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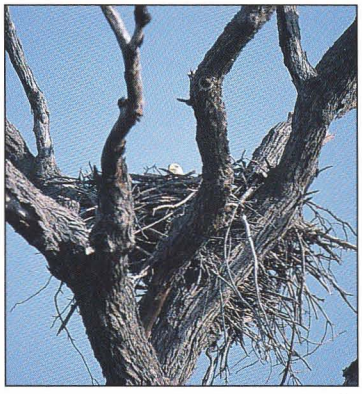

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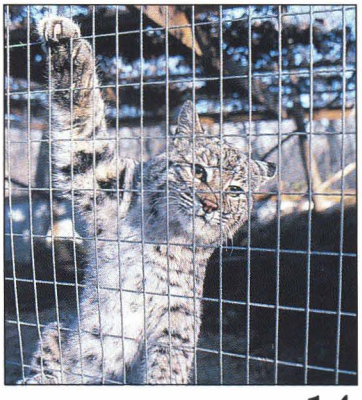

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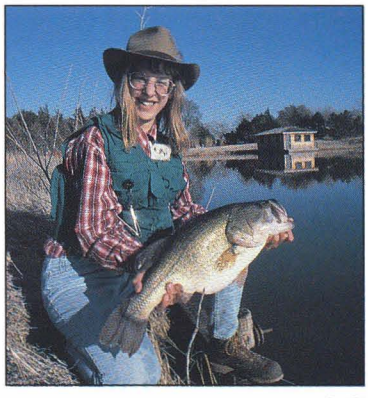

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About the covers
Front: Mike Blair photographed this bald eagle at Operation Wildlife's rehabilitation center near Linwood, where the bird is used for education; 400mm lens, f/11 @ 1/125. **Back:** Spring is the bluegill angler's finest hour. Mike Blair filmed the scene; 55 mm lens, f/11 @ 1/125.

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

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The View From Here

A New Direction

As most *Kansas Wildlife & Parks* readers probably are aware, I have been serving as acting Secretary of the department since early January. I have worked for Kansas State and Extension Forestry for the last 34 years. I welcome the chance to work with the department again, having held the same position for three months when the agency was first formed in 1987. I have a strong personal interest in the department and its personnel, as well as a lifelong commitment to sound management and protection of our natural resources. I look forward to moving the department in a positive direction in 1995.

I am not a contender for the permanent position of Secretary. I took this position at Governor Graves' request and will assist in hiring a permanent Secretary. Our search for qualified applicants has been thorough, and we are committed to finding a candidate with broad administrative experience in wildlife and parks resource management. I have a great deal of confidence in Governor Graves and his commitment to building a strong Department of Wildlife and Parks.

Another primary concern for the department is establishing a positive relationship with U.S. Fish and Wildlife Service federal aid partners and returning our federal aid programs to a sound basis. Both the Governor and I are committed to maintaining strict fiscal integrity of all department funds. One noticeable result of this effort will be some vast improvements in fisheries. To comply with federal guidelines, the department will spend $ 2.4 million in 1995 and 1996 to provide better fishing opportunities across Kansas. Highlights of this spending will include an expanded urban fishing program, community lake assistance, enhanced fisheries management at state fishing lakes and major improvements to the state's hatcheries.

I have established a management team made up of experienced professionals from within the department. This team will help formulate strategies for dealing with key issues such as federal aid and funding needs. It is my intent to deal with these issues aggressively. This team will serve as a base of reference and consultation for me.

Another important function of the team will be to strengthen communications at all levels of the department, as well as with our constituents. Good communication, both internal and external, will be evident in my administrative style. During my 25 years of administrative experience, I have seen few situations where serious problems existed because people knew too much. I have, however, seen problems arise when people are denied information that affects them. The better the flow of information, the better off everyone will be.

One aspect of effective communication is listening to and knowing our customers. I believe the Kansas Department of Wildlife and Parks has done an admirable job of listening to its constituents. However, we plan to continuously improve that process. No matter who is in charge, I believe you will see a growing dedication by the department to identify its customers' requirements on a regular basis. That is the essential first step, not only in communicating well, but in providing the services for which we are responsible.

Improved communication should also begin to improve department morale, which is another of my major concerns. The department has been through a series of difficult and disruptive administrative and structural changes since it was created. It is natural for morale to drop with this instability. While the Governor has given me the authority to make any changes necessary to move the department forward, I do not plan to make major structural or personnel changes. I have been evaluating the administration and making changes necessary to improve employee morale and strengthen the department's efficiency and effectiveness.

The last few months have been difficult for the employees of the department, as well as concerned constituents, and some critical progress must be made in the near future. There are no easy solutions to the challenges the department faces, but I am confident that we are all committed to doing what is best for our natural resources and the people of Kansas. I will be seeking counsel from the Wildlife and Parks Commission, my management team and many constituent groups. Together we can build a stronger, more effective Department of Wildlife and Parks.

John Strickler

The Eagles Have Landed

by Michael A. Watkins
wildlife biologist, U.S. Army Corps of Engineers, Lawrence

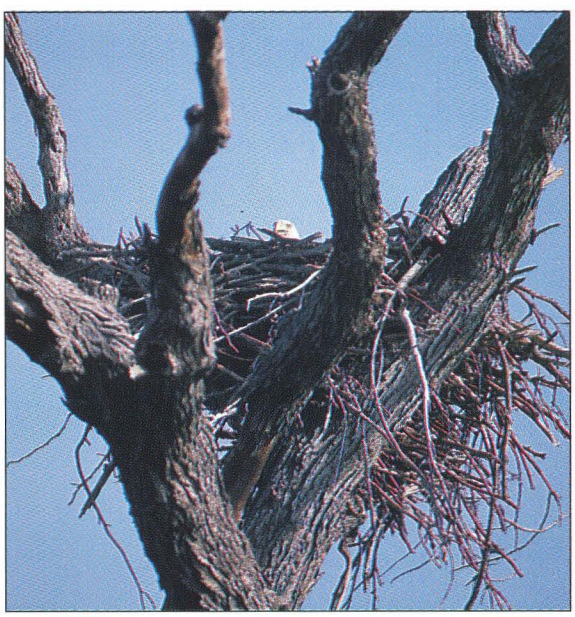
There was understandable excitement when two eagles nested at Clinton Reservoir in 1989, but since that historic event, Kansas eagles have been wonderfully successful. In 1994, five eagle nests were documented and 12 young eaglets were hatched.

It was early April 1994, and I had just arrived home from observing the nesting bald eagles at Hillsdale Lake. As I opened the door, a red light blinking in the dark focused my attention on the telephone answering machine. Eva Willis, a dedicated U.S. Fish and Wildlife Service (USFWS) eagle watch volunteer, had been observing the new eagle nest at Perry Lake. I knew she would update me on the status of that nest site, but as I replayed the message, the tone of her voice hinted that she had witnessed something exciting.

"Mike, one of the birds at Perry is Eagle A," Eva said. "I got a good look at the band, and I am sure it's him. I saw the eagles switch on the nest, and they were rolling eggs!"

This was indeed exciting news. Eagle A was one of the two offspring fledged from the bald eagle nest at Clinton Lake in 1989. The Clinton Lake nest was the first documented nest site in Kansas to successfully fledge young since the turn of the century. No one had seen or reported sighting Eagle A since it left Clinton Lake with its sibling, Eagle B, on August 9, 1989. Now Eva had identified it as one of the eagles sitting on the Perry Lake nest.

I immediately called Eva to ask for more details and to tell her some of my own exciting news. While at Hillsdale, I had observed two eaglets occasionally poking their heads above the rim of the nest. They were less than a week old and covered with down. One of the adults tending the Hillsdale nest was Eagle B. He and his mate had nested at Hillsdale in 1993, which was the first reported sighting since Eagle B had left Clinton in 1989 as a juvenile. The pair had returned to the same nest in 1994 and was now the proud parents of two small eaglets.



Mike Blair photos

Mike Watkins photos

This is eagle A in 1989 when it was trapped and banded at Clinton Reservoir -- the first documented bald eagle nest in modern times. As a result of biologists' efforts, the bird was easily identified when it returned to Kansas and nested at Perry Reservoir in 1994.

Considering the mortality rate among first-year eagles is 60 percent or 70 percent, it was remarkable that both Eagle A and Eagle B had survived, and that both had returned to nest in Kansas.

Clinton, Perry and Hillsdale reservoirs are located in northeast Kansas near Topeka and Lawrence. Eagle A's nest at Perry Lake is approximately 15 miles northwest of where he was hatched and raised at Clinton. The Hillsdale nest, constructed by Eagle B and his mate, is about 28 miles southeast of the Clinton nest site.

The letter designations A and B refer to leg bands worn by the eagles. After they fledged in the spring of 1989, they were trapped and banded by Mike Lockhart, a biologist with the USFWS (see article on Page 36, Kansas Wildlife & Parks, January/February 1990). Routine measurements were taken, and both eagles were determined to be males. Each bird was fitted with a standard USFWS aluminum leg band and a purple visual identification leg band with silver letters A and B respectively.

Dan Mulhern, a biologist with the USFWS in Manhattan, was ecstatic upon hearing the news that both eagles had returned. "This is a very significant development for Kansas," he said. "It also demonstrates the importance of protecting the nesting sites of pioneering eagles, as their offspring are likely to return and fill other habitat voids." Mulhern organized the banding effort at Clinton in 1989. His decision to band the birds was now paying huge dividends.

While Eagles A and B were growing up, courting females and

This is a photo of the adult female bald eagle on the Clinton nest in 1991. Since that first successful nest in 1989, the Clinton pair has raised 17 eaglets.

establishing their own nest sites in Kansas, their parents have also been busy. They have returned to the original nest site at Clinton every year since 1989. The pair has continued to add sticks and other materials to the nest, and by last spring it had evolved into the largest active bald eagle nest in the state, measuring about 6 feet in diameter and almost 4 feet deep.

The pioneering pair has proven to be excellent parents over the years. They have raised and fledged a total of 17 eaglets from the nest at Clinton. Their average of 2.8 eaglets annually far exceeds the national average of 1.6, and makes the Clinton nest one of the most consistently productive nests in the nation.

The USFWS has also been very busy since bald eagles began nesting in the state. Under the leadership of Mulhern, they have banded 14 eaglets at three different nest sites, including 11 at Clinton. A number of eagles have been banded each year except 1992, when the two trapping attempts were unsuccessful.

In 1993 and 1994, the USFWS adopted a new approach to banding the juvenile eagles. Craig Birrel, a climbing instructor, volunteered to climb nest trees. He lowered eaglets to biologists who measured and banded the birds when they were about six weeks old. The eaglets were immediately returned to their nest, and the adults resumed feeding and caring for their offspring. During the past two years, nine eaglets have been fitted with personalized identifying bracelets.

In addition to banding, two juveniles and the adult male at Clinton were fitted with radio transmitters. The transmitters were attached to the shaft of a tail feather with dental floss. Dental floss was used because it is light weight and very strong. Epoxy kept the floss from fraying.

A transmitter weighs about as much as four quarters and sends out a signal that can be picked up almost 15 miles away, depending on the terrain. The batteries lasted about 260 days, and the transmitters shed when the eagles molted their feathers the following year. Much was learned about the feeding, perching, roosting and nesting habits of the eagles while the birds were tracked. The most important information came from the adult male according to Mulhern. "He returned to the nest site much earlier than we expected. We didn't think the pair returned until November or December with the rest of the wintering eagles. But because of the transmitter, we discovered that the eagles returned by late September in 1991 and were working on the nest by early November."

Mike Lockhart, USFWS biologist, measures bill depth on an eagle at Clinton. Data gathered tells the eagle's sex and general health.

In 1993 when Eagle B was first observed at Hillsdale, I noticed that his mate was also wearing leg bands. In addition to the standard USFWS aluminum leg band, she wore a white band etched in black with the insignia E-27. I traced the band color through the USFWS's Bird Banding Laboratory in Laurel, Md. The trail led to Alan Jenkins, Assistant Director of the G.M. Sutton Avian Research Center

Mike Watkins photos

Radio transmitters have helped biologists learn about the travel, nesting and roosting habits of bald eagles. Eva Wills, an eagle watch volunteer, tracks a bird at Clinton.

in Bartlesville, Okla. Jenkins said E-27 was part of their bald eagle reintroduction program and had hatched from an egg that was collected from a nest in Osceola County, Fla. in January 1990.

According to Jenkins, the egg was transported to the Avian Research Center where it was incubated by a bantam chicken. E-27 hatched on Jan. 6, 1990. She was fed using a bald eagle hand puppet until she would take food from a bowl. This was done to keep her from imprinting on humans.

Records show that on March 26, 1990, E-27 was placed with 14 other eagles on a hack tower at Fountain State Park at Eufaula Lake. The lake is located in east-central Oklahoma, approximately 215 miles south of Hillsdale Lake. E-27 fledged from the tower on April 8 and was last seen in the area on May 29. She was not seen again until she was identified at the Hillsdale nest location.

E-27 was unusual in that when she was first noticed at the nest site at Hillsdale, she exhibited the plumage of a sub-adult — brownish head and tail rather than white. This is typical of a three-year-old eagle (which it turns out she was), but it is unusual for a sub-adult bird to nest. In late June of 1993, Eagle B and E-27 successfully fledged a young eagle, making it one of the very few documented cases where a known three-year-old bald eagle raised and fledged young.

Mike Watkins photos

In 1993 and 1994, instead of trapping eagles after they fledged, climbing instructor Craig Birrel scaled the nest trees and lowered the young down. Eaglets were immediately returned to the nest.

Another first year nest in 1994 was constructed at the cooling lake for the Wolf Creek Generating Station near Burlington. The adult male had a standard USFWS aluminum band on his right leg and the adult female had a standard USFWS aluminum band on her left leg. Neither bird had any additional identifying markers so they couldn't be traced without being trapped. These eagles were either banded in the wild or were released as part of another state's eagle restoration program. The pair successfully raised two offspring.

The only other known successful bald eagle nest is located in Hodgeman County in central Kansas in what could be described as typical golden eagle habitat. The surrounding area is primarily cropland and rangeland with no large

bodies of water in the vicinity. This is unusual since the primary food items for bald eagles generally include fish and waterfowl. The nest was reported in 1989 but was not documented as fledging an eaglet until 1990. The Hodgeman County eagles have returned to the same nest every year since 1990. They have fledged 10 eaglets over the past five years, including their largest brood of three in 1994.

In late April 1994, Eva called with more exciting news. "The eggs at Perry have hatched. There are two young eaglets in the nest." By midsummer, the juveniles had experienced their first successful flight.

In 1994, five bald eagle nests in Kansas successfully fledged 12 juvenile eagles. That is twice the number of bald eagles fledged in 1993 and included the addition of two new nest sites. Since the documentation of the first bald eagle nest six years ago, 34 eagles have been hatched and fledged in Kansas.

The bald eagle is protected by several federal laws, including the Endangered Species Act (which also protects threatened species), the Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act. Their nest sites are also protected. Anyone who disturbs or harms a nesting pair may be assessed a maximum penalty of a $100,000 fine and/or given a one-year jail sentence. Because of these stringent laws, the number of bald eagles has increased significantly over the past two decades. In the early 1970s, experts believed there were less than 2,000 eagles and only 413 nesting pairs in the lower 48 states. Today eagle numbers have grown to more than 10,000, with approximately 4,000 active nest sites. In response to this increase, the USFWS recently proposed down-listing the bald eagle from endangered to threatened. This applies to all bald eagles in the lower 48 states except a small southwestern population located primarily in Arizona, New Mexico and western Texas. This small population would still be listed as endangered.

"We expect the bald eagle population in Kansas and throughout the Midwest to continue to expand," Mulhern said. "The increase in bald eagle numbers nationwide has resulted in the birds returning to regions of the country they apparently abandoned more than 100 years ago. They seem to be taking advantage of new habitat provided by the construction of large water impoundments. As a result, the new nesting population is likely to concentrate around lakes and reservoirs rather than the traditional river and stream corridors."

Fortunately there are two excellent sites to observe bald eagle nests in Kansas. The U.S. Army Corps of Engineers at Clinton Lake and owners of the Wolf Creek Cooling Lake have established viewing areas where the nest sites can be observed without disturbing the eagles. The best months to view the nests are April, May and June. Information about the viewing areas and status of the nesting eagles can be obtained by calling (913) 843-7665 for Clinton Lake and (316) 365-4168 for Wolf Creek Cooling Lake.

Mike Blair photo

Going For Giant 'Gills

text and photos by Mike Blair
staff photographer, Pratt

Bluegill are commonly thought of as easy-to-catch little fish -- fun for youngsters. However, the author has found that catching truly big bluegill is as challenging and satisfying as any fishing pursuit.

It was a shirt-sleeve afternoon, too warm for mid-February. The silver pond glowed like a mirror under the evening sun. But nice as it was above surface, the kettle-shaped pond lacked shallows, and its water was cold. I swam a tiny pearl scud deep through flooded timber, moving it slowly, looking for big bluegill that had to be concentrated somewhere. Only an occasional small fish was taken.

Then against the shadows, I noticed a hatch underway. Tiny midges coursed above the water surface, flying rapidly back and forth. From boredom and curiosity, I tied a No. 14 mosquito to my 4X tippet, and cast the dry fly to a submerged cedar. To my amazement, a hand-sized bluegill struck, jumping well out of the water as it did. For the next hour, fish after fish sipped the floating fly, exhibiting spunk for such cold-water conditions. During this time, there was virtually no other surface activity to indicate that fish were taking the flying midges. But the unconventional winter presentation made the difference. And once again, bluegill yielded a delightful surprise, one that keeps me searching for them statewide through every season.

Each time out, there seems to be a way for the patient and observant

angler to take these familiar fighters. Most anglers are acquainted with bluegill from youthful cane pole outings and from summer trips when small sunnies are a nuisance on the way to bigger quarry. But a studied bluegill engagement provides true adventure. Bluegill are always plentiful, but big ones are elusive. They're hard fighters, excellent eating and can sometimes provide breathless action. Easily enough, *Lepomis macrochirus* can become an addiction.

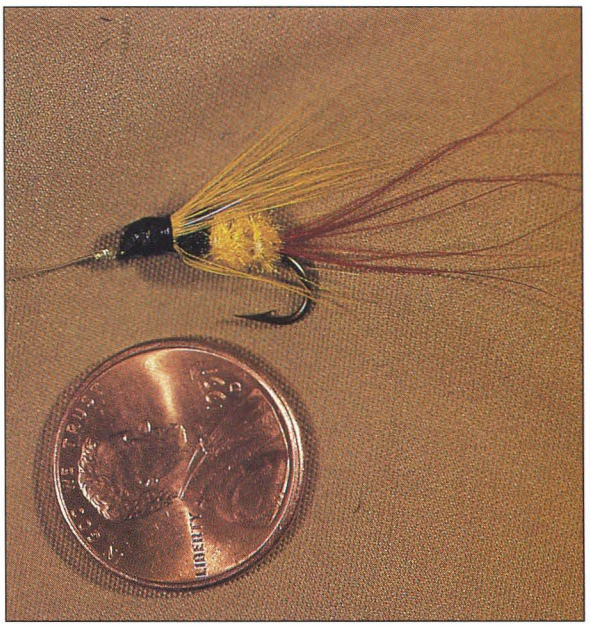
Bluegill are abundant in Kansas lakes, ponds and stillwater creeks. They can live in murky waters, but tend to overpopulate in such situations so that fish are stunted and small. The biggest bluegill grow in clear water with moderate weed growth. They feed on insects, crustaceans, plankton and small fish. They are gregarious and school together somewhat according to size.

Bluegill are often confused with their cousins, particularly green sunfish. While similar in appearance, bluegill can be distinguished by a powder blue gill flap, an all-black "ear" and a unique black spot at the rear of the dorsal fin. Females have yellow breasts, while male breasts are copper-orange.

Though bluegill grow larger than most other sunfish, they are lunkers when one pound in weight or 10 inches long. Where bluegill average 8 inches in length, the fishery can be considered good for the species. The Kansas state record bluegill, weighing 2 pounds, 5 ounces, was taken from a Scott county farm pond in 1962. To qualify for a Master Angler Award, a 'gill must weigh at least one pound. During the past 10 years, 57 bluegill have been certified for the award, but only 14 fish have weighed more than 1.5 pounds. Truly big bluegill are a challenge to find and catch.

Bluegill have a reputation for aggression and stupidity, since small sunnies congregate in full view and will swarm anything from a bare hook to a large bass lure. But trophy-sized 'gills are finicky. They stick to deep water, and are easily spooked by outsized tackle. Even the biggest bluegill have small mouths, so gear must be sized accordingly.

This was illustrated last spring at Scott State Fishing Lake, a reservoir known for its nice bluegill. I was flyfishing in a small cove containing several stumps and had found a concentration of 8- and 9-inch fish. Hopping a small beadhead nymph along the bottom in 4 feet of water, I was taking a bluegill nearly every cast. A boat containing several young anglers approached, and I invited them to anchor and share the action. They eagerly dropped live-worm rigs into the hotspot, and though their two-inch bobbers occasionally danced, they never hooked a fish in 10 minutes of trying.

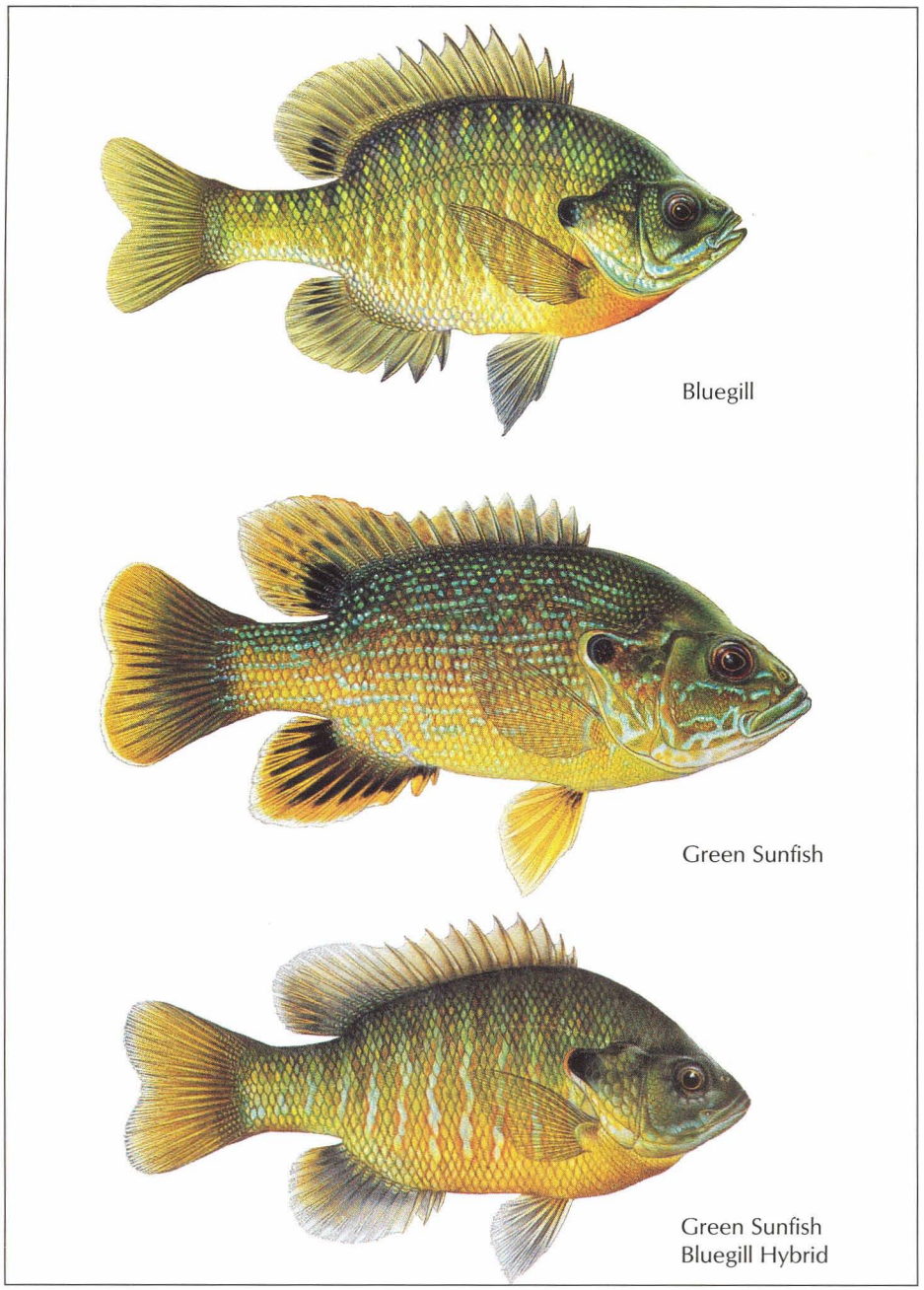


A No. 10 McGinty fly, pictured above, is favored by the author as an all-round bluegill fly.

Wading to their boat, I inspected their tackle: heavy line, No. 2 hooks and quarter-ounce sinkers. After refitting to 6-pound. test leaders, split shot, No. 10 hooks and small bobbers, the boys were on their way to fast fun. They were still catching fish when I left.

Generally, best hook sizes for

While bluegill can be caught on live bait and a variety of spinning tackle, the author catches most of his fish on flies. Big 'gills can be finicky, so carry an assortment.



Joe Tomelleri illustrations

bluegill fishing are Nos. 8, 10 or 12. Hooks larger than No. 6 or smaller than No. 14 make hook setting more difficult. After much experimentation, I tie nearly all my bluegill flies on No. 10 hooks. Lightweight line or leaders are recommended, especially in clear water.

Bluegill feed throughout the year and may be caught during any month. Even icefishing can produce good success, but live bait will be necessary. Water temperature below 50 degrees significantly affects bluegill metabolism, and taste and scent of a stationary bait are important factors in tempting a fish to bite. Teardrop ice flies tipped with mealworms or wax worms are good choices when icefishing.

As water warms in late winter, bluegill move shallow and begin to feed. Fish bite lightly at this time and are not prone to chasing a lure or jig. Ultralight bait fishing can be effective now, particularly using small worms or leeches. Sensitive pencil bobbers help detect the slightest bites, while preventing line resistance that might spook fish.

Flyfishing can also be productive in early spring, since tiny artificial nymphs can be fished slowly enough to entice strikes. However, the trick is detecting strikes in time to set a hook. I've often watched bluegill in cold water inhale and spit out a fly with virtually no line clue that a hit was made.

For all early spring bluegill fishing, it's essential that slack be removed from the fishing line. Bait fishing poses little problem, since the only important line area is the short distance between hook and bobber. Split shot near the hook helps keep the line taut. But long lengths of flyline and leader are another matter. The slightest kink can mean missed fish as slack line absorbs the movement of a biting bluegill. Several tricks can help overcome this.

First, stretch a floating flyline prior to fishing. Strip out 50 feet of line, walk it around a large tree trunk 25 feet away and pull equally and steadily on both sides to stretch and remove kinks or memory coils. Use a new, tapered 7-1/2 foot 3X leader and attach it to the flyline with any knot that results in a straight line-leader attachment (such as the Uni-knot or loop-to-loop connection.) Use split shot or weighted nymphs to provide line tension, or better, rig two in-line flies 18 inches apart to provide water resistance while doubling the lure presentation of each cast. Finally, use nymphing leaders, or rig your own sliding strike indicator on the leader to help detect soft strikes.

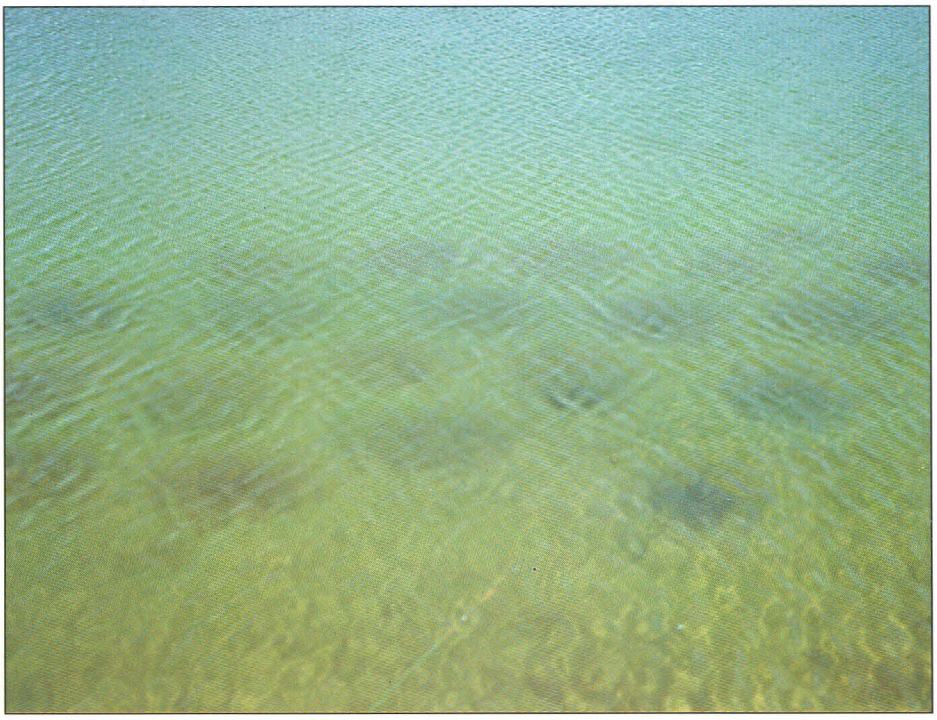
Early spring bluegill can be quite selective, sometimes biting enthusiastically on a pattern for a week, and then suddenly preferring another. However, a few patterns can always be counted on to catch fish as the surface temperature warms through the 50s: McGinty nymph; beadhead nymph; gold ribbed hare's ear nymph (GRHE) in olive, chocolate and tan; and scud. I usually fish several of these early spring patterns in tandem to see what's working best, and I fish sl-o-o-w-l-y. I use weighted nymphs on floating lines, but allow time for the flies to go deep.

Early last April, fishing from a float tube in a clear pond, I found a school of large bluegill that were hanging 8-10 feet deep on a sharp dropoff. Making short casts, I waited 30-40 seconds before each retrieve to allow line and leader to submerge steeply into the depths. Using one-inch strips of flyline and pausing five seconds between each strip, the flies were "hopped" upward and allowed to settle back. Takes were light — many times I hooked fish unknowingly on the strip — but a dozen fish each weighing a pound were taken. All but one fell to a beadhead nymph.

When bluegill are readily biting, hook sets are seldom a problem. But sometimes the familiar "tap" continually comes up empty. This can happen at any time in the fishing season, and means that bluegill are short-striking or simply playing with the lures. Several things may help. First, trim the tails on fly patterns. Long tails are often nipped by disinterested fish, and striking the rod simply pulls the lure from the fish's mouth. By trimming tails, the bluegill must nip the fly so that the hook may penetrate on the strike. Keeping hooks razor sharp will also eliminate missed strikes.

But sometimes bluegill expel a fly because of an unnatural taste or smell. Studies have shown that sunfish rely heavily on scent to help select their food. Because of this, adding the right taste or odor to an artificial fly may prompt a fish to hold on longer, resulting in a better hookset. One way of doing this is adding bits of natural bait to the hook, such as maggots or worm bits. Tiny strips of pork rind, such as Uncle Josh's Fly Flecks, are more durable and serve the same purpose while adding color. A second way to increase a fly's appeal is application of commercial scent.

I became a believer in fish scent several years ago while bluegill fishing one cloudy May afternoon. I was float tubing with a flyrod through flooded timber in 4 feet of water. At one point, I began taking numerous hits, as large orange males rolled and flashed in the clear water on my passing McGinty nymph. I was hooking few of them, and was frustrated since they were literally the biggest bluegill I'd ever found. I changed fly patterns and hook sizes without luck. And then I remembered a bottle of Berkley panfish scent in my fishing vest, which I frankly never expected to use.



Bluegill spawn in May or June, and are perhaps easiest to catch when they are on the nests. In clear water, a bluegill bed can be easy to locate.

It smelled odd, but I rubbed it on the fly and cast again. The next rise looked no different than those that missed, but it resulted in a solid hook-up. Every few casts, I added more scent to the fly. The previous 20 minutes of frustration dissolved before a spree that ended with 72 bluegill ranging from 9 to nearly 12 inches long. It was my best bluegill day of all time.

Since then, I've carried panfish scent for those occasions when the fish are hard to hook. At least three times, scents have saved the day. However, when fish are biting normally, I don't bother using scents.

Spring bluegill fishing heats up as the water temperature reaches 60 degrees. Prespawn feeding begins in earnest, and fish strike more aggressively. Reservoir bluegill leave deep water and move into mud-bottomed bays where new weed growth offers a fresh supply of insects and other small foods. Shallow ponds and streams become hotspots where fish are easily found.

At this time, big bluegill tend to hang from 6-10 feet deep, concentrating around structure. However, tributary inflows from spring rains may concentrate large fish in very shallow water, as they feed on a smorgasbord of foods washed in. Flyrods, noodle rods or even cane poles can be used to doodle-sock fish from such places, especially where casting room is tight.

Several years ago, a friend and I visited an eastern Kansas pond reported to contain large bluegill. A recent rain had raised the pond level, roiled the water, and made bank casting nearly impossible. Several rivulets trickled into the pond, producing brushy "coves" only a few feet deep. Simply by extending 9-foot flyrods and lowering GRHE nymphs a foot deep into the murky current, we filled our fish baskets with hefty bluegill. Small, live baits without weight or bobber would also have been effective.

Spawning time in late May is Kansas' finest bluegill opportunity. Spawning begins when water temperature reaches 69 degrees several feet below the surface. Some experts believe that the actual spawn occurs in association with a full or new moon. Spawning may occur more than once over a several-month period.

Bluegill have a strong homing instinct and will spawn annually in the same locations unless water or bottom conditions change. This means a bonanza for the bluegill angler who knows where to look.

Spawning occurs in beds where male fish scoop out dish-sized nests. Beds may be as large as your living room with dozens of nests and are sometimes easy to see in clear water. Regardless of the impoundment, preferred nesting habitat is sand or fine gravel. Soft mud is seldom used. Small bluegill tend to nest in water from 1-2 feet deep, but the biggest 'gills nest deeper – sometimes as deep as 6-10 feet. Always fish the deepest edges of a spawning bed to catch the largest bluegill.

Male fish guard the nest, keeping it clean until females arrive. As many as 12,000 to 60,000 eggs are fertilized in the nest, and males fin to aerate the eggs for two to five days until they hatch. Males leave the nest as soon as hatching is complete.

In deep or dingy water, spawning beds can sometimes be located by small bubbles that arise from the finning activity below. This saved the day for me one recent spring, when I visited Mound City lake and searched for a spawning bed found in an earlier year. The water was high, and there was no activity where I expected to find it. I tubed on, casting to ideal habitat without results, until I entered a shallow area with a submerged leaf bed. My fins began kicking up huge gas bubbles, and as I paddled for deeper water, I suddenly realized that tiny bubbles were surfacing at random places around me. Casting to one of the bubble streams, I immediately hooked an 8-inch male in full spawning color. The bubbles became excellent targets that helped me catch a limit of bluegill in a short time (some community lakes impose a creel/size limit on bluegill; be sure to consult regulations before fishing.)

Hand-sized bluegill are tough to find. A pond that yields bluegill that average 8 inches is considered good but when fish reach 10 inches, they're considered giants.

Spawning males are easily caught because of their defensive attitudes. Anything entering a nest will be grabbed and carried away. To some degree, this applies vertically as well, so that a popping bug or dry fly alighting above a nest may be attacked. But more fish can be taken on subsurface presentations.

Spawning bluegill can be taken many ways. They can be caught on small worms or crickets under a small cork set at the proper depth; on ultralight spinning gear with small lures such as Beetle Spins, Panther Martin, poppers or Mepps; or on an assortment of artificial flies. Fishing several flies at once is a particularly deadly flyfishing technique during the spawn, and often results in two fish on the same cast.

Spawning time presents an excellent opportunity to stock the freezer, but there is an ethical question, since fish are highly vulnerable during this time. A lack of bluegill limits in most waters may imply that fish can be taken without conscience. But when large spawners are found, they can be fished out rather quickly if hit again and again. Each angler must decide how much pressure he can afford to place on one spawning colony and still enjoy the opportunity to catch large fish in future years.

Fortunately, bluegill are plentiful enough that many spawning beds can usually be found. Given differing water conditions, excellent fishing can be stretched out over a period of time and over many locations. Shallow, murky ponds warm more quickly than clear deep lakes, so they offer the year's first spawning action. As the season progresses, look for spawning activity in deeper waters. Spreading out the bluegill fishing in this way helps to protect the resource.

Spawning is usually completed by July, and bluegill then move into

cooler, deeper water. In reservoirs, they seek coves with good dropoffs that allow them to feed in relatively shallow water and then to retreat as deep as 30 feet. Here they congregate in schools and relate to deep structure, much in the manner of crappie.

These big summer bluegill are best taken on live bait, but the trick is finding them. Brent Frazee, well-known angler and outdoor editor for the *Kansas City Star*, enjoys some of his best bluegill fishing during these hot summer months in a lake near his Kansas City home.

"Several years back, I was drift fishing for bluegill in shallow water where I'd caught them earlier in the year. There were no hits, and the wind gradually pushed my boat out over a point into water more than 20 feet deep," recalls Frazee. "Suddenly I started catching these plate-sized bluegill as fast as I could pull them in. They were along the point in water 20 to 30 feet deep. Later, I went back and caught them again. And in the years since, I've found this to be a dependable hot-weather bluegill pattern that lasts from mid-July until the first of September."

Frazee fishes for the deep bluegill by hooking a cricket through the collar with a No. 8 hook. He uses six-pound test line in the clear water, and places a single split shot about a foot above the bait. The shot bounces along the rocks, while the cricket rides up just slightly. He uses no bobber, to ensure that the bait remains on bottom as the boat drifts.

Ponds and streams also provide good summer bluegill fishing. The biggest fish seek cool, deep water during daytime hours. When they're deep, live bait or artificial lures will take them, but don't expect the 'gills to chase a meal. Fish small offerings slowly. Fish will concentrate 6 feet and deeper, around submerged rock piles, treetops or other cover. Shady areas are always good.

Pond bluegill enter the shallows to feed at dawn and dusk. Topwater fishing is exciting during this period, since large bluegill seem to abandon their suspicious nature and eagerly blast any insect imitation on the water.

Pound for pound, bluegill fight as hard as any freshwater fish. And this nice mess of giant 'gills represents fine eating as well as loads of fishing fun.

Spinning or fly tackle can both be productive at this time, providing that lures are not too large. An excellent summer topwater lure is the Betts No. 8 yellow hackle popper. For me, it has accounted for more big summer bluegill than all other topwater lures combined. But I also have good success with large dry flies, particularly the Royal Wulff. During fall months, a No. 10 black deerhair cricket is also a good topwater choice.

Be patient when topwater fishing for bluegill. Though fish sometimes strike instantly, they often stalk and watch a floating lure for long periods before attacking. Here, dressings like rubber legs, soft hackle or marabou come into play, moving subtly as the lure remains motionless. Generally, it's best not to twitch a topwater lure while a bluegill studies it. The hit may come as long as several minutes after a bluegill is aroused.

As water cools back down in September, bluegill fishing patterns become similar to those of the prespawn period. But fish may be easier to catch, since they are accustomed to feeding on more kinds of foods. Also, they feed heavily in fall months to prepare for the winter slowdown. Good fishing can be expected until surface temperatures cool to the same level as deep water, when turnover occurs. Then, bluegill often scatter and are difficult to find, especially in larger impoundments.

Wherever in Kansas, and whatever season, bluegill provide a ready source of angling adventure. For young and old, there's something for everyone in the pursuit of these scrappy sunfish. If you want a real challenge and just plain fun, set your sights on the big 1-pounders. They'll keep you hustling throughout the year and teach you the meaning of "Master Angler."

Born To Be Wild

by Ken Brunson
urban wildlife biologist, Pratt

photos by Mike Blair

Licensed rehabilitators work long hours, struggle to pay their bills and deal with a host of problems that probably could be avoided. But it's all worth it when a wild animal is released back into the wild as a result of their efforts.

"Elsa is free; she has now lived the natural, independent life of a wild lioness for more than a year and yet retains all her affection for us, who nurtured her for so long." Joy Adamson captured the essence of wildlife rehabilitation in this closing, emotional statement in her 1960 classic, *Born Free*. But Joy and her husband didn't finish the job. The final chapter should have been to teach Elsa to avoid humans. Why? 1) So Elsa, in a state of confusion of who was friend or foe, wouldn't eat some unsuspecting villager; and 2) So Elsa wouldn't be an easy target for a poacher.

Modern wildlife rehabilitation is a growing activity trying to become a science. One of the biggest hurdles for those in the business is rehabbing an animal for a second chance at a natural life without developing an emotional bond with the animal. Wildlife rehabilitation is the nurturing and training of an orphaned or injured animal so it can be released into its natural habitat equipped with the necessary skills and senses to survive. Serious rehabbers will tell you that making pets out of these animals is the opposite of their mission and philosophy.

Ask any rehabber why they do what they do and the response will be nearly the same. It boils down to the reward of giving a recovered red-tailed hawk a little lift for its first flight back into the free air. The job certainly isn't glamorous.

Nancy Schwarting runs WILDCARE in Lawrence, one of the largest and oldest rehabbing facilities in Kansas. She says, "It's an awful lot of hard work. It's a fascinating combination of hands-on working with animals and working with the public. You have an infinite combination of species and problems with the results being constant chaos, learning and change."

Diane Johnson of Operation Wildlife near Linwood sees more than 3,000 animals per year in her facility. She is driven by similar feelings. "It's my passion, not my obsession. I want to depart the earth by giving more than I take."

Typical of the best, these two institutions operate with the technical assistance of licensed veterinarians, the support of dedicated volunteers, the availability of clinical treatment labs, and the guidance of a board of directors. Another characteristic common to rehab centers — they operate almost entirely on donations. A dedicated funding source may be difficult to secure. Many wildlife professionals view rehabilitation as a waste of money, diverting precious resources from habitat and wildlife sustainability issues. They claim that most animals brought to rehabbers are there because humans wrongly intervened in natural processes. Even seasoned rehabbers admit they realize their exhausting efforts pale in comparison to major environmental ills. Saving one red-tailed hawk certainly isn't critical for that species' survival, but there are many other factors to consider.

Ethics: There is popular belief that all crippled animals must be repaired. Real or bogus, this nurturing instinct is nearly universal if not somewhat overdone. Some say this compassion reflects a deeper commitment to conservation. Detractors point to the animal rights movement or "Disney hypnosis." One side claims enlightenment while the other claims ignorance. It is no doubt controversial, but there is a definite interest towards our moral obligations to injured and orphaned wildlife. Few wildlife issues reach public flash point more quickly than clashes over how we treat animals.

Operation Wildlife staff treat all patients with a final goal of releasing them back to their natural habitat.

Conservation: Wildlife rehabilitation blossomed in the 1970s after DDT decimated eagle and hawk populations. Saving an individual bird may be significant when a population is endangered, and rehabbers played at least a noteworthy role in raptor population recoveries, especially by creating an awareness.

Maure Weigel, known as the father of Kansas wildlife rehabilitation, runs the Prairie Raptor Project near Salina and has been repairing raptors for two decades. Weigel has also worked for the past nine years reintroducing young golden eagles to northcentral Kansas, trying to establish nesting pairs in this region. "When we ran in full operation, receiving about 250-300 raptors per year, we invariably had 60 to 70 patients on hand at one time, representing 10 or 12 different species. We found out immediately that the real value was not necessarily in the rehabbing but in the education we did with the birds on hand."

Although the goal of every wildlife rehabilitator is a 100 percent release rate, the average release rate is more like 50 percent. Anything above 60 percent is considered good, but these figures don't account for long-term survival. Compassion is nobel but it must be matched with reality. Aldo Leopold, the leading wildlife conservationist of this century, might

This flight pen at Operation Wildcare allows raptors and other birds to regain flight skills after treatment. Proper rehabilitation requires knowledge and expensive facilities.

have judged rehabbing with his assertion: "A thing is good if it tends to preserve the stability, integrity and beauty of the biota. It is bad if it tends to do otherwise."

The legality: Most states oversee licensed rehabbers, however, requirements are becoming more restrictive. Kansas law permits non-licensed people to keep orphaned or injured wildlife for 24 hours while trying to find a licensed rehabber. Many of our rehabbers also carry federal permits to allow them to work with hawks, ducks, and songbirds. Not everyone can get a state permit, let alone a federal permit. Just having a "love for wildlife" is woefully inadequate and if that is the only qualification, it may be an indication of unsuitability for the task.

Conservation officers authorize state permits to avoid abuse and misuse. In past years, some "wildlife pets" were kept under the auspices of rehabilitation. People who had literally stolen a fawn from its unseen mother could "legitimize" the theft through an easy-to-get rehab permit. Now, stronger attempts are made to educate people as to the availability of rehab facilities.

Education: All of the larger rehab centers in Kansas have strong education programs as part of their overall operation. This is where rehabbing really contributes, as long as the people doing the education are educated themselves. Operation Wildlife conducts education sessions using unreleasable animals to more than 100,000 people every year. Project Release of the Kansas State University School of Veterinary Medicine, Wildcare, and Nature Reach in Pittsburg all operate similarly.

The Numbers: The department licensed 103 rehabbers last year. The majority of the "business" is in northeast Kansas where the largest rehab centers try to keep up with wildlife displaced in the sprawling metropolises. These facilities are handling thousands of cases each year. Baby bunnies are the most common animals brought in, followed by opossums, raccoons, robins, hawks and squirrels. Our records indicate that more than 170 different species have been treated

Rehabilitators deal with a host of problems, including this oil-soaked short-eared owl.

This hawk practices in the flight pen at Operation Wildlife's facilities. When it has sufficient survival skills, it will be released. It is a difficult problem for rehabilitators to spend countless hours with animals and avoid developing an emotional bond.

over the last seven years. Snakes, armadillos and even a moose are on the list.

The Risk: Rehabbers who handle hundreds of animals in a year are subjected to numerous risks including emotional stress, physical exhaustion and injury, diseases, parasites, financial losses, exposure to toxic substances, and even assaults from irate, ignorant citizens. Of particular concern are the disease and parasite risks. Rabies is particularly scary, considering the numbers of animals these people handle.Years ago, taking in a baby raccoon for back-porch rehabbing was hardly given a second thought. Now we know better. There are parasites such as *Baylisascaris procyonis*, a roundworm that infects raccoons and can kill humans. Smart rahabbers quarantine for a safe period prior to giving care. When people have their common sense blurred by compassion for a sick animal, they can contract deadly diseases. These risks are sometimes difficult for citizens to accept, but rehabbers try to convey them to concerned callers.

Although most rehabilitators fight for funding to keep their doors open, they also work tirelessly to educate people so that fewer animals will be brought in. In most cases, wildlife should be left alone.

The Service: For years, licensed rehabbers have provided invaluable assistance to the department. When people find what they believe are orphaned or injured animals, they call Wildlife and Parks. The department, however, has its hands full just trying to save wetlands, catch poachers and maintain critical habitats and isn't equipped to deal with "rescued" wildlife. Concerned citizens often don't understand this dilemma, so it's a benefit if the callers can be referred to a local rehab group. Another benefit is the discovery of suspicious incidents. In a case last year, a rehabber received an abnormal number of sick robins. As a result, illegal spraying of a pesticide was uncovered.

In addition to the flight pens, cages and medical equipment, rehabilitators must also provide each patient with the proper diet. This rat colony at Operation Wildlife will help feed a variety of wild animals from hawks to snakes.

Reality: Mother Nature treats life and death as equals. Death in the natural world is never nice — a deer dying of starvation, a mangy coyote just days from collapse or a red-tailed hawk ripping into a squirrel while it's still alive are not pretty sights. This is everyday reality in the natural world, but we rarely witness these events. Predators are often the "bad guys." How many people applaud a coyote getting its first meal in a week by munching on a couple of baby bunnies? Few take the predator's side, but they have to eat, too. The more we hitch emotion to actions, the less conser-

vation results. But the truth is that because of unnatural events, some animals do get orphaned or injured.

The Rules: The best overall rule of orphaned and injured wildlife is: LEAVE THEM ALONE! Why? Most of the time orphans have a parent nearby, hiding because you are there. A baby bird found on the ground will have the best chance to survive if you put it back in the nest. If this is not possible, put the bird in a clean plastic butter bowl with tissue paper in the bottom and place it in a tree or bush out of reach of the family cat. Chances are the parents will find it as soon as you leave it alone for a while. It is common for baby birds to end up on the ground, especially when they are learning to fly. The parents continue to care for and feed these young, and they'll have much better odds of surviving than if a well-intentioned person "saves" them.

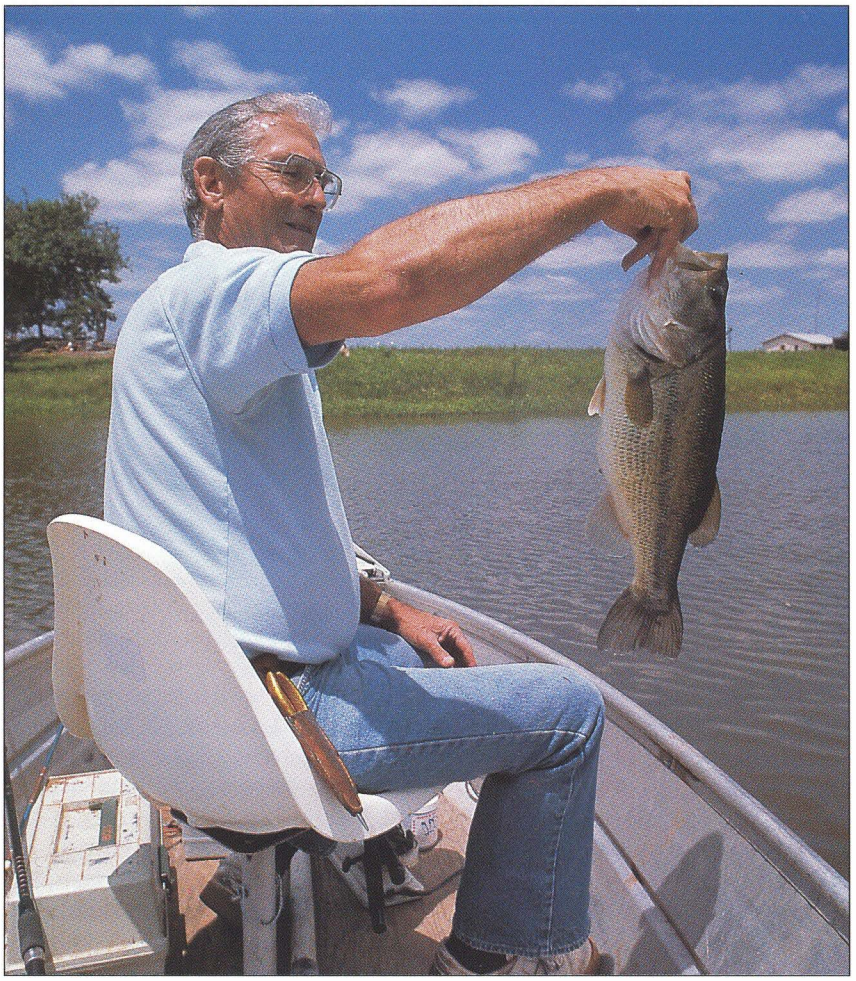
Handling a sick animal is risking exposure to potentially deadly diseases. And if you find an obviously orphaned baby animal, its best chances of surviving and returning to a natural life in the wild will be with a rehabilitator. Rehabbers have numerous stories of animals brought in after months of inappropriate care. These cases typically have sad endings, but their best chance of returning to a natural life is through an experienced rehabber.

Wildlife rehabilitators work in a world of irony. While they strive for donations to keep their operations afloat, their goal is to actually reduce "business." They spend inordinate amounts of time talking callers into putting animals back into their habitats so that natural parents can take care of them. Animals brought in exhibit the whole spectrum of injuries. They all get attention. Many times, the rehabber must make a very tough decision to euthanize and must rely on the least painful method of putting the animal to sleep. Next time you're tempted to pick up a young or injured animal, think about the consequences. If you're certain it would not survive in the wild, call the rehab center and ask them what you should do. Trust them to make the best judgment for that animal, and give the rehabbers the respect they've earned.

Rehabilitators will be the first to tell you that education is the real value of their work. Diane Johnson of Operation Wildlife holds a bald eagle she uses in education programs across the state, reaching more than 100,000 people each year.

If you end up taking a wild animal to them, consider a financial donation. They will possibly save the animal's life, and perhaps save you a lot of anguish. And while that's something, just saving the animal's life isn't enough. Wildlife rehabbers strive to return each animal they receive to the wild. Raised under current wildlife rehabilitation standards, Elsa the lion would have had an even better chance for a long, natural life.

For the name of the wildlife rehabilitator in your area, contact your nearest Wildlife and Parks office. There is a Kansas Wildlife Rehabilitators Association. For more information about the association, contact the department's Operations Office in Pratt.



Farm Pond Remedy

by Mark Kumberg
hatchery assistant, Pratt
photos by Mike Blair

Farm ponds provide fishing enjoyment for a large number of Kansas anglers. But maintaining good fishing isn't quite as simple as stocking fish.

Growing up on a small ranch, I was blessed with many opportunities to enjoy the outdoors. Some of my earliest memories are of my dad coming home with huge bass on cool spring mornings. As I became old enough to be trusted around the water, I spent most of my idle time either fishing, hunting frogs, seining minnows or just plain fooling around. But fishing the many small farm ponds on the ranch was my favorite pastime. Even though I don't fish as often now, I hope I can give my children the same opportunity to appreciate nature as my parents gave me.

To obtain the maximum benefits from farm ponds and sustain productive fishing, the pond owner should manage the water just as he manages agricultural crops. Ponds can be used for livestock (and wildlife) water, flood control, fish production and recreation.

Ideal ponds range in size from one to 10 acres. Small ponds are much more susceptible to overharvest by anglers, resulting in unbalanced fish populations. Ponds should be 8-15 feet deep with shallow areas minimized to prevent excessive vegetation growth. Depths greater than 15 feet deep are often void of oxygen in the summer and useless to the fish. Water less than 6 feet deep allows sunlight to penetrate to the bottom soils and encourages vegetation growth, which can be a problem.

One of the most important items to consider when building a pond is a drain pipe. Unless the pond owner has complete control over the numbers, sizes and species of fish harvested, the fish population will inevitably become out of balance. It only takes a few fishermen unwilling to practice catch and release to remove too many large bass. This allows a large number of bluegill to survive that year, and these bluegill will consume most of the bass spawn in subsequent years. The pond will develop large number of 3- to 4-inch bluegill and a few slow growing bass, due to competition. When this happens, draining the pond and restocking it may the quickest way to restore a balanced population.

Grass should be planted in the drainage areas of the pond to prevent siltation during rainy periods. Pond dams should be free of trees as roots growing through dams can cause costly leaks. The dam and any exposed soil around the pond should be planted with grasses and forbs to prevent erosion and provide wildlife habitat.

Fish attractors such as brushpiles, stakebeds and tires can be beneficial to a pond. Small fish use these areas as shelter and, in turn, attract the larger fish. In new ponds, habitat can be placed before filling or existing timber can be left standing. For existing water, shoreline attractors can be made by partially cut-

ting through trees and dropping them into the water. Winter ice-over also provides an opportunity to add habitat. If the ice is thick enough (5-6 inches) you can tie brush together with wire, add weight and slide it out on the ice over the preferred location.

When a new pond is completed or an old one drained, it's time to stock fish. Usually fingerling-sized (2-3 inches) fish are stocked. Common stocking rates are 100 largemouth bass, 100 channel catfish and 500 bluegill per acre. If larger fish will be stocked, reduce these rates by half. For accelerated fish growth, stock 2-4 pounds of fathead minnows per acre as soon as water begins filling the ponds. Normally, bluegill and catfish are stocked in the fall, followed by bass the next summer. In turbid water (less than 12 inches of clarity) only catfish should be stocked. Sight feeders such as bass and bluegill will not grow well in turbid water.

In clear ponds, stocking bluegill is important. Since bluegill are prone to overpopulating when a pond is out of balance, some pond owners may opt to leave them out. But this would be a mistake. Bluegill produce large numbers of offspring, which provide much of the largemouths' diet. Bass also consume small crappie and prevent overpopulation.

A drain system should be made when the pond is built, allowing periodic draining and restocking as needed.

Several pond management strategies are commonly practiced. The "All Purpose Option" allows anglers to catch a variety of sizes of fish. This requires that 30 8- to 12-inch bass be harvested per acre, per year after the fourth year of stocking. All 12- to 15-inch bass should be released. The larger bass efficiently prey on intermediate-sized bluegill, reducing the densities while allowing some bluegill to grow to larger sizes. With this option, bluegill and catfish can be harvested as desired, although catfish will have to be restocked periodically.

Once a pond is drained, the remaining fish can be salvaged and transferred to other ponds. All fish should be removed so that future stockings won't be contaminated.

If catching large panfish ("Panfish Option") is desired, continue to release all bass less than 15 inches long. The high densities of 8- to 15-inch bass will effectively control numbers of bluegill allowing the remaining fish to grow to lengths of 8 inches or more. This option is recommended for clear ponds, as the bluegill will overpopulate if the bass cannot see them in turbid water. Crappie may be stocked at rates of 20 adults per acre when the original bass are two years old. The two-year-old bass are large enough to prey on the young crappie and reduce chances of overpopulation. With this option, no harvest restrictions are needed on any species but bass.

The "Harvest Quota Option" dictates the harvest of 20 pounds of bass per acre annually the fourth year after a pond is stocked. After the initial quota of bass is harvested, catch and release must be enforced

for the remainder of the year to prevent bass overharvest and subsequent bluegill overpopulation. Bluegill harvest is unrestricted but encouraged with this option. This alternative is difficult to manage unless the landowner has complete harvest control and maintains detailed records.

The channel catfish is one of the most popular fish in Kansas. The "Catfish Only Option" is the easiest option to manage as long as reproduction does not occur. If catfish have spawning areas such as holes in the bank, buckets or submerged pipe, they may spawn successfully. In the absence of bass, small catfish will quickly overpopulate the pond. This option should be considered only for small, muddy impoundments. If the pond is clear, bass and bluegill should also be stocked because a pond will produce the same weight of catfish whether or not it contains bass and bluegill. Fathead minnows can be stocked to provide an additional food source. Catfish can be stocked at rates of 100-200 fingerlings per acre, with supplemental stockings each year to replace those harvested, plus 10 percent for natural mortality.

Fish in most farm ponds don't need to be fed. If feeding is desired to accelerate growth rates, however, it must be done carefully. Feed small amounts of food throughout the growing season. If too much food is thrown out, the uneaten food will decompose, which depletes dissolved oxygen in the water and can kill fish. Feeding should cease in the winter when cold water temperatures slow the fishes' metabolism and they eat less.

If an existing pond has been overharvested and the fish population is unbalanced, there are other management options if draining and starting over isn't feasible. If too many intermediate bluegill and too few bass make up the population, stocking 50 8- to 12-inch bass per acre can help. All bass under 15 inches should be released for three years. This allows the large bass to reduce the bluegill population and bring the system back to balance. Ponds which have small bass and few bluegill can be augmented with bluegill caught from another pond to provide forage for the bass.

Too much aquatic vegetation can be a problem and is prevalent in ponds with extensive shallow areas. Control methods are generally expensive and time consuming.

A pond's water quality can also be managed. Turbid water can be caused by soil type, wind action or animal activity. Turbidity caused by suspended clay particles can be treated with gypsum, aluminum sulfate (alum), or organic matter (hay, manure or cottonseed meal). These materials cause the clay particles to flocculate (cling together)

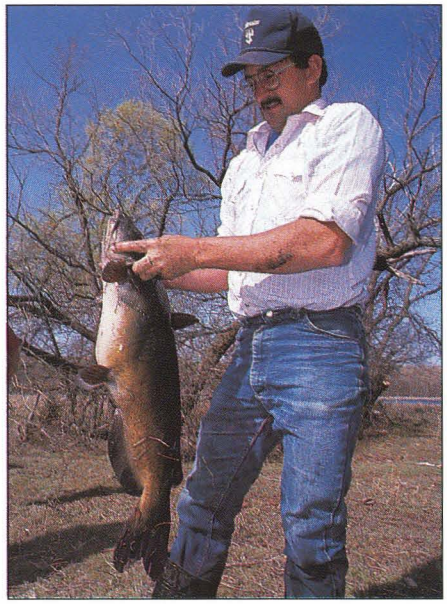
A pond with an unbalanced fish population can be remedied with supplemental stockings. Bluegill can be added to provide additional forage for an ailing bass population.

Fish habitat is more than just water. Ideally, standing trees can be left in the in the pond bottom before filling. However, artificial habitat can be added by wiring brush together and anchoring it down. This provides necessary cover for smaller fish.

and settle to the bottom. The treatments, however, are temporary, unreliable and expensive. The best option may be to stock the pond with channel catfish. A pond that is turbid due to wind action can be helped by planting windbreaks around the pond and planting water-tolerant grasses along the shore. Riprap or tires can also be placed along the shore to reduce wave erosion. Livestock access to impoundments should be limited by fencing to prevent trampled shoreline vegetation and dam destruction.

One of the most common complaints from pond owners is too much aquatic vegetation, which can make fishing and other recreation difficult. A certain amount of aquatic vegetation is necessary for fish growth and shelter. Plants are eaten by insects and other aquatic organisms which fish feed on. Plants also provide oxygen to the water through photosynthesis.

Two of the most common problem aquatic plants are filamentous algae and submerged plants. Filamentous algae is often mistakenly called "moss" and consists of masses of long, stringy, slimy or cottony strands which float on top of the water. Beginning its growth on the pond bottom, then buoyed to the surface by the oxygen it has produced, this algae forms green or yellow-green mats. Submerged plants grow under the water, are rooted to the bottom and produce seeds. Common examples of this group are pondweed, coontail and naiads.



Farm pond channel catfish grow big and provide a popular angling opportunity.

One of the most common reasons for vegetation problems is extensive shallow areas in a pond. This can be prevented when constructing a new pond by eliminating extensive areas less than 6 feet deep. Remember that some weeds are good, so some shallows are necessary. However, if heavy vegetation occupies more than 25 percent of an established pond, several control measures can be considered. Physical removal of vegetation is temporary, labor intensive and generally only affects small areas of a pond. Aquatic herbicides are available to control most plants, but they must usually be applied several times a year for long-term control. Most of the chemicals now registered for aquatic use are nearly cost prohibitive. They can also be dangerous to the pond if too much of the vegeta-

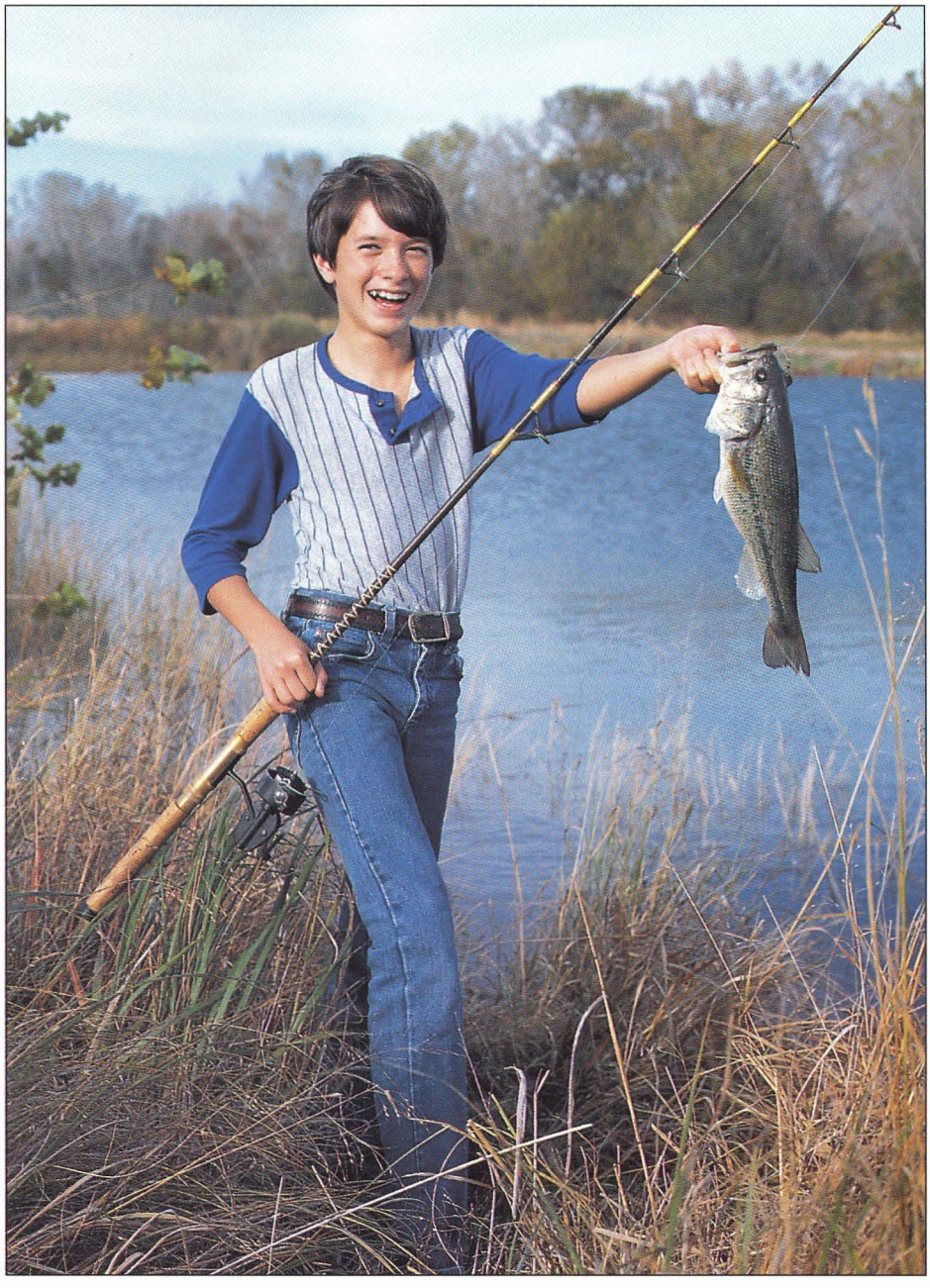
tion is killed at once. Large amounts of decaying plants could lower the dissolved oxygen enough to kill fish. Consult your county agent or local district fisheries biologist before implementing this method.

Grass crap, or white amur, can be used as a biological control method. The herbivorous fish will not usually feed on algae but will usually consume all types of submerged plants. Depending upon the severity of the problem, 10-20 grass carp per acre should help, however, it may take several years before the amur are large enough to make noticeable results. There can be drawbacks, especially if too many amur are stocked. All the vegetation can be consumed, and the feeding activity can cause turbidity. Bass populations will likely diminish under these conditions, eventually creating an unbalanced system.

Leaky ponds present another common problem. Several methods to repair them are available, but they are expensive and time consuming. Bentonite (clay) can be disked into dry pond bottoms at a rate of 1-2 pounds per square foot of pond bottom. When water is introduced, the clay swells, sealing the pond basin. A pond containing water can be treated by pouring a slurry of bentonite or spreading granular bentonite over the pond surface. Generally, this application method is not as successful because it's difficult to get an even application. Rock salt can be disked into soils containing at least 10 percent clay at rates of .2-.4 pounds per square foot. Sodium ions in salt disperse the colloidal clays in the pond bottom, making the soil impervious to water. An effective seal can form, but may be broken by livestock walking on the pond bottom.

Plastic liners are another option and are available for 30¢ to 50¢ per square foot. At a cost of tens of thousands of dollars for a small pond, liners are not an option for most pond owners. Another method to seal ponds is covering the pond bottom with 6 pounds of straw, hay or leaves per square yard, then placing 6 to 8 inches of soil over the organic material. A reaction between soil and organic matter seals the pond bottom. Many ponds will seal themselves over a period of years due to blown in leaves, decaying aquatic vegetation and siltation.

Kansas boasts more than 50,000 privately-owned ponds, many of which provide manageable, quality fisheries. A large percentage of anglers fishing ponds are younger than 16 years old, and these farm ponds are ideal training grounds for future adult anglers. There may be no better place to teach a child how to fish than a small farm pond with a quality fish population. But ponds aren't just for kids. Private ponds have accounted for several of the state's heaviest largemouth bass, bluegill and channel catfish. With proper management, fishing opportunities can be enhanced on any pond. So put one of the management options into action and take a youngster fishing this summer. You've never experienced anything so fulfilling as a wide-eyed youngster's first fish. And who knows? You may create a fishing partner for life.



Gene Brehm photo

Mike Blair photo

Reaching For The Future

by Bob Mathews
chief, Public Information Section

What wildlife and outdoor recreation opportunities will greet the next generation of Kansans? It depends on the decisions we make now.

Outdoor recreation means a lot to people like you. By subscribing to this magazine, you demonstrate your commitment to the natural resources of Kansas. If you hunt, fish, camp or boat, you help sponsor the management of those resources. As such, you are part of an association of stakeholders who will help decide the future of these popular pastimes. In an era of tightening budgets and growing responsibilities, the Kansas Department of Wildlife and Parks is relying on its constituents more than ever to help chart the future.

The challenge these days is providing the services Kansas recreationists and wildlife enthusiasts want, while staying within our financial means. Historically, certain people who use these services have provided the dollars to manage the natural resources that make their recreation possible. That still is true today, but the reality of the situation is that we are losing ground in our efforts to adequately fund the agency's programs and activities. Our alternatives are to reduce services, increase income, or both.

Part of the challenge is reconciling new duties with existing funding sources. Overall, the department currently has 406 permanent employees, compared with 417 in 1992. Like most wildlife and parks agencies around the country, KDWP managers are continually looking for ways to streamline processes so that fewer employees can maintain established services while meeting new demands.

Another part of the challenge is ensuring that the department's 71 wildlife areas and 38 state fishing

OPPORTUNITIES

As with many state agencies, the department must adapt to a changing society.

lakes provide quality outdoor environments for the 1.4 million visits these areas host each year. The flurry of state fishing lakes built from 1930 through 1960 produced a wealth of new fishing opportunities for Kansans. Almost all of the state's 38 fishing lakes were built prior to 1960. About one-third were built prior to 1940. As these lakes begin to show their age in the 1990's, KDWP is looking for ways to underwrite the $250,000 to $1 million needed per lake to rebuild dams, water control systems, and outlet structures. Recent repairs at Leavenworth State Fishing Lake, for example, required nearly $800,000. Converting lakes to less costly uses — such as public wildlife areas, for which dams and water control structures are unnecessary — is one alternative to expensive lake reconstruction. However, that alternative is not a popular one among the Kansas anglers who prefer fishing those waters.

CHANGING TIMES

As with many state agencies, the department must adapt to a changing society. Like other states, Kansas' population has shifted from predominantly rural to predominantly urban. To accommodate that change, fisheries managers need to increase urban fishing opportunities. In fact, the department has already begun efforts to meet the growing demand for fishing opportunities in or near the state's urban centers. Consider these programs getting underway this year:

* Statewide urban fishing program — $172,000 for multiple stocking of catchable-sized channel catfish in 50 urban lakes.

* Trout program — $150,000 for multiple stocking of trout at more than 20 locations across Kansas.

* Community lakes program — $225,000 in grants distributed through the Community Lakes Assistance Program to improve fishing opportunities on local waters.

Fisheries managers want to complete long-postponed improvements to the department's older hatcheries to help keep pace with the demand for higher catch rates and larger fish. Fish stocking capability is critical to the success of state lake fisheries, which are subject to intensive fishing pressure. Fisheries managers also want to enhance investigation and research of sportfish species in the state, so that fisheries management techniques can become even more effective and cost efficient.

Wildlife managers want to meet the needs of hunters by providing more public-accessible hunting areas via cooperation with private landowners. A pilot project is underway to lease privately-owned lands for hunting access. This strategy responds to the often-expressed need of hunters for more public hunting opportunity. However, to be implemented on a broader scale, this program must compete with other beneficial programs for limited dollars, or new funding sources must be implemented to underwrite it.

Another challenge is to maintain a healthy Wildlife Fee Fund. The department has made a commitment to maintain a minimum $5 million reserve in that fund, from which money is drawn to capture federal aid funds available to the state. KDWP has been eligible to receive about $5 million annually in federal aid to sport fisheries and wildlife management projects. These are monies paid, by Kansans, via excise taxes on hunting and fishing equipment. However, it is necessary for the department to budget and spend money before claiming federal reimbursements. In 1994, the U. S. Fish and Wildlife Service cited KDWP for misdirecting $1.9 million in wildlife funds and, more importantly, for failing to meet base level spending requirements for fisheries programs from 1987 to 1992. The department is required to spend an additional $3.5 million in fisheries during the next three years to make up that shortfall in spending. This obligation, along with rising costs associated with fisheries and wildlife projects, jeopardizes the $5 million reserve in the Wildlife Fee Fund. It has been projected that, with no change in existing revenues, the cash reserve could shrink to $4.4 million in fiscal year 1997, then to $1.9 million in 1998. This would render the department unable to make sufficient expenditures to claim its federal aid apportionment.

Another factor challenging the department's commitment to a leaner work force is the increase in responsibilities that result from federal and state legislation. One example of that is administration of

IMPROVEMENT

Part of the challenge is restoring and maintaining an aging and deteriorating complement of state park facilities, while responding to a growing variety of recreational demands.

federal and state laws that protect wildlife and other natural resources. The department's Environmental Services Section currently comprises five full-time employees who work with developers to minimize adverse impacts on terrestrial and aquatic resources, and to ensure compliance with environmental protection laws, such as the Nongame and Endangered Species Conservation Act and the Clean Water Act. In 1994, section staff reviewed more than 1,500 project proposals — more than twice as many as in 1990, and did so with one less full-time staff person than in 1990.

RECONSTRUCTION

Part of the challenge is restoring and maintaining an aging and deteriorating complement of state park facilities, while responding to a growing variety of recreational demands. When Kanopolis — the first of Kansas' state parks — opened in 1958, it was primarily the domain of campers and anglers. Today's visitors include campers and anglers...plus hikers, bird-watchers, recreational vehicle owners, sailboaters, water skiers, wildlife photographers, picnickers, horseback riders, mountain bikers, pleasure boaters, sailboarders, and a rock climber or two. In short, a much broader assortment of outdoor pastimes are at play in Kansas state parks. However, showerhouses, toilets, picnic shelters, campsites, and campsite utility services have limited lives. More than half of these facilities statewide were built before 1970, and major maintenance and renovation has been repeatedly postponed as a result of budget shortfalls.

State park managers have identified about $4.6 million in immediate upgrading needs, including:

* Park infrastructure improvements — $1.5 million. Typical examples include improvement of a boat ramp and parking lot at Glen Elder State Park, beach development at Clinton State Park, construction of 50 full-service hookups at the Riverpond area in Tuttle Creek State Park, upgrading of floating docks at Prairie Dog State Park, and similar projects.

* Enhancements of existing facilities — $972,000. Typical examples include repair and upgrading of showerhouses at Wilson State Park, development of a dump station at Cheney State Park, installation of a sewage lagoon at El Dorado State Park, and similar projects.

* Enhancements to provide access to persons with disabilities — $858,000. These projects involve modifications to showerhouses at 10 state parks, improvements to 13 state park offices, purchase of eight handicapped-accessible courtesy docks, repairing flood-damaged handicapped-accessible fishing piers, and similar projects.

* Replacement of equipment — $603,000. This amount would fund replacement of worn-out mowers, trucks, road graders, and similar equipment used in state park maintenance.

* Safety and security system improvements — $426,000. Typical examples of these improvements are installation of storm warning devices at Cedar Bluff, Glen Elder, and Webster state parks; development of rural water access at Glen Elder State Park; and similar projects.

The department also needs money for seasonal employees. Temporary employees who work during the peak visitation seasons provide critical help in customer assistance and maintenance chores, such as trash removal, restroom cleaning, and mowing.

The department wants to improve facilities at less intensively developed public recreation areas, too. State fishing lakes and wildlife areas require maintenance and investment to maintain their viability as natural recreational sites.

In addition to the long-term, systematic reconstruction of dams and water control structures at state fishing lakes described earlier in this story, public lands managers have identified about $3 million in immediate or short-term needs among Kansas' state fishing lakes and wildlife areas, including:

* $856,000 for replacement of worn-out equipment such as tractors, mowers, native grass drills, and chainsaws.

* $681,000 to augment existing operations budgets at 27 different properties which are currently not funded adequately to meet annual operating needs.

* $658,000 to renovate existing structures, such as marsh ponds, riprapping state fishing lake shorelines and fishing piers, and repair of fences.

PARTICIPATION

We admit we're biased. We believe that wildlife and parks programs are critical to the quality of life in Kansas.

* $489,000 for infrastructure improvements, such as construction of boat ramps, campsite development, parking lot development, and road resurfacing.

* $229,000 for safety and public health improvements at state fishing lakes and wildlife areas, including installation of lighting at boat ramps, potable water supply development, and replacement of boat navigational buoys.

* $147,000 to make state fishing lake and wildlife area facilities, such as courtesy docks and toilets, handicapped-accessible.

To make the most of existing budgets, park and public land managers have developed innovative approaches to stretch their resources. Some have formed partnerships with local friends groups, whose members voluntarily conduct fund-raising events and assist with some maintenance functions. Contracts with private sector concessionaires, such as marina operators, provide amenities and services visitors want without obligating additional agency staff or resources to that function. Efficient use of seasonal and temporary employees allows managers to provide necessary manpower without adding full-time, permanent staff.

FINDING THE MEANS

The department obtains most of its income from fees paid by the constituents it serves — hunters, anglers, park goers, and boaters. Hunting licenses, fishing licenses, state park permits, and boat registrations account for about 60 percent of the department's annual income. In Fiscal Year 1994, total receipts from those constituents amounted to $13.5 million.

Another 22 percent is derived from excise taxes paid on hunting and fishing equipment, which is distributed back to the state by the federal government. In Fiscal Year 1994, receipts from federal aid for sport fish and wildlife programs amounted to $5.8 million.

About 14 percent is derived from the State General Fund. In Fiscal Year 1994, SGF appropriations to the department totalled $3.7 million. These funds are dedicated primarily to the operation of state parks.

To enhance financial support of department programs, KDWP task forces have assembled a variety of strategies designed to generate additional revenues. Those strategies are being reviewed by department staff, the Kansas Wildlife and Parks Commission, and constituent groups. The goal is to advance those strategies which are acceptable to the department's customers and which will materially assist management of the state's natural resources into the 21st century.

Proposals generated by these task forces represent both short-term and long-term funding mechanisms. Among short-term enhancements are modest increases in daily and annual state park vehicle permits, camping fees, fishing licenses, and hunting licenses. Among other proposals are implementation of a public lands use fee for visitors to state fishing lakes and wildlife areas who do not already possess a hunting, fishing or furharvester license; assessment of a $5, non-refundable application fee for all competitive draw big-game permits; implementation of standard fees for processing action permits as required under the Kansas Nongame and Endangered Species Act; creation of an annual $5 habitat stamp required of all hunting license buyers.

These and other funding ideas will be considered in the coming months, as the department works with its constituents to develop a stable funding base for the future of wildlife and outdoor recreation in Kansas. At the same time, the department must continually refine its operations to improve efficiencies and make the most of the dollars available.

We admit we're biased. We believe that wildlife and parks programs are critical to the quality of life in Kansas. They also support hundreds of millions of dollars in economic activity in the state each year. We believe conservation work in Kansas needs some new funding sources.

There are no easy solutions. The problem won't be solved without the participation of our customers. Working together, we can turn problems and challenges into opportunities to revitalize outdoor recreation and wildlife management in Kansas. We believe future generations will look back with fond appreciation on the 1990's, when their predecessors took the initiative to ensure a rich variety of outdoor experiences in Kansas.

Fishing Partners

photo essay by Mike Blair
staff photographer, Pratt

A summer of fishing fun went by too fast for father and daughter, but the memories are indelible and anticipation of the coming summer grows with each warm day.

They say that for every minute you spend fishing, God adds a minute to your life. I don't know about that, but I can honestly say that minutes spent fishing are minutes lived. On quiet, springtime outings when woodpeckers drum and fog tendrils vanish into morning sunlight, time on the water is restorative. Worries disappear and the soul relaxes. The eagerness of youth returns. While fishing, life is good.

Last year, Jennie and I fished. It was a special year for a dad and daughter, our first time fishing as equal partners. Always before, I had stayed close to help with casting, to tie knots and to coach her in playing fish. But those years of learning had sharpened the youngster's ability and confidence. Now, in her 14th summer, we shared the same anticipation for float tubes and spawning beds, casting contests and big fish. Armed with flyrods and hand-tied flies, we anxiously entered the season.

It began in March, during spring break when 70-degree days offered the perfect recess from books and tests. On our very first outing, an 8-pound bass taught Jennie the value of casting "just once more," and proved that winter daydreams really can come true. For several days, strings of crappies fell to Black Ghosts, and largemouths danced to the music of Woolly Buggers. In weekends after, walleye and panfish broadened our fishing experience and whetted plans for a May adventure.

School ended, and we packed our gear for eastern Kansas. With excellent weather and a week to fish, we visited the places I knew as a boy, catching bass and catfish, bluegill and crappie. There were foggy dawns and flaming sunsets, sweating brows and 12-hour days. We learned again the joy and work of serious fishing. Filleting chores ran long each night by starlight and radio. We loved it.

And then it was summer.

Our trips slowed down but were still rewarding. Late, sultry evenings found us noiselessly skimming the weed beds, hopping brightly-colored deerhair bugs across the surface. Bass eyed and blasted them, to our ongoing delight. Among the common small fish that took our flies, a half-dozen 5- and 6-pounders were caught and released, before the waters of August began to cool.

Then came September, when tiny Royal Wulffs landed as lightly as cottonwood seeds, to be sipped by big bluegill stocking up for winter. The pure fun of these autumn fighters posed a dilemma: should we fish for them, or leech-eating bass, another late season favorite?

Finally, school and work and volleyball called, and our rods were reluctantly cased. Too soon, our summer of memories was over. . .

But God willing and minutes of lifetime spared, we'll resume when the waters warm again. I've got a Coke to win back against Jennie's March bass, and she thinks she can beat me this year in the longest cast. We'll stock the freezer, and in the great outdoors, share precious time together during these fleeting teenage years.

That's really living.

Edited by Mark Shoup

CRP CONCERN

Editor:

I continue to be concerned about the future of the Conservation Reserve Program and continue to write Congressional members in its support because I have discovered that the Midwest seems to be the best place to exercise my English disappointer and English upsetter, as well as myself.

My major concern is that the editorials and other reminders I see never seem to take advantage of the opportunity to combine the efforts of the farmer and the hunter. The farmer may not win without the hunter, and the hunter is certainly not going to win in any way without the farmer.

Craig Roland
Lenoir, North Carolina

Dear Mr. Roland:

Thanks for your letter. I'm not sure what "editorials and other reminders" you are referring to, but farmers and hunters have both backed CRP strongly, often working in concert. Pheasants Forever has been a big lobbyist for CRP, as has the American Farm Bureau.

The benefits of CRP to wildlife – both game and non-game – have been considerable, but people have benefitted, too. The CRP article on Page 21 of the Jan./Feb. issue of Kansas Wildlife and Parks magazine makes this connection between hunters and farmers.

–Shoup

MORE CRP LEASE

Editor:

In December, I renewed my subscription to ***Kansas Wildlife and Parks***. After living most of my 68 years in Kansas, I still hold fond memories of the state.

Two years ago, I moved to the Paola area to be closer to my elderly in-laws. For the past two years, I have purchased a non-resident hunting license.

Shortly after moving to the Paola area, I hunted near Stockton. Each evening, groups of hunters would meet at the local cafes and the V.F. W. restaurant in Stockton. At each discussion, it became clear that most of the hunters were unhappy. Some of the states present were Missouri, Arkansas, Oklahoma, Texas, Georgia, Alabama, Colorado, Delaware, and Virginia. Most discussions were about all of the leased land. When asked, farmers informed us that their land was leased during the month of November, but we could hunt in December if we wished to return.

Heated discussions arose about leased Conservation Reserve Program (CRP) land. Farmers are paid to enter the program. Then they lease this same land for a fee for hunting. Is this fair?

Seventy to 75 percent of the non-residents said they would not return to hunt in Kansas next year. If this holds true, the loss to the state will be noticed because the average hunter spends nearly $200 a day.

Edwin A. Gorsky
Raymore, Missouri

Dear Mr. Gorsky:

Thanks for your letter. I understand your concern about leased land. Leasing of land hurts both resident and non-resident hunters if they cannot afford the price of a lease, which most cannot. However, landowners have the right to lease land if they wish.

Despite your experience this year, I believe that your hunting companions who say they'll not return to Kansas will be even more disappointed in other states. Kansas still has less leased land than most states in pheasant and quail country.

In regard to the leasing of CRP, this is a federal issue and has nothing to do the Kansas Department of Wildlife and Parks. CRP is administered by the U.S. Department of Agriculture, and the state has no power to restrict uses under the federal program.

It may seem unfair that farmers get taxpayer dollars for land enrolled in CRP and then are allowed to lease that ground as well. However, we must keep in mind that CRP is not a handout. Taxpayers get a considerable return for their investment in the program. Using the most conservative estimates from CRP studies, the program actually saves taxpayers at least $15 billion over the 10-year life of the program. These savings come from reduced commodity program payments and natural resource benefits derived from reduced soil erosion, improved water quality, and improved wildlife habitat.

Considering these benefits, one might argue that leasing the land for hunting should be allowed. In any case, any restriction must be made by the U.S. Congress when they decide how, and if, the program will be continued. Wildlife, the environment, and, yes, hunters will certainly be losers if it is not. Contact your congressional representatives (Page 36) to express your concerns about this program.

–Shoup

FINE INEQUITY?

Editor:

After reading the Jan./Feb. issue of ***Kansas Wildlife and Parks***, I was confused and frustrated to the point of needing to ask you for clarification in regard to two pieces in the Wild Currents' "Law" section (Page 35).

To my understanding, the "Undercover Nets" article described an investigation that took close to 10 years to result in the closing of three fish markets and the citing of a few individuals with fines ranging from $100 to $800, with some additionally sentenced to community service. Obviously, those indicted were not acting out of ignorance or "accidentally."

By no means do I discount the honorable efforts of law enforcement officials protecting my wildlife; however, given the time frame in which the investigation took and the resultant fines, one might suspect that the fish monger held close ties with a Columbian drug cartel.

On the same page, "$12,000 Eagles," a man was fined $12,000 in connection with the "accidental" deaths of three eagles. (I assume the sheep carcasses were poisoned in attempt to control coyote activity, albeit irrelevant, with the details being a bit sketchy.) The process took two years.

To the point – first, could you explain the disparity in the time of investigation to prosecution and the disparity in resultant fines? The cost-benefit ratio seems inordinately disproportionate. The eagle situation is obviously a federal offense with heavy fines, and the fish was a state offense. Lastly, why do the wheels of justice appear to spin a trifle slower on state roads versus federal?

Rodney Ferguson
Topeka

Dear Mr. Ferguson:

The first case, "Undercover Nets," described some of the results of an ongoing investigation into the commercial poaching of freshwater fish in Kansas. In about 1983, we started to identify some recurring clues that led us to believe there was a substantial black market for Kansas sportfish. Since that time, we have made several large cases involving the illegal netting of fish from our reservoirs. These were made by simply observing the illegal netting and arresting the perpetrators.

We realized that this activity would continue as long as there was a market, so we began an undercover investigation of the markets that were buying and reselling these illegally taken fish.

In 1994, we brought one of these investigations to a close and charged the perpetrators with commercialization of Kansas fish. The disposition of those charges is totally the responsibility of the Kansas judicial system. The department does not set fines or assign punishment. We agree that the fines and punishment for stealing our natural resources were minimal, but we have no control over that portion of the Kansas criminal justice system.

The article about the killing of the eagles is a whole different story. I can give you first-hand details on this case because I was there and helped to investigate it. The person who was charged runs a large sheep operation. In a large holding pen, this person had lost about 80 head of sheep to natural causes one winter. The sheep carcasses were strewn across 100 acres or so. Of course, coyotes began feeding on the carcasses, along with crows, hawks, magpies, opossums, skunks, other scavengers, and bald eagles.

People were driving by this location to watch the eagles. At one point, there were 35 bald eagles in this field at the same time.

Then we found a dead eagle in the field. While we were picking up the dead eagle, we found other dead animals in the same area. We began to investigate and found three dead eagles, dead hawks, and dead coyotes. I have to tell you that the day I searched the area was a day I won't forget. This field was strewn with dead sheep carcasses and other decaying animals. There were no crows, hawks, vultures, or magpies in the air, and the place put you in mind of a haunted graveyard.

As we collected animals to send to the lab for analysis, we noticed that there was one location where dead scavengers were concentrated. In that area, we found one sheep carcass that appeared to have a white powder residue on the exposed flesh and entrails. We carefully collected that carcass and sent all things collected to the lab, which revealed that the carcass had been laced with the pesticide Furadan.

We had suspected some type of poison. When we found that the poison was Furadan, we were able to track down farming off-season purchases of this pesticide. The trail led us to a person who worked for this rancher. Until this point, the landowner had denied any knowledge of any wrongdoing, but when confronted with the evidence, he admitted that he had told his hired hand to put Furadan on the sheep carcass to kill some coyotes.

So you see, although the killing of eagles was unintentional, it was not accidental. Because the bald eagle is an endangered species, this case was filed in federal court, instead of in Kansas court. The fines and punishment, again, were levied by the court and are about the average for killing endangered species like the bald eagle.

It should be noted that although we found only three bald eagles dead, we suspect that a number of the 35 that were in that field feeding may have also died in outlying areas and were never found.

–Kevin Couillard, director, Law Enforcement Division

POOR OLD SENIOR

Editor:

Imagine my dismay when I read in your Jan./Feb. issue of ***Kansas Wildlife and Parks*** (Page 33) that my trivial remarks last fall had made a cute little gal from Illinois very mad. We poor old senior citizens don't want to make anyone mad because life is too beautiful and fragile to be spent in that frame of mind. Speaking of Illinois, I spent a year in the graduate school of the university in Urbana in 1933-34 studying chemistry and math. It was a memorable time in my formative years.

Since I've already shot my postage stamp full of holes, I'll make one more trivial observation. We have too many deer in northeast Kansas. My highway patrolman agrees. While I didn't get one in my sights last fall, a lot of people had to spend a thousand or two or three dollars to remove the wrinkles and put their cars back in shape after hitting a deer on the highway. Never argue about right-of-way with a deer. The right-of-way isn't something you have; it's something somebody gives you. If he doesn't give it to you, you ain't got it. I hope this doesn't make anyone mad.

The poor old senior citizen.

John W. Carwell
White Cloud

PHONING FISH, FATHER IN CRIME

Last summer, I (Glenn Cannizzaro) was patrolling Stranger Creek in Leavenworth County with Conservation Officer Bruce Bertwell, Olathe. We saw a boat on the creek with three men in it and an old telephone on the seat of the boat.

We investigated this activity, and the men admitted to trying to shock fish with the telephone, using a cordless drill as power. No fish had been taken.

All three were issued citations for possession of an illegal fishing device and fishing by illegal means. Two were placed on diversion, and the third was fined $210 plus $42 court costs. Most of the equipment was confiscated.

In November, I had another interesting case. As I approached an area west of Bonner Springs to check for spotlighters, I noticed a spotlight working on a dead-end road. After waiting for several minutes, I drove up the road and found a man sitting alone in a pickup. There was a spotlight on the seat, so I asked if I could search the vehicle, which he let me do. However, I found no firearm.

Then the driver told me he was there with his son and his son's friend. I asked him where they were, and he said they were out in the field chasing a deer they had seen with the spotlight.

"How do you chase a deer at night," I asked

"You know kids," he replied.

I asked him to call his kids to the vehicle, and they soon hopped a fence and returned to the pickup. They had blood on their pants and shoes but could not explain how it got there. I took down their names, addresses, and other pertinent information and allowed them to leave.

Once they were gone, I went to the fence where the boys had crossed and turned on my flashlight. About 20 yards away, I saw a bloody axe and a dead doe deer. Immediately, I notified the Bonner Springs police, and several minutes later, they called to let me know that they had the suspects in custody. However, they were now in short pants instead of the long ones they had worn earlier.

In the interview, the boys admitted to shooting the deer then returning home to put away the .22 cal. rifle and bring Dad back to the scene. When they had found the deer, it was still alive, so they had used the axe to kill it.

The shooter paid $1,600 plus $37 court costs. The other young man paid $250. The father was charged with aiding and abetting, and he also paid $1,600 plus $37 court costs.

–Glenn Cannizzaro, conservation officer, Tonganoxie

Exotic DEER

Red deer breeders appear to be the loudest opponents of a bill that would require Kansas licensing and regulation of the sale and ownership of exotic animals. The state Senate Agriculture Committee heard testimony [in late January] from foes of the bill, which also would prohibit red deer in Kansas.

The application fee for a license to sell inherently dangerous animals would cost $375 initially and $150 to renew each year. To own an inherently dangerous animal, owners would have to pay $500 initially and $250 each year for a renewal license. The state could refuse a license and keep the application fee.

–Columbus Daily Advocate, Feb. 1

CATFISH HOG

Last summer, a Hutchinson man learned that not knowing (or heeding) state fishing regulations can be costly when I checked the man while he fished for channel catfish at Kanopolis Reservoir. He possessed nine channel catfish over his daily limit of 10, so I issued a Notice To Appear in Ellsworth County Court for the violation.

Last winter, the man was fined $225 plus court costs for his violation.

A free copy of the *Kansas Fishing Regulations Summary* can be obtained from any license vendor or Wildlife and Parks office. In addition, regulations are posted on the information boards at every lake. If you have questions about fishing regulations, contact your local wildlife and Parks office or employee.

–Greg Salisbury, conservation officer, Salina

ELK BUSTER

Ty Murray, the six-time world champion all-round rodeo cowboy, has been ticketed for chasing an elk with a snowmobile and then sitting on the animal. The ticket cites two misdemeanor charges – harassment of wildlife with a snowmobile and illegally taking or having in his possession a cow elk.

Photographs [allegedly show Murray] sitting on top of or the side of a cow elk that is lying down. Robert P. Thompson, wildlife division district manager, said "I had informants tell me they were bulldogging elk during that time frame."

The ticket carries a $1,233 fine plus enough violation points to have hunting and fishing privileges revoked for one to three years.

–Associated Press

SOUTH DAKOTA BUST

South Dakota Game, Fish and Parks conservation officers caught two men, from Kentucky and Tennessee, trying to leave the state with 144 pheasants last November. The next day, they admitted guilt and were fined a total of $7,210 each and ordered to settle a $6,000 civil judgment against them for liquidated damages.

In addition, they were sentenced to 570 days in jail and 456 hours of community service in their home states, and they were prohibited from hunting anywhere in the Americas for three years. All but 10 days of the jail sentence were suspended on condition of obeying the hunting prohibition.

–South Dakota Game, Fish and Parks

SELL *PUBLIC LAND?*

The newly powerful Rep. Robert Livingston (LA) suggested in January that federal land management agencies be consolidated into one operation. Then Congress should cut that agency's budget severely, he said at a Jan. 18 meeting with Interior Secretary Bruce Babbitt.

Livingston is the new chairman of the House Appropriations Committee and a leader of the so-called budget "hawks." His suggestion follows closely the recommendations of four conservative think tanks. As a subset of their proposal, the think tanks recommended that most public lands be sold off.

At the Babbitt hearing, Rep. Joe Skeen (NM) endorsed the land-sale proposal, saying "I think it's time we ought to think about relinquishing some of these lands to the states or give them back to grazers who have used them for generations."

However, the proposals met with heavy opposition from Babbitt, and Senate Energy Committee Chairman Frank Murkowski (AK) has been reluctant to take the basic first step of moving the Forest Service to the Interior, saying "I'm not suggesting anything that extreme."

Says Babbitt of the proposals, "I deeply believe the public lands belong in the public domain because the public values are very high relative to the economic uses there that are important and valuable. There are enormous public benefits to watersheds, recreation and wildlife. Those are immeasurable benefits."

—Federal Parks and Recreation newsletter

FROGS CROAKING

From remote Africa to the swamps of the Midwest, the once-strong chorus of frogs has slipped to just a whisper. The number of frogs has dipped dramatically in recent years, leaving biologists searching for clues to their demise. Some blame it on acid rain. Others point to the ozone hole, which exposes the sensitive frogs to increased radiation.

Then there's pesticides. Some scientists speculate that these synthetic chemicals may be killing the amphibians. Only 5 percent

CRP UPDATE

As of this writing (mid-March), the fate of the Conservation Reserve Program was still not known. However, Pheasants Forever covers the following developments in their newsletter, the *CRP Bulletin*:

* In a memo to the House Agriculture Committee dated Jan. 19, the Congressional Budget Office (CBO) proposed a budget baseline for CRP that would eventually cut the nation's premier conservation program by more than half. CBO's sinking baseline projects a CRP that will fall to 15 million acres just after the turn of the century. The projection appears to have been based on CBO's assumption that the U.S. Department of Agriculture (USDA) will extend only a portion of existing contracts and will seek to actively reduce the size of the CRP. It was also apparently assumed that USDA will dramatically shift the program's geographic focus from the Great Plains states eastward.

* A bill to extend CRP is near introduction in the Senate by senators Kent Conrad (ND), Tom Daschle (SD), Paul Wellstone (MN), and Max Baucus (MT). The bill will call for reauthorization of CRP in the 1995 Farm Bill at current acreage levels.

* House Agriculture Chairman Pat Roberts (KS) and Conservation Subcommittee Chairman Wayne Allard (CO) have expressed their doubts about USDA plans to pare back the CRP in the Great Plains states in a recent letter to Acting USDA Secretary Richard Rominger. The two key players in the fight to reauthorize CRP said, "We are extremely concerned about reports the Department of Agriculture is planning a dramatic shift in CRP acreage from the critical wind erosion areas of the Great Plains, which represent about 30 percent of the total acres . . . We believe this analysis is shortsighted . . . Plans to dramatically alter CRP will meet with stiff opposition if the plan alters the CRP acreage currently enrolled."

* Sen. Byron Dorgan (ND) recently called for slashing the size of CRP. In a letter to Sen. Richard Lugar (IN), chairman of the Senate Agriculture Committee [see Page 36 of the March/April issue of ***Kansas Wildlife and Parks***], Dorgan suggested that CRP be cut to 17 million acres, less than half its current level.

By the time the July/August issue of ***Kansas Wildlife and Parks*** comes out, much the CRP debate should be settled. We'll keep you posted. For more information and to let your elected representatives know how you feel about this issue, contact the Kansas delegation, as follows:

Sen. Bob Dole
141 Hart Senate Office Bldg.
Washington, DC 20510
(202) 224-6521

Sen. Nancy Kassebaum
302 Russell Senate Office Bldg.
Washington, DC 20510
(202) 224-4774

Rep. Pat Roberts
1126 Longworth House Office Bldg.
Washington, DC 20515
(202)225-2715

Rep. Sam Brownback
1313 Longworth House Office Bldg.
Washington, DC 20515
(202)225-6601

Rep. Jan Meyers
2303 Rayburn House Office Bldg.
Washington, DC 20515
(202)225-2865

Rep. Todd Tiahrt
1319 Longworth House Office Bldg.
Washington, DC 20515
(202)225-6216

—Shoup

of northern leopard frogs still exist. Even more mysterious is the dramatic decline of the western toad and Cascades frog.

The U.S. Environmental Protection Agency has undertaken a new study of the effects of pesticides and other chemicals believed to disrupt the endocrine systems of [these and other] animals.

–Kansas City Star

FEE PROPOSALS

The Kansas Wildlife and Parks Commission discussed proposed increases in some license and permit fees at their March meeting, including the following:

– State park daily entrance fee, from the current rate of $2.50 to $3.50;

– annual vehicle park entrance fee, $20 to $30;

– second vehicle park entrance fee, $5 to $15;

– annual camping permit, $35 to $70;

– daily camping fee, $2.50 to $4.50;

– resident annual fishing license, $13 to $15;

– non-resident annual fishing license, $30 to $35;

– non-resident five-day fishing license, $13 to $15;

– resident hunting license, $13 to $15;

– non-resident annual hunting license, $60 to $65;

– resident combination fish/hunt license, $26 to $30.

By consensus, the commission directed staff to proceed with development of the fee increase proposal and to continue examining options raised by constituents.

–Mathews

ZEBRAS CLOSING IN

In the fall of 1992, zebra mussels were found in the Arkansas River at the border of Oklahoma and Arkansas, bringing this dangerous exotic mollusk one step closer to Kansas waters. Although no zebra mussels have been found in Kansas, the U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service, and the Great Lakes Sea Grant Network have issued a "Zebra Mussel Watch" for all midwestern states.

The invader is a small barnacle-sized mussel that some conservationists fear could threaten aquatic ecosystems and damage industry. Zebra mussels look like small clams with yellow-brown shells, usually with dark- and light-colored stripes. Most are smaller than 1 inch long. The microscopic larvae can survive in a teaspoon of water and have used this and other highly adaptable survival mechanisms to invade many midwestern waters, threatening water supplies and fisheries throughout the region.

In fact, the zebra mussel has been working its way west for many years. It originally escaped from its homeland in the Black and Caspian seas in the 1700s and emigrated to western Europe. From there, it later hitched a ride across the Atlantic in the ballast tanks of ships and entered the St. Lawrence Seaway. Then its larvae stowed away in boat motors and bilges and jumped from Lake Michigan to the Illinois and Mississippi river systems.

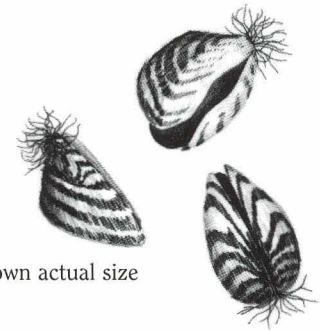
Unlike other freshwater mussel larvae, zebra mussels don't attach to fish or other hosts prior to adulthood. Consequently, they can easily spread anywhere that water currents, wildlife, or human activities take them. One of the zebra mussel's most effective means of dispersion is the same one that got it to North America – the bilge water of boats.

This is precisely why biologists, municipalities, and industry representatives are worried. If the zebra mussel invasion in Missouri follows the pattern observed elsewhere, it's population in the Mississippi will peak in a few years. For the zebra mussel, "peak" population is thousands per square foot, covering every inch of solid surface down to 45 feet.

Zebra mussels can attach to anything solid, including water intakes of power generating plants and municipal water systems. They can accumulate 6 inches deep, severely reducing the flow of water and posing a multibillion-dollar threat to industry, agriculture, and municipal water supplies.

Because of their sheer numbers (females can produce as many as a million eggs per year), zebra mussels can smother native freshwater mussel beds. Other wildlife are vulnerable, too. Zebra mussels are filter feeders, gleaning tiny particles of organic food from the surrounding water. Some observers fear they will deplete the supply of food available to shad, paddlefish and other native species. Add the cost of damage to boats, motors, docks, and other marine equipment, and you have a very expensive scenario.

Apparently, much of the zebra mussel's future in Kansas is up to Kansans. Kansas boaters who visit Arkansas, Missouri, Oklahoma, or any other state where zebra mussels exist can help prevent the spread of



Shown actual size

zebra mussels to Kansas. The Great Lakes Sea Grant Network lists the following protective measures boaters must take before moving their boats from one body of water to another:

1) drain the bilge water, live wells, and bait buckets;
2) inspect the boat and trailer for attached zebra mussels;
3) scrape off any zebra mussels; and
4) dry boat and trailer for one week before entering another waterway, OR
4a) wash boat parts and trailer with 140-degree water, a 10-percent chlorine and water solution, or hot saltwater solution. Do not wash at boat ramps.

Finish with a clean-water rinse.

For more information, contact the U.S. Fish and Wildlife Service, P.O. Box 25486, Denver, CO 80225, or call the Kansas Department of Wildlife and Parks, (316) 342-0658 or (316) 672-5911.

–Shoup

KEEP TROUT PERMITS

Most folks involved with the first Kansas trout season – from fisheries biologists to fishermen – would say it's one of the most exciting new outdoor opportunities in years. The stockings have been generous, and the fish have been big, with more than 100,000 trout weighing from one-half pound to well over one pound, some weighing even more. In just the first two and one-half months of the six-month season, 2,650 anglers bought trout permits. Although figures are not yet in, 1995 sales will likely be even greater.

With this in mind, the Kansas Department of Wildlife and Parks reminds trout anglers to hang on to their 1995 trout permits. Although the trout season opened Oct. 15, 1994, and will end on April 15, 1995 – in most areas – the 1995 trout permit will still be valid when the season reopens next fall.

In addition, multiple year-round stockings are being conducted at Mined Land Wildlife Area Unit #30 (Cherokee County) and Tuttle Creek Reservoir Seep Stream. Trout fishing at these areas will require a trout permit year-round, so anglers who have been fishing other areas may use their 1995 trout permits to fish these areas all year. Anyone who has not purchased the $8 trout permit must do so before trout fishing in these waters.

Next fall, the Department of Wildlife and Parks will resume stocking rainbow trout in waters throughout the state. Anyone fishing for trout in waters posted for a trout season is required to purchase the $8 trout permit prior to April 15. The permit is not required on these waters after that date until the season resumes in the fall. A fishing license is also needed for those who are required by law to have one. (Fishing license exemptions include persons under 16 years old or 65 or older.)

The daily trout creel limit is five, and the possession limit is 15.

Many areas have a local fee, but the state permit is not required. Local city and county recreation departments should have details.

–Shoup

FORD COUNTY LAKE OPEN

Ford County Lake – 5 miles east and 3 miles north of Dodge City – opened to the public on March 15.

It has been stocked with largemouth bass, walleye, channel catfish, bluegill, and redear sunfish. Both bass and walleye have a 15-inch length limit and a creel limit of two. Channel catfish also have a creel limit of two, as well as a minimum length limit of 16 inches. Periodic stocking will continue as necessary to ensure a stable fishery.

Permits are required to use the area and may be purchased at the Ford County Clerk's office, 100 Gunsmoke in Dodge City. The permit costs $3 per day, or a yearly vehicle permit may be purchased for $25.

The Ford County Commission has adopted some special regulations, including a no-alcohol policy. Camping and fires will not be allowed until other improvement are made.

–Lowell Aberson, fisheries biologist, Dodge City

COME FISH THE HONEY HOLES

Does it seem like fish are getting harder to catch? Do you find yourself stopping at the grocery store on the way home to fill your creel and convince your family that you were, indeed, fishing? If the answers to any of these questions is "Yes," on your next outing, you might want to consider stacking the odds in your favor at the nearest automatic fish feeder.

Fish feeders are becoming popular fishing spots for anglers. They don't look like much – a rectangular sheet metal box on a floating platform – but their appeal to fish is obvious. Fish feeders are set on automatic timers that dispense the fish food, which consists of dry pellets, at various times throughout the day. Fish naturally attracted to feeders are primarily catfish, sunfish, and carp. However, the presence of sunfish – a common prey species – means that other sportfish are not far away.

Fish feeders can be found on many public waters in Kansas, most of which are located on state-owned or community fishing lakes. There are nearly 175 of these lakes across the state, with many receiving new feeders from time to time.

There are two major advantages of automatic fish feeders. The first is that excellent growth rates are seen in fish that have their natural diet supplemented. This translates to larger fish for anglers to catch.

The other obvious benefit to anglers is that with an automatic food supply, fish congregate around the feeders, making them more accessible, especially from shore. One small spot on a huge lake can get crowded with fish when the dinner bell rings.

Many fishermen have probably seen these fast food fish restaurants on floats and wondered what they were. Now that you know, the only thing left between you and a mess of fish is time to go fishing.

–Murrell

FISHING CLINICS

The small, freckle-faced 6-year-old boy with wispy-brown hair bit his lip as he struggled and grunted with the task at hand. He had just hooked his first fish and was intent on landing it, oblivious to the shrieks and cheers of other children around him. He finally beached his prize, a fat and flopping 2-pound channel catfish, and smiled with an ear-to-ear toothless grin worth a thousand words. This is a scene replayed countless times by many children during fishing clinics sponsored by the Department of Wildlife and Parks.

Fishing clinics are given by department employees in state fishing lakes, parks, and city lakes and ponds. Most are geared towards younger children and others who may not have much experience with fishing techniques and tactics. They are held throughout the spring and summer months and occasionally in the fall.

Content covered in a clinic varies by presenters, but all have fishing as a central theme. Fish identification, management, casting demonstrations, equipment, water safety, and even fish cooking are a few areas covered. Plenty of time is

devoted to baiting hooks and catching fish, too. The primary species caught during fishing clinics include bluegill, green sunfish (often mistakenly called "perch"), channel catfish, and largemouth bass.

Participants don't even need their own equipment. Major fishing and tackle manufacturers such as South Bend and Berkley have graciously donated rods, reels, and other necessary fishing equipment for use in fishing clinics.

Fishing clinics serve to educate and entertain thousands of Kansas youngsters each year. Information and experience gained during these clinics remain with children forever. Those involved learn to appreciate the joys fishing can offer and the rewards of a fine day on the water

If you would like more information on fishing clinics in your area, contact the nearest office of the Kansas Department of Wildlife and Parks.

–Murrell

THE Hairy-legged VAMPIRE PRINCE

by Mark Shoup

Have you ever noticed that the more diverse the number of species in a group, the more interesting the names of the individual species become? Sometimes, it's hard to convince people that the names are for real. Several years ago, for instance, I told my mother I had seen a rufous-sided towhee. She thought I was putting her on.

Of course, the towhee's name seems almost mundane when compared with the exotic handles of some species. Take, for instance, the Ozark hellbender, the deathwatch, or the black-eyed sphinx. Whoever came up with these names must have been thinking about late-night television as much as salamanders, beetles, and moths.

It's a good thing such imaginative naturalists didn't write fairy tales. I can only imagine the results.

Once upon a time, there lived a king, a regal fritillary who had three daughters: a wood nymph, a pistol case bearer, and a blue-faced booby. The blue-faced booby was the youngest of the three princesses and something of an oddity amongst such royalty, but these were times when odd things happened.

The booby princess loved to sit near a well in the forest that surrounded the king's castle, tossing a golden egg into the air and catching it. Sometimes, she'd bounce it off her father's study window like a tennis ball, which annoyed him beyond reason, but he refused to admonish her because she had the habit of holding her breath until she got her way. One day, just as she tossed the egg into the air, she slipped – as boobies are want to do – and the golden egg fell into the well.

She began bawling like a lost calf when a hairy-legged vampire plopped down on the edge of the well. "What's all the racket?" the hairy-legged one demanded.

"I dropped my egg in the well," wailed the booby princess. "Please get it for me."

"I ain't goin' in there," said the hairy-leg. "There's stinkpots and slender dwarf sirens and water bears and peepers – who knows what's in there!"

A barking tree frog chuckled from his perch, and an organ-pipe shovelnose slithered into view, just to see what all the fuss was about.

"Oh, please," the princess pleaded. "I'll give you anything."

"Anything?" the vampire said with renewed interest.

"Oh, yes. My jewels, my rich clothing, even my crown."

"Okay," said the vampire, "if you promise to take me home with you, let me eat at your table and sleep on your pillow, I'll do it."

The booby princess shuddered at the thought of this, but in desperation, she agreed. The hairy-legged vampire dived into the well, and in a flash returned with the golden egg. Just as quickly, the booby princess snatched the egg away, ran to the castle, and slammed the door.

That night at dinner, the king heard a rap at the door, and because the local servant's union was on strike, he had to answer it himself. Imagine his dismay when he was greeted by the hairy-legged vampire. Further imagine his horror when the vampire told of the princess' deceit. Still, the king was a proud creature, and he determined to make his daughter honor her promise. The vampire soon found himself seated next the booby's plate.

"Princess! What's happnin'?" he greeted her with casual abandon. "How's the grub?" Then he plucked a mouthful of gall-making aphids from her plate.

"Father," whined the booby princess, "I can't bear this. Surely you don't expect me to sleep next to a hairy-legged vampire!"

The hairy-legged vampire feigned insult. "Hey, you ain't no great prize yourself, sweet cheeks."

But the king made his daughter honor her promise, and for three nights, the hairy-legged vampire dined with the blue-faced booby princess and slept on her pillow. On the morning after the third night, the booby princess was shocked to find a handsome elegant tern looking down at her.

"A black witch cast an evil spell on me, princess," he explained, "and turned me into a hairy-legged vampire. The spell could only be broken when a princess agreed to let me sleep by her for three nights."

"You are so handsome!" exclaimed the booby princess. "I'm sorry I treated you like I did. We shall be married and live happily ever-after."

"Not a chance, toots," the elegant tern said. "I'm not spending eternity looking at your mug." With that, the elegant tern departed the castle, leaving the booby princess holding her breath for nearly an hour.

And that's how the blue-faced booby got its name.

Yes, these names are for real, but don't ask me where they came from. My spellchecker doesn't even know the name "Webster.

SHIRTSLEEVE Squirrels

June 1 marks the opening day of the 1995 squirrel season, but it's not an opener steeped in tradition. Why? Because most people are busy fishing or doing other summertime activities. However, early summer squirrel hunting offers some of the best outdoor fun a hunter can have.

Mike Pearce, of Newton, writes about hunting and fishing for a living, and while he longs to catch walleye and striped bass as much as the next fisherman, he always makes time for some squirrel hunting when the season opens.

"The first of June is my favorite time of the year to hunt squirrels," says Pearce, who's been avidly hunting squirrels for more than 20 years. "It's a great time to be in the woods. Not many other people will be out, and you see things you won't see any other time of the squirrel season."

However, the general school of thought has been that fall hunting is best because it is easier to see the squirrels when the leaves have dropped. But Pearce has learned that foliage can actually be an advantage for the hunter. Squirrels tend to be less wary in thick foliage, and a camo-clad hunter is often less obvious.

Pearce looks for tracts of heavy timber, especially those with diversity. "Squirrel densities will be much higher in a tract of mulberry, hickory, and oak than in a stand of cottonwoods. In early summer I like to find mulberry trees, but you have to get them as soon as the mulberries get ripe. The squirrels will also be eating buds and hackberries this time of year."

Pearce gets into the summer woods a half-hour before sunrise because it's usually cooler and more comfortable and the wind is usually calm. "When the foliage is on, I hear about 80 percent of the squirrels I kill before I ever see them. You can hear them jumping from branch to branch."

Summer is also a prime time to use squirrel calls. Pearce likes to use a combination of three different calls. The primary call is a squirrel distress call, and squirrels will approach this call much closer under the cover of summer foliage than they will in the more open fall woods.

If a squirrel responds to the distress call but won't come into range, Pearce may use a chatter or bark call. This often draws the wary bushytail into range by convincing it that another squirrel is already on the scene of the commotion. Another confidence-type call Pearce uses simply makes the sound of a squirrel cutting a nut.

"If I've taken one squirrel from a hickory tree, and another has become silent at the shot, I'll grind the cutting call. This convinces the silent squirrel that it's safe to resume eating, and I can locate it."

Although shotguns are legal equipment for squirrels, by listening it's possible to get close shots with a rifle. While Pearce believes that a scope on a .22 cal. rifle is an advantage when hunting squirrels in the thick foliage, he has gone almost exclusively to iron sights on a .36 caliber muzzleloading rifle. Most of his shots are less than 20 yards.

Gray squirrels are more wary than fox squirrels. The fox is more likely to stop and look back like a mule deer, while the gray is more nervous like a whitetail, according to Pearce.

"I like to hunt both, but I guess I prefer grays, probably because they're not as common. But it really doesn't matter because each is a challenge, and they taste the same."

Summer squirrels are a unique challenge and a chance to be in the woods when most people are at the lakes. Pearce recommends light camouflage clothing and a good insect repellent because ticks can be a problem this time of year. If you're a hunter having withdrawal since the end of the turkey season or if you just want to try a new hunting activity, plan a summer squirrel trip.

–Miller

NONRESIDENT DEER APPLICATION

In an effort to accommodate the planning needs of non-resident deer hunters, the Kansas Wildlife & Parks Commission has approved a regulation establishing an early application period for those hunters.

Non-resident applications are will be available in mid-April, and non-residents must apply by May 30, 1995 for Kansas deer hunting permits. Non-residents formerly applied the first two weeks in July, as resident hunters do. The application period for resident hunters remains much the same as in past years, and will be July 1 through July 14, 1995.

Commissioners established permit quotas for both resident and non-resident 1995 deer permits at their April meeting. Non-resident permits are issued in addition to resident permits, and have no effect on the number of resident permits issued.

If you have friends or relatives living outside the state who wish to hunt deer in Kansas in 1995, please inform them of the earlier application deadline they face this year.

–Mathews

FT. RILEY SHRIKE

Kansas Biological Survey (KBS) scientists are studying the haunts of the loggerhead shrike, a migratory bird that has become rare in the eastern United States. The study, funded by the Department of Defense, is occurring on the Ft. Riley Military Reservation in northeast Kansas.

For more than a year, scientists have been identifying the habitats used by the shrike and performing detailed studies of the vegetation of these sites. Using these data, a computer model that predicts the suitability of various habitats for this species will be developed. Assumptions about vegetation changes will be analyzed by the model, and it will make predictions about the effects on the species. The study will end this year.

The loggerhead shrike is a summer resident in Kansas. The causes of its decline are not yet known. Studies suggest that changing land-use practices may be to blame.

–Biota, Kansas Biological Survey newsletter

POP! GOES THE LEAST

When it comes to surviving the winter months, it is widely known that some animals actually change color to blend in with the white of winter's snow. Few animals in Kansas do this because our winters seldom guarantee snow. The only two Kansas inhabitants that develop a white winter coat are the least and long-tailed weasels. During summer months, the least weasel's body is chocolate brown with a white belly. But except for some individuals in Kansas and farther south, the least weasel is white in winter.

The least weasel is the smallest of the two. In fact, the least weasel is the smallest member of the order Carnivora, and weighs about 2 ounces and is 6 to 9 inches long. Like all weasels, it has a long slender body, short legs, short ears, and a very short tail.

Because of its small size, it is rarely seen and appears to be limited to the northeast and northcentral parts of Kansas. It was suspected to inhabit Kansas for many years, but the first positive identification did not occur until 1964 near Marysville.

The least weasel prefers marshy areas, is least common in woodlands, and may inhabit meadows and grasslands.

Its small body does not hold heat very well, so the least weasel (and other mustelids like the mink) has one of the warmest and most luxurious fur coats of all animals. Large amounts of food are required to fuel the highly active least weasel. It may need to eat anywhere from half to all of its body weight per day.

Its preferred diet is mice, voles, and other rodents, and the typical least weasel will eat at least one mouse a day. The least weasel can enter a hole less than one inch in diameter in search of prey. It will also eat moles and insects and, less frequently, ground-nesting birds.

Least weasels also make their homes in abandoned rodent burrows and make a nest from shredded grass and leaves. Solitary in nature, they avoid each other except during the breeding season when they can produce two to three litters a year and may have four to five young per litter. Females are sexually mature at four months of age. This rapid maturity accommodates a short life span – about one or two years.

Although many people do not understand the importance of weasels, their rodent-consuming diet helps control mice and rats.

–On TRACKS

TALENTED TALONS

The osprey is an amazing hunter. It soars 100 feet or more above a pond, stream, or lake, waiting for just the right moment to tuck its wings and plummet toward the water at breathtaking speed. At the last moment, it breaks the fall by casting its wings outward, and head tossed backward, it drives its talons through the water like meat hooks.

For a moment, it will look awkward on the water, wings stretched outward as it tries to lift off again. But in a short moment, it is airborne with a fish writhing in talons that had snapped shut in about 1/50 of a second. Then it will shudder and shake a few times to dry its feathers, never dropping the precious meal.

Osprey talons are uniquely adapted for this activity. They're equipped with studs to hold the slippery prey tight, and short spines – like sandpaper – line the bottom of each toe. Even more amazing is the fact that the osprey can realign its toes in the last split second of its dive, rotating one toe to the rear so that two extend frontward and two back, much like the feet of an owl.

–Shoup

HABITAT HAND

The Smoky Valley Chapter of Pheasants Forever is offering as much as $30 per acre to lease rainwater basins for wildlife habitat. The advantages to leasing are many. Farmers would have a reliable income from these acres and would not have the problems of getting stuck and having crops lost due to flooding on these areas. Another advantage is that pheasants and other wildlife would have a more reliable home after harvest and a better chance to survive the winter months.

For more information, pick up an application and information sheet at the Natural Resources Conservation office in Oakley, or contact Leonard Hopper, 190 N. Franklin, Colby, KS 67701, (913) 462-367.

–Hoxie Sentinel, Jan. 25

STAMPS TO BE DESTROYED

The Kansas Department of Wildlife and Parks has announced that on July 1, 1995, all unsold Kansas Waterfowl Habitat Stamps for the years 1987 through 1991 will be destroyed.

Until that time, these five stamps, commonly known as the Kansas Duck Stamp, will be on sale the public for $3.25. The stamps may purchased singly or in sheets of 10.

The first Duck Stamp in this series features a pair of green-winged teal in flight by artist Guy Coheleach. The 1988 stamp features a pair of Canada geese by Ann C. Dohoney. The 1989 stamp shows a mallard pair in flight over a marsh by artist Leon Parson. The 1990 stamp features Wes Dewey's wood ducks in flight, and the 1991 stamp has a pintail drake standing by artist Bryon Test.

The stamps will be sold on a first-come, first-served basis until all are sold or the destroy date of July 1 comes round. All proceeds from the sale of these stamps goes to the joint Ducks Unlimited/ Wildlife and Parks MARSH program for waterfowl habitat development and enhancement.

For more information, contact the Kansas Department of Wildlife and Parks, 512 SE 25th Ave., Pratt, KS 67124, (316) 672-5911.

–Shoup

PFD CHANGES

As of Jan. 1, Kansas boaters now have to have a wearable personal flotation device (PFD) for each person on board the boat, plus one throwable cushion or ring, regardless of the length of the boat. The only boaters required to wear a PFD are those under 13 years of age and everyone who is on board a personal watercraft. Also, anyone who uses a Type V PFD – which is inflatable – must wear that PFD while under way.

–Shoup

GUARD LLAMAS

Hypothetical situation: You own several hundred sheep in a area infested by coyotes. You want protect them, and dogs aren't doing the trick. What do you do?

Buy a guard llama, of course.

That's what Marion County sheep ranchers Willard and Don Hett did two years ago when they were having problems with coyotes attacking their flock. The Hetts paid $400 for Lenny the llama after losing two sheep in one week. "That's cheap for what he did," Willard said.

Don agreed. "If a sheep costs $70, he only has to save six sheep to pay for himself. He probably did that the first year."

Lenny proved his worth to the Hetts. They didn't lose a single sheep in the first four months after getting him.

–Marion County Record, Feb. 1

FISH CLEANUP

About 10,000 pounds of rough fish, primarily buffalo, are being lifted out of the waters of Kansas City Power and Light Company's La Cygne Lake. An abundance of rough fish, including carp, drum, and gar, have begun to compete for the food resources. Some are filter feeders and are consuming plankton, the basic food source for the lake. The department is attempting to improve populations of sport fish, such as channel catfish, largemouth bass, and white crappie.

Fisheries biologist Don George oversees the project. He doesn't expect to see results this year, but if the program is continued on an annual basis, he expects the populations of sport fish to rise within five years.

The fish are being removed under contract with commercial fishermen, who pay the department about 6 cents a pound for their buffalo harvests. Any stray sport fish are immediately released.

–Osawatomie Graphic, Feb. 8

SCOUT PROJECT

A severe erosion problem at Lake Scott State Park may finally be brought under control, and as a result, a local youth will soon become an Eagle Scout.

The two-fold set of accomplishments will be achieved by Trevor Cockerill, a member of Boy Scout Troop No. 55 in Scott City. Cockerill, along with a number of Cub Scouts and several other volunters, took on a project that they hope will stop the formation of a large gully along a hillside on which the Steele Monument is perched in Lake Scott State Park.

–Scott County Record

CAMPUS LAKE

Last January, Lloyd Hooper was asked by the DCCC Board of Trustees to look into the possibility of local funding from the community when the $94,000 project was discussed in January. In February, about $25,000 had been raised in donations to help fund the three-phase lake renovation plan.

If DCCC completes the project by July 1, the Kansas Department of Wildlife and Parks will grant $30,000 to assist the college.

–Dodge City Daily Globe, Feb. 3

by Mark Shoup

Prince of CLOWNS

Anyone who has ever been lucky enough to see river otters — in the wild, in a zoo, or even on television shows like "Nature" — has been charmed by them. Their playful nature and endearing looks capture our hearts as few wild creatures can.

But did you know that we have otters in Kansas? Actually, river otters are native to Kansas, but by the turn of the century they had been eliminated from the state because of habitat destruction and unregulated trapping. But they are coming back and, contrary to popular belief, are not endangered.

In 1983 and 1984, the Department of Wildlife and Parks released 19 river otters in Chase County. The Kansas Fur Harvesters Association donated the money for this otter release. Also, from 1982 through 1992, the Missouri Department of Conservation released 845 river otters in their state.They have since been spotted in Crawford, Jackson, Jefferson, Linn, and Miami counties in eastern Kansas.

Today, otters are showing up more frequently. Some are descendants of those 19 that Kansas released, but biologists also believe that otters are dispersing along streams from Missouri to Kansas. Within 10 years, they should be spotted occasionally anywhere in the eastern one-

third of Kansas, especially during the mating season — mid-January to mid-March.

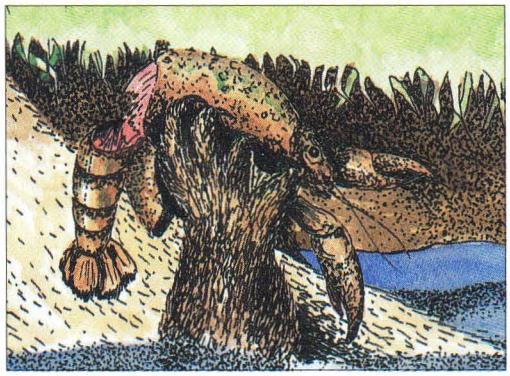
The river otter is built for life in the water. Its entire body is covered with a soft, oily underfur protected by another layer of smooth guard hairs. Its toes are webbed, and it has valves in its ears and nostrils that keep water out. Its thick, heavily-muscled tail doubles as the perfect rudder and propeller.

The otter's gestation period — the time between when the parents mate and the young are born — may be one reason their numbers have grown slowly. The otter's gestation period is 288 to 380 days, longer than a human's. Usually, they have two young near water in an abandoned burrow or a beaver den. The female must teach the young to hunt and swim.

About 60 percent of the otter's diet is fish, but they will also eat rodents, insects, crayfish, and about anything else they can catch.

In the wild, an otter may live 10 or 15 years.

If you're looking for otters, the best times are early in the morning and late in the day along the banks of ponds, lakes, streams, marshes, and drainage ditches. A good tell-tale otter sign is their footprints, which, unlike most other mammals, will show five toes instead of four.



Of course, play is the one otter habit that makes people love them more than anything else. In summer mud or winter snow, otters create their own slippery slides on the banks of rivers. Family groups will often take turns on the slide, making a good running start on the bank and ending with a big splash. In the water, they will roll, dive, float lazily on their backs, and even body surf in rapid currents. Occasionally, they can be heard whistling back and forth to one another.

If you live in eastern Kansas and have seen an otter, count yourself lucky. It's one of nature's most lovable critters, the clown prince of the wild.

HIGH GROUND

by Mike Miller

Fishing Dangers

Fishing is heralded as a healthy pastime. "Go fishing to relieve stress," they say. Hah! Fishing, at least with the buddies I fish with, is as safe and relaxing as running barefoot through a prickly pear cactus patch. Fishing takes my mind off day-to-day stress only because it gives me a whole new set of worries . . . like survival.

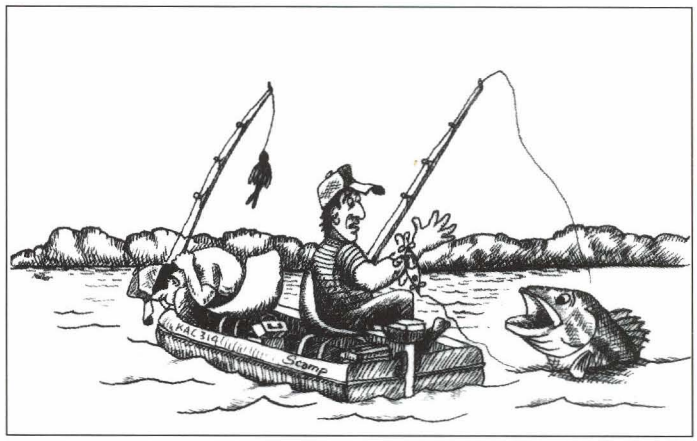
My knack for danger began when I was 10 years old. We were visiting cousins in January. They lived near a small pond, and naturally, I insisted that my cousin and I go fishing, ignoring the 30-degree weather. Naive and ignorant of fishing's danger then, I stood on a small dock happily casting into the icy water. One of my cousin's friends, not believing we were actually fishing, ran onto the dock to laugh at us. As soon as he set foot on the dock, however, it collapsed. Luckily, the water was shallow, but what it lacked in depth it made up for in cold. I sputtered out and stumbled on numb legs up the steep hill to the house. Later, as I lay in a tub of hot water trying to get the blue color out of my lips, I couldn't have known that fishing would never be the same.

The dangers have continued, but I have skillfully evaded death and serious injury. Remarkably, my battle scars aren't really noticeable. That tiny nick on my right ear isn't a speck of dirt, but rather a memento a good fishin' buddy left me.

Kelly was fishing and I was rowing. Kelly wanted one more bass before we quit. I leaned back into a hard stroke, and Kelly tried to make his last cast his longest. When the big lead-head hit me behind the ear, I never felt the hook, but little flash bulbs began to go off in my head. The hook went clear through my ear and dangled like a big, wet earring. Lacking a pair of pliers, Kelly grabbed fingernail clippers in panicked determination to remove my "earring" before we returned to the bait shop. After bending and prying and grunting and groaning (his grunting, my groaning), Kelly finally got the hook's barb cut off and slipped the hook out, much to his relief.

Much of fishing's danger can be avoided by choosing an unexcitable, safe fishing partner. Instead I carry pliers and a well-stocked first-aid kit. Think about it, you and your partner will be in the small confines of a boat, whipping dangerous projectiles back and forth on the end of 6-foot sticks. The danger and thrill level increase exponentially, though, when fishing from a two-man bass scamp.

My fishing buddy Lennie once gave me a close-up look at his favorite bass jig. Claiming he had a strike when the lure was only 2 feet from the scamp, Lennie set the hook with his patented "Jethro" technique. I, stupidly, turned to look just in time to catch the 3/8-ounce, rubber-skirted bass jig right between the eyes. When the now familiar flash bulbs quit, I thought I'd been struck blind, but it was only coontail pond weed draped over my glasses. Fortunately, the hook found no skin, and in Lennie's words, he "didn't mean to do it."



I still fish with Lennie, mainly because he's bigger than me, and his size can be a form of protection, blocking flying objects (like lures). Since I've trained myself to duck and look away whenever Lennie sets the hook, I haven't been hit in the head again, but there was one close call. Lennie was casting a big wooden prop bait, and he was snagging up regularly. One nasty snag wouldn't come loose with the normal jerking and cussing, so Lennie put some muscle into it (something Lennie has plenty of). I knew this only by the sounds he was making, since I'd been tucked into a fetal position as soon as I saw the lure snag. The lure snapped free and came back at the boat like a bullet, its little prop buzzing like a tiny P-51 fighter plane. I heard a loud whack, then Lennie grunt "Ouch!" Then quiet. When I finally peeked out of my tuck, I saw Lennie looking quizzically at the bass plug now firmly attached to his left forearm. I shuddered to think what that lure would have done to me, but it was only a minor inconvenience for Lennie.

His main concern was not ruining his best top-water plug. I finally convinced him that a lure with three treble hooks wouldn't miss one hook point, and with my trusty pliers cut the barb off and extracted the lure.

I'm cursed with a strange compulsion to fish, and I've survived and even enjoyed it. But one thing's certain, my fishing trips are rarely boring and never relaxing.

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