breeding season. Females can become pregnant before their current litter is weaned. Does born early in the spring, may reproduce later that same year.

Although not as common as the eastern, the desert cottontail, *Sylvilagus auduboni*, has been found in most counties in the western third of the state. It is usually lighter in color and has longer ears which have less hair on them than those of its eastern cousin.

Desert cottontails are found in



This eastern cottontail is the most common of the three species found in Kansas. The swamp rabbit is found only in the southeast and the desert cottontail only in the west.



This young female has a mouthful of grass to build a nest. The breeding season is from April to September. This is spring; note the engorged dog tick below the eye.

arid, short-grass prairie regions interspersed with sagebrush. They also inhabit areas of rocky outcroppings or ridges overgrown with cedar trees. These western Kansas rabbits have a large home range that could cover eight to 15 acres.

Desert cottontails typically produce two to four litters each season with an average of two or three young each. The young mature at about the same rate as the eastern cottontail.

The third and perhaps most elusive cottontail is the swamp rabbit, *Sylvilagus aquaticus aquaticus*. It has been found in just a few southeast Kansas counties. The largest of the three, it can weigh nearly 4 1/2 pounds. Other distinguishing features include a rust-colored coat and shorter, more rounded ears.

As its name implies, it is found in areas generally wet for much of the year. The swamp rabbit prefers cover offering a protective canopy, making river bottoms, wetlands, creek and river drainages ideal. The largest of Kansas' cottontails also has an affinity for water. They are

reluctant to leave their home range, even when threatened by flooding, and they are strong swimmers that may even submerge.

The swamp rabbit's gestation period is longer than the other cot-



The nest consists of a well-hidden depression lined with grasses and fur. The mother stays away except to nurse the young at night, avoiding giving away the nest's location

tontails', lasting about 39-40 days. Does produce one or two litters of one to six young each year. Young swamp rabbits mature faster than other rabbit species.

Cottontail populations fluctuate dramatically, and most individuals don't live long. Evidence indicates that roughly 75 percent don't make it past five months. To compensate for this high mortality rate, the species are very prolific. If all a female's young survived and reproduced, 2.5 billion rabbits would be produced in just five years! Luckily for them and us, that's not the way it works.

Rabbits are food for just about all predators. These little balls of fur have many natural predators including owls, eagles, foxes, coyotes, hawks, skunks, snakes, weasels, badgers, raccoons, bobcats, domestic cats and man. And if that's not enough, they must deal with severe weather, disease, parasites, highways and habitat destruction.

The cottontail diet consists primarily of vegetation, including leaves, stems, flowers, sedges and herbs. Among their favorites are goldenrod, bluegrass, timothy, chickweed, red clover, sorrel, alfalfa, soybeans, wheat, rye and



During a courtship, pairs can be seen involved in elaborate chasing and jumping maneuvers. During this chase, the lead rabbit inexplicably sprayed the chaser with urine. Perhaps it was a blunt rejection of the receiver's advancements.

row crops. During the winter, rabbits rely heavily on the outer barks of small bushes and trees, stripping bark off as high as they can reach standing on their back legs. Woody plants preferred are sumac, staghorn, white oak, dogwood, black oak and sassafras. They eat

fruit and seeds, too. Rabbits also get nutrients not utilized the first time through by eating their own droppings, a trait common among lagomorphs known as coprophagy. Water is garnished from ingested foods or dew.

Cottontails have a set of teeth capable of snipping most any twig, and all have two pairs of incisors. The front one is the largest and the second pair is much smaller and located directly behind the front one.

Cottontails are nocturnal and spend most of their time above ground but will take refuge underground to escape predators or bad weather. These holes are typically dug by other animals and used only briefly by cottontails. During the day, cottontails spend much of the time resting in shallow depressions called forms, usually under the protection of shrubs or bushes. They are not a social

animal and some males may be territorial, driving off trespassers.

There is much folklore surrounding rabbits. Easter's mascot has a reputation that dates back to a Teutonic legend that says the Goddess Ostara changed a bird into a rabbit. The rabbit was so grateful, it agreed to lay eggs for the spring festival of the Goddess.

The most famous myth is that of the lucky rabbit's foot. Historic superstition claimed that if you took the left hind foot of a rabbit into a church yard at midnight when the moon was full, it would protect you from evil. Although not lucky for the rabbit, individuals today believe the mere possession of a rabbit's foot will bring them good luck.

Whether you believe the folklore or not, the prolific cottontail is an integral part of our natural world as well as a fascinating animal. With so many critters relying on rabbits for food, their ability to survive and prosper is a tribute to the species. No matter a person's interest in wildlife, most can easily identify the rabbit, and its distribution in urban as well as rural areas makes for easy viewing opportunities. ♡



Rabbits have a varied diet including leaves, stems, flowers, sedges, bark and obviously dandelions.

1994 KANSAS RESERVOIR AND LAKE FISHING FORECAST

This forecast was formulated from management data collected by biologists. It is designed to help you select a lake with an abundance of the species and size of fish you like to catch. Theoretically, a lake with a Power Rating of 30 will have twice as many quality size fish as a lake with a rating of 15. The lunker rating reflects the large fish caught during sampling. A lake with a lunker rating of 0 means that no lunker-sized fish were caught during the sampling period. The biologist's rating adds a human touch, which might include environmental factors that could have affected sampling.



	POWER RATING (>16')	CHANNEL CATFISH LUNKER RATING (>28')	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
TUTTLE CREEK RES	8.0	0.0	7.3	EXCELLENT
CLINTON RES	8.0	0.2	13.3	GOOD
KANOPOLIS RES	8.0	0.0	6.9	GOOD
MARION	5.74	0	3.8	GOOD
PERRY RES	5.5	0.0	8.3	GOOD
EL DORADO RES	5.5	0.5	10.8	GOOD
MILFORD RES	5.2	0.2	11.6	EXCELLENT
GLEN ELDER RES	5.0	0.1	8.3	GOOD
HILLSDALE RES	4.8	0.5	10.3	GOOD
MELVERN RES	4.5	0.2	11.2	GOOD
LOVEWELL RES	4.4	0.0	5.1	GOOD
LA CYGNE RES	4.0	0.5	13.3	EXCELLENT
COUNCIL GROVE RES	3.0	0.0	4.2	FAIR
NORTON RES(SEBELIUS)	3.0	0.0	6.4	GOOD
WILSON RES	2.7	0.2	11.9	FAIR
CHENEY RES	2.4	0.4	12.7	GOOD
KIRWIN RES	2.5	0.5	12.3	FAIR
WEBSTER RES	2.0	0.0	2.5	FAIR
CEDAR BLUFF RES	1.7	0.0	5.4	EXCELLENT
State Fishing Lakes & Community Lakes				
WOODSON SFL	41.0	0.0	5.9	EXCELLENT
OSAGE SFL	23.5	0.0	3.8	GOOD
ATCHISON SFL	21.0	0.0	3.9	EXCELLENT
GARNET CL - NORTH	21.0	0.0	4.8	GOOD
MELVERN RIVER POND	18.0	0.0	9.7	GOOD
OTTAWA SFL	13.0	0.0	7.0	GOOD
MIFORD RIVER POND	12.5	0.5	14.0	EXCELLENT
CARBONDALE CL -EAST	12.0	0.5	11.2	GOOD
GRIDLEY CL	12.0	0.0	4.0	GOOD
NEOSHO WMA POOL #3	11.0	0.0	7.6	GOOD
MIAMI SFL	8.0	0.0	8.5	GOOD
SHAWNEE SFL	7.0	0.0	4.0	GOOD
OSAGE CL	6.0	0.0	5.5	GOOD
YATES CENTER CL-NEW	6.0	0.0	6.9	EXCELLENT
CLARK SFL	6.0	0.0	5.0	GOOD
NEOSHO SFL	5.4	0.6	13.1	GOOD
ANTELOPE LAKE	4.0	0.0	2.3	GOOD
WABUNSEE CL	4.0	0.0	3.0	FAIR
MIDDLE CREEK SFL	4.0	0.0	5.1	FAIR
PRATT CL	4.0	0.0	1.7	GOOD
NEBO LAKE	4.0	0.0	7.8	FAIR
CHANUTE CL	4.0	0.0	4.5	FAIR
SHERIDAN SFL	4.0	0.0	6.1	GOOD
DOUGLAS SFL	3.2	0.0	6.7	FAIR

CRAWFORD SFL	3.0	0.0	5.0	FAIR
BROWN SFL	3.0	0.0	4.8	FAIR
SCOTT SFL	3.0	0.0	6.1	GOOD
MCPHERSON SFL	2.8	0.0	4.6	FAIR
GEARY SFL	2.5	0.5	16.9	FAIR
SALINE SFL	2.0	0.0	3.5	POOR/FAIR
MEADE SFL	2.0	0.0	3.1	FAIR
GOODMAN SFL	2.0	0.0	3.4	FAIR
LACROSS- W. STONE LAKE	2.0	0.0	2.6	FAIR
HERINGTON CL -OLD	1.0	0.0	7.0	FAIR
KIOWA SFL	1.0	0.0	3.8	FAIR
LEBO CL	1.0	0.0	3.3	GOOD
SALINA -LAKEWOOD CL	1.0	0.0	2.1	FAIR
COLDWATER CL	1.0	0.0	1.3	FAIR
FORD CO. SFL	1.0	0.0	1.5	GOOD*
BARBER SFL (LOWER)	0.5	0.0	5.5	POOR

LARGEMOUTH BASS

	POWER RATING (>12")	LUNKER RATING (>20")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
HILLSDALE RES	31.4	0.7	5.7	GOOD
LA CYGNE RES	15.4	2.8	7.8	EXCELLENT
BIG HILL RES	14.77	0	4.9	GOOD
KANOPOLIS RES	10.0	0.0	2.9	FAIR
EL DORADO RES	9.6	0.3	6.8	FAIR/GOOD
ATCHISON SFL	92.4	0.0	2.9	EXCELLENT
State Fishing Lakes & Community Lakes				
POTTAWATOMIE SFL #1	88.0	2.0	5.6	EXCELLENT
GARNETT CL - SOUTH	76.0	2.0	3.8	GOOD
KIOWA SFL	71.4	1.6	5.4	GOOD
SALINE SFL	68.0	0.0	3.2	GOOD
CLARK SFL	66.7	0.0	5.4	GOOD
SCOTT SFL	65.8	0.0	2.8	FAIR
PRATT CL	64.1	0.0	5.2	GOOD
SHAWNEE SFL	61.8	0.9	7.3	EXCELLENT
ATCHISON CL #23	49.2	0.0	3.9	GOOD
POTTAWATOMIE SFL #2	46.3	0.0	1.9	GOOD
SHERIDAN SFL	44.2	0.3	5.6	GOOD
MCPHERSON SFL	42.2	0.0	4.6	EXCELLENT
YATES CENTER -NEW LAKE	36.6	0.0	2.4	EXCELLENT
OTTAWA SFL	34.0	0.0	2.2	GOOD
MIDDLE CREEK SFL	33.1	0.0	4.2	FAIR
HORTON LITTLE LAKE	32.6	4.1	5.2	GOOD
CENTRALIA CL	31.0	0.0	2.9	GOOD
GARNETT CL - NORTH	30.7	0.0	3.3	GOOD
BROWN SFL	29.9	2.5	5.7	FAIR
State Fishing Lakes & Community Lakes				
CHANUTE CL	28.9	0.0	4.2	FAIR
DOUGLAS SFL	28.7	0.0	3.8	GOOD
GRT BEND-STONE SAND PIT	27.3	0.0	4.6	POOR
LYON SFL	25.0	0.0	2.1	
CRAWFORD SFL	24.1	0.9	7.4	FAIR/GOOD
LEBO CL	23.7	0.0	2.9	FAIR
BUTLER SFL	22.3	1.5	5.8	FAIR/GOOD
CHASE SFL	22.0	1.0	4.6	FAIR/GOOD
GREAT BEND MEML. PK.	21.9	0.0	2.7	POOR
BARBER (LOWER) SFL	21.3	0.0	1.3	FAIR
OSAGE CL	21.2	1.2	5.0	POOR
ANTELOPE LAKE -GM CO	20.0	0.0	4.0	FAIR
HOLTON PRAIRIE LAKE	16.8	0.0	5.7	FAIR
MOUND CITY CL	16.7	0.6	5.0	FAIR
MEADE SFL	15.4	1.3	6.1	FAIR
NEOSHO SFL	14.2	1.1	6.1	FAIR
OSAGE SFL	13.4	0.0	3.5	POOR
PLEASANTON CL -EAST	11.5	0.2	6.0	FAIR
ST FRANCIS KELLER POND	10.0	0.0	4.1	FAIR
LOGAN CL	10.0	0.0	2.9	FAIR
ATWOOD LOWER LAKE	10.0	0.0	1.6	FAIR

GRIDLEY CL	9.6	0.0	2.8	FAIR
NEBO SFL	9.2	0.0	2.4	POOR
JEWELL SFL	9.2	0.0	2.7	FAIR
SMOKY GARDENS	8.0	0.0	3.4	FAIR
BOURBON SFL	6.5	0.9	7.3	GOOD
BOURBON CL-HIATVILLE	6.5	0.0	4.1	FAIR
CARBONDALE CL-EAST	1.4	0.0	4.4	POOR
MELVERN RIVER POND	1.1	0.0	2.4	FAIR

WALLEYE

	POWER RATING (>15")	LUNKER RATING (>25")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
GLEN ELDER RES	35.9	0.1	6.4	GOOD
KIRWIN RES	33.0	0.0	5.2	GOOD
WEBSTER RES	21.0	1.5	9.1	FAIR
LOVEWELL RES	18.0	0.0	6.3	FAIR
MARION RES	15.33	0.33	6	GOOD
WILSON RES	13.2	0.8	7.9	GOOD
KANOPOLIS RES	10.0	1.7	8.8	POOR
HILLSDALE RES	9.3	0.3	9.6	GOOD
CEDAR BLUFF RES	8.5	0.0	4.8	GOOD
EL DORADO RES	8.0	1.8	10.1	GOOD
CHENEY RES	7.8	0	3.7	FAIR
MELVERN RES	6.8	0.7	7.4	GOOD
CLINTON RES	4.7	1.0	7.2	POOR
MILFORD RES	3.7	0.0	4.5	FAIR
TUTTLE CREEK RES	2.0	0.0	2.0	POOR
LA CYGNE RES	2.0	0.0	3.5	FAIR
NORTON (SEBELIUS) RES	1.0	1.0	8.1	POOR
State Fishing Lakes & Community Lakes				
MELVERN RIVER POND	48.0	0.0	2.5	EXCELLENT
JEFFREY AUXLRY LAKE	32.0	0.0	1.2	GOOD
SCOTT SFL	11.5	0.0	4.9	EXCELLENT
BARBER (LOWER) SFL	8.0	0.0	1.9	EXCELLENT
GRIDLEY CL	6.0	0.0	4.1	POOR
GEARY SFL	4.0	1.0	10.2	FAIR
CLARK SFL	4.0	1.0	6.4	EXCELLENT
SHAWNEE SFL	3.0	2.0	6.3	FAIR
PRATT CL	3.0	0.0	4.2	GOOD
GARNETT CL - NORTH	3.0	0.0	2.8	POOR
ATCHISON SFL	2.0	0.0	1.0	FAIR
JEFFREY MAKEUP LAKE	1.0	0.0	5.1	FAIR
CENTRALIA CL	1.0	0.0	1.2	FAIR
MILFORD RIVER POND	1.0	0.0	2.2	POOR

WHITE BASS

	POWER RATING (>9")	LUNKER RATING (>15")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
WILSON RES	56.0	5.0	2.0	EXCELLENT
CLINTON RES	39.7	0.0	1.8	GOOD
MARION	36.99	0.0	1.4	GOOD
MELVERN RES	35.5	2.5	2.2	GOOD
LA CYGNE RES	25.5	0.5	1.3	GOOD
CHENEY RES	20.5	0	1.1	GOOD
TUTTLE CREEK RES	16.0	2.3	3.6	GOOD
EL DORADO RES	14.3	0.0	1.0	FAIR
CEDAR BLUFF RES	13.1	3.1	2.7	GOOD
PERRY RES	12.5	0.0	1.3	FAIR
GLEN ELDER RES	11.3	0.7	3.1	GOOD
WEBSTER RES	11.0	0.0	0.5	FAIR
LOVEWELL RES	10.6	0.8	2.7	FAIR
MILFORD RES	9.0	0.0	1.1	FAIR
KANOPOLIS RES	4.5	0.2	2.3	FAIR/GOOD
KIRWIN RES	1.0	0.0	0.4	POOR
State Fishing Lake & Community Lakes				
JEFFREY - MAKEUP LAKE	59.0	0.0	0.7	GOOD
MILFORD RIVER POND	22.0	22.0	1.8	GOOD
MELVERN RIVER POND	19.0	0.0	1.4	GOOD

CLARK SFL	7.5	0.5	1.7	GOOD
MIDDLE CREEK SFL	6.0	0.0	1.7	FAIR
MIAMI SFL	2.0	1.0	1.8	GOOD

WIPER (white bass/striped bass hybrid)

	POWER RATING (>12")	LUNKER RATING (>20")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
MARION RES	34.99	0.66	5.2	GOOD
NORTON RES (SEBELIUS)	26.0	1.5	15.2	GOOD
LA CYGNE RES	18.0	0.0	3.4	EXCELLENT
ELK CITY RES	5.0	0.0	2.9	FAIR
MILFORD RES	5.0	0.0	4.6	GOOD
CHENEY RES	2.4	0.0	2.6	FAIR
WEBSTER RES	1.0	0.0	3.8	FAIR
State Fishing Lakes & Community Lakes				
LOGAN SFL	19.0	0.0	2.3	EXCELLENT
WOODSON SFL	11.0	0.0	1.3	FAIR
COLDWATER CL	10.0	0.5	5.2	GOOD
MELVERN RIVER POND	8.0	0.0	3.7	GOOD
PRATT CL	5.0	1.0	3.6	GOOD
JEFFREY - MAKE UP LAKE	5.0	0.0	2.0	GOOD
GARNETT CL - SOUTH	4.0	0.0	4.6	FAIR
LOGAN CL	3.9	0.0	2.9	FAIR
MEADE SFL	2.0	0.0	2.7	POOR
OSAGE CL	2.0	0.0	2.7	POOR
NEOSHO WMA POOL #3	1.0	0.7	0.7	FAIR

WHITE CRAPPIE

IMPOUNDMENT	POWER RATING (>8")	LUNKER RATING (>12")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
NORTON RES (SEBELIUS)	23.1	0.1	1.2	GOOD
PERRY RES	21.5	1.2	1.3	EXCELLENT
CLINTON RES	20.7	0.7	1.4	GOOD
HILLSDALE RES	14.3	0.4	1	GOOD
COUNCIL GROVE RES	9.1	0.4	1.3	FAIR/GOOD
TUTTLE CREEK RES	5.6	0.1	1.1	GOOD
GLEN ELDER RES	4.7	0.0	0.3	FAIR
MILFORD RES	3.2	0.4	1.4	FAIR
EL DORADO RES	1.6	0.2	1.0	POOR
KANOPOLIS RES	0.8	0.0	0.9	GOOD
CHENEY RES	0.8	0	0.7	GOOD
WEBSTER RES	0.2	0.0	0.6	POOR
KIRWIN RES	0.1	0.0	0.5	POOR
State Fishing Lakes & Community Lakes				
CHANUTE CL	49.5	0.0	0.5	GOOD
LOGAN CL	49.3	1.6	1.2	GOOD
SALINA- LAKEWOOD	21.6	2.1	2.2	GOOD
CLARK SFL	15.0	0.2	1.7	FAIR
LOGAN SFL	14.9	0.0	0.8	EXCELLENT
SHERIDAN SFL	14.9	1.0	1.3	GOOD
GEARY SFL	9.4	0.4	1.1	GOOD
DOUGLAS SFL	8.8	0.1	1.1	POOR
HOLTON PRAIRIE LAKE	8.7	0.0	0.4	FAIR
POTTAWATOMIE SFL #1	7.8	0.0	0.4	FAIR
LYON SFL	7.7	1.7	1.4	NA
JEWELL SFL	7.4	0.2	1.1	FAIR
MIAMI SFL	6.6	0.2	1.3	POOR
SCOTT SFL	6.4	0.0	0.6	FAIR
BARBER (UPPER) SFL	6.2	0.6	1.5	FAIR
NEOSHO WMA POOL #3	4.3	0.3	0.9	FAIR
NEBO SFL	3.2	0.2	1.3	POOR
POTTAWATOMIE SFL #2	3.2	0.0	0.5	FAIR
HERINGTON CL - OLD	2.9	0.3	0.9	FAIR
SHAWNEE SFL	2.7	0.0	0.7	FAIR
PLAINVILLE CL	2.7	0.0	0.9	FAIR
MIDDLE CREEK SFL	2.2	0.0	0.6	POOR
PRATT CL	2.1	0.0	0.6	FAIR
BARBER (LOWER) SFL	2.1	0.2	0.9	FAIR

COLDWATER CL	2.0	0.1	1.1	FAIR
KIOWA SFL	1.2	0.0	0.3	POOR
CRAWFORD SFL	1.2	1.2	0.8	FAIR
THAYER CL - NEW	1.0	0.0	0.2	FAIR
JEFFREY MAKEUP LK	1.0	0.0	0.6	POOR
BROWN SFL	0.8	0.0	0.7	POOR
ATCHISON CL #23	0.4	0.0	0.1	POOR
WABAUNSEE CL	0.2	0.0	0.2	POOR

BLACK CRAPPIE

	POWER RATING (>8")	LUNKER RATING (>12")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
KIRWIN RES	7.3	0.0	0.9	FAIR
CEDAR BLUFF	6.8	0.2	1.5	GOOD
WILSON RES	2.2	0.2	1.2	POOR
TUTTLE CREEK RES	1.8	0.0	0.5	POOR
EL DORADO RES	1.7	0.0	0.5	FAIR
NORTON (SEBELIUS) RES	1.6	0.0	1.0	GOOD
PERRY RES	1.4	0.0	0.2	POOR
KANOPOLIS RES	1.3	0.3	1.2	FAIR
CLINTON RES	1.1	0.0	0.4	FAIR
GLEN ELDER RES	0.8	0.0	0.7	POOR
WEBSTER RES	0.6	0.0	0.6	FAIR
State Fishing Lakes & Community Lakes				
HOLTON PRAIRIE LAKE	7.2	0.0	0.6	GOOD
MIAMI SFL	8.5	0.0	0.9	POOR
SHAWNEE SFL	7.9	0.0	0.8	FAIR
NEOSHO SFL	7.5	0.0	0.7	GOOD
PLAINVILLE CL	4.7	0.0	1.0	FAIR
GREAT BEND MEM. PARK	4.1	0.0	0.5	POOR
COWLEY SFL	3.9	0.0	0.4	POOR
MCPHERSON SFL	2.8	0.0	0.4	GOOD
CRAWFORD SFL	2.4	0.0	0.4	FAIR
LOGAN CL	2.3	0.0	0.6	POOR
BARBER SFL (LOWER)	2.2	0.0	0.9	FAIR
CENTRALIA CL	1.9	0.0	0.5	FAIR
MIDDLE CREEK SFL	1.9	0.0	0.7	FAIR
THAYER CL - NEW	1.7	0.0	0.5	FAIR
CLARK SFL	1.5	0.0	0.3	FAIR
LYON SFL	1.5	0.0	1.1	NA
JEFFREY EC AUXLRY LK	1.4	0.0	0.6	POOR
ATCHISON	1.1	0.1	0.9	FAIR
KELLER POND ST. FRANCIS	0.9	0.0	0.3	FAIR
POTTAWATOMIE SFL #2	0.5	0.0	0.4	FAIR
ATCHISON CL #23	0.5	0.0	0.2	FAIR
PRATT CL	0.5	0.0	0.3	FAIR
KIOWA SFL	0.3	0.0	0.4	POOR
DOUGLAS SFL	0.2	0.0	0.2	POOR

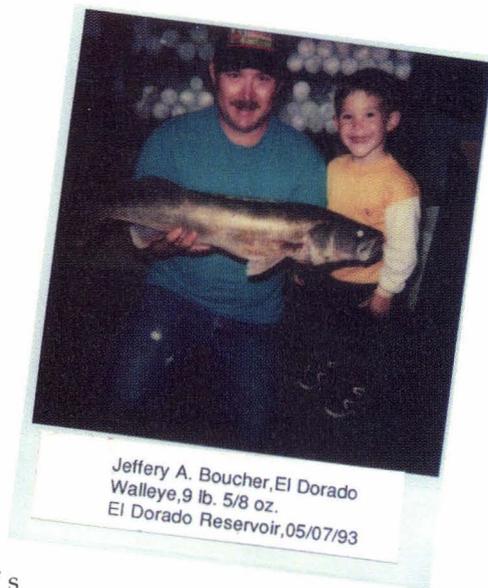
SAUGEYE & SAUGER

	POWER RATING (>14")	LUNKER RATING (>22")	BIGGEST FISH (POUNDS)	BIOLOGIST'S RATING
NORTON (SEBELIUS) RES**	23.5	1.0	5.2	GOOD
MELVERN RES*	9.0	0.0	3.0	FAIR
ELK CITY RES**	6	0.0	2.7	FAIR
COUNCIL GROVE**	2.0	0.0	2.6	FAIR

* INDICATES SAUGER

**INDICATES SAUGEYE

Kansas' Biggest Fish Stories



Here's the low-down on who caught the biggest fish last year and where they caught them. If you're interested in the Master Angler Award Program, look in your copy of the 1994 Fishing Regulations Summary. There you'll find an entry form along with the minimum weights needed to receive a Master Angler Award certificate. The department awards certificates to anglers who legally catch fish weighing as much or more than the weights listed next to the species listed in each category.

Master Angler Top 10 Awards 1993

Largemouth Bass (7 pounds)

10 lbs. 8 oz.	24 1/2"	09/25/93	Elk River	plastic worm	James R. Walker, Wichita
10 lbs. 8 oz.	23 1/4"	10/03/76	Greenwood Co.	Rebel Crawdad	Rod Wilson, Wichita
9 lbs. 7 oz.	25"	04/11/93	Watershed lake	lure	Jim Reichard, Newton,
8 lbs. 12 oz.	24"	03/14/93	Farm Pond	nightcrawler	Mark Bowman, Parsons
8 lbs. 8 oz.	24 1/2"	03/15/93	Farm Pond	beetle spin	Ronald C. Traul, Oskaloosa
8 lbs. 6 oz.	24"	04/25/93	Farm Pond	spinnerbait	Robert Grant, Parsons
8 lbs. 5 oz.	24"	09/03/93	Farm pond	plastic worm	Robert Stillings, Bloomfield Hills, MI
8 lbs. 2 oz.	23 1/2"	03/28/93	Greenwood Co.	Pro Pop R	Doug Shively Wichita
8 lbs. 3 oz.	23"	06/92	Farm Pond	lure	Dr. Kyle Den Swisher, Parsons,
8 lbs. 3 oz.	27"	05/10/90	Edwardsville	lure	Jeremy Shockey Gladstone, MO

Smallmouth Bass (3 pounds)

5 lbs. 7 oz.	20.6"	05/04/93	El Dorado Res.	earthworm	Charles Coleman, El Dorado
5 lbs. 1 oz.	21 1/2"	07/30/93	El Dorado Res.	buzzbait	John L. Jones, Derby
4 lbs. 11 oz.	22"	10/13/93	El Dorado Res.	Rat-L-Trap	John L. Jones, Derby
4 lbs. 8 oz.	21"	07/28/93	El Dorado Res.	buzzbait	John L. Jones, Derby
4 lbs. 6 oz.	21 1/2"	11/11/93	Milford Res.	minnow	Lorenzo C. Browne, Ft. Riley
3 lbs. 12 oz.	22 3/4"	05/28/93	Milford Res.	lure	Matthew Winters, Junction City
3 lbs. 11 oz.	18"	09/11/93	Spring River	minnow	Joseph Garber, Baxter Springs

Striped Bass (15 pounds)

28 lbs. 14 oz.	41"	01/13/93	Wilson Res.	jig / grub	Tim Leiker, WaKeeney
26 lbs. 4 oz.	41 1/2"	07/05/93	Wilson Res.	live bait	Tyler Richardson, Hays
20 lbs. 9 oz.	36 1/2"	01/15/93	Wilson Res.	Mepps LusoX #2	Jerome Sauer, Rozel
18 lbs.	37"	08/08/93	Milford Res.	worm	Jess Hughes, Salina

White Bass (2 pounds)

3 lbs. 4 oz.	20"	05/20/93	Smokey Hill R.	nightcrawler	Charles Wedel, Lyons
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3 lbs.	18"	04/10/93	Glen Elder Res.	worm	Ben Greiner, Omaha, Neb.
3 lbs.	18"	10/20/93	Rocky Ford	jig	David "Buck" Meisinger, Manhattan
2 lbs. 12 oz.	18"	08/19/93	Glen Elder Res.	lure	Eric S. Blevins, Amherst, Neb.
2 lbs. 12 oz.	18"	04/27/93	Dragoon Creek	twister	John Laisur, Carbondale
2 lbs. 10 oz.	17 1/2 "	08/20/93	Kanopolis Res.	Rooster Tail	Willy Barber, Gt Bend
2 lbs. 8 oz.	17 "	08/20/93	Kanopolis Res.	lure	Tim Trantham, Great Bend
2 lbs. 8 oz.	16"	04/10/93	Glen Elder Res.	minnow	Aaron Greiner, Omaha, Neb.
2 lbs. 8 oz.	17 1/2 "	08/18/93	Glen Elder Res.	lure	Aaron J. Blevins, Amherst, Neb.
2 lbs. 7 oz.	16 3/4 "	10/18/93	Rocky Ford	jig	David "Buck" Meisinger, Manhattan,

Bluegill (1 pound)

1 lbs. 4 oz.	10 3/8"	07/23/93	Strip Pit	minnow	Patricia J. Greenlaw, Pittsburg
1 lbs. 3 oz.	10 1/2"	06/10/93	Farm Pond	worms	Wendell Neal, Kansas City
1 lbs. 2 oz.	10 1/4"	06/07/93	Elm Creek	worm	William Bland, Iola

Bluegill/Green sunfish hybrid (1 pound)

1 lbs. 2 oz.	11"	08/27/93	Farm Pond	nightcrawler	Russell Black, Junction City
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Bigmouth Buffalo (15 pounds)

53 lbs.	46"	05/09/93	Ninnescah R.	minnow	Rick Scott, Hutchinson
37 lbs.	37"	09/19/93	Milford Res.	jig	Thomas Bruce, Junction City
27 lbs. 4 oz.	37 1/4 "	11/17/93	Lovewell Res.	slab	Ivan D. Valek, Deshler, Neb
23 lbs.	35"	12/17/93	Kanopolis Res.	jig & worm	Charles W. Simmons, Windom
22 lbs.	34 1/2 "	06/13/93	Milford Res.	minnow	Billy Stone Jr., Junction City
21 lbs. 11 oz.	32"	04/24/93	Clinton Res.	bow & arrow	Mark Mansfield, Tecumseh

Smallmouth Buffalo (15 pounds)

23 lbs. 9 oz.	36"	06/05/93	Lovewell Res.	nightcrawler	Travis Kennedy, Hastings, Neb.
17 lbs.	33"	04/30/93	Lovewell Res.	worm	Lenore G. Marsland, Lincoln, Neb.

Bullhead Catfish (2 pounds)

2 lbs. 7 oz.	14"	05/18/93	Farm Pond	crawdad	Asher L. Burnett, Overbrook
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Carp (20 pounds)

23 lbs.	NA	05/01/93	Kansas R.	worm	Dale Stallard, Kansas City
20 lbs. 3 oz.	34 1/2 "	09/26/93	Kaw R.	dough bait	Kenneth L. Moore, Kansas City

Blue Catfish (25 pounds rod & reel, 30 pounds setline)

28 lbs. 2 oz.	42"	05/24/93	Kaw R.	green sunfish	Mark Lewis, Bonner Springs
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Channel Catfish (15 pounds rod & reel, 25 pounds setline)

24 lbs. 12 oz.	35"	06/03/93	Neosho R.	spnbl eggs	Ronald L. Yates, Independence
24 lbs. 8 oz.	37"	09/25/93	Strip Pits	shad entrails	Barbara Harris, Chetopa
22 lbs. 6 oz.	33"	07/04/93	Tuttle Creek Res.	green sunfish	Larry Dixon, Manhattan
20 lbs. 3 oz.	33"	06/15/93	Neosho R.	spnbl eggs	Gail Johnson, Independence
19 lbs. 02 oz.	32"	04/27/93	Republican R.	shad sides	Delvin Oentrich, Barnes
18 lbs. 5 oz.	33 1/2"	07/04/93	Tuttle Creek Res	.minnow	Karen Jo Blankman, Dodge City
18 lbs.	33 1/2"	03/29/93	Wilson Res.	Sheep Shad	John Hahn, Hoisington
15 lbs. 4 oz.	30 1/2"	05/25/93	Neosho R.	spnbl eggs	Gail Johnson, Independence
17 lbs. 10 oz.	33 "	06/15/93	Neosho R.	spnbl eggs	Gail Johnson, Independence
16 lbs. 12 oz.	32 "	05/23/93	Neosho R.	eggs	Ronald Yates, Independence

Flathead Catfish (35 pounds rod & reel, 50 pounds setline)

62 lbs.	59"	07/04/93	Neosho R.	chicken liver	Roy DeHoff, Council Grove
57 lbs.	49"	06/07/93	Neosho R.	jig	Robin Jenkins, Hutchinson
55 lbs. 8 oz.	50"	05/29/93	Winfield City Lk.	goldfish	Phillip L. Blaney, Wichita
53 lbs. 2 oz.	43"	06/08/93	Perry Res.	jig	John Torrez , Topeka
52 lbs. 6 oz.	55 1/2 "	09/11/93	Fall R. Res.	limbline/goldfish	Harold Day, Wichita
52 lbs. 0 oz.	49"	06/20/93	Toronto Res.	limbline	Kelley Kellough, Toronto
50 lbs. 5 oz.	46"	05/23/93	Kansas R.	green sunfish	Mark Lewis, Bonner Springs
50 lbs. 2 oz.	47"	09/16/93	Lovewell Res.	shad rap	Chuck Pavelka, Kenesaw, Neb.
50 lbs.	48"	05/28/93	Dragoon Creek	trotline/goldfish	Todd Robertt, Topeka
50 lbs.	47"	06/09/93	Lovewell Res.	limb line/sunfish	Les Ray Hubbard, Sterling, Neb.

Crappie (2 pounds)

3 lbs. 8 oz.	16"	04/24/93	Toronto Res.	minnow	Richard Drake II, Wichita
3 lbs. 4 oz.	15"	04/23/93	Toronto Res.	minnow	Richard Drake II, Wichita

3 lbs. 4 oz.	18"	05/16/93	Farm Pond	minnow
2 lbs. 12 oz.	16"	04/25/93	Tuttle Creek Res.	Trotline /sunfish
2 lbs. 11 oz.	17"	04/25/93	Farm Pond	minnow
2 lbs. 8 oz.	16"	06/26/93	Hillsdale Res.	minnow
2 lbs. 4 oz.	15"	04/30/93	Toronto Res.	minnow
2 lbs. 3 oz.	16"	05/21/93	Neosho SFL	minnow
2 lbs. 1.5 oz.	15 1/2"	03/09/93	Edna KC Lake	pink jig
2 lbs. 0 oz.	15"	06/09/93	Farm Pond	jig

Drum (10 pounds)

11 lbs. 2.5 oz.	29 1/2"	05/08/93	Marion Co. Lake	worm
10 lbs. 9 oz.	25 1/2"	05/03/93	Rocky Ford	nightcrawler

Goldeye (1.5 pounds)

2 lbs.	19"	06/05/93	Lovewell Res.	Mepps
1 lb. 10.6 oz.	16"	04/10/93	Kansas R.	worm

Paddlefish (40 pounds)

66 lbs. 8 oz.	64"	04/11/93	Chetopa Dam	Snagging
54 lbs. 12 oz.	40"	04/11/93	Chetopa Dam	Snagging
49 lbs.	44"	04/20/93	Chetopa Dam	Snagging
48 lbs. 8 oz.	50"	04/18/93	Chetopa Dam	Snagging
45 lbs.	NA	04/20/93	Chetopa Dam	Snagging
45 lbs.	40"	04/18/93	Chetopa Dam	Snagging

Redear Sunfish (1 pound)

1 lb. 8 oz.	12"	07/27/93	Cimarron Grslnds	nightcrawler
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Green Sunfish (1 pound)

1 lb. 1 oz.	10 1/4"	08/25/93	Pond	worm
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Rainbow Trout (3 pounds)

4 lbs.	20"	04/05/93	Wyandotte Co. Lk.	worm
3 lbs. 4 oz.	19 7/8"	03/20/93	Lake Shawnee	Super Duper
3 lbs.	NA	03/02/86	Wyandotte Co. Lk.	Cheese

Walleye (8 pounds)

11 lbs. 2 oz.	27 1/2"	04/15/93	Council Grove	Rat-L-Trap
11 lbs. 1/4 oz.	30"	03/08/93	Kanopolis Res.	twister
11 lbs. .75 oz.	29 1/2"	03/22/93	Kanopolis Splwy	Roadrunner
10 lbs. 12 oz.	30"	03/24/93	Kanopolis Res.	grub
10 lbs. 10 oz.	27"	03/17/93	Tuttle Creek	shad
10 lbs. 9 oz.	26"	04/10/93	El Dorado Res.	jig
10 lbs. 0 oz.	28"	04/11/93	Pomona Res.	twist tail
10 lbs. 0 oz.	29"	06/18/93	Hillsdale Res.	crankbait
9 lbs. 12 ozs.	29"	06/29/93	Kanopolis Res.	Rat-L-Trap
9 lbs. 8 oz.	29 1/2"	10/25/93	Kanopolis Res.	green sunfish

White Amur (20 pounds)

49 lbs. 14 oz.	42 1/2"	07/10/93	Boeing Lake	catfish bait
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Wiper (6 pounds)

*22 lbs.	28 1/2"	06/28/93	Pomona Res.	sod worm
16 lbs. 8 oz.	30"	04/23/93	Chetopa Dam	lure
14 lbs. 5 oz.	30"	05/17/93	Sebelius Res.	sunfish
12 lbs. 1 oz.	26"	08/92	Winfield City Lk.	lure
12 lbs.	29"	06/23/93	Perry Res. Outlet	Sassy Shad
9 lbs. 14 oz.	27"	05/16/93	Sebelius Res.	Thin Fin
8 lbs. 13 oz.	26 1/2"	06/12/93	Leavenworth SFL	liver
8 lbs. 11 oz.	27"	06/09/93	Milford Outlet	jig
8 lbs. 10 oz.	26"	08/20/93	Kanopolis Res.	lure
8 lbs. 8 oz.	26"	05/26/93	Sebelius Res.	Rat-L-Trap

(*New State Record)

Ryan Klima, Bellville
 Thomas L. Greening, Westmoreland,
 Kari J. Dodson, Cherryvale
 Glenn McDonald, Spring Hill
 Aaron Drake, Wichita
 Clyde A. Medkief, Augusta
 Ronnie L. Allison, Coffeyville
 Brian Munday, Russell

Clinton Jackson, Marion
 Steven Robinson, Manhattan

Travis Kennedy, Hastings, Neb.
 Dale Stallard, Kansas City

Darrell Stice, Cherryvale
 Karen Bledde, Carbondale
 Michael L. Vaden, Winfield
 Joshua A. McElroy, Augusta
 Jeff Mangrum, Dexter
 Tara Lynn Gildart, Thayer

Richard Lee Acton, Elkhart

Matthew S. Barr, Burlingame

Keith Halsey, Kansas City
 William G. Stringer, Kansas City
 Dale Stallard, Kansas City

Brian Haskins, Wichita
 Cecil Gage, McPherson
 Scott Schrag, Hutchinson
 Danny Bolte, Brookville
 Todd Spielman, Manhattan
 R. Gary Walker, Newton
 Charles Pyle, DeSoto
 Terry Apple, Overland Park
 Brent E. Hilbig, Salina
 Charles W. Simmons, Windom

Eugene S. Jackson, Wichita

Kevin Carson, Osage City
 Lupe J. Escalante, Silver Lake
 Larry D. Arb, Osage City
 John M. Cain, Winfield
 Ted Drury, Overland Park,
 Chris Graf, Norton
 Joshua Kielman, Bonner Springs
 Nevada Bedwell, Ft. Riley
 Tim Trantham, Great Bend
 John Shea, Phillipsburg



Camping 101

by Mark Shoup
associate editor, Pratt

photos by Mike Blair

Whether you put up a tent on a primitive campsite or park your trailer on a concrete pad with electric and water hookups, camping at one of our state parks can be a relaxing way to spend your weekend . . . provided you plan ahead.

It's July already, and like many of us, you may have found yourself reneging on a dozen promises to take the kids camping. You have a thousand reasons: It's too much work. It's too expensive. You have to wash the car, mow the lawn, weed the garden, shear the cat.

You're making excuses.

Perhaps you've never been camping before. Or perhaps you have, but the experience ended in disaster as tents filled with water,

bugs nearly flew away with your youngest child and everyone sat gingerly on the edge of their seats, nursing sunburned skin as they nibbled blackened hot dogs.

Not to worry. These experiences — or fear of them — should be put behind you. With just a little thought and preparation, the discomforting clichés associated with camping will be long forgotten as you discover one of the most rewarding family activities and

build memories that will last a lifetime. Anyone — on just about any budget — can do it.

So where do you start? Planning is everything, and you should start several weeks in advance if it's your first outing. Involve the whole family, making it a joint effort, a learning experience for all. Of course, equipment is the first order of business, and tents are the most basic need. Jim Reid is the director of public relations for Wichita's The

Coleman Company, and he has some simple advice for choosing a tent.

"Don't skimp on this piece of equipment," Reid advises. "Find a good sales clerk to help you choose a tent to fit the weather conditions you'll be camping in. Good material and construction are the keys."

Many older tents were made with cotton fabric and thread. The thread would swell when wet, sealing the stitches. Not so with modern tents, which are mostly light, durable nylon and treated with a fire-retardant that prevents swelling. As a result, the stitching on these tents must be treated with a seam sealer before use. Most important, make sure your tent has a fly -- a thin, water-proof canopy that stretches over your tent roof. The waterproof fly is necessary since the tent fabric isn't completely waterproof, allowing the material to breath. If the tent didn't breath, condensation would build inside and make a closed tent damp and uncomfortable. The fly also protects your tent from sunlight.

While tents come in a variety of shapes and sizes — from two-person domes to multi-room cabin styles — pick the tent that best suits your needs and budget. Consider that one of the best ways to interest older children in camping is to get them a small tent of their own and let them set it up.

Once you've decided on a tent (or tents), you need to fill it with sleeping gear. You probably have most of this already. If you're mainly a mild-weather camper, sheets, blankets and pillows are all you need. Make a bedroll for each person and tie it with a nylon cord for easy packing. For those who want the convenience and warmth of a sleeping bag, many styles are available. Duck or goose down is still the standard for warmth, but many artificial-fill bags will keep you warm in below-freezing temperatures, and they're often cheaper than down and warmer when wet.

Bags are lined with everything from nylon to flannel, which is most comfortable but can be hot in



Pre-trip planning is the only secret of happy campers. From equipment lists to pre-cooked meals, the better the plan, the smoother the trip.

summer. A bag liner made from an old sheet will offer maximum comfort in all weather.

While children seem to sleep like rocks under almost any conditions, I recommend a mattress pad for adults. A good night's sleep can mean the difference between success and stress on a camping trip, and a foam or air mattress is the ticket to slumberland. I prefer foam because I don't have to pump it up, holes don't flatten it and it's more comfortable for me. A 4-inch-thick foam pad can be found at most department stores and outdoor gear dealers. (Reid offers a cost-saving tip on pads — try your local fabric shop.)

To negotiate the campsite at night, each person will need their own flashlight. To begin with, inexpensive D-cell, two-battery lights will do fine although battery-oper-

ated lanterns are very handy in tents. For economy and comfort, you should have at least one Coleman-fuel or propane lantern in camp, more if possible. Good gas lanterns can also be purchased at hardware, outdoor gear and department stores. (NOTE: Due to risk of fire and carbon monoxide poisoning, NEVER use gas stoves or lanterns inside tents.)

Now your shelter and sleeping gear are taken care of, and you won't stumble around in the dark. The next "basic" is cooking gear. While cooking over a campfire is aesthetically pleasing, it is inconvenient, to say the least. You have to dig a hole, collect and cut wood, scrub soot from pots and pans and take extra precautions to prevent fires. Some areas don't even allow fires. If you are a novice camper, you might want to consider adding



Getting your gear out and even assembling it before the trip is key. Start stoves and lanterns and make sure all equipment operates safely and properly.

a camp stove to your stash of gear. They're not only convenient, they're environmentally friendly.

As with tents, stoves come in a variety of models and price ranges. A standard two-burner using Coleman fuel will fit most people's needs. Depending on your pocket-book, you can get fancier models that burn propane or unleaded gas and even have electronic ignition. Compact, single-burner models make handy additions for a pot of coffee or that third cookpot.

If you really want to get elaborate, buy a five-gallon propane tank and a distribution "tree" — a fitting that hooks to the tank and allows the attachment of a lantern and two stoves at the same time.

But we're trying to keep things simple, right? If any of this seems too expensive for your trip, keep this in mind — despite their desire to get away from it all, campers are a gregarious lot. Most are willing to loan tents and stoves to friends or co-workers who want to introduce their families to camping.

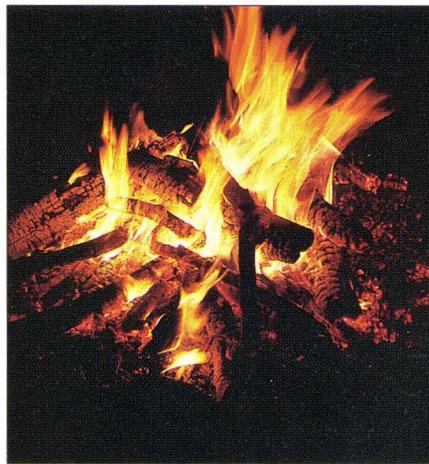
In addition to a cookstove, you'll also need a cook table, unless you really want to bend over the stove. Old card tables will fill this need — the more the better — for cooking and for washing dishes and eating. Again, if money is no object, compact, folding tables designed for

camping are available.

If you cook at home, pots, pans, utensils and dinnerware should be no problem.

Cooking equipment, of course, brings us to an element of critical importance to any camp — food. For many campers, food can make the trip. Perhaps more than any other aspect of camping, planning meals ahead of time can make a trip smooth.

"Someone who hasn't been camping before shouldn't be intimidated," says Reid. "It's simply cooking outdoors. Food never tastes better than outside at camp. That morning coffee smells better than ever."



A campfire is great, but difficult to cook on. A camp stove is a better choice.

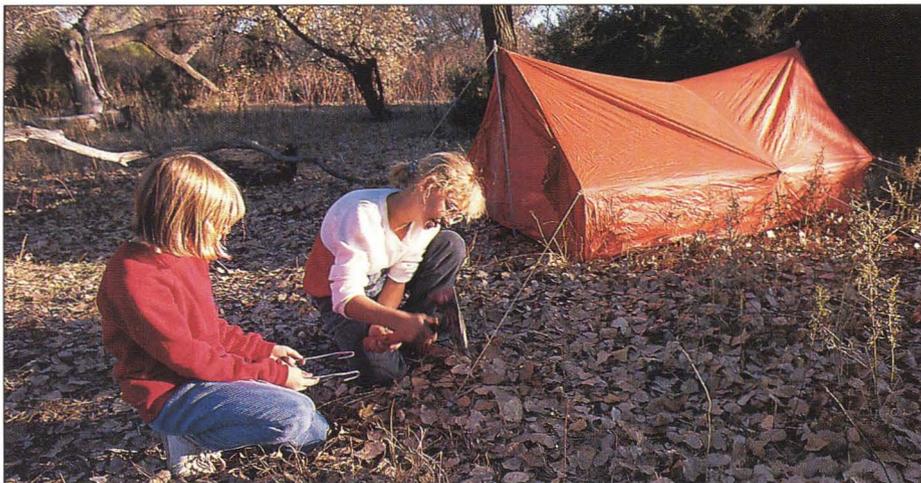
And never will the kids' appetites be more ravenous.

Most people prefer a mixture of cooked meals and quick sandwiches with chips. Mid-day is usually the best for these quick meals. Many dishes can also be prepared in advance, such as browned hamburger for sloppy Joes, chili, burritos or spaghetti. Soups and a variety of other dishes can be completely prepared in advance. Campers who have a Dutch oven can even pre-mix the ingredients for special desserts, such as peach cobbler.

Above all, remember that it saves time and money to know your menu ahead of time. Carefully pack your cooler in reverse of expected consumption, with the first meals going in last. Pre-chill food and drinks to conserve ice, and store meat and dairy products in sealed, dry containers directly on ice.

Speaking of coolers, be sure to bring a separate cooler for drinks. This cooler will be opened more frequently, so you'll conserve ice in the food cooler by keeping these items separate. If you plan to fish, bring another cooler with bags of ice in it, as well as a good supply of freezer bags. This cooler will keep your fillets fresh and provide extra ice.

Along with coolers, be sure to bring plenty of fresh water, both for



Letting the kids set up their own tent is a good way to get them interested and involved. A trial "campout" in the backyard is a great way to get the family started.

drinking and washing. Water jugs don't need to be insulated; volume is the issue here. Inexpensive 5- or 6-gallon jugs are easy to find at department stores or camping supply outlets.

Now you've got everything you need for camping, right? Well, maybe. A number of minor items should be considered before you tackle the great outdoors, depending on your ambition. The following checklist includes additional items that most campers will need at one time or another: first aid kit, batteries, blankets, camera and film, radiant heater, coffee pot, compass, dishpan, flares, folding chairs, extra fuel, ground cloth, hand axe, insect repellent, knife, mantles, maps, pad and pen, lighter and matches, prescription medicine,

rope/wire, shovel, soap, sunglasses, sunscreen, tablecloth, toilet paper, tool kit, towels, trash bags.

Okay. You've got all your gear together; now you're ready to go camping. But where do you go? If you're a novice camper, the best place may be as near as your own backyard. In fact, it is your own backyard. The logistics of setting camp, pitching tents and using all this strange equipment should be tested in a trial run. What better place than your own backyard, where you can escape to the security of your microwave if the potatoes burn or to the comfort of your bed if bad weather brews. I guarantee that the kids will love it.

Once it's time for the real thing, try to pick a spot fairly close to home on the first trip. Be sure to



With the right gear and proper planning, a summer campout can be a great family adventure. Quit making excuses and get the family outside!

check the weather ahead of time, too. A Kansas thunderstorm can ruin a camping trip for beginners.

When selecting a campsite, pitch tents near, but not directly under trees. Bird droppings and tree sap can ruin a tent, but you'll want the shade of trees in the daytime. Avoid low spots where water may drain if it rains, and make sure the ground is level where the tents are pitched. Depending on the weather, you may or may not want shelter from the wind.

While most adults may go camping for specific reasons — fishing, boating, birdwatching, etc. — for kids, camping is an end in itself. Usually, this isn't a problem because there's plenty to do. However, if boredom attacks particularly citified kids (or adults), be prepared. Involve them in cooking. Let them pitch their own tent and bring a friend if they wish. Coloring books for younger children and card games for the older ones may come in handy. Better yet, plan some family hikes. Explore the area's woods and canyons. Use any available nature trails, and bring along field guides. Being able to identify plants and animals you see keeps interest high.

My final piece of advice for novice campers is advice I can't give — but your friends can. Most people know someone who camps from time to time, if not frequently. Ask what they do and where they go. They may even help you with selection of equipment and packing, or better yet, they may want to go along.

So get out there and enjoy outdoor Kansas this summer. Go to bed with the music of crickets and frogs. Awake to birdsong. You'll discover music "to soothe the savage breast."

But be prepared. Your kids may hound you to go camping well after school starts. What the heck? There's nothing like fresh game over an open fire. 

(Special thanks to The Coleman Company's Jim Reid.)

Racers Sizzle At Crawford State Park

by Chris Havel

Wildlife and Parks program specialist, Pratt

photos by Mike Blair

The clear waters of Crawford State Fishing Lake and beautiful Crawford State Park are the site of a unique and increasingly popular event called a triathlon. The race at Crawford involves swimming, bicycling and running. And people like it?

Think of July in southeast Kansas. Hot — 90 degrees or more. Humid — like you're wearing a wet towel over your face. No wind. Now think of what you'd prefer to be doing on a day like this: basking under the air conditioner, clutching a glass of ice-cold lemonade. Last summer, however, about 75 people opted for a slightly different approach for dealing with the heat. They swam, bicycled and ran (all in the same day) in and around Crawford State Park. They called it the Summer Sizzler Triathlon, and 1993 was the third year for this nationally recognized event. This year, on July 24, the 4th Annual Summer Sizzler is going all out.

Modest beginnings marked the first race in 1991. Crawford State Park's summer naturalist Chris Pistole approached park manager Dave Goble with the unusual idea of hosting a biathlon — running and bicycling — at the park. As a state park, however, Crawford was designed for different pursuits. There are luscious campgrounds around a jewel of a state fishing lake, nature trails, a marina and restaurant, the beach, a sand volleyball court and more. Why a biathlon? Crawford State Park is perfect for such an event. A blacktop road circles the park, and a



Runners compete in the running portion of the Crawford State Park's Summer Sizzler race -- an annual triathlon that attracts racers from all over and of all ages.

lightly-used paved state highway runs north from the park through the county.

Encouraged by Pistole's enthusiasm, Goble gave the go-ahead. Pistole drafted Earl McIntosh, a track coach from nearby Pittsburg

State University, to be race director, and the first event was hastily organized. The brave (and hardy) souls biked and ran their hearts out. The winners accepted their awards, and everyone went home (presumably to bathe in Gatorade).



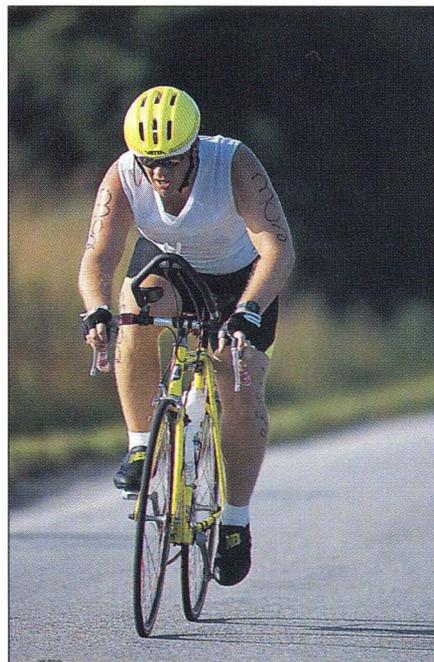
The first leg of the race starts at the state park's swimming beach — a 400 yard swim. In the Half Iron Man, offered for the first time this year, entrants will swim 1.1 miles.

In its second year, the biathlon evolved into a triathlon with the addition of a swimming leg. The long course (400-yard swim, 20-mile bike ride, and five-mile run) and short course (400-yard swim, 10-mile bike ride, and three-mile run) attracted 35 participants, both first-timers and triathlon junkies. The race was held again last year, and it drew more than twice as many participants than the year before. McIntosh returned as race director, a title which does not wholly reveal the scope of his involvement.

McIntosh is a person Goble would love to clone, then bottle and sell to other state park managers. They ultimate volunteer, McIntosh's story is one of year-round dedication to the Sizzler Triathlon event. To stage an event like the Sizzler involves more than rounding up the athletes. There's planning and marking the course, coordinating with a bevy of government organizations, staffing the day of the event, attracting sponsors, fund raising, providing for the health and safety of the competitors, advertising . . . the devil's in the details.

McIntosh's background fits the Sizzler's need for race director so well you could call it fate. He's been on the Pittsburg State University track coaching staff since 1991, and

is a vigorous triathlete himself. Graduating with a teaching certificate last May, McIntosh will most assuredly be pursuing his career with the same vitality he has poured into the triathlon. He attributes his dedication to the event in part to his military experience in the Marine Corps (his active duty lasted from 1984-1989, and is still in the active reserves).



The bicycle portion of the race is held on a lightly traveled state highway.

"Maybe it's part of being a Marine," McIntosh explains. "You do what needs to be done."

With Cheryl Cooper as an informal assistant race director, the pair have spent the past 12 months organizing an event they hope will draw at least 200 triathletes. With McIntosh nearing the end of his undergraduate schooling, and Cooper on her way to the University of Kansas Medical School, it's amazing

they find the time to put this event together.

"I just kind of help out," says Cooper. "It's a lot of fun, and very social. The people at these events are great." Over the past year and a half, she's been helping more and more, traveling to events and volunteering, and intends to continue helping out after she leaves PSU.

"She's been great!" added McIntosh. "Whatever was needed — stats, recruiting, help with the computer — she did; then more."

Recruiting volunteer help is an art, and both Cooper and McIntosh could be called masters at this point. The 60 or so volunteers at last year's event were pulled in by the excitement of the competition and the enthusiasm of Cooper and McIntosh. Professors, students — anyone they meet is fair game. One instructor at PSU, for example, had a known weakness for a certain mint candy; a weakness McIntosh exploited. Marines are trained in this sort of thing.

"It was funny. I brought a York Peppermint Patty to her office and gave it to her. Then I hit her with volunteering at the triathlon," jokes McIntosh. But he got her to commit.

The day before the event, participants attend a pre-race clinic to go over rules, chat with an exercise

physiologist, and pick up race packets. The day of the race starts with the swim heats, launched from the state park's beach. From there it's on to the bicycling leg which takes the riders onto Highway 7. The final leg of the race is the run around the park's perimeter road.

Entrants in each course compete in groups defined by gender and age. Competitors earn plaques within each group, plus overall awards for the best performances.

This year's event promises to break new ground. The same long and short courses will be offered, plus a third race: a Half Iron Man.

With this new race — a 1.1-mile swim, 51-mile bike ride and 12.1-mile run — the Sizzler will be one of only three events of its kind between Pennsylvania to California. More than 40,000 entry forms are on their way to prospective participants, and interest has come from both coasts.

McIntosh races around his house like a pinball, showing the bits and pieces that will become the Third Annual Summer Sizzler Triathlon on July 24 — new buoys to mark the swim courses behind the door, a computer printout showing sponsors of cash and materials sprawled out on the dining room table — all while explaining the procedural changes

for this year.

"We added more age categories. I had a guy come up to me at an event and ask why I lumped everyone over 60 into one group. It never occurred to me, but I guess since there are a lot of people out there in those age groups . . . We've got more age groups in the Half Iron Man."

Sponsors are a varied lot, ranging from the likes of Pepsi, Wal-Mart, Dillons and Pizza Hut, to local supporters like Geier's Marina (located on Crawford State Fishing Lake) and the Radiation Oncology Association.

"To get sponsors, you need to be genuine," McIntosh explained. "You need to explain what you're doing. You need to be excited and committed to make it worth their while. If I need something, I ask for it. I've never been turned down."

The sponsors have come through, the volunteers grow in number, and participation at the event is still swelling. McIntosh thinks the success of the Crawford triathlon shouldn't surprise anyone.

"Crawford State Park really is the perfect site. The lake is small and personal; there's a great big beach where the swimmers can come out; the parking lot is made for the transition to biking; the highway is

lightly used; and there's blacktop around the lake."

Agreeing with a point made earlier by Cooper, McIntosh explained that a triathlon is a social event as much as an athletic one, and the state park setting is perfect for that. "It's not like a 5K run, where you do the race and go home. People make a weekend of it — bring the family."

With 60 utility campsites and even more room to pitch a tent, plus modern shower buildings, a marina, restaurant and other amenities, the park gets a workout when the race crowd comes in. And it requires an effort from park staff so that everything runs smoothly. McIntosh credits park manager Goble for his cooperation.

While the 1994 triathlon is running on McIntosh's momentum, the event's future isn't assured. This will be his last tour as race director. Crawford State Park will still be around to provide the perfect backdrop, but the Sizzler needs volunteers with the drive and devotion of a McIntosh, a Cooper and 60 others who will make it happen. The volunteer help, sponsorship and support from local businesses and residents have made the Sizzler a great success, one that could be imitated at other state parks across the state. 



Braving the heat and humidity, racers complete the last leg of the race, the run -- three miles on the short course, five miles on the long course and 12.1 miles for the Half Iron Man. Prizes are awarded for winners in different age group categories, as well as overall winners.

Edited by Mark Shoup

HUMMER FOOD

Editor:

We wish to take exception to your excellent article on wild bird feeding in the Jan./Feb. issue of KANSAS WILDLIFE AND PARKS (Page 8 of "Refuge In the City") regarding hummingbird feeding. For years, we boiled the sugar-water solution as you noted only to find that we had prepared the perfect medium for airborne spores or fungi carried by the little birds themselves.

We feed hummers here in California all year-round and find that the best way to fight fungi and fermentation is to carefully wash the feeders in hot water. Next, rinse the bottles with vinegar, followed by cold water from the tap. The acid (vinegar) wash and the small amount of chlorine in the tap water seems to defeat spoilage under normal circumstances.

Each time I read your magazine, I recall my youth in Sawyer, Kan., and the happy days catching carp in the Ninnescah River by your offices. When I was five, my dad even caught me fishing in a bass rearing pond!

Herbert R. Buck
Cerritos, California

Dear Mr. Buck:

Thanks for the tip. By the way, did you catch any bass? –Shoup

BUY KANSAS

Editor:

In the May/June issue of KANSAS WILDLIFE AND PARKS (Page 7), an article appeared that gave an account of the blessings of flyfishing in Kansas waters as sport, recreation and downright fun, which it is. At the end of this piece, the writer chooses to give the readers information on what equipment

is needed and that it can be purchased through mail-order establishments.

This information is true, but I believe that Wildlife and Parks should be recommending that its readers purchase whatever they need in flyfishing basics, etc., from or through local sporting goods stores. After all, these merchants pay plenty of taxes, support KDWP programs, and keep their patrons and the general public informed of what is going on with all the diverse wildlife we have here in Kansas. These merchants also support the local chapters of Ducks Unlimited, Quail Unlimited, and local fish and game groups through contributions of time, money and labor.

If Kansans send mail orders into out-of-state hands, they will not reap any of the benefits normally enjoyed if they had spent their hard-earned money with home-owned merchandisers and had part of it go back into promotions of life here in Kansas.

For example, a few years ago, when KDWP was the Kansas Fish and Game Commission, local, home-owned sporting goods dealers spent time, money and effort to put on a crappie/walleye clinic for the general public, with instructors from your agency. When one of the speakers was ending up his talk, he told the audience that all the rigging could be purchased at the local discount chain stores. He was confronted afterward by one of the local sporting goods dealers about what he had just said, and his reply was, "I'm sorry. I didn't think."

Needless to say, there haven't been anymore clinics put on by home-owned merchants since that day. Think!

George Barker
St. George

Dear Mr. Barker:

I understand your sensitivity. I've lived in small communities nearly all my life and know the importance of

keeping business at home. I know I'll pay a little more for a car or appliance, but realize that if I drive to a larger city to purchase them, I'll lose the convenience of having those businesses in my community.

If you'll read the sidebar from the fly-fishing article again, you'll see that in the second paragraph, Mike Blair recommends that any interested fishermen go to his or her local sporting goods store to look at equipment firsthand and to get personal advice. Since fly-fishing isn't a traditional technique in Kansas, many local sporting goods dealers don't carry complete lines of fly tackle. Blair writes, "So if you can't purchase over the counter, you can buy through catalogs." –Miller

BACKYARD BIRDS

Editor:

I have four feeders up, and they are busy places in winter. Still, I know there are fewer birds than we had a few years ago when we had 12 pairs of cardinals or more. Now we only have six or seven.

Last winter, I told my son in Colorado that I felt fairly sure I had seen an eagle. The next day in the Chanute Tribune there was a front-page story that said lakes are the place for bald eagle spotters. I live close to the Neosho River and Elk City Reservoir, so I shall keep watching. I do love to watch all our birds.

Oh, yes. I had not had a pileated woodpecker for a long time, but two times last winter I saw a huge one – 16 or 17 inches, I'd say. They may get to 19 inches according to what I read. Boy! He was a bird!

I'm 87 years old and really enjoy our birds, and your magazine. By the way, how do you teach bluejays a few table manners?

Louise Stephen
Chanute

Memorial In Memory of ZAM

District fisheries biologist Bruce Zamrzla, Sylvan Grove, was killed in a two-car accident on April 19. He was 47 and is survived by his wife and two children of Sylvan Grove. It's a tragedy that's difficult to accept, and the department mourns the loss of not only a respected colleague but, to many, a good friend who nearly always filled a room with a positive atmosphere.

The loss will be also felt by anglers all across the state, especially those who frequented Wilson and Kanopolis reservoirs, two under Bruce's charge.

Bruce was a respected fisheries biologist and consummate fishing teacher. He tirelessly educated children about the joys of fishing through his many fishing clinics and public programs. Dedicated to more than just fishing, Bruce also promoted conservation and our environment through programs and public appearances. On the night of the accident, Bruce was returning home after presenting a program to a garden club in conjunction with Earth Day.

The following commemoration was composed by several of Bruce's colleagues, who wish to remain anonymous.

"This is not meant to be a eulogy or complete biography. Its just a few statements about a decent man who died way too young.

"Zam was not an imposing figure, but his ambition and enthusiasm out-matched his physical stature. Those who went to school with him at Fort Hays State can easily recall him bouncing down third-floor Albertson Hall with a pile of books under one arm, hair dancing to the steps and a straight-forward jaw seemingly ready to take on anything the world had to offer. Few could believe that Zam would not have lived forever.

"Although he started his career in

Ellsworth, Zam spent most of his 20-plus years of service living in the beautiful country around Sylvan Grove.

"With a beaming and unmatched zeal, he seemed undaunted by life's challenges. In the early days, Zam put his electrical knowledge to work in helping to design fisheries shocking boats. He was always willing to give advice with a seemingly endless desire to help others. He helped gather a tremendous amount of information about stripers and their biology and habits from his home water of Wilson Reservoir. His contributions to the fish-



eries of his district and his profession will be felt for a very long time.

"Many fisheries biologists will never forget the classic slide-show talk Zam gave on striper fishing in the late seventies. He had the audience in stitches, showing how to use boat props as bait and relaying an account of a striper that jumped out of a hole in the ice, gulped a man's labrador retriever and returned to the water through a different hole.

"Plenty of people know about Zam's helpful and caring nature. What was so unique was his unwavering, positive approach to his job and life. He was never down and never put anyone else down. Zam's tolerance of different people with different viewpoints exem-

plified a subtle greatness.

"He was killed on duty, returning from a public talk about butterfly and hummingbird gardening. Even though his primary responsibilities dealt with sport fisheries, Zam took on other work with typical, genuine interest. There was not a topic he could not teach given twenty minutes notice.

"Anyone who worked with Zam at one time or another became acutely aware of how everyone seemed to know him and could easily gain his attention. Whether it was to the old timer in pursuit of flatheads or a youngster trying to catch his first big fish, he was always talking fishing. This friendly and helpful nature always seemed to make him late for appointments, and if you were with him you waited because you always knew he was promoting the natural resources he loved so much.

"Zam was not one to just talk about resources; he put a lot of personal commitment and effort into conservation work. Based on an ecological academic background, Zam had a natural devotion to wildlife and the environment. It didn't stop with his early work in Zero Population Growth at Hays, either. Throughout his career he tried to instill environmental awareness and pride in all he touched.

The last few years had added a few dignified streaks of grey to his head, but to talk with him and see the gleam in his eyes was enough to remind you of his child-like enthusiasm.

"We will miss you Zam – more than we could have ever admitted. You demonstrated the positive capabilities of the human spirit and set a standard we will never forget."

Memorial contributions may be made to the Bruce Zamrzla Ecological Concerns Memorial and sent to Jeanette Zamrzla; RR 2, Box 189, Sylvan Grove 67481. Contributions provided to Brenda Dean at the Pratt Operations Office for this memorial will be conveyed to Jeanette.



WATER SAFETY AWARD

The National Water Safety Congress (NWSC) has selected the Kansas Department of Wildlife and Parks to receive a National Water Safety Award, for excellence in promoting water safety in Kansas. Jackie Wedel, park ranger at the U.S. Army Corps of Engineers' Clinton Lake Project, nominated the agency.

Accomplishments cited in the nomination include enforcing life jacket regulations, performing courtesy boat checks, producing a boating safety video, using billboards near major bodies of water, developing a volunteer boating instructor program, providing special training for jet ski users and assisting in many search and rescue operations.

On May 3, Corps of Engineers district engineer Colonel Richard H. Goring presented the award to the department in a ceremony at the Federal Building in Kansas City, Mo. —*Shoup*

H-O-L ABUSE

Last December, two Tribune men were arrested for a crime of increasing concern to Kansas hunters and law enforcement officers — abuse of the hunt-own-land

permit.

Wildlife and Parks conservation officers Bruce Peters, Lakin, and Dennis Sharp, Holcomb, investigated the incident in which the two men were initially charged with hunting deer with the aid of a motor vehicle and attempting to take deer on land they did not own.

In Kansas, an unlimited number of hunt-own-land permits are available to landowners in all but two of the state's 18 deer management units. These permits are available for one-third the price of a general resident deer permit to any resident landowner who owns 80 acres or more land in Kansas. The holder may take any deer with the permit but is restricted to hunting on his or her own property.

During the course of investigating the Tribune case, Peters and Sharp discovered that the pair had also falsified information concerning land ownership on their permit applications. Each paid a \$250 fine plus \$50 court costs.

Increasing reports of hunt-own-land permit abuse — from falsifying land ownership to purchase of permits for family members who own land but do not hunt — concern all Kansas sportsmen because general resident permit numbers have been reduced in recent years.

Anyone having information concerning violation of any wildlife-related laws or regulations should call

Outdoor Alert, 1-800-228-4263. —*Shoup*

PREMATURE NON-RESIDENTS

Last winter, two Oklahoma men were convicted in Sumner County District Court of illegally hunting deer in Kansas. The episode began Nov. 28, 1993 — the last day of Oklahoma's deer season — when Conservation Officer Ed Brown discovered their vehicle parked on the Kansas/ Oklahoma border and all-terrain vehicle (ATV) tracks heading north into Kansas.

Brown followed the tracks and spotted a man in a tree wearing hunter orange. He then called the Sumner County Sheriff's Office for assistance. While Deputy Gerald Wilke watched the hunter's vehicle from a distance, Brown headed down the creek to make sure the subject didn't try to cross back into Oklahoma and return to the truck.

About 5:30 p.m., two ATVs returned to the truck, where Brown approached them and asked, "Where are your rifles?"

"We weren't hunting," came the reply.

"I saw you with my binoculars sitting in the tree holding your rifle," Brown said. "Now, go back and get your guns."

Brown sent one of the men back to the woods to retrieve the rifles. The man returned after a lengthy

absence and said he couldn't find his partner's gun, so his partner returned to get his rifle. Brown confiscated both rifles.

Both men were cited for hunting without a valid Kansas hunting license, attempting to take a deer without a permit and failure to possess a valid hunter education card. Each paid \$340 in fines and court costs. —*Murrell*

"NET" SALES TURN DEBIT

Last January, ten persons were charged in connection with the buying and selling of fish illegally taken from public waters across Kansas. Several Wildlife and Parks conservation officers, in cooperation with Board of Agriculture representatives and local police officers, inspected records at fish markets in Salina, Emporia and Garden City.

The inspections resulted in charges against several people across the state. Richard Harrold, chief of special operations for the department, said the charges were the culmination of several months of investigation by officers documenting illegal fishing at several central Kansas reservoirs.

Kansas law prohibits the sale of fish taken from public waters. Commercial use of any wild fish or wildlife with an aggregate value of \$500 or more is a Class E felony. —*Murrell*

KNOW YOUR WATER RIGHTS

Water is our most precious resource. While this may be an old cliché, it's true, and no one understands this more than farmers. Whether they irrigate or not, water is the key to their yearly crop-growing success.

Irrigators, especially in western Kansas, are increasingly concerned about the limited nature of this resource. How long will the Ogallala Aquifer provide water? How can this resource be conserved?

Compounding the problem is a portion of the Kansas Water Appropriation Act that deals with "abandonment," commonly known as the "use it or lose it" clause. Officials with the Division of Water Resources (DWR) say that this is the most misunderstood element in the act. Many people, including some farmers, believe that this clause forces an irrigator to pump water from the aquifer even when it isn't needed, just to meet the requirements of their allotted water right.

This is not necessarily true. Kansas water law does state that any water right not used for three consecutive years without "due and sufficient cause" shall be forfeited. However, there are a number of situations that constitute due and sufficient cause. It should also be kept in mind that water use may be halted or reduced for two years **for any reason** without penalty. Due and sufficient cause is covered in K.A.R. 5-7-1 by the six different conditions sum-

marized below:

1) adequate natural precipitation has made irrigation unnecessary for crops normally requiring irrigation;

2) another authorized water supply likely to be depleted in periods of drought is used instead of a primary source;

3) water is not available when needed;

4) the purpose for the irrigation has been temporarily discontinued for a set period of time to permit soil, moisture and water conservation (enrollment in CRP, for example);

5) conservation practices are being used that require less water than authorized; and

6) any other reason determined by the chief engineer.

In the case of #5, DWR must be notified prior to implementation of the conservation practices.

As you can see, this provides the irrigator with a number of options for conserving appropriated water. If it rains heavily one year, pumps can be shut down without penalty. If farming practices that conserve water are implemented (such as conservation tillage, surge valves, or low-volume watering systems), pumping less will not jeopardize the right, as long as DWR is notified ahead of time. If land is enrolled in the Conservation Reserve Program (CRP), water rights are not jeopardized by non-use.

In addition, DWR administers the Water Rights Conservation Program, which allows farmers to stop or reduce pumping **for any**

PURE WATER PUSH

Last year, the Kansas Department of Health and Environment (KDHE) released studies showing that only 4 percent of the stream miles in Kansas are safe for all uses part of the time. Ten percent is so polluted that it is not safe for boating or wading.

In response, the Kansas Wildlife Federation (KWF) has developed the Pure Water For Kansas (PWFK) program to monitor water pollution in the state and act as an information source for groups and agencies working for cleaner waters.

The program's first effort will be to establish a series of statewide water-quality monitoring workshops, funded in part by an \$8,700 grant from the Environmental Protection Agency (EPA). These workshops will train a statewide network of instructors who will, in turn, teach classes of volunteers who want to monitor streams. The first workshop was held in Lawrence on April 16. Staff from the Kansas Biological Survey joined other technical experts to lead the training.

Currently, instructors are located in Colby, Hays, Lawrence, Liberal, Wichita, and several other college towns across the state. The U.S. Army Corps of Engineers will also make rangers available for training.

Groups and concerned individuals who wish to start a local "stream team" will receive the information and basic training they need to successfully monitor their favorite streams.

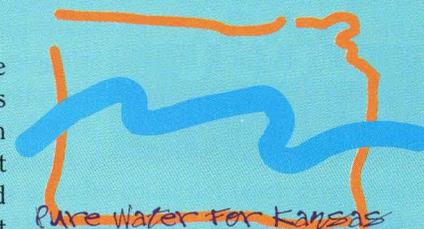
In addition to support from the EPA, additional support for Pure Water For Kansas has been pledged by the Coors Brewing Company and KDHE. Future efforts will include wetlands and groundwater monitoring teams, stream restoration projects and a statewide annual conference for volunteers.

For more information, contact Pure Water For Kansas, KWF, P.O. Box 5715, Topeka, KS 66605, or phone Larry Zuckerman at (316) 672-5911. —Shoup

reason for a three- to 10-year period, as agreed upon under contract between the irrigator and DWR. The only restrictions are that the water right must be in an area closed to new appropriations and that it cannot currently be subject to abandonment.

There are many ways to save water in Kansas. These are just a few. For more infor-

mation, contact the Division of Water Resources, (913) 296-3717. An excellent reference on sustaining water resources in western Kansas is Mary Fund's *The Ogallala Aquifer: The Challenge to Sustainability in Western Kansas*, available from the Kansas Rural Center, 304 Pratt, Whiting, KS 66552, (913) 873-3431. —Shoup



SCOUTS ADOPT NEOSHO

The Adopt-A-Public Land Program is an excellent way to invite public participation in improving state-owned wildlife areas. Alert to this fact, KDWP Conservation Worker Rob Riggan invited Parsons Boy Scout Troop # 8 to assist with habitat improvement at Neosho State Fishing Lake.

The troop, which approached Riggan about a campout at the lake, eagerly accepted his invitation to build and erect wood duck nest boxes. WILDTRUST funds helped provide plans and lumber, and the scouts constructed the boxes.

The dozen wood duck boxes should encourage nesting by wild strain wood ducklings donated to the area by the Emporia Zoo in 1993. Those birds, as well as wild migrants, should benefit from the predator-proof nesting cavities. It is hoped that wood duck broods will be a common sight for Neosho SFL users in coming years.

In addition to placing the boxes in mid-March, Troop 8 picked up trash and erected a sign acknowledging their participation at Neosho SFL.

"This project worked great," Riggan said. "Building nest boxes helped the scouts fulfill some workday requirements for merit badges and made the Adopt-A-Public Land program more interesting. In fact, one scout has decided to study wildlife biology in college because of his participation."

Many other such opportunities are waiting for groups interested in improving public lands in Kansas, for wildlife and people alike. —Mathews

BOOK BEAT BOOK BEAT BOOK BEAT

WILD LEGACY

Consider this: Until the late 1950s, millions of pounds of blue pike were harvested from Lake Erie each year. By 1963, the take had dropped to 200 pounds. Today, the species is extinct. The cause? Pollution in the Great Lakes.

This is one of the more dramatic wildlife stories in the "revised, expanded, and updated" version of Robert M. McClung's book, *Lost Wild America: The Story Of Our Extinct and Vanishing Wildlife*. Such illustrations, combined with an easy-flowing writing style and an ironically hopeful spirit, make McClung's book one of the most accessible analyses of man's relationship to wildlife that I have read. I could easily imagine this as a high school textbook and as essential reading for anyone concerned about the future of wildlife, from birdwatchers to hunters and fishermen.

In what is essentially a history book, *Lost Wild America* takes the reader on a journey through America from the time primitive man first crossed the Bering Strait land bridge to 1993. The first two chapters describe settlement through 1880. These are followed by a chapter on a few extinct species, such as the Labrador duck and the Steller's sea cow, and a chapter on species that have come back from near extinction, including beaver, pronghorn and wild turkey.

Fascinating quotes from 1534 French explorer Jacques Cartier, George

Washington, Louis and Clark, John James Audubon, and many others bring life and immediacy to these accounts and recall an America we can only imagine.

Other chapters outline environmental policy by administration, which is particularly enlightening. I had forgotten, for instance, that President Nixon had a very good environmental record. "Nixon was keenly aware of the threats to our environment and the looming population crisis," notes McClung, citing an address Nixon made to the United Nations General Assembly. Among other accomplishments under Nixon's watch, the National Environmental Policy Act (NEPA) was passed; the Council on Environmental Quality (CEQ) and the Environmental Protection Agency (EPA) were established; and his secretary of the Interior, Walter Hickel, "strengthened and enforced oil pollution policies, blocked the building of a mammoth jetport in the Everglades, banned the use of most toxic pesticides, and strongly supported the Wilderness and Wild and Scenic Rivers acts."

Administrations from Harrison and Cleveland to Bush and Clinton are outlined.

McClung also describes the birth of the private conservation movement: "In 1885 George Bird Grinnell — a well-known scientist, hunter, publisher, and conservationist — sparked the foundation of a private organization to fight against the

slaughter of birds for food and plumes. From this beginning stemmed the National Audubon Society. In 1887, Grinnell teamed with Theodore Roosevelt to form the Boone and Crockett Club."

I did note one rather glaring error in the book. In describing the plight of waterfowl, McClung notes that between 1940 and 1964, more than 45 million acres of duck breeding grounds were drained. He goes on to note that the number of duck hunters also increased during this time, then makes the erroneous statement, "The birds are caught between dwindling habitat and an increasing gauntlet of hunters to fly through each fall." In fact, the number of duck hunters has decreased significantly in recent years. Generally, the number of duck hunters has always fluctuated in response to the number of ducks.

Still, *Lost Wild America* is a good reference book. Many chapters begin with general discussions of groups of animals (hoofed mammals, whales, birds of prey, butterflies, etc.) followed by an update on the status of specific species, some on the brink of extinction, others holding their own.

Lost Wild America is easy to read and rich with both interesting narrative and useful facts, and it doesn't have to be read straight through. Each chapter contains subjects of particular interest that are easy to find. Published by Linnet books, Shoestring Press, Inc., Hamden, CT 06514—Shoup

PRO FISHERWOMAN

She's a working woman, wife, and mother of two, yet Trish Stetler of McPherson is a self-proclaimed oddity, and proud of it. Mrs. Stetler is a professional fisherwoman. She competes in four invitational tournaments a year. She has competed in Kansas, Texas, South Carolina, Kentucky, and Missouri. Mrs. Stetler is also on the board of directors of the Kansas Bass Chapter Federation, and is the first woman to ever serve in that capacity. —March 3, *McPherson Sentinel*

**TACKLE HOT
SUMMER STREAMS**

at. Sleep. Go fishing. That's the motto of many Kansas fisherman, but with temperatures soaring near the 100-degree mark, those lazy days of summer can turn the most avid angler into an air-conditioned couch potato.

It's true that fish are generally more active in early morning and late evening, and while the most popular fish in Kansas — the channel cat — may be huddled under some shady brush pile, that doesn't mean he isn't hungry. He's just waiting for someone to bring him lunch. For those willing to brave the Kansas heat, stream fishing for channel cats, even in mid-afternoon, can be very productive with some preparation.

"Preparation" can refer to any number of prepared baits, all very productive for channel catfish. They come as paste to be molded on

treble hooks, in pre-molded nuggets, or in tubes to be injected into a special plastic pouch surrounding a hook. These baits are available at any fishing supply store and have the added advantage of not attracting bullheads or too many smaller fish.

Traditional live baits, such as worms, minnows and crayfish, also work well.

To keep bait handy, strap a coffee can or a bag to your belt. Wear plenty of insect repellent; if mosquitoes are anywhere in the middle of the day, it's near a shady stream.

The real tricks to hot summer channel cat fishing are finding the fish and dealing with the heat. One simple technique can help combat both problems — wading. Streams offer water and shade, the most important elements to keeping cool on hot days.

After you've found a wadable stream, walk quietly upstream in search of brush piles and shady holes where channel catfish may be resting. You'll have to get your bait right down in the lair. Cast above holes and brushpiles and let the bait drift into the deepest spots. Sometimes, it may be neces-

RECORD PIRANHA

On March 26, David Stark of Portage, Wis., hooked and landed a 21-inch piranha that weighed 6 pounds, 14 ounces. Casting for bass and bluegill in Lake Columbia, Stark thought he had a big bass until he landed the oddity after a long struggle.

According to Ted Dzialo, director of the National Freshwater Fishing Hall of Fame, Stark's catch edges the previous world record of 6 pounds, 8 ounces set in 1982 by an Ohio fisherman in the South American country of Columbia.

The fish is likely the last of four piranha dumped in the lake in 1984, according to Tim Larson, an official with the Wisconsin Department of Natural Resources. The man responsible is wanted on several conservation charges and has fled the state.

Three of the four fish were caught within a week. The last apparently survived for ten years on bluegill, stripers and other fish in the lake. When hauled in, its teeth were worn down enough to resemble human molars. —*River Crossings, from the La Crosse (Wis.) Tribune*



sary to simply hold the pole over a brushpile and drop the bait straight down.

Once the bait comes to a rest, hold the line in place for four or five minutes. If you haven't gotten a strike, move the bait. Keep moving upstream until the fish bite.

Daytime stream fishing can be very productive, and it's a good way to beat the heat and still be outdoors. —*Shoup*

FISHING DOLLARS

America's 50 million fishermen are responsible for more than \$69 billion in economic output, according to a new study by the Sport Fishing Institute. Individual

anglers buy goods and services, pay special taxes, purchase fishing licenses, and spend \$24 billion throughout the U. S., said Gil Radonsi, president of the Sport Fishing Institute. In 1993, more than \$19 billion in personal income was generated through sport fishing activities, which represents the equivalent of more than 1.3 million full-time and part-time jobs. Angler expenditures generated tax revenues to state and federal governments, including more than \$1 billion in state sales taxes, \$277 million in state income taxes, and more than \$2.1 billion in federal income taxes. —*Feb. 23, Miami County Republican*

DOODLE WHAT?



by Mark Shoup

May is a month that makes me crazy. I've come to the conclusion that a mystical gift of the soul combines with some undiscovered code of genetic information leftover from the later Pleistocene to make a good fisherman. As a test of my patience, God probably gave my gift to another, and my Cro-Magnon ancestors must have thought fish were cursed.

But cave-dweller blood runs thickly in Mike Miller's veins. He can catch fish when no one else does, so I consult him often in an attempt to discover his secret technique, knowing all along that it is nothing more than accident of birth. Still, each time Miller returns from a successful trip, I give him the third degree, pumping him for information in hopes of discovering that right combination of technique and timing that will satisfy my soul, sate my palate, and make me a hero in my family's eyes.

He humors me, answering each question in elaborate detail as if fishing were simply a craft, like carpentry, that only requires experience, attention to detail, and mastery of certain tools. He hasn't the heart to tell me what I already know.

When it comes to crappie fishing, Mike's answer is doodlesocking.

That's right, doodlesocking.

If you don't fish, you probably think I'm making this up, but it's a common term to crappie fishermen. Trying to define this term makes me think my fishing theories aren't too half-baked.

In early May, I fished from a boat

with a grizzled old outdoor writer and former tournament bass fisherman. We were tied to a tree stump in the water, and as I dipped my jig over one side of the boat and then the other, I mumbled to myself, "I don't know if doodlesocking will work here or not."

My seasoned companion looked at me sideways and snarled, "It's not doodlesockin'. It's called jiggin'." I asked for no further explanation and he offered none. It was, otherwise, an amiable afternoon, but the comment left me scratching my head.

A week later, I was at Cheney Reservoir with Gene Brehm, another seasoned fisherman. We thought we'd try our luck doodlesocking the cattails before it got dark. As we stood in the quiet water, I dipped my line next to one cattail, then another. After Gene had caught five or six and my stringer was still empty, he explained the proper technique.

"Just drop your jig to the bottom," he said. "Then raise it up about four or five inches and work the line slowly through the water in a semi-circle. Watch for those staubs under the water. That's where they'll be hiding."

"What's a Staub?" I asked blankly.

"Staubs." He answered with a slight touch of impatience. "Those little stumps of cattail below the surface."

"Of course." Just keep your mouth shut and watch, I thought. You'll figure it out.

In the next hour, I had figured out nothing, but Gene had five more crappie on his stringer — all 12- to 16-inch monsters.

The next day, I confronted Miller about doodlesocking technique.

"It's easy," he assured me. "Just drop the line down next to some brush, trees, or cattails, work it up and down a few times, then pick it up and try another spot. If you drop the jig on top of the fish, you've got him."

Two days later, I headed back to

Cheney by myself, so I could doodlesock to my own drummer. Miller even suggested one of his favorite honey-holes.

Now I don't believe in fate, but the road to Miller's cove was plowed over, and I had to park on a nearby road. Undeterred, I stumbled through the timber in search of the crappie mother lode. The cove looked good — filled with stumps and brush and just right for wading. Still, after two hours of dipping, dragging, bouncing, bobbing, and holding my tongue every whichway, I hadn't had a strike. I'll try the river for white bass, I thought. At least I know how to cast.

The river, on the north end of the lake, was no more productive, but as I was leaving that area, I asked another fisherman how he was doing.

"I haven't caught a thing," he said with a wistful grin. "I fished all afternoon over on Christmas Tree Cove and didn't get a bite, but the old guy next to me had about forty of the biggest crappie I have ever seen." He shook his head. "I was doing the same things he was. He even tried to help me."

A kindred soul, I thought.

By the time I reached Christmas Tree Cove, it was getting late. Thirty unproductive minutes later, I shifted to the Brehm technique and something tapped my line. Suddenly, all doubts vanished. Twice more, I dragged the line over that spot, feeling a tap each time. Next, I dropped the jig down on the spot and — BINGO — I pulled a nice 12-inch crappie from the staubs.

Although this was my first and last hurrah, a fisherman in deeper water looked at me, seemingly puzzled, and yelled, "You catch that in there?"

"Yep," I answered proudly, and I let my lone catch go.

On the way home, a warm wind blew in my window, and the sun flashed a brilliant mosaic across the western sky. I smiled. Somewhere, embedded deep in the DNA of even the most evolved members of our species, lies an encoded message from the past — "Doodlesock, and they will come."



SCOUTS' DISABLED HUNT

The Quivira Council of the Boy Scouts of America is offering the opportunity for a limited number of disabled people to hunt deer on its ranch in Chautauqua County, Kansas. The hunt will be held during the first Saturday and Sunday (Dec. 3-4) of the 1994 Kansas regular firearms deer season. An orientation session will be held on the Friday before the hunt. Special accommodations will be made for hunters who need them.

Each participating hunter will receive the following:

- => access to quality whitetail deer habitat on the Quivira Scout Ranch;
- => a blind or stand site suited to his or her particular needs;
- => transportation from the ranch headquarters to the blind or stand;
- => meals and lodging during the two-day hunt;
- => a hunting firearm, if needed;
- => use of handicapped accessible shower facilities at the ranch;
- => personal assistance with the hunt, as needed; and
- => other training and assistance as needed.

To qualify, participants must have applied to the Quivira Council, BSA, 1555 E. Second St., P.O. Box 48166, Wichita, KS 67201 (attn: Ken Reavis), no later than June 1, 1994. Eligible

applicants are those people who cannot walk without the use of, or assistance from, a brace, cane, crutch, another person, prosthetic device, wheelchair, or other assistive device; or who are severely limited in their ability to walk, due to an arthritic, neurological, or orthopedic condition; or who require the assistance of a prosthetic device or another person due to the severe loss of function of a limb.

Prior to the hunt dates, participants must be at least 18 years of age; must have completed an approved hunter education course (unless exempted by law); and must possess a valid Kansas resident hunting license (unless exempted by law) and a Unit 12 Kansas firearms deer permit. Applications for Unit 12 permits must be submitted to the Kansas Department of Wildlife and Parks during the first two weeks in July. Meeting these requirements will be the responsibility of each hunter. Participants will be required to sign a waiver of liability.

Clothing and special equipment needs must be met by hunter. Transportation to the Quivira Scout Ranch will also be the responsibility of participants, unless prior arrangements are made with Scout representatives. Each hunter will be required to pay \$50 for food, lodging and other supplies provided by the Scouts. Scholarships to offset these costs will be provided on the basis of need and availability.

A maximum of 20 hunters were chosen at random from qualified applicants. Successful applicants will be notified no later than June 20, 1994. The Quivira Council, BSA reserves the right to cancel the hunt if the number of participants is insufficient, or due to other

circumstances. Additional information is available from Ken Reavis at (316) 522-2947, Bill Ward at (316) 683-1589, or Rob Manes at (316) 672-5911. —*Rob Manes, special assistant, Pratt*

NONRESIDENT DEER REGS

On April 7, the Kansas Wildlife and Parks Commission set regulations for nonresident deer permits. After the governor's approval, 1,078 permits (548 firearms and 530 archery) became available to non-resident deer hunters in 1994. Non-resident permits will only be issued in units that had leftover permits the previous year. No more than 5 percent of the current number of firearms permits issued may be allocated for non-residents in those units.

Seven of 18 management units will offer 1994 non-resident permits:

Unit 1 – 10 firearms permits and 10 archery permits (whitetail buck only);

Unit 6 – 45 firearms permits, 45 archery permits, and 6 muzzleloader permits (any deer);

Unit 10 – 105 firearms permits and 105 archery permits (buck only);

Unit 11 – 80 firearms permits and 80 archery permits (antlerless only);

Unit 12 – 200 firearms permits, 200 archery permits, and 10 muzzleloader permits (any deer);

Unit 13 – 55 firearms permits, 55 archery permits, and 2 muzzleloader permits (any deer); and

Unit 14 – 35 firearms permits and 35 archery permits (antlerless only).

The cost for non-resident hunters will be determined by the type of permit received. Permit fees are \$50 for antlerless permits and \$200 for antlered or any deer permits.

Pending commission approval in August, the legislation establishing non-resident deer hunting will also allow landowners to transfer their \$10.50 special landowner/tenant hunt-own-land permit to any immediate family member, resident or non-resident. The recipient would then pay the appropriate permit fee – \$30.50 resident, \$200 non-resident. —*Shoup*

FEMALE FALCONER

Vanessa Avara is the first woman falconer licensed in Kansas. Avara, an employee of the Sedgwick County Zoo, passed the apprentice test in August 1993. Avara has joined the Kansas Hawking Club, a 28-member organization. —*March 6, Wichita Eagle*

MILE AFTER MILE

The Great Plains has 90,871 total miles of field windbreaks. North Dakota ranks highest among these states with 40,558 total miles that protect 2.95 million acres of cropland. Following are total miles of windbreaks for the other Great Plains states and the acres of cropland that they protect:

Kansas – 16,750 miles protecting 1.2 million acres;

Nebraska – 9,876 miles protecting 718,973 acres;

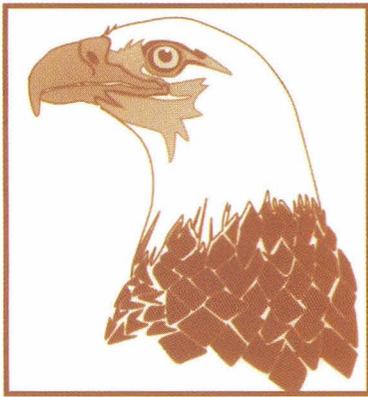
Montana – 8,821 miles protecting 642,169 acres;

South Dakota – 8,362 miles protecting 608,754 acres;

Texas – 1,149 miles protecting 83,647 acres;

Colorado – 1,064 miles protecting 77,459 acres; and

Wyoming – 446 miles protecting 32,469 acres. —*Mathews*



EAGLES COME HOME

Want to know how eagles are doing in Kansas? Join them. That's the philosophy of the Kansas Department of Wildlife and Parks, having completed its third year of aerial eagle surveys. In December, January and February of each year, airplanes were used to canvass the state for these majestic birds.

"The purpose of the surveys was twofold," says Wildlife and Parks nongame wildlife researcher Jerry Horak. "We wanted to know how many eagles we had, and we wanted to know what

kind of habitat they use, particularly along our rivers. By determining areas of concentrated eagle use, we can accurately describe habitats critical to bald eagles."

Wildlife biologists Mike McFadden, Lawrence, and Ron Marteney, El Dorado, conducted the surveys of rivers in northeast and southcentral Kansas, respectively. McFadden flew the Republican, Kansas and Missouri rivers in Kansas. He counted 150 birds in December, 255 in January and 245 in February. Marteney's flight plan included the Arkansas River from Great Bend to the Oklahoma border, the Ninnescah from the confluence of the North and South forks to the Arkansas River, and the Walnut from Winfield to the Arkansas. He counted 44, 56 and 21 birds in each of the three months.

Both biologists report that this was a down year for their counts. In January of 1993, McFadden had counted 590 eagles in one day. But this doesn't necessarily mean there were fewer eagles in Kansas this year.

"Open water and waterfowl activity are the factors that make eagles present," says McFadden. "Our reservoirs held a lot of eagles this winter, but they were still common along the rivers. Folks had plenty of opportunity to view them."

Marteney concurs. "I think mild weather kept the eagles at large reservoirs, which were open most of the winter. There were times this winter when we had 93 birds at El Dorado [reservoir]. Farm ponds were open, too, so there was really no need for eagles to concentrate along the rivers."

The really good news is that many eagles are already nesting in Kansas. Active nests have been sighted at Perry, Clinton and Hillsdale reservoirs, and in Hodgeman County. And it looks like the eagles have come home to roost.

"What's even more exciting," Horak adds, "is that two nesting males – at Perry and Hillsdale – were hatched from a nest at Clinton in 1989."

Copies of the eagle population and

STING STATS

If you are afraid of stinging insects, or more importantly, if you may be allergic to them, here are some simple rules to follow to avoid being stung:

- Wear light-colored, smooth-finished clothes. Stinging insects are much less inclined to sting through this type of clothing. Beekeepers avoid too many stings by wearing cotton coverall or khaki pants and shirts. It is especially important not to wear wool, leather or suede when stinging insects are active.

- Don't wear hair spray, lotions, perfumes or other sweet-smelling scents that may attract stinging insects.

- Wear clean clothing and bathe daily; sweat seems to irritate stinging insects.

- Cover the body as much as is possible and reasonable. Ankle-high shoes or white cotton socks should be worn when walking in fields. Covering the head with a straw hat or light-colored kerchief may prevent insects from becoming entangled in hair.

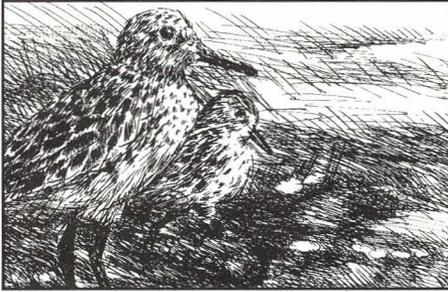
- Avoid heavily flowered areas.

- Keep picnic areas clean and free of food refuse. Poor sanitation in parks, around food stands and in dumps may attract wasps.

- Run if you are attacked by several stinging insects at once. The only time wasps or bees will attack simultaneously is when a nest is disturbed. It is best to run indoors or into a wooded shady area.

- A person who is sensitive to one stinging species may not be allergic to all of them. Try to capture a stinging insect so it may be identified. Killing the bee or wasp with a fly swatter will work if there is no other way. —*The Conservationist (New York)*

habitat survey will be available later in the year. For more information, contact the Kansas Department of Wildlife and Parks, threatened and endangered species specialist, Wildlife Investigations Office, (316) 342-0658. —*Shoup*



BAKER WETLANDS GRANT

Lawrence High School biology teacher Ken Highfill has been awarded a \$10,000 grant which will help introduce the Baker Wetlands to people around the world and to students in Lawrence. Highfill's project – called "Midnight at the Wetlands" – will involve Lawrence High School students in observing and videotaping wildlife activity in the wetlands. The students will create videos and make presentations on their observations, and help post bulletins on the Internet computer network. – *Lawrence Journal-World*

WATERSHED GUIDE

Focusing on the citizen's role in protecting watersheds, *Clean Water in Your Watershed – A Citizen's Guide to Watershed Protection* is a 90-page guide designed to help citizen groups work with local, state and federal government agencies to design and complete watershed protection or restoration projects tailored to the economic, social and environmental needs of their own communities.

The guide was developed through a cooperative agreement between the U.S. Environmental Protection Agency Region 6 and the

Terrene Institute. The bulk of the guides have been sent to EPA Region 6 states.

While supplies last, single copies can be obtained by sending a self-addressed, adhesive mailing label to Susan Alexander (6W-QS), U.S. EPA Region 6, 1445 Ross Ave., Dallas TX 75202. Copies may also be purchased from the Terrene Institute for \$19.95 plus \$3 shipping, phone (202) 296-4071. – *River Crossings*

PROTECTIVE TRIANGLES

At \$50 a pop, Midwest Energy is making a sizeable investment in electric lines around Cheyenne Bottoms Wildlife Area. Fiberglass triangles are being added to each power pole in the area. The hundreds of triangles are intended to keep eagles and other raptors off parts of the poles where they could make contact with high voltage lines and be injured or killed. – *Great Bend Tribune*

SMOKY HILL CHANNEL

A request for permission to clean the Smoky Hill River channel in hopes of getting more water into Cedar Bluff Reservoir has been denied by federal regulators. The U. S. Army Corps of Engineers denied a request by the Kansas Department of Wildlife and Parks to clear nearly a mile of the river channel upstream of Cedar Bluff. Clearing the channel, it was hoped, would allow water to flow unimpeded into the

lake. The permit request was denied because the construction work would have adversely affected a wetlands area upstream from the lake. – *Hays Daily News*

COMMISSION MEETINGS

Future meetings of the Kansas Wildlife and Parks Commission include the following: Aug. 18, 1994 – Emporia; Oct. 20, 1994 – Wichita; Nov. 17, 1994 – Dodge City. – *Shoup*

TRACTOR FOR THE BOTTOMS

Last April, the Finnup Foundation Trust of Garden City donated \$47,000 for the purchase of a Posi-track tractor for Cheyenne Bottoms Wildlife Area. The new machine will provide significant benefits to what is considered the most important migratory-bird resting spot in the Western Hemisphere.

Because the tractor can operate in wet, muddy spots – even in 18 inches of water – it can be used to mow cattails, create wildlife habitat, maintain structures and move personnel in areas previously inaccessible.

The Posi-track tractor runs on specially-designed tracks, rather than wheels, making such work possible without leaving damaging prints in the wetland habitat. It is also designed to accommodate attachments, such as a backhoe or front-end loader, some of which will be purchased with the grant money.

The Finnup Foundation Trust is a private philanthropic organization set up through the estate of

Frederick and Isabel Finnup, long-time Garden City area farmers. Their beneficiaries include parks, education groups, zoos and conservation projects that improve the quality of life for residents of Finney County. – *Shoup*

"FRIENDS" AID PARK

The floods of 1993 may have created havoc in Glen Elder State Park, but volunteers from the Waconda Lake Association, the National Guard, the Boy Scouts and Girl Scouts, IGA food markets, Coca-Cola, Louisiana Pacific, the Kansas Bowhunters Association, and literally hundreds of individuals have devoted their time and resources to help rejuvenate the state park hit hardest by last summer's floods.

Volunteers have helped plant trees, rebuild self-pay stations and toilets, paint buildings, seed grass, clean up debris and rejuvenate campsites throughout the state park. In addition, 25 displaced victims of midwestern floods employed under the federal Job Training Partnership Act have played a critical role in park restoration. Through the sponsorship of area businesses, lunches were provided on many Saturdays.

The Hometown Tree Program – sponsored by IGA, Coca-Cola and Louisiana Pacific – provided 8,300 trees. In addition to the work on the state park, the Kansas Bowhunters Association bought and planted 10,000 trees on the wildlife area. – *Shoup*

Hi! Ho! A Herp'n we will go!

Yo, It's herp'n time!

Those of you who have done some herp'n know how much fun it is. You may have been herp'n and not even known it. It's an exciting thing to do outdoors, and you'll learn lots of neat stuff in the process.

Definition: Herp'n - The act of rollin' over rocks to discover cold slithery thangs (i.e. lizards, snakes, frogs, salamanders, turtles etc.)



Herp'n Rules

- 1.) You must return every rock you roll over to exactly the way you found it.
- 2.) Try not to injure the critters in the process of check'n 'em out.
- 3.) Ask permission before you herp on private property.
- 4.) Keep a diary of the herp dudes and dudets you find. When, where, what, size, weight, etc..
- 5.) Be aware of poisonous snakes, scorpions and other dangers in your neck of the woods or prairies.

- 6.) Release all "prisoners" to their natural habitat when yer done lookin' 'em over.

Herp'n Equipment

Long stick with hook to flip rocks. Pillow cases to carry captives. Pencil, paper, herp book (*Amphibians and Reptiles of Kansas* is a good one.) Dress appropriately -- good boots, jeans, sun screen, etc.

Helpful Herp'n hints

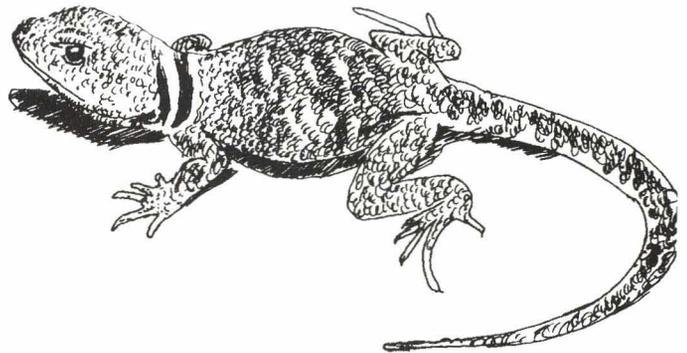
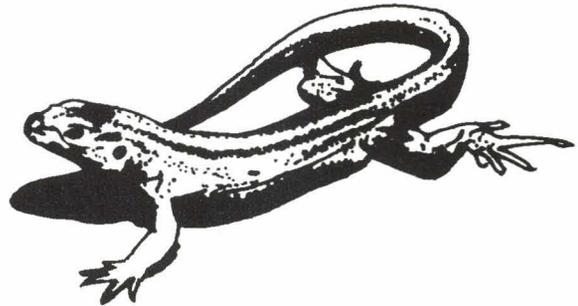
Herp'n is best in early morning or late at night when it's colder and the herps are slower. A lot of herps are nocturnal, meaning they only come out at night.

To understand the reptiles and amphibians in the area where you'll be herp'n, read your herp book to learn about the habitat (the places where they live) and behavior (what they eat, how they

act, when they're most active).
It's a of a lot of fun, and the information you gather could be useful to the research of reptiles and amphibians of Kansas.

Contact the Kansas Herpetological Society, 1650 Melrose Lane, Wichita, KS 67212, for more information about herps and herping in Kansas.

Can you identify and color the reptiles and amphibians in this picture?



Texas horned lizard
collared lizard
bull frog
ornate box turtle
five-lined skink





The Summer Rainmakers

My memories of summer as a youngster wouldn't be complete without those of traditional camping trips. Some of my early trips could have easily been Norman Rockwell scenes; me teasing my younger sister Teri, Granddad asleep on the picnic table, Dad telling Teri and me to quit whatever we were doing, Mom and Grandma frying trout on the Coleman stove and pine-covered mountains in the background. They were idyllic (at least in my memory) and set in the Rockies of Colorado.

But the camping trips that most remind me of summer are those of my teenage years in rural Kansas. My cousin Scott and I became camping legends, sort of.

By the time I was 14, I'd read enough issues of *Outdoor Life* and *Field and Stream* to be on my way to becoming an outdoor sage, or so I thought. To gain real-life experience, Scott and I practiced each summer with overnight camping trips at a wonderful farm pond tucked in the rolling grasslands of Kiowa County.

I'll forever be indebted to the family who so generously allowed us to fish and camp on their land. But on the other hand, they may owe me. The rancher and his family were tolerant, to be sure, but through our camping trips, we contributed significantly to the welfare of their cattle grazing business, especially during dry years.

Each summer, Scott and I could hardly wait to get away to the pond for a camping trip. We'd prepare for days, getting everything in order. We'd load a week's gear and supplies into Scott's Pinto station wagon, even though we'd be back in town by the next afternoon — or sooner.

Fishing was our main purpose for going, and we took gear for bass and an old rod or two to throw out for catfish. We had pop, hamburgers, chips, cookies, candy bars and a barbecue grill. In our plans, these trips were idyllic, too. The perfect overnight trip — a beautiful, glassy pond, the sound of a bass plug slurping across the surface, coyotes howling in the hills, hamburgers on the grill — but they rarely turned out that way.

Each year, our reputation grew. And each year, when it seemed like it couldn't happen again, it did. Our first trip of the summer nearly always brought a rousing thunderstorm — I mean a true-to-life toad strangler. Each year, the local cattle ranchers and wheat farmers became more interested in our camping schedules. As the departure day drew closer, we got encouragement from townfolk, and everyone cheerfully sent us off on our trip. They knew. And I guess we did, too.

The trips usually went as planned until we were snug in our sleeping bags for the night. First some dim flashes of lightning followed by far-off rumbles of thunder — like



Dana Eastes illustration

deep chuckles as the storm eyed its hapless victims. Then came the "splat . . . splat . . . splat . . . splat spaltsplatsplat" of quart-sized rain drops smacking the nylon tent. Almost accustomed to the routine by then, Scott and I would sit straight up and look at each other in the eerie glow of the flashlight, wondering just how bad this one would be.

I remember one particular trip when we had camped on the far side of the pond. The narrow lane over was precarious and easily muddied. When the rain drops began to sound like popcorn popping on our tent roof, Scott decided to drive the Pinto back to the other side of the pond to see how muddy the lane was. It was muddy. Too muddy to drive back, and we were 250 yards from the tent and our gear. The roads back to town would soon be almost impassible, and for some unknown reason, we didn't want to be stranded. We decided to start back to town, even though it was nearly 1 a.m.

Leaving the protection of the Pinto, we slogged back down the lane in the rain, mud and dark. We threw all our gear in the tent, and we half-carried, half-dragged the still-erect tent around the pond. By now it was raining cats and dogs, so we crammed the tent, fishing poles and other gear in through the Pinto's hatch-back door. We swerved, and slid and pushed and spun the 10 miles back to the highway.

Our "camp out" ended in my cousin's warm, dry living room, the soggy camping gear strewn in their front yard like a mini twister had been through.

I'm sure the area's cattlemen and farmers were smiling in their sleep that night, knowing the drought was finally broken . . . again. The summer rainmakers had done their job and done it well. 🐾

