

# KANSAS

*Wildlife & Parks Magazine*

FOR HUNTERS, ANGLERS AND OUTDOOR ENTHUSIASTS | \$2.75 | MAY-JUNE 2018



**What Lurks Below**  
*2018 Fishing Forecast*





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*Wildlife & Parks Magazine*

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**INSIDE FRONT COVER** Osprey migrate through Kansas each spring, stopping to fish along the way before moving on. Bob Gress photo.

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

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## How KDWP is Funded

It's not uncommon to hear comments, especially on social media, about how the Kansas Department of Wildlife, Parks and Tourism (KDWP) is funded. In fact, I still hear people say they believe the agency is funded through the state taxes they pay. That is a misnomer and I want to explain how we are funded and how that money is spent.

Of the approximately \$70 million in KDWP's FY17 budget, 44 percent was made up of revenue from hunting and fishing license and permit sales; 29 percent came from excise taxes on hunting and fishing equipment; 12 percent came from state park fees and permits; 2 percent came from state park cabin rental revenue; 7 percent came from Economic Development Initiatives Funds (EDIF); 2 percent from boat registrations and Coast Guard matching funds; and 4 percent from state road funds (used for road maintenance in state parks).

The department receives \$5.2 million EDIF funds, of which about 76 percent goes to the Tourism Division and the rest to the Parks Division.

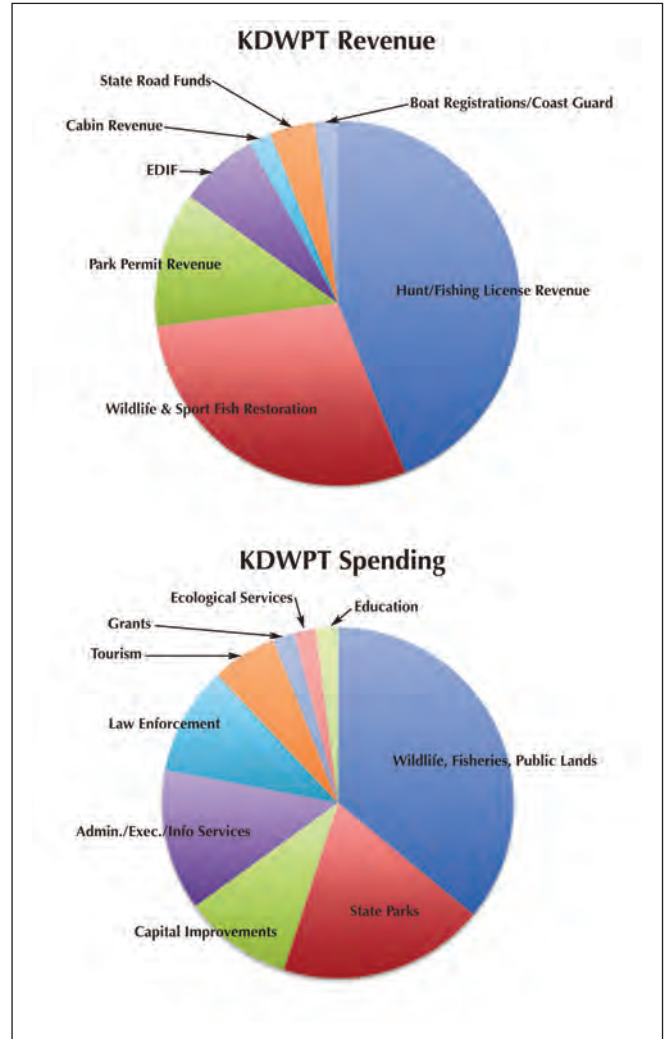
KDWP receives no State General Fund tax dollars. For the most part, we are a fee-funded agency, and those who choose to hunt, fish, camp, hike, bike and enjoy the outdoors pay for those privileges.

The federal funding we receive comes from the Wildlife and Sport Fish Restoration Fund (WSFR), which collects excise taxes on firearms, ammunition, fishing tackle, boats, and motorboat fuel and allocates it back to the states. The amount each state gets is determined with a formula based, in part, on the number of licensed anglers and hunters in the state. That money comes to us as a 75 percent/25 percent match and can only be used for approved wildlife and fisheries programs.

A rough break down of how the budget is spent would include: 36 percent on fish, wildlife and public lands programs; 19 percent on state parks; 10 percent on capital improvements; 13 percent on administrative, executive and information services; 10 percent on law enforcement; 6 percent on tourism; 2 percent on grants; 2 percent on ecological services; and 2 percent on education.

There are 417 full-time employees who work from offices located across the state. We have an Operations Office in Pratt and an Office of the Secretary in Topeka. We have three regional offices - Hays, Topeka, and Wichita. There are three district offices - Dodge City, Chanute and Kansas City - and 24 state park offices. All of these offices provide full-service license and permit sales. And there are smaller, area offices associated with the larger wildlife areas.

Of those 417 full-time employees, more than 70 are



game wardens within the Law Enforcement Division who patrol assigned areas throughout the state.

KDWP staff operate and manage more than 300,000 acres of state-owned or leased land for public hunting, 28 state parks, more than 600 miles of trails, 24 reservoirs, 40 state fishing lakes, 200 community lakes, four nature education centers, four fish hatcheries, and three visitor information centers. In addition to managing fish and wildlife, enforcing wildlife and outdoor recreation laws, and promoting recreation and tourism, department staff maintain several key programs: Walk-in Hunting Access, Habitat First (private land wildlife habitat enhancement), Community Lakes Assistance Program, Fishing Impoundments and Stream Habitats (private water angling access).



## Letters To The Editors

### Brings Back Memories



Mike,  
The picture of the July 1949 mag cover is Big Eleven Lake in downtown KCK. As a youngster, that was our destination on summer Wednesdays. Local boat and bait shop owner "SMITTY" would put a rowboat on the water and help us kids with any snags. The call of "Hey, Smitty!" could be heard numerous times during the morning. Thanks for the GREAT magazine and for the memories.

HAPPY TRAILS,

*Frank Lukomski  
Kansas City, KS*

### Plants a Great Addition to Magazine

Editor:

I just saw an article on native plants by Iralee Barnard in your magazine! This is a great addition to your magazine, in fact, I was inspired to subscribe after reading the article.

The parks are not limited just to hunting and fishing. Many plant enthusiasts enjoy the native plants that are needed to attract the wildlife. We try to stay at a state cabin every year.

Great job!



*Nadine Champlin  
Sabetha, KS*

### Enjoying the Anniversary Issue

Mike and Nadia,

I simply love the content and formatting of the 75th Anniversary edition. It brought back a lot of memories of days when there were no turkey or deer in Kansas. I remember being little kid and about passing out when I saw my first deer.

It makes me want to go back and read all of those old issues - great photos and great stories.

Great idea!  
All the best,

*Rick McNary  
Potwin, KS*



### A Hunt Always Remembered

Editor:

I was just beginning an evening spot-and-stalk archery hunt for mule deer in Kearney County, my 12 year old daughter tagging along, when we saw this whitetail buck chasing a doe a quarter-mile away. It was pretty open country between us and the deer, and I figured there was less than a 10 percent chance we could successfully get within bow range - especially with two of us stalking. But with a buck that big, we had to at least give it a try.

We did have a couple of things working in our favor: the doe was occupying the buck's attention, and the wind was good. We slowly covered the quarter-mile mostly on our hands and knees. An hour and a half later, we found ourselves 40 yards away from the buck, which was behind some brush.

With 15 minutes of shooting light left, the buck took a few steps out of the cover and gave me a shot. The shot was good; the buck ran about 120 yards before crashing.

I still can't believe the stalk worked. I will remember the experience for the rest of my life.

*Kris Kobach  
Piper, KS*



### Editor's Note:

The following photo was sent to us by Loren Barker, 83, of Pratt. A local deer hunter captured a series of images on his iPhone showing a flock of turkeys and coyotes sharing the same food pile in an almost-amicable manner. While certainly an odd sight, readers might be surprised to learn turkeys and coyotes do share two dietary interests: seeds and insects. Thank you for the photos, Loren.





# BIRD BRAIN

## The Great-tailed Grackle

with Mike Rader

In my job, I get lots of questions about birds. Everything from species identification, how to attract birds, and what to feed them, to how to keep woodpeckers from pecking on the side of the house. One I always find amusing is, “What are the big black birds that walk around my car at the Walmart and Dillon’s parking lots?” More than likely, the birds they are referring to are great-tailed grackles.

Think of great-tailed grackles as the super-sized cousins of the common grackle we often see in our yards, marshes, feed-lots, and landfills. Wherever people go, especially where there is water, it seems the great-tailed grackle will follow. They can be found in urban and rural settings, from sea level up 7,500 feet in elevation.

The great-tailed grackle is one of the fastest-expanding bird species in North America. In the early 1900s, their northern range barely extended to southern Texas. Just 60 years later – following the spread of irrigated agriculture and urban expansion in the West and Great Plains – breeding populations are now as found as far north as Oregon, Nevada, Wyoming, Utah, Iowa and Nebraska. And the southern extent of their range includes Mexico, Central America and the extreme northern part of South America.

Great-tailed grackles are large, with males reaching sizes nearly double that of a common grackle. You’ll know you’re looking at a male if you see iridescent, black plumage and a

tail over a foot long. Females will have dirty brown coloring and be about two-thirds the size of a male. Interestingly, female chicks are smaller and require less food than their male counterparts, making them more likely to survive to fledging age. Likewise, adult females usually outlive males, resulting in a sex-biased population as a whole.

Roosting flocks of great-tailed grackles can number in the thousands, something I witnessed firsthand on a trip to the Rio Grande Valley in south Texas this February. All five days I was there, rivers of grackle flocks, numbering in the tens of thousands, filled the skies of McAllen just after dawn, heading east to feed in agricultural fields, only to return in the evening to roost somewhere in the western part of the city.

These brash and interesting birds have become Kansas “regulars” and can be quite comical to observe. The males have strange calls, with loud squeaks, squeals, whistles and gunfire-like rattles – making them a major annoyance if present in your neighborhood in any numbers.

The next time you see a bunch of these birds patrolling a parking lot in search of a broken bag of cheese curls or picking grasshoppers off an automobile grill, you’ll know they’re part of an avian army more than 10 million strong in our hemisphere. Great-tailed grackles, unlike other bird species, which are on the decline, have become abundant as they have ever been due to changes in the U.S. landscape.



Bob Gress photo





# LAW MATTERS

with Colonel Ott

## Meet The New Guy

Hello, my name is Jason Ott. I'd like to introduce myself to the readers of *Kansas Wildlife & Parks Magazine*. I was recently hired as the Assistant Secretary/Colonel over KDWP's Law Enforcement Division.

I come from the Liberal area in southwest Kansas and have more than 20 years of experience working in law enforcement.

In fact, I was introduced to the world of law enforcement fairly early on. For many years growing up, my mother was a sheriff's dispatcher, I grew up alongside officers and deputies, and at the age of 13, met my first Kansas Game Warden - BJ Thurman, in Morton County.

Even then I considered myself an avid outdoorsman, and later having decided on a career in law enforcement, the path of a game warden seemed fitting. I attended college to attain the necessary degree required for a game warden position, and while enrolled, worked as a park ranger and police officer. Upon graduation, there were no game warden positions available in Kansas, so I took a position as a police officer and loved it.

I continued to work as a police officer, detective and in other various roles until 2010, when I took a job with the KDWP Law Enforcement Division as their Investigations Unit Captain. I loved that job, too, but I loved the people even more. After three great years, life pulled me in another direction and I chose to leave the agency in late 2013.

Four years later, in 2017, then KDWP Law Enforcement Director, Colonel Kevin Jones, retired after many years of service. I decided this was the right time for me to return to KDWP and applied for the position.

I began my duties this past in January, and am very proud to be back. To be able to lead this extraordinary group of law enforcement officers is a true honor. Game wardens are a very unique law enforcement officers - they are highly educated and trained and normally work alone. As an officer in several of my previous roles, I always had help and backup at a moment's notice; game wardens do not. They are a true example of what I always envisioned a law enforcement officer to be. The amount



of time that a game warden spends away from their families patrolling their areas, teaching classes, and responding to emergencies is astounding. And this is required of them mostly during times when people are typically getting together with their families: weekends, nights and over holidays.

Working for KDWP, then and now, is one of the best experiences I've had during my 20 years in law enforcement, and that is saying something because I'd like to think I've worked for some great leaders and agencies.

I look forward to many years of serving KDWP and the citizens of Kansas, and also look forward to moving my family to the Pratt area soon. Lots of adventures await.

If you're out and about and see a Kansas game warden, would you consider giving them a wave and thanking them for their service? I can promise you they'll appreciate it. And if you see me, well, maybe you could do the same - I'll appreciate it, too.

# GAME WARDEN



# K9 Officer Retirements

Donning silver badges and riding shotgun in trucks marked “Law Enforcement,” members of the KDWPT K9 Unit are a special breed. From the day they are selected and paired with an officer, to the day they load up for their last call, KDWPT K9s have proven to be invaluable assets in wildlife and natural resource law enforcement.

This year, the Law Enforcement Division retired two K9 officers, K9 “Meg” and K9 “Kooper,” who will now be living the “good life” after many years of dedicated service to KDWPT. Here are some highlights from their time afield.

## K9 “Meg”



K9 Meg has assisted in finding key evidence that led to confessions and convictions in countless wildlife cases. She has

located hidden guns, bows, shell casings, arrows, crossbow bolts, deer, ducks, geese, pheasant, quail, and turkeys. In one case, K9 Meg even located a hunter's lost wallet containing over \$400 in cash. And several of the hidden guns K9 Meg found were stashed away by convicted felons.



K9 Meg has been called on by sheriff's departments in Dickinson, Geary, Riley, Clay, Cloud, Jackson, Lyon, Osage, Marshall and McPherson counties. She's also assisted the Kansas Highway Patrol and Kansas Bureau of Investigation with cases.

K9 Meg has found evidence in three homicide cases, one attempted murder case, and was deployed to recover evidence in two office-involved shootings.

One fateful day, K9 Meg located a suicidal subject with a gun hiding in the woods. Luckily, the four-legged officer arrived before the subject could end their life.

Meg never walked away from a day's hard work, either. Game warden Lance Hockett, Meg's owner/handler, worked with K9 Meg at a multi-state wildlife check lane in Colorado. The check lane ran for 36 hours straight, where more than 1,300 vehicles were inspected.

Of K9 Meg's most memorable cases involved a four-year-old girl who had let herself out of her home while her mother was asleep. Temperatures were in the upper 90s that day, and the girl had been missing for hours. Game Warden Scott Stoughton and K9 “Hunter” began tracking the girl, but the intense heat forced a pause to the search, as K9 Hunter became overheated. That's when K9 Meg got called in. Game warden Hockett and K9 Meg picked up where K9 Hunter left off, and the little girl was eventually located and reunited with her mother.

## K9 “Kooper”

Over K9 Kooper's career, she has helped spread the message of wildlife conservation and law enforcement through more than 200 K9 demonstrations and youth programs. K9 Kooper always kept her audience entertained with her ability to “count” out, or rather bark out, wild game bag limits.

When she's not educating youth, K9 Kooper could be found in the field doing what she did best – assisting her owner/handler, game warden Jake Brooke, with locating evidence.



K9 Kooper's abilities led to confessions and convictions in more than 50 arrests, all related to wildlife poaching. In fact, her contributions amounted to nearly \$150,000 in fines and restitution collected.

K9 Kooper's nose has led her to multiple shell casings and hidden guns throughout northwest Kansas, leading to convictions in numerous trophy deer cases. She's also found hidden deer, turkey, pheasant, quail, waterfowl, and even located a department employee's lost cell phone.

One of K9 Kooper's most memorable cases included locating hidden dove breasts that lead to the conviction of seven suspects and \$44,000 in fines and restitution.

Retired game warden Larry Stones always said “If you put a dog feeder in Jake's truck and taught ole Kooper how to drive, Jake wouldn't have a job anymore.” K9 officers are just that valuable.



# HUNTING HERITAGE

with Kent Barrett

## Hunting is Work!

In my profession it is impossible not to notice the trend over the last few years of declining hunting license sales across all states. This trend is alarming enough to cause state wildlife agencies to focus more attention to their R3 efforts: Recruitment, retention and reactivation. Multiple studies have been conducted in an effort to identify areas that can be addressed to change this trend.

These studies have identified some “factors” which possibly have contributed to this decline. These factors include: amount of personal free time, access to places to hunt, work and family obligations, overcrowding of hunters with not enough game animals to hunt and the cost of a license.

Some of these factors are things that state agencies can help with. Access has always been a concern for hunters. In my youth, Kansas hunters had almost unlimited access to private property to hunt. Today, a combination of circumstances – including population growth, urbanization of our population and high demand for certain kinds of hunting – makes getting access

to hunt more difficult. The Kansas Department of Wildlife, Parks and Tourism (KDWPT) works to improve this situation through the Walk-In Hunting Access (WIHA) program, through which hunters gain access to more than 1 million acres of private land. As for the cost of a resident

hunt, to set aside valuable time from an already overburdened schedule and to locate and hunt your desired quarry. It takes work to practice, to get in shape, to become confident in what you and your equipment can do. Part of the quest to becoming a hunter is to take the journey, not be led to the destination. Hunter Randy Newberg describes it this way, “The worst thing you can do for a prospective hunter is to hand them something. Show them the easy way and you have cheated them out of the entire experience. If it is easy there is no reward.”

Once you accept the fact that hunting and obtaining access requires exertion and effort you get much better at it. There may be an easier way to do some things involved with hunting but there is

no easy way to hunt.

So, now is the time to get serious about next fall’s hunt. It will not be easy but it will be worth the effort to prepare in advance so that the results are what you would like. And along the way, enjoy the experience.

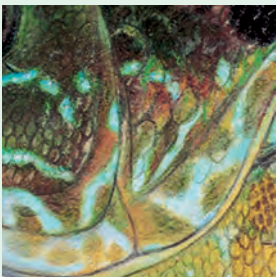


hunting license, what other activity allows you to participate for 365 days for \$27.50? That’s just \$2.75 per day if you only hunted 10 days. Sadly, giving hunters more free time is not one of the things that KDWPT can help with.

Studies aside, I have determined that hunting is work; actually really hard work. It takes effort to locate a place to

## WHAT AM I? ID Challenge

Using only the image and clues below, see if you can figure out this month’s mystery species!



### Clues:

1. I live in the water
2. My name starts with a color
3. My fins have yellow edges

>>> See answer on Page 13





## High Quality Habitat Defined *with Wes Sowards*

When I remember last fall's hunting season, I think of bobwhite quail. It was a terrific year for quail across the state, and it was the result of several environmental factors, most notably, early spring precipitation, which provided quality nesting and brood-rearing habitat.

High quality nesting habitat for quail consists of diverse, native warm-season bunch grasses that provide overhead and horizontal concealment from predators. High quality brood-rearing habitat is quite different. During the first several weeks of a quail chick's life, it eats mostly insects. For this reason, high quality brood-rearing habitat promotes the presence of insects. Insects are attracted to flowering plants, so quail will be looking for areas that contain flowering plants, also known as forbs, or weeds, such as annual sunflowers, ragweed, kochia, and perennials, like milkweed and Maximilian sunflower.

Another important environmental factor that influences quail numbers is the presence or absence of stochastic events from year to year. The past two Kansas winters have been relatively mild, allowing good over-winter survival of adult birds. Furthermore, spring and summer hail-producing thunderstorms were not widespread, allowing for improved survival of quail chicks. The presence of high quality winter and escape habitat – which consists of native shrubs like plums or fragrant sumac, or other low-lying dense, woody vegetation – is key to quail survival when stochastic, or unplanned, weather events occur in winter or summer.

Ideally, these habitats will be in

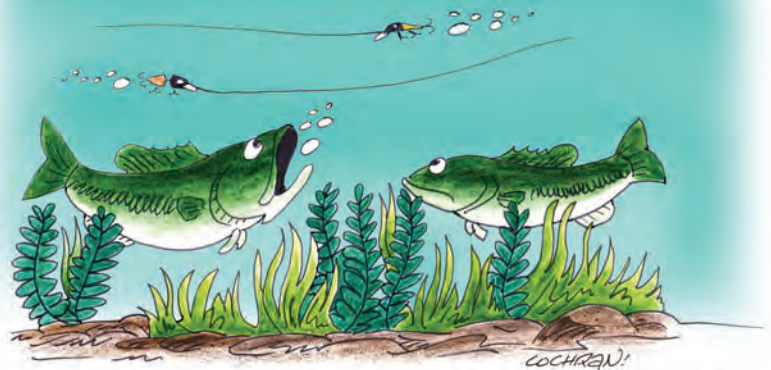
close proximity to each other, because quail have small home ranges, usually less than a 80 acres. In the wildlife habitat world, we call this “edge habitat.” Edge is where one habitat type meets another and the more edge the better. CRP grass next to a sandhill plum thicket or a strip of sunflowers along a pasture are good examples of edge habitat.

These are the types of things our wildlife biologists consider when they are working with private landowners in Kansas. They are making sure that the necessary habitat components are applied to the landscape in a way that works for wildlife and the landowners. Match this up with favorable environmental factors, like we've enjoyed the last two to three years and it makes for an enjoyable, memorable hunting season.

Here's to more whistles this spring, more chicks this summer and, another successful fall.



## WAY outside BY BRUCE COCHRAN



"MUST BE RETRO FISHING DAY. I'VE SEEN THREE HEDDON RIVER RUNTS, TWO HELIN FLATFISH AND A CREEK CHUB WIGGLEFISH."



# EVERYTHING OUTDOORS

with Marc Murrell

## A 12-year Turkey Hunting Hiatus

When I held my newborn daughter, Ashley, for the first time 25 years ago, I dreamed of the days I'd teach her to tie a fishing knot and stay statue-still as deer or turkey approached. And as she grew up, those dreams were realized; I had an outdoor buddy for life.

Ashley passed the Kansas Hunter Education course when she was 9 years old (before the regulation was changed to a minimum age of 11). Our first "official" journey into the woods for a turkey began shortly thereafter. Despite unfilled permits that first year, our hunts were memorable; Chocolate milk and donuts never tasted better as we sat on my truck's tailgate chatting about the mornings' hunts.

In following years, she bagged several turkeys and was on her way to becoming a fine hunter. But life some-

times leads us in other directions.

Ashley injured her shoulder playing middle school volleyball, and over the next five years, underwent four surgeries on her right shoulder. Shotgun recoil was out of the question.

When Ashley went off to college, our time together outdoors was limited to summer fishing trips, although she'd still accompany me running traps and even harvesting her first deer with a crossbow while on breaks from school. Then came graduation, and Ashley got a job teaching special education preschool several hours away, and it was tough to connect like we once did. Before I knew it, 12 years had gone by since our "chocolate milk and donut" tailgate days.

Luckily, her life changed direction again and Ashley met a young man,

Jake, who eventually led her close to home again. Jake hadn't hunted or fished much growing up, but grew to love the outdoors as an adult. As Jake and Ashley continued to date, the three of us began going hunting and fishing together. Last spring, they both purchased turkey permits, so we only had one thing left to do: go turkey hunting!

Since Jake's work schedule was more flexible than Ashley's, he hunted first. Jake got his first-ever turkey - a nice tom in a Flint Hills river bottom. The following weekend was Ashley's turn. And boy, it was picture-perfect.

The morning was gorgeous, and the sunrise spectacular. From our blind, we heard several roosting gobblers sounding off nearby, one of which sounded interested in my calls. The tom eventually appeared, following several hens. Considering the company the tom was keeping, I assumed it would be tough to call the bird away and into shotgun grange. But the temptation of adding another hen to the harem was too great, and our hen decoy got the best of the big tom. Ashley made the 35-yard shot and our 12-year turkey hunting hiatus was over.

I'm not sure who was more excited about Ashley's turkey. She was thrilled and shaking like a leaf with adrenaline, Jake was nearly as pumped up, witnessing his then fiancé's success on only the second bird he'd ever seen harvested. But truth be told, I might have been the most ecstatic, because I was once again living the dream I'd had the day she was born.

Ashley was back in the turkey hunting game, and there's no doubt we'll be back in the woods this spring, keeping the streak alive.



Marc Murrell photo

Ashley with her dad after tagging out on a nice Eastern turkey.



# Life Unpaved

with Nadia Reimer

## I Thought I Loved Fishing

I love fishing. And until one fateful day, I was happy ashore a small pond, shoes just barely within “dipping” range, and a soft Okeechobee tackle bag hanging off one shoulder. As far as I knew, that was “good fishing” for an angler without a boat. But last spring, my enthusiasm for what I thought I loved disappeared like a handful of tokens at Chuck E Cheese’s when I discovered: I was just settling for “good fishing” when I could’ve been experiencing “great fishing.” I didn’t love fishing from shore, I liked it; I just didn’t know any better. Then one day in May I found the kind of fishing I REALLY love and I found it in the seat of a kayak.

Yep. One gingerly slide into the foot-notches of a sunburst-colored kayak, tackle bag secured under crisscrossed bungees, oar-in-hand, pushing away from shore – that’s all it took for me to realize that fishing from shore as I knew it was nothing compared to the freedom that

comes with fishing from a kayak.

Do you know how close you can get to a largemouth bass before it spooks? Close. Really close. Like touching-the-branches-of-the-flooded-timber-it’s-suspended-near-close and still catch it. Close enough that you don’t even need to cast, you just flip your lure, do a little lure dance, and as you reel back in, BOOM, you’ve got it.

When fishing from a kayak, there’s no one sloshing around in the shallows in wader boots or the purr of a motor approaching to tip fish off; you just float right in like a leaf on the water’s surface (one really, really big colorful leaf) and Mr. LMB is none the wiser.

That morning I thought to myself, “Why isn’t everyone fishing from a kayak?!” I mean, this was THE greatest thing ever!

There’s nothing to winterize, no trailers that need hooked up, no fuel to top off – just a kayak, a life jacket, and a paddle and you’re on

your way.

Now I won’t say fishing from a kayak changed my life, but it DID expand my fishing prospects. Instead of asking myself “can I walk there?” I began asking “can I paddle there?” and the possibilities of where I could go and water I could reach grew.

Crowded shore? Now I could paddle away. Too much brush? I could paddle around it. If a kayak could fit, chances are, it was now “fishable” for me.

If you’ve never fished from a ‘yak, it needs to be on your summer bucket list. The best part is, you don’t even have to own any equipment to try it. Tuttle Creek State Park and Cross Timbers State Park are two of our locations that have equipment you can rent, including paddles and lifejackets. Cross Timbers even has a fun water trail you can navigate.

After you try it and decide you love it (because it’s now on your summer bucket list, right?), you’ll find that it’s not as expensive as you thought. I’ve found some great 8- and 10-foot kayaks, priced at \$165-\$200, paddle included. As with any sport, there’s a million upgrades, brands, add-ons you can choose, but for a basic kayak to get you started, it doesn’t have to cost much. Don’t forget the life jacket, and a tackle bag that will work for you on the water. Oh yeah, and a good hat and sunglasses won’t hurt, either. You think you love fishing now. Wait until you fish from a kayak.



# Park View

with Kathy Pritchett

## June is Great Outdoors Month – Get Outside!

School is finally out and it's time for summer fun! And, coincidentally, June is National Great Outdoors Month. For many people, that means days and nights at a Kansas state park. Are there any changes from last year? Well, there are a few.

If the campsite or cabin you want is booked up for the dates you prefer, you can go to [www.reserveamerica.com](http://www.reserveamerica.com) and click on a "Create Availability Notification." You'll receive an email if the site becomes available. You can then make a new reservation for that site or change your existing one. Customers have been asking for such a "wait list" for years, and now we have it.

Seasonal camping fees have gone up at El Dorado State Park. With the annual camping permit, the seasonal camping agreement, which allows a camper to stay on the site for 30 days at a time without visiting the camping unit daily, will cost up to \$456.50 per month at El Dorado. The seasonal camping



price for Clinton State Park also increased to a maximum of \$431.50.

Unconventional vehicle permits, new last year, are again available for \$52.50. This allows park users to use golf-cart-type vehicles on park roadways during daylight hours. This is a special permit that must be applied for in person at park offices. Unlike our other permits, they are not available online.

Look for special events throughout the season at each park. Check out our events calendar on [ksoutdoors.com](http://ksoutdoors.com) or check out [www.getoutdoorskansas.org](http://www.getoutdoorskansas.org).

Events already scheduled include Wilson State Park's Hell Creek Hoedown June 1-3, and the Kicker Country Stampede at Tuttle Creek State Park on June 21-23. Perry State Park will host a mountain biking and trail running event on June 30 and July 1. And free fishing weekend is June 2 and 3 at all state parks; no fishing license is required those two days. More events are added all the time.

We have a number of handy online tools to make your outing more memorable, too. Our website, [www.ksoutdoors.com](http://www.ksoutdoors.com), is a great starting point. It's chock full of information about park locations and fees, hunting and fishing rules, fish and animal identification and other outdoor lore. Pocket Ranger is a handy information app for your smart phone that also lets you track your progress on trails and lets others know where you are.

Campsites, shoreline, waters and trails await, and they're waiting on YOU!



## Under Pressure

Canning food was core in my upbringing and the old-fashioned process involves as much science as it does labor.

Canning involves two methods: water-bath and pressure, and I learned both from my mother.

Pressure canning is considered dangerous and that may have something to do with the method's fading popularity. However, pressure cooking, which is just like pressure canning, is the rage now. Pressure cooking uses pressure to cook food quickly while infusing spices and retaining moisture for meals intended to be eaten right away. In pressure canning, pressure is used to cook food, kill bacteria and create a vacuum seal to keep bacteria from growing so the food can be stored and eaten later.

Last fall, my wife attended a pressure cooking class through the local K-State Extension Office. Highlights of the class included perfectly-cooked, easy-to-shell hard boiled eggs in 5 minutes, beef stew in 20 minutes, and a 5-pound bag of potatoes cooked in 20 minutes.

I was anxious to try wild game meats such as deer or

rabbit and tough meats like squirrel and turtle. So far, it's worked well. We made deer stew and it was the most tender and flavorful deer we have cooked to date. Letting the cooker depressurize slowly seemed to be a key in keeping the meat from drying out, which happens easily with lean game meats.

Pressure cooked squirrel meat was tender and made excellent barbecue sandwiches that everyone ate. We also tried pressure cooking squirrel then breading and pan-frying it, which turned out to be a more tender version of my traditional recipe. I plan to try pressure cooking carp this summer just to see how the method handles bones.

Bottom line, pressure cooking is a great way to infuse flavor into otherwise hard to flavor meats, makes tough, textured meat edible and saves time. Stews that took hours in a crockpot take 20-30 minutes in a pressure cooker.

My next purchase will be an air fryer. Who knows, between the air fryer and the pressure cooker creating healthier meals, I might lose those extra pounds around the middle.





## Chickadee Checkoff Small Grants Awarded

with Daren Riedle

One of the best parts of my job is working with the Chickadee Checkoff program, and I particularly look forward to our call for proposals every year. As you may already know, Chickadee Checkoff is a donation program that provides funds for managing our state's diverse and unique nongame wildlife species. Most people contribute through a line appearing on Kansas Individual Tax Forms and these funds are used to support our small grants program.

Every year we request proposals that address research or habitat needs for Kansas Species In Need of Conservation (SINC), or education programs in K-12 schools. This year we received a strong suite of proposals and will provide funding for seven of them.

- The Humboldt High School submitted a habitat improvement project for chimney swifts. A large colony of chimney swifts has historically used an old boiler chimney as a nesting and roosting site. The chimney is slated for demolition, so funding will be provided to construct an alternate roosting site and associated educational signage.

- Two separate projects will take place on Kansas Department of Wildlife, Parks and Tourism' Mined Land Wildlife Area in southeast Kansas. Pittsburg State University faculty and students will compare vegetative cover, terrestrial amphibian and reptile, and songbird communities between reclaimed strip pits and nearby unimpacted habitats.

- The second project, conducted by a graduate student from Missouri State University, will compare aquatic turtle communities between flooded strip pits and natural oxbows associated with the Neosho River.

- The gray bat, which occupies the storm sewers in

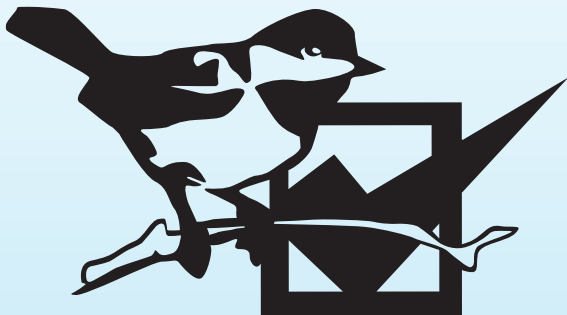


Pittsburg, is on the federal Endangered Species List. This important breeding colony has been monitored since the 1960s and funding through the Chickadee Checkoff program will provide support to Pittsburg State University for the 2018 monitoring season.

- Chickadee Checkoff will also provide financial support for biodiversity monitoring on the Wichita State University Gerber Reservation in Kingman County. This monitoring will focus on determining presence/absence of several SINC species, including the lesser earless lizard.

- Some of you may remember my column from the September-October 2017 issue about our work digitizing 50-plus years of Henry Fitch's snake data. Not only did Fitch study snakes, but lizards and many amphibians as well. We will continue this endeavor in 2018 with George Pisani at the Kansas Biological Survey as he continues to transfer this valuable data from paper to electronic spreadsheets.

- Last, but not least, we will be supporting work conducted by Wichita State University and the Z-Bar Ranch in the Red Hills of South Central Kansas on dung beetles, a very understudied group of organisms. Students will be assessing the diversity of dung beetles in a bison ranch ecosystem. As was mentioned in my November-December 2017 column, there is increased interest in insect diversity and how this group helps maintain healthy rangelands through pollination and nutrient cycling. And personally, I am looking forward to learning more about one of my favorite species of dung beetle, the rainbow scarab beetle!





## Let's Talk Turkey

with Annie Campbell-Fischer

Whether you hunt or not, spring turkey season is an exciting time in Kansas. Watching the countryside spring to life as the sun rises, and the sight of a strutting tom turkey are things we all can enjoy; springtime in Kansas is special.

For those who turkey hunt, the experiences before and during the hunt are as memorable as the birds brought home. But the memory-making doesn't have to stop there. The Kansas Department of Wildlife, Parks and Tourism (KDWPT) has a Trophy Turkey Award program, issuing certificates to hunters who take birds that score at or above the minimum score. If your bird scores high enough, it might even make the unofficial Turkey Top 20 Turkey list.

The scoring system is one used by the National Wild Turkey Federation, which is a formula based on weight, the length of each spur added together and



multiplied by 10 and the length of the beard (or beards) multiplied by two. Typical turkeys have one beard and two spurs, while non-typical turkeys have multiple beards or, in rare instances, multiple spurs. The minimum score to receive a Trophy Turkey Award is 65.

A flexible tape measure and willingness to perform some simple mathematics are all it takes to obtain your score. KDWPT provides measurement instructions on the Trophy Turkey Award application, which can be found at [www.ksoutdoors.com](http://www.ksoutdoors.com) by clicking "Hunting," "Game Species, Records and Scoring," then "Turkey."

Kansas is home to two subspecies of turkey: the Rio Grande and Eastern. The Rio Grande is found in the western two-thirds of the state, while the Eastern turkey inhabits the eastern third. Hybrids are found where the ranges overlap.

Rio Grande turkeys are distinguished by their light tan- or buff-colored feather tips. Rios don't get as large as Easterns and they are comfortable in open grasslands. You can identify Easterns by the copper-colored tips of their tail feathers. Easterns may weigh more than 25 pounds and can sport thick beards.

The next time you fill your spring or fall turkey tag, be sure to score your bird. If it tips the charts at 65 points or more, you just might find you're the recipient of a Kansas Trophy Turkey Award. And that's a memory you can hang on to forever.

Dustin Teasley illustration



## FISHIN'

## Keep That Boat Ready to Go

with Mike Miller

Your boat should be ready to go at "a moment's notice," because Kansas weather changes at "a moment's notice." We might get some nasty weather, but before you know it, there will be the perfect day when the fish are biting.

If your annual boat and motor maintenance tasks aren't done yet, here's a quick rundown of what you need to do.

### Lower Unit Oil

If you store your boat outside, you should have drained your lower unit last fall before cold weather. Water can intrude into the lower unit and if it freezes, things can break. If you store your boat inside, change the lower unit oil or gear lube now. Most outboards have two lower unit oil ports. Pull both and allow the oil to drain, which may take awhile because most lower unit oils are 80W90. Examine the oil to ensure there it doesn't contain abundant metal shavings, which could indicate problems. Refill through the lower port until oil runs out of the top port, then insert the top port plug, which will give you time to insert the lower port plug.

### Fuel Stabilizer

If you keep gas in your tank, you should have added a fuel stabilizer to last fall. And I like to keep the tank full so there isn't room for condensation. It's a good idea to add stabilizer.

### Fuel Water Separating Filter

This spring, change the fuel water separating filter. This 10 micron filter keeps water that may have found its way into your gas from getting to the motor. Water in the fuel of an outboard is bad news. This filter is usually in the fuel line before the pressure bulb, mounted in the sump area of the boat. If your boat doesn't have a fuel water separating filter, ask your service shop about adding one.

### Trailer Tires

Other spring maintenance includes checking the grease or oil on the trailer hubs and examining the trailer tires. Boat trailer tires don't wear out from road miles, they weather because of age. After about six or seven years, it's a good idea to replace them. Look for cracks and bulges on the sidewalls and uneven wear on the tread. Ensure the tires are fully inflated. Most trailer tires are rated for a much higher psi than regular vehicle tires, around 55-80psi. Follow what's listed on the tires' sidewall.

### Lights

Just because everything worked last year doesn't mean it will this spring, so give your trailer lights a quick check.

Now, just convince the weather to cooperate and fish to bite!

“WHAT AM I?” answer: green sunfish





# The Way I See It

with Todd Workman

## Marshmallows Burn

Some amazing inventions came about by accident: Silly Putty, the Slinky, penicillin, and the pacemaker are just a few. And thought I can't claim inventing something life-changing by mistake, I will take credit for modifying others' inventions to make them "kid interesting."

One such modification came from a kitchen table incident when I was 11. I was discreetly flinging cherries at my brother with a plastic spoon at the dinner table. This crime had a death sentence if my father was at the table, but he wasn't. However, when I launched my last projectile, Dad suddenly appeared in the kitchen doorway just in time to intersect the flight of that cherry, which missed my brother. It was an amazing coincidence that should have been celebrated. The especially juicy cherry stuck to his forehead like a red third eye. Then, it reluctantly released its hold on his middle eyebrow and grudgingly rolled down the bridge of his nose, dribbling down his shirt before plopping onto the table.

Dad was stunned, but he quickly recovered his wits and identified me as the culprit. Normally I would blame my little brother, who always looked guilty and would take off running whenever accused. But with my mouth agape and the plastic spoon still in my hand, I was caught.

I could tell by the way Dad's ears flattened and his brow furrowed that this wouldn't go well for me. Fortunately, my mom has a great sense of humor. Her laughter quickly filled Dad's death shroud with mirth. Then he began to giggle and I was overcome with relief. I love my mom.

When I told my buddies about my narrow escape from certain death, they were much more interested in my cherry catapult. As we talked, we began making plans to build a catapult that would fling a spear or boulder 500 feet, but we knew we needed expert advice.

We approached our seventh grade woodshop teacher, No Thumbs Doesy. No Thumbs had been the junior high shop teacher since the invention of schools and apparently had heard every scheme pre-teen boys could come up with.

"I would never build or help you build a catapult that could throw anything heavier than a marshmallow," he replied tersely. Not ready to give up, I pressed on.

"Then show us how to build a marshmallow catapult," I said.

No Thumbs eventually relented, providing we cleaned up everything and never told a soul.

"Meet me here after school tomorrow," he said, sounding less than convinced it was the right thing to do.

My friends thought a marshmallow catapult sounded like a sissy toy, but they went along the next day. Within an hour and a half, we had constructed two small catapults capable of hurling marshmallows 30 feet.

While I was happy with our projects, the gang wasn't, fearing someone might see us play with what they considered

less-than-cool toys. Then I dropped my idea on them.

"Marshmallows burn," I said, and suddenly I had their attention.

Fire was number one on the list of things we couldn't play with, which made it all the more exciting. Marshmallows weren't on that list, so it was reasonable to think we could get away with lighting marshmallows on fire. At least it seemed reasonable to our 11-year-old minds.

We soon had two battalions of plastic army men facing off behind the abandoned doghouse Dad had built from scrap wood in our backyard. The big doghouse wasn't pretty, but it was too heavy to move, so it remained, a tribute to the fact that we all can't be carpenters. And it hid us from adult eyes while we lit marshmallows and hurled them at each other's army divisions. Soon, several toy soldiers caught fire and black smoke curled up over the little plastic bodies. I was admiring the beautiful arcs of flaming marshmallows through smoke-blurred eyes when I realized there was too much smoke. I turned my head and noticed the doghouse was on fire!

The old wood burned quickly and my mind instinctively began devising a story to explain our predicament.

"We must burn the evidence," I yelled.

We threw the catapults and the burning plastic soldiers into the fire. Then, we quickly cut switches from a nearby tree and skewered marshmallows. Mom and Dad arrived home just as the fire subsided to a nice, glowing blaze.

"Aw, see Honey, they're just roasting marshmallows. That looks like fun," said Mom. She always saw the bright side. Dad didn't. And he knew there was something sinister about our little marshmallow roasting party.

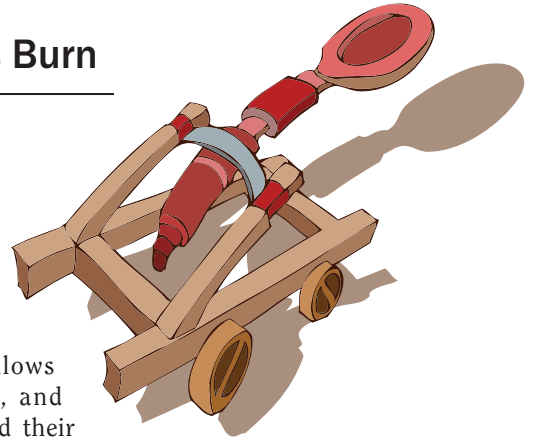
"We heard there was a fire and came home as fast as we could," Dad gasped, still out of breath from running. "You boys been playing with matches?"

"Sorry, Dad. We lit a punk to throw smoke bombs and the dog house caught on fire."

About that time, Mom came out of the house with some Cokes, graham crackers and chocolate for s'mores and cut off Dad's interrogation.

"Your father was right to be concerned, but I am glad that nasty dog house is gone," Mom said with a wink.

We all high-fived Mom, but we didn't dare approach Dad. For the second time in two days, my mom had saved my bacon. I love my Mom.



Shutterstock/Kristian

## A Plant-iful Celebration | by Iralee Barnard

Some 2,000 species of plants – trees, grasses, herbs and weeds – grow wild within our Kansas borders. Most of these plants are “old timers” that have been on the prairies for many thousands of years. Others are fairly new to the scene, having come from other countries. And a few are invaders, powerful enough to take over and crowd out other plant competitors.

The primary importance of all plants when it comes to humans is clear: through the process of photosynthesis, plants produce the oxygen necessary for us to survive. But beyond that essential service, plants provide many other benefits, as well.

The following is only a small sample of intriguing facts about the importance of Kansas plants; see if you can you guess the correct answer:

A. Birds enjoy these dark purple berries, and people use them for jelly and wine.

B. This plant has flowers that may be yellow or white and look like an

insect with feathery antennae.

C. If you are lost, this plant can point you in the right direction; simply look at its leaves.

D. This plant is stemless and has heart-shaped leaves.

E. This is a shrub with fragrant, yellow tubular flowers and edible fruit.

F. This is a vining plant with large, angular leaves; yellow, funnel-shaped flowers; and round, hard fruit.

G. You can tell time by this plant because its flowers open late afternoon.

The plant variety in Kansas is staggering, and learning about individual plants can be fascinating and fun, especially with the books and field guides that abound. But even more enjoyable is the experience of a group foray into the field to discover the character and beauty of our Kansas plants first-hand.

This year, the Kansas Native Plant Society (KNPS) is celebrating its 40th anniversary and marking the occasion with one such foray: the Annual Wildflower Weekend (AWW). AWW,

KNPS’ highlight event of the year, is the perfect opportunity to learn more about Kansas plants, and walk in the prairie with others who can help identify the array of colorful blossoms. This year’s three-day event will be held in Wichita, September 7-9, 2018. Especially popular is the silent auction, featuring art work, crafts, books, plants and seeds, delectable jellies, baked goods, and home-grown veggies. Another highlight of the event is the photo contest. Nonmembers are always welcome, and all activities are open to the public. Additional information, including registration for the AWW, can be found on the KNPS website, [www.kansasnativeplantsociety.org](http://www.kansasnativeplantsociety.org).

With some 2,000 plants species in Kansas, challenge yourself to find one or two this summer that you think are worth celebrating.

- G. Wild four-o'clock
- F. Buffalo gourd
- E. Wild currant
- D. Common blue violet
- C. Compass plant
- B. Moth mullen
- A. American elderberry

Ken Barnard photo



Ken Barnard photo





## THE PROBLEM WITH PHRAGMITES

text and photos by Dan Witt

You may not be familiar with Phragmites, but you may want to. This is a non-native grass that grows very rapidly, sucks the water out of the ground, and is nonpalatable to wildlife. And you will be stunned when you start recognizing this plant and see all the places it is growing. It is spread by the wind and by root extensions that emit a toxic substance that damages native plants and allows the Phragmites to spread. When it goes dormant in the winter, thick stands of pencil-sized stems that are several feet tall and extremely tough are left. Game birds may hide in it, but if you knock a bird down in the stand, your dogs most likely will not be able to penetrate the stems to get the bird. You certainly won't be able to navigate through the dense, tough vegetation. It thrives in wetlands and is a problem at Cheyenne Bottoms Wildlife Area. When long-time area manager, Karl Grover, retired last year, he mentioned being relieved that he wouldn't be responsible for fighting that plant any longer. It's that persistent.

Control is not easy. Some chemicals kill it, but you have to spray a fairly wide perimeter, usually in the spring. It will take quite a while for the plants to die, and then there are the thick



stems to deal with. The state of Michigan has a full-time Phragmites control unit in their wildlife department, working both in residential and rural areas. They spray in the spring and go back with big rollers behind tractors and other machinery to flatten the plants as much as possible. This is followed with a controlled burn in the fall. They have concerns about fire and smoke in residential areas close to the shore, so flattening the plants down controls the smoke and

makes the burn easier to control. Cheyenne Bottoms Wildlife Area staff have used a helicopter to spray areas where the water is too shallow for a boat and too soft for motorized equipment.

While there is evidence that a strain of Phragmites is native to North America, more aggressive strains originated in Europe and were likely introduced here in the 1800s. These invasive strains displace native plants and threaten wildlife by eliminating necessary habitat. Biologists who manage our wetlands will utilize every resource they have to control invasive species such as Phragmites, but it's an ongoing battle.

Keep an eye out for Phragmites when you're outdoors this spring. It's an invasive species that deserves our attention.





## A Night With the Stars *by Jennifer Leeper*

Last July, the night sky over Fall River State Park became an astronomical gallery for amateur and professional stargazers during the 15th Annual Fall River Star Party. From ultra-sophisticated telescopic equipment to unassisted eyes gazing at the wonder of a clear sky full of stars, the event offered something for everyone.

The Star Party, which attracts nearly 90 people, began in 2003 as a unique way to educate the public about astronomy.

“We host the event close to the Perseids Meteor Shower, and at the darkest time of the month,” said Kim Jones, park manager at Cross Timbers and Fall River state parks. “Fall River Lake is far from any major city, so the light pollution is limited, making star gazing superior.”

For Brent Newton, a hobby astronomer from Wichita who has attended the Fall River Star Party since 2015, the darker skies also enhance his astrophotography.

Newton, who served as an unofficial photographer for the event last summer, said the group isn’t big on titles, rather they’re “just doing what they enjoy.”

Beyond night sky viewing and photography opportunities, the Star Party connects the public with the world of astronomy, especially through contact with groups like the Kansas Astronomical Observers (KAO). Jones added that KAO members put on an educational program prior to night viewing, which typically focuses on current astronomical events.

The 2018 Annual Fall River Star Party will be held August 11. To learn more, and to participate, contact Jones at (620) 637-2213 or visit [www.ksoutdoors.com](http://www.ksoutdoors.com).



Jennifer Leeper photo

Brent Newton photo



## Rader Receives Lifetime Achievement Award

Mike Rader, Kansas Department of Wildlife, Parks and Tourism’s (KDWPT) wildlife education supervisor, received the John K. Strickler Award from the Kansas Association for Conservation and Environmental Education (KACEE).

The John K. Strickler Award, named after one of KACEE’s founders and first executive director John K. Strickler, honors the lifetime achievements, contributions, and leadership of individuals in the Kansas conservation and environmental education field. Rader was selected because of his long-term commitment to environmental education, which began early in his career when he worked as a conservation worker at Wilson State Park.

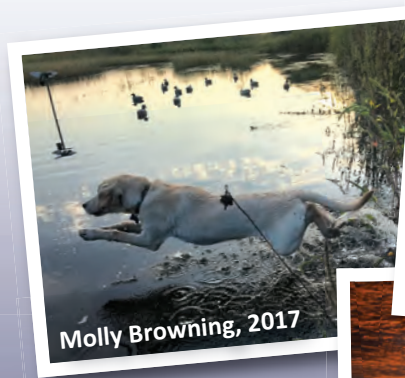
While at Wilson, Rader provided visitors with educational programs about the unique wildlife in the park, passing on his love for the area. In 2007, Rader was promoted to KDWPT’s wildlife education

coordinator where he took his passion for teaching about the environment statewide.

Currently, Rader oversees staff and programming at the Milford Nature Center, Prairie Center in Olathe, Pratt Education Center and Museum, Southeast Kansas Nature Center in Galena, and the Kansas Wetlands Education Center at Cheyenne Bottoms. Rader also coordinates the Outdoor Wildlife Learning Sites (OWLS) program, funding outdoor classrooms at 167 Kansas schools where students get hands-on instruction at outdoor learning labs.

Rader also spearheads ECO-Meets, which are high school scholarship competitions. Hundreds of Kansas high school students participate each year, many of whom go on to pursue careers in the natural sciences as a result of their experience.





# Deadline to enter: Oct. 14!

Show us what makes YOU “Wild About Kansas!” Photo submissions for the 6th annual Wild About Kansas photo contest are being accepted. Submission categories include:

- Wildlife
- Outdoor Recreation
- Landscapes
- Other Species
- Hunting and Fishing

## RULES

Entries must be submitted no later than **11:59 p.m. on Oct. 14, 2018**. Photos must be .JPEG or .JPG format. All photos must be submitted electronically. Photos that do not meet the minimum file size requirements (1 MB) will NOT be accepted.

Photographers can submit up to three (3) photos total, regardless of category. Photos must be taken within the state of Kansas and must be the entrant’s original work. The contest is open to both residents and nonresidents, and there is no age limit.

## JUDGING

Each photo will be judged on creativity, composition, subject matter, lighting, and overall sharpness. Photographs from participants under the age of 18 will be placed in a youth division; all others will compete in the adult division. Winning entries will be featured in the 2019 January/February photo issue of *Kansas Wildlife & Parks Magazine*.

## FOR MORE INFO

**DESKTOP VERSION:** Visit [ksoutdoors.com](http://ksoutdoors.com), click “Publications,” then “2018 Wild About Kansas Photo Contest.”

**MOBILE VERSION:** Visit [ksoutdoors.com](http://ksoutdoors.com), click “Menu,” “Publications,” “Magazine,” then “2018 Wild About Kansas Photo Contest.”

## KDWPT Receives National Award for Land Stewardship

The Kansas Department of Wildlife, Parks and Tourism (KDWPT) was recently recognized by the National Wild Turkey Federation (NWTf) for the department’s management of public lands. Recognition came with the National Land Stewardship Award, which was accepted by Keith Sexson, KDWPT Assistant Secretary for Fish, Wildlife and Boating, during the 42nd annual NWTf Convention and Sport Show.

“From their staff to their habitat and wildlife conservation projects, the Kansas Department of Wildlife, Parks and Tourism is leading the way in collaborative endeavors,” said Becky Humphries, NWTf CEO. “We are proud to partner with such a dedicated agency to put boots on the ground to ‘Save the Habitat. Save the Hunt.’”

NWTf determined this year’s award winners based on how their work strengthens the organization’s new “Save the Habitat. Save the Hunt.” initiative. KDWPT was selected for the Land Stewardship award because of the department’s efforts to provide quality habitat and hunting experiences, despite the challenges of being a state that is almost entirely privately-owned.

“The work that our Public Lands staff and Wildlife staff are doing to make opportunities possible for our hunters in this state is just really impressive,” said Sexson. “And we’re happy to partner with organizations like National Wild Turkey Federation because we know we can’t do it alone.”





# BOAT KANSAS

## Boating With Dogs *with Chelsea Hoffmeier*

If you can't imagine time spent at the lake without your beloved four-legged companion(s), you're not alone. Many recreational boaters choose to bring their dogs along for a fun and relaxing outing on the boat, but there are some important things to consider before making "Peanut" your co-captain.

### SWIMMING ABILITY

Although the "doggie paddle" may come naturally to most dogs, not every dog is born with great swimming ability. If you've ever watched a slightly overweight weenie dog involuntarily perform an underwater barrel roll, you know first-hand what I'm saying to be true.

Dogs come in many shapes and sizes, and as a result, each swim differently. Test your dog's swimming ability ahead of time in a safe, controlled environment, and familiarize your dog with the boat before their first outing. Be prepared by developing a plan in case your dog goes overboard, and make sure they have a method of re-boarding with or without assistance. Long-handled fish nets work great for smaller dogs, and step ladders can work for some larger dogs.

### LIFE JACKET

Much like humans, life jackets are one of the most important pieces of equipment you can provide your canine guest. Canine life jackets should be compatible with the breed's build, provide sufficient floatation given their weight, and be a color that is easy to spot should your pooch enter the water. A very important feature you'll want to make sure the life jacket has is a handle. This will help you assist your dog in re-boarding the boat. After you've familiarized your dog with the boat, familiarize them with their life jacket, too. Do a dry-run around the house, and in the bath tub or pool, if possible.

### SUNBURN

Did you know that some dogs can get sunburned? True story. If you own a short-haired dog with light-colored skin, an animal-friendly sunscreen should be including in your packing list. A few other suggested items for your trip

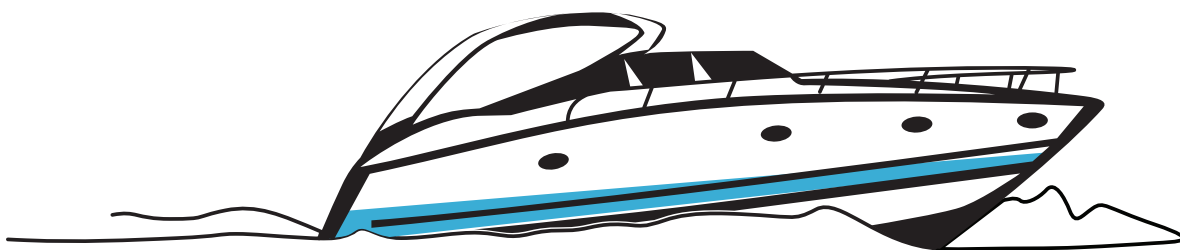


Shutterstock/Robert Ranson

include a first aid kit, proper pet identification, and fresh water for later. Remember, too, that dark furred dogs are susceptible to overheating in direct sun. Ensure they have shade on warm, sunny days.

Lastly, keep in mind that the boating stressors that affect us after a long day on the water can affect our dogs, as well. Speak with your vet and educate yourself on the symptoms to look for if "Peanut" becomes overheated, seasick, dehydrated, or is overexerted. And when in doubt, play it safe.

Even though many of us would love to bring our dog(s) along on our boating trips, not all canines are head-over-paws with the same idea. If "Peanut" has shown he doesn't favor this outdoor activity, it's probably best to leave him home. If your four-legged companion loves water, follow these tips to keep him or her safe for many trips to come.





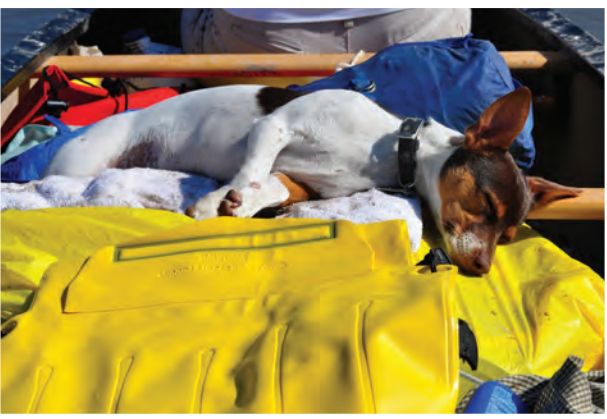
# The Whispering KAW



text and photos by  
**David Zumbaugh**

*This historically relevant river has been appallingly degraded environmentally, but there is hope. I have been impressed with abounding wildlife amongst the urban intervention including bald eagles, river otters and waterfowl. I have often had this playground to myself; recreational crowding is not an issue.*

*Thanks to a well-organized grassroots association, The Friends of the Kaw (FOK), the flowage has a true advocate for preservation of its current quality, and the recreational possibilities it affords. Over the last 15 years, FOK has been responsible for increasing access to the river by establishing numerous boat ramps. Their success has garnered public awareness of available outdoor opportunities and also the plight of the Kaw – now a National Historic Water Trail.*



We launched our touring canoe into the bourbon colored liquid before dawn. Retreating from the excessively civilized world on the bank, we longed to replenish our spirits with some much deserved time in raw nature. Rejoicing with the peaceful sounds, vibrant sights and pungent smells, the incredible wildness of the Kansas River was unsuspected. We sliced our paddles into the shallow channel; our hearts boomed.

My wife and I planned an overnight float from Manhattan to Wamego to get a better “feel” for the Kaw; the familiar name given to the Kansas River flowage. Angela’s vision of camping is spending a night in lodging less accommodating than a Marriott, but one passing of the moon at a primitive campsite was an affair she believed she could endure. As we slowly guided the canoe atop the murky, curling river, we heard yelping turkeys lift off a roost and espied faint outlines of half-submerged beavers near the shore. These creatures reminded us of the original motives of daring explorers that braved life-threatening hazards to exploit natural riches; pioneers soon followed craving prosperities the nearby fertile lands could deliver.

We chose a stretch that promised a more desolate trip, offering quiet solitude and associated risk, as well as panoramic views of the Flint Hills few citizens see these days. Soon the rising golden sun announced the beginning of another day so we beached the boat, had a cup of tea and a light breakfast of fruit and yogurt. This journey was not a race and was intended to be enjoyed at our leisurely discretion.

We progressed at our own pace and were thankful for warming sunbeams and fortunately few pesky insects. The river flowed at 3,050 cubic feet per second, which was adequate for a 4 mph downstream drift. Our plan was to reach a secluded sandbar with ample level space to pitch our tent,

then relax and enjoy another glorious Kansas sunset. My job was to start supper and toss in a few baited hooks to see what fish might be lurking in the underflow. We toted our own water and cook set which included a nifty single-burner stove, perfect for a hot meal and coffee. While I began to heat a batch of Kansas pheasant stew, Angie crafted a rod holder out of driftwood. She stole a hotdog from tomorrow’s lunch and skewered chunks on treble hooks in hopes of enticing some hungry catfish.

As the brilliant sun-drenched twilight began to fade, creatures of the dark emerged; the sublime weather coaxed their springtime pleas for willing mates. Three species of owls began heated arguments in the blackness, their angry hoots ricocheting across the flat water. High-pitched coyote howls boasted that they are at the top of the food chain, raising the hair on the nape of our necks. Although the fish didn’t cooperate, we had a wonderful dinner while listening to nature’s concert. When we decided to end our day, even our best persuasive efforts could not prevent the spade-foot toads encamped in the deadfall behind our tent from singing every

verse of their favorite monotonous hymn.

Sooner than we had hoped, our little Jack Russell mix reminded us it was breakfast

time, so we cooked a hearty, replenishing meal of scrambled eggs and diced peppers, canned peaches, venison jerky and hot Columbian coffee. My catfish pole had the line stretched and hooks ripped off, so the big one got away again! We policed the bar, stuffed all manner of rubbish in heavy duty trash bags, broke camp and pushed off into the gurgling river. We visited with a long-time Kaw fisherman near St. George who claimed

*“ Rejoicing with the peaceful sounds, vibrant sights and pungent smells, the incredible wildness of the Kansas River was unsuspected. ”*





he has caught striped bass and even shovelnose sturgeon on this stretch of the river. Rounding every bend, wood ducks and Canada geese noisily complained about our rude intrusion.

As we loaded the canoe onto the truck, we sensed the Kaw was whispering to us, bursting with gratitude for a short respite from the many lonely days without intimate human collaboration. Relating graciously that any help we could offer to protect her waters from further degradation would be truly appreciated. Threads of a contented voice thanked us for filling the stout yellow trash bags with plastic bottles, soda cans and bits of non-biodegradable refuse that had burdened her essence. Such efforts allow a more beautiful place for all, but are just a minor token in a much larger restorative mission. With the river flowing in the rearview, we were beholden to the conservation successes achieved by Friends of the Kaw, else we would have had no access to the stream, nor opportunity for such an extraordinary experience.

## THE KAW BY THE NUMBERS

**2012** The Kansas River was designated as a National Water Trail on July 14, **2012**.

**173** Known locally as the Kaw, the Kansas River begins at the confluence of the Republican and Smoky Hill rivers near Junction City and flows **173 miles** to Kansas City where it joins the Missouri River.

**53k** The Kansas River watershed drains almost the entire northern half of Kansas and part of Nebraska and Colorado (**53,000 square miles**).

**5** There are **five major cities** along the Kansas River – Junction City, Manhattan, Topeka, Lawrence and Kansas City.

**22** There are **22 access points** along the river from Junction City to the Missouri River in Kansas City. Go to [www.travelks.com/ksrivertrail/](http://www.travelks.com/ksrivertrail/) to view a map showing access points, as well as hazards and dams.



An underwater scene with various fish swimming in blue water. In the background, there is a window with a grid pattern, suggesting an aquarium or a building underwater. The overall tone is blue and serene.

# Fishing Forecast 2018

After the roller coaster ride the Kansas spring weather has taken us on, we're ready to fish. And just in time, the *2018 Kansas Fishing Forecast* is available to help you find the best fishing. You can find more information, including Weekly Fishing Reports and the *2018 Kansas Fishing Regulations Summary* at [www.ksoutdoors.com](http://www.ksoutdoors.com)

Kansas Department Wildlife, Parks and Tourism fisheries biologists manage more than 200 community lakes, 40 state fishing lakes and 24 reservoirs in Kansas. Management techniques include setting creel and length limits, stocking fish, surveying anglers and enhancing habitat. And in order to know how to improve fishing at a given lake, they need an idea of what lurks below.

Sampling is done in the spring and fall. Spring sampling is usually done with electroshocking when species such as black bass are in shallow water. The shocker boat's electrical current stuns bass temporarily, and they are then netted and placed in a holding tank. Each fish is measured and weighed, then released. In the fall, nets are used to sample species such as crappie, walleye, white bass,

wiper and channel catfish. Again, the number of each species caught per unit of effort, along with weights and lengths are recorded. This data, when compared to data from past sampling efforts, tells managers whether what they're doing is working or if it needs to be changed. It helps them make recommendations for regulations and make stocking requests.

For the forecast, biologists take the same data and put it in a format that helps anglers catch more fish. Here's how it works.

Let's use largemouth bass as an example. The data shows how many largemouth bass were shocked per hour of effort, so they count the bass 12 inches long or longer for the Density Rating. A 12-inch bass is considered high quality by most anglers. The Preferred Rating is the number of those bass 15 inches long or longer. Most anglers prefer to catch bass at least 15 inches long. The next rating is the Lunker Rating, which lists the number of largemouth bass in the sample that were 20 inches long or longer. These are bass that will probably weigh 5 pounds or more and are considered lunkers by

most anglers. The "Biggest Fish" rating, which shows the biggest fish recorded during sampling, gives anglers confidence that big bass exist in a population. The Biologist's Rating is an opinion on the fishery – Poor, Good or Excellent – and it may not agree with the Density Rating. This could occur if there were environmental factors that impacted sampling results, and the biologist feels the population is better than the ratings show.

Obviously, biologists only see a "sample" of fish in a given lake, but theoretically, a lake with a Density Rating for largemouth bass of 72 has twice as many bass longer than 12 inches per acre than a lake with a Density Rating of 36.

The final rating is the Three-year Average, which allows anglers to see trends in populations.

Lengths for each category are different for each species, and water bodies are divided into three categories – ponds, less than 10 acres; lakes, 10-1,200 acres; and reservoirs, larger than 1,200 acres – because sampling methods are different.

Get out and drop a line. You might be surprised what lurks below.



# CHANNEL CATFISH

IMPOUNDMENT	Density Rating (>16")	Preferred Rating (>24")	Lunker Rating (>28")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>18")
<b>RESERVOIRS</b>						
CLINTON	6.06	0.38	0.06	9.45	G	5.42
MARION	5.20	0.73	0.13	8.84	G	3.62
BIG HILL	5.10	0.30	0.00	5.74	G	4.68
HILLSDALE	5.08	0.25	0.17	9.89	G	4.25
MELVERN	4.50	0.19	0.00	6.67	G	3.75
LOVEWELL	4.30	0.60	0.00	7.25	G	2.78
ELK CITY	4.08	1.08	0.00	7.46	G	3.79
KANOPOLIS	3.71	0.00	0.00	4.56	G	3.05
POMONA	3.25	0.25	0.00	4.91	G	3.57
COUNCIL GROVE	2.60	0.30	0.00	8.07	G	1.78
WILSON	2.57	0.10	0.00	7.93	G	2.06
PERRY	2.45	0.34	0.03	8.60	G	2.45
LA CYGNE	2.00	0.00	0.00	3.93	G	1.76
TORONTO	1.75	0.67	0.17	9.64	G	1.69
GLEN ELDER	1.67	0.21	0.04	14.18	F	1.90
<b>LAKES</b>						
CHANUTE CITY LAKE	9.25	1.00	0.75	14.46	E	4.75
NEBO	8.33	0.33	0.00	6.61	G	3.94
MOUND CITY LAKE	8.17	0.67	0.33	9.39	E	8.17
EUREKA CITY LAKE	8.00	2.00	0.50	11.45	E	6.39
CRITZER LAKE	7.50	0.50	0.00	5.15	E	6.00
CARBONDALE CITY LAKE - EAST	7.50	0.33	0.17	15.01	G	5.06
DOUGLAS	7.17	0.50	0.00	5.63	G	8.11
PLEASANTON - WEST LAKE	7.00	0.33	0.00	5.83	E	11.17
CENTRALIA CITY LAKE	6.75	2.25	0.25	13.45	E	4.21
GARNETT - CEDAR CREEK LAKE	6.63	0.25	0.00	5.13	G	6.94
OLATHE - CEDAR LAKE	5.75	0.75	0.00	8.70	G	6.33
WASHINGTON	5.75	0.25	0.00	5.25	G	4.19
BUTLER	5.25	0.00	0.00	5.39	G	5.25
PLAINVILLE LAKE	5.00	0.00	0.00	3.02	G	5.00
HARVEY CO. LAKE - EAST	5.00	0.17	0.00	5.58	G	5.00
COWLEY	4.50	0.50	0.25	12.57	G	4.17
MELVERN RIVER POND	4.50	0.50	0.25	11.51	G	3.75
PARSONS CITY LAKE	4.38	0.63	0.13	7.99	G	4.38
HERINGTON CITY LAKE - NEW	4.25	0.25	0.00	4.96	G	2.92
GARNETT CITY LAKE - NORTH	4.25	0.50	0.00	6.36	G	5.63
FORD	4.00	0.00	0.00	3.57	G	4.00
CLARK	3.75	0.13	0.00	5.73	G	3.58
SEDAN - NEW (SOUTH) CITY LAKE	3.75	1.25	0.75	21.96	G	3.75
HOLTON - BANNER CREEK LAKE	3.75	0.13	0.00	7.50	G	2.97
ANTHONY CITY LAKE	3.75	1.75	0.00	7.63	G	3.75
POTT. CO. - CROSS CREEK LK	3.67	0.67	0.33	15.65	G	2.50
OSAGE	3.67	0.00	0.00	3.89	G	3.17
FORT SCOTT CITY LAKE	3.63	0.63	0.00	7.48	G	3.63
LEBO CITY LAKE	3.50	0.25	0.00	6.17	G	1.75
BOURBON	3.50	0.50	0.25	9.20	G	4.00
GRIDLEY CITY LAKE	3.33	0.33	0.00	4.03	G	5.22
CHASE	3.25	0.00	0.00	4.34	G	4.08
BONE CREEK LAKE	3.13	0.75	0.38	17.39	F	3.00
ATCHISON	3.00	0.25	0.00	5.87	G	3.83
JEWELL	3.00	0.25	0.00	4.21	G	3.25
SHAWNEE CO. - LAKE SHAWNEE	3.00	0.25	0.13	14.01	G	3.19
HOLTON - PRAIRIE LAKE	3.00	0.50	0.25	10.14	G	4.50
KINGMAN	3.00	0.25	0.00	4.96	F	3.50
LYON	3.00	0.17	0.17	10.58	G	1.50
GARDNER CITY LAKE	2.67	0.67	0.17	10.80	G	1.94
LOUISBURG CITY LAKE	2.67	0.67	0.33	9.13	G	2.67
PLEASANTON - EAST LAKE	2.67	0.33	0.00	8.38	G	3.08
MIDDLE CREEK	2.50	0.50	0.17	10.56	G	3.22
NEOSHO	2.50	0.50	0.00	7.41	G	4.17
SHAWNEE	2.33	0.00	0.00	3.23	G	1.78
MIAMI	2.33	0.00	0.00	3.55	F	1.50
LEAVENWORTH	2.00	0.17	0.17	11.02	G	1.56
WILSON	2.00	0.00	0.00	4.77	F	1.39
BROWN	2.00	0.25	0.00	4.28	G	1.83
POTTAWATOMIE #2	2.00	0.00	0.00	2.64	G	1.58
OLATHE - LAKE OLATHE	2.00	0.00	0.00	3.53	F	1.33
MONTGOMERY	2.00	0.00	0.00	2.29	F	1.22
SABETHA - PONY CREEK LAKE	2.00	0.83	0.33	20.83	G	3.00
COUNCIL GROVE CITY LAKE	2.00	0.25	0.00	4.67	G	2.42
JEFFREY EC - AUX. MAKEUP LAKE	1.88	0.25	0.13	11.90	F	1.46
MCPHERSON	1.80	0.00	0.00	5.13	G	1.57
HOWARD - POLK DANIELS LAKE	1.75	0.75	0.25	13.45	G	2.08
GRAHAM CO. - ANTELOPE LAKE	1.75	0.50	0.00	7.41	G	2.17

# CHANNEL CATFISH

IMPOUNDMENT	Density Rating (>16")	Preferred Rating (>24")	Lunker Rating (>28")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>18")
<b>PONDS</b>						
JEWELL CITY LAKE	4.50	0.00	0.00	3.92	G	2.39
PARKER CITY LAKE	1.00	0.00	0.00	2.18	G	1.00
LAWRENCE - P. DAWSON BILLINGS - N	1.00	0.00	0.00	1.89	F	1.00
STERLING CITY LAKE	0.33	0.00	0.00	3.25	F	0.50
GLEN ELDER SP POND	0.33	0.33	0.00	6.33	F	0.33
OVERBROOK CITY LAKE	0.25	0.00	0.00	1.41	G	2.13

# BLUE CATFISH

IMPOUNDMENT	Density Rating (>20")	Preferred Rating (>30")	Lunker Rating (>35")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>20")
<b>RESERVOIRS</b>						
WOLF CREEK	3.31	0.63	0.06	22.05	G	2.58
MILFORD	3.05	0.40	0.10	20.94	G	1.78
ELK CITY	1.75	0.00	0.00	6.15	G	0.64
EL DORADO	1.13	0.13	0.07	23.88	G	0.81
WILSON	0.53	0.00	0.00	10.26	G	0.44
LOVEWELL	0.50	0.00	0.00	12.63	G	0.45
MELVERN	0.44	0.13	0.06	21.02	F	0.29
CLINTON	0.31	0.13	0.00	19.02	F	0.69
TUTTLE CREEK	0.30	0.05	0.05	24.69	F	0.17
LA CYGNE	0.25	0.00	0.00	4.97	F	0.15
PERRY	0.03	0.00	0.00	3.57	P	0.13
<b>LAKES</b>						
YATES CENTER CITY LAKE - NEW	0.33	0.00	0.00	6.68	P	0.44
MIAMI	0.17	0.00	0.00	10.81	P	0.08

# FLATHEAD CATFISH

IMPOUNDMENT	Density Rating (>20")	Preferred Rating (>28")	Lunker Rating (>34")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>20")
<b>RESERVOIRS</b>						
LA CYGNE	0.50	0.08	0.00	6.62	E	0.37
TORONTO	0.42	0.00	0.00	5.36	G	0.63
BIG HILL	0.20	0.10	0.00	6.41	G	0.20
SEBELIUS (NORTON)	0.20	0.10	0.00	9.66	F	0.20
MELVERN	0.19	0.06	0.00	3.50	F	0.13
FALL RIVER	0.17	0.08	0.08	8.85	G	0.12
EL DORADO	0.13	0.00	0.00	2.40	G	0.15
COUNCIL GROVE	0.10	0.00	0.00	5.17	F	0.08
KANOPOLIS	0.10	0.00	0.00	3.21	F	0.10
WEBSTER	0.08	0.08	0.00	7.84	F	0.08
ELK CITY	0.08	0.00	0.00	1.87	F	0.08
POMONA	0.08	0.00	0.00	1.56	G	0.07
HILLSDALE	0.08	0.00	0.00	5.61	G	0.11
WOLF CREEK	0.06	0.00	0.00	2.76	F	0.06
JOHN REDMOND	0.06	0.00	0.00	3.13	G	0.09
TUTTLE CREEK	0.05	0.00	0.00	3.00	G	0.05
PERRY	0.03	0.00	0.00	4.36	G	0.02
<b>LAKES</b>						
NEOSHO	0.50	0.25	0.25	25.37	P	0.50
COWLEY	0.50	0.00	0.00	4.78	F	0.38
CLARK	0.38	0.00	0.00	3.02	F	0.27
MOLINE NEW (NORTH) CITY LAKE	0.33	0.00	0.00	3.14	P	0.25
PARSONS CITY LAKE	0.25	0.00	0.00	3.47	F	0.25
BONE CREEK LAKE	0.25	0.00	0.00	2.69	P	0.25
COUNCIL GROVE CITY LAKE	0.25	0.00	0.00	4.15	F	0.25
CARBONDALE CITY LAKE - EAST	0.17	0.17	0.00	7.24	P	0.17
GARDNER CITY LAKE	0.17	0.00	0.00	2.84	P	0.18
LEAVENWORTH	0.17	0.00	0.00	1.87	F	0.22
YATES CENTER - SOUTH OWL LAKE	0.17	0.00	0.00	3.22	F	0.17
EUREKA CITY LAKE	0.17	0.17	0.00	6.97	F	0.17
OSAGE	0.17	0.00	0.00	2.87	P	0.17
MIDDLE CREEK	0.17	0.17	0.00	7.86	F	0.17
FORT SCOTT CITY LAKE	0.13	0.00	0.00	2.20	F	0.13
JEFFREY EC - AUX. MAKEUP LAKE	0.13	0.00	0.00	3.11	F	0.13
WINFIELD CITY LAKE	0.10	0.00	0.00	1.65	G	0.13
MCPHERSON	0.10	0.00	0.00	3.53	P	0.10
<b>PONDS</b>						
SEVERY CITY LAKE	0.33	0.00	0.00	2.51	P	0.33

# BLUEGILL

IMPOUNDMENT	Density Rating (>6")	Preferred Rating (>8")	Lunker Rating (>10")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>6")
<b>RESERVOIRS</b>						
WEBSTER	14.19	0.13	0.00	0.46	G	5.00
MARION	9.20	0.00	0.00	0.23	F	7.73
SEBELIUS (NORTON)	9.00	0.10	0.00	0.45	G	5.53
LOVEWELL	6.64	0.00	0.00	0.29	F	2.86
HILLSDALE	4.69	0.06	0.00	0.47	G	3.54
LA CYGNE	3.69	0.00	0.00	0.30	F	4.33
BIG HILL	2.20	0.00	0.00	0.29	F	3.03
KIRWIN	2.06	0.00	0.00	0.37	F	0.69
WILSON	2.00	0.00	0.00	0.32	F	1.02
<b>LAKES</b>						
PAOLA CITY LAKE	37.00	0.50	0.00	0.48	E	14.92
OLATHE - CEDAR LAKE	27.50	0.00	0.00	0.21	G	17.17
MCPHERSON	26.17	0.00	0.00	0.30	G	14.31
LENEXA - LAKE LENEXA	25.50	1.50	0.00	0.33	G	14.17
SCOTT STATE LAKE	21.00	1.00	0.00	0.41	G	28.30
WASHINGTON	20.50	0.00	0.00	0.28	G	22.33
GARDNER CITY LAKE	17.00	0.00	0.00	0.34	G	20.17
COUNCIL GROVE CITY LAKE	15.00	0.00	0.00	0.27	G	7.75
MIAMI	14.33	0.00	0.00	0.32	G	20.19
POTT. CO. - CROSS CREEK LK	12.50	0.00	0.00	0.31	G	21.25
DOUGLAS CO. - LONESTAR LAKE	11.50	0.25	0.00	0.24	G	12.83
PLAINVILLE LAKE	11.00	2.00	0.00	0.55	G	11.00
SABETHA - PONY CREEK LAKE	10.50	0.50	0.00	0.49	G	11.33
SHAWNEE CO. - LAKE SHAWNEE	9.75	0.00	0.00	0.33	G	14.13
LYON	9.00	0.75	0.00	0.46	G	23.08
MELVERN RIVER POND	9.00	2.00	0.00	0.43	G	4.33
POTTAWATOMIE #1	8.75	0.00	0.00	0.32	F	15.83
OLATHE - LAKE OLATHE	8.67	0.00	0.00	0.29	F	4.78
GREAT BEND - STONE PARK LAKE	8.67	0.00	0.00	0.34	F	8.67
LOUISBURG CITY LAKE	8.50	0.50	0.00	0.35	F	8.50
PLEASANTON - WEST LAKE	8.00	0.00	0.00	0.33	G	21.50
FORD	8.00	0.00	0.00	0.35	G	8.00
NEOSHO	7.75	0.00	0.00	0.26	G	6.75
HOWARD - POLK DANIELS LAKE	6.00	0.00	0.00	0.24	G	6.92
CARBONDALE CITY LAKE - EAST	5.50	0.00	0.00	0.31	F	4.42
LOGAN CITY LAKE	5.00	0.00	0.00	0.38	G	5.00
BOURBON	5.00	0.50	0.00	0.41	G	5.33
CHANUTE CITY LAKE	5.00	0.00	0.00	0.26	F	6.00
CENTRALIA CITY LAKE	5.00	0.00	0.00	0.31	F	5.63
COWLEY	4.75	1.25	0.00	0.00	G	4.50
JEWELL	4.50	0.00	0.00	0.29	G	3.17
FORT SCOTT CITY LAKE	4.38	0.38	0.00	0.32	G	4.38
PLEASANTON - EAST LAKE	4.00	0.00	0.00	0.24	F	4.63
MADISON CITY LAKE	4.00	1.00	0.00	0.66	G	14.75
WINFIELD CITY LAKE	3.90	0.00	0.00	0.31	F	2.40
JEFFREY EC - AUX. MAKEUP LAKE	3.63	0.00	0.00	0.25	F	5.25
GARNETT - CEDAR CREEK LAKE	3.50	0.00	0.00	0.25	F	9.92
MOLINE OLD (SOUTH) CITY LAKE	3.00	0.25	0.00	0.34	G	2.75
HARVEY CO. LAKE - EAST	2.80	0.00	0.00	0.42	F	2.80
POTTAWATOMIE #2	2.75	0.00	0.00	0.22	F	2.92
HORSETHIEF	2.63	0.00	0.00	0.30	F	2.08
SEDAN - NEW (SOUTH) CITY LAKE	2.50	0.00	0.00	0.30	F	2.50
OSAGE	2.50	0.00	0.00	0.29	F	1.58
BELLEVILLE - ROCKY POND	2.50	0.00	0.00	0.17	F	2.50
ATCHISON	2.50	0.00	0.00	0.24	F	1.92
THAYER CITY LAKE	2.50	0.00	0.00	0.31	G	2.00
MOLINE NEW (NORTH) CITY LAKE	2.25	0.00	0.00	0.22	F	1.33
ANTHONY CITY LAKE	2.25	0.00	0.00	0.20	P	2.25
BROWN	2.00	0.00	0.00	0.21	F	5.42
LEAVENWORTH	2.00	0.25	0.00	0.33	F	2.58
HOLTON - BANNER CREEK LAKE	1.88	0.00	0.00	0.36	F	3.46
PRATT CO. LAKE	1.75	0.00	0.00	0.23	F	7.31
MOUND CITY LAKE	1.75	0.00	0.00	0.20	F	1.75
CHASE	1.75	0.00	0.00	0.29	G	5.08
BONE CREEK LAKE	1.75	0.50	0.00	0.51	G	1.71
GEARY	1.75	0.00	0.00	0.28	F	2.17
CRITZER LAKE	1.60	0.00	0.00	0.22	F	2.00
GARNETT CITY LAKE - NORTH	1.60	0.00	0.00	0.30	F	1.93
BUTLER	1.50	0.00	0.00	0.18	F	1.00
<b>PONDS</b>						
JEWELL CITY LAKE	15.50	0.50	0.00	0.45	G	7.94
SEVERY CITY LAKE	9.50	0.00	0.00	0.34	G	12.33
PARKER CITY LAKE	6.50	0.00	0.00	0.42	F	6.50
GLEN ELDER SP POND	1.00	0.00	0.00	0.23	F	1.17



Annie Fischer photo

# REDEAR

IMPOUNDMENT	Density Rating (>7")	Preferred Rating (>9")	Lunker Rating (>11")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>7")
<b>RESERVOIRS</b>						
BIG HILL	0.40	0.00	0.00	0.35	F	0.83
WOLF CREEK	0.07	0.00	0.00	0.44	P	0.07
LA CYGNE	0.06	0.00	0.00	0.27	F	0.08
<b>LAKES</b>						
DOUGLAS	15.00	0.75	0.00	0.53	G	16.69
WILSON	13.00	1.75	0.25	0.99	G	7.17
PAOLA CITY LAKE	10.75	3.75	0.00	0.93	G	3.75
MELVERN RIVER POND	10.50	2.50	0.00	0.66	F	4.00
DOUGLAS CO. - LONESTAR LAKE	8.25	0.00	0.00	0.39	F	7.00
BONE CREEK LAKE	6.38	2.13	0.25	1.12	G	5.93
COWLEY	5.75	0.50	0.00	0.00	G	8.67
MONTGOMERY	4.14	0.14	0.00	0.55	G	3.13
LENEXA - LAKE LENEXA	4.00	1.00	0.00	0.47	G	3.83
SEDAN - NEW (SOUTH) CITY LAKE	3.50	0.00	0.00	0.34	G	3.50
LYON	3.00	0.75	0.00	0.67	G	4.58
YATES CENTER CITY LAKE - NEW	2.00	0.75	0.00	0.65	G	2.85
THAYER CITY LAKE	2.00	0.25	0.00	0.46	G	1.25
MOLINE OLD (SOUTH) CITY LAKE	2.00	0.50	0.00	0.78	G	3.92
JEWELL	1.75	0.00	0.00	0.41	F	2.92
BUTLER	1.50	0.00	0.00	0.30	F	1.38
NEOSHO	1.50	0.00	0.00	0.22	G	0.83
YATES CENTER - SOUTH OWL LAKE	1.40	0.20	0.00	0.52	F	1.02
HOWARD - POLK DANIELS LAKE	1.25	0.50	0.00	0.48	G	1.00
LEAVENWORTH	1.00	0.00	0.00	0.24	F	9.58
OSAGE	1.00	0.00	0.00	0.35	P	1.08
<b>PONDS</b>						
SEVERY CITY LAKE	11.50	2.50	0.00	0.58	G	6.17
JEWELL CITY LAKE	2.00	1.50	0.00	1.13	F	1.17



# WHITE CRAPPIE

IMPOUNDMENT	Density Rating (>8")	Preferred Rating (>10")	Lunker Rating (>12")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>8")
<b>RESERVOIRS</b>						
HILLSDALE	27.00	7.19	0.94	1.47	G	22.50
PERRY	25.63	7.38	0.63	1.22	G	13.41
LOVEWELL	19.91	7.55	0.27	1.50	G	11.30
MARION	17.60	6.70	1.30	1.43	G	17.20
EL DORADO	11.73	5.07	1.60	2.10	G	5.47
WOLF CREEK	11.29	3.07	1.36	1.76	F	5.94
CLINTON	11.25	7.25	0.81	1.36	G	15.23
ELK CITY	10.94	5.44	0.44	1.68	G	13.27
FALL RIVER	9.94	8.13	1.63	2.09	G	9.21
POMONA	9.63	4.44	0.81	1.52	G	7.29
TORONTO	8.94	8.19	1.94	2.39	G	15.65
JOHN REDMOND	8.81	8.00	3.06	2.23	F	27.38
KANOPOLIS	7.69	0.81	0.13	1.31	F	4.48
TUTTLE CREEK	6.88	3.69	0.75	1.78	F	3.92
BIG HILL	3.20	0.60	0.10	1.04	F	4.95
KIRWIN	3.13	0.94	0.31	1.73	G	1.65
MILFORD	3.13	1.69	0.19	1.57	F	4.69
<b>LAKES</b>						
CENTRALIA CITY LAKE	55.88	20.75	4.88	1.79	E	30.46
OLATHE - CEDAR LAKE	50.50	7.50	1.50	1.09	G	28.33
CARBONDALE CITY LAKE - EAST	38.50	16.00	0.25	0.72	G	26.00
WASHINGTON	34.50	4.00	0.50	1.01	G	19.50
ATCHISON	27.00	1.00	0.50	1.68	G	12.33
SCOTT STATE LAKE	25.56	3.56	0.78	1.37	G	43.74
MCPHERSON	22.33	1.50	0.33	1.11	G	25.86
GARNETT - CEDAR CREEK LAKE	16.50	1.63	0.25	1.08	F	15.17
NEBO	15.50	5.00	3.50	1.83	G	11.00
MELVERN RIVER POND	14.00	3.50	0.00	0.56	G	14.50
MOLINE NEW (NORTH) CITY LAKE	14.00	12.25	4.75	1.61	G	17.75
OTTAWA	13.50	8.33	2.00	1.42	G	16.56
SEDAN - NEW (SOUTH) CITY LAKE	12.00	4.00	1.00	0.91	G	12.00
WINFIELD CITY LAKE	11.60	2.30	0.00	0.75	G	8.17
MIAMI	11.00	0.67	0.33	1.71	G	11.83
COUNCIL GROVE CITY LAKE	10.75	1.75	0.00	0.63	G	4.50
HOLTON - PRAIRIE LAKE	10.50	1.00	1.00	1.36	G	12.13
PLEASANTON - WEST LAKE	10.50	2.00	1.00	1.40	G	20.00
PARSONS CITY LAKE	9.75	3.00	1.63	1.82	G	9.75
DOUGLAS	8.25	3.50	0.25	0.74	F	4.11
LYON	8.25	6.25	1.00	0.94	G	10.50
LEBO CITY LAKE	8.00	7.25	2.50	1.83	G	6.14
OSAGE	6.75	4.50	1.00	1.41	F	3.25
BROWN	6.50	2.50	0.00	0.55	F	10.00
JEFFREY EC - AUX. MAKEUP LAKE	6.13	1.75	0.25	0.91	F	4.50
OLATHE - LAKE OLATHE	6.00	0.67	0.33	0.85	F	3.78
YATES CENTER - SOUTH OWL LAKE	6.00	3.20	1.20	1.05	G	5.70
GARDNER CITY LAKE	5.50	2.00	0.75	1.32	F	3.33
HORSETHIEF	5.50	0.13	0.00	0.41	F	3.04
NEOSHO	5.25	0.00	0.00	0.33	G	5.92
PAOLA CITY LAKE	5.25	3.50	0.75	1.11	F	4.08
PRATT CO. LAKE	5.00	2.00	0.00	0.71	F	8.11
HARVEY CO. LAKE - EAST	4.80	1.40	0.00	0.66	F	4.80
HOWARD - POLK DANIELS LAKE	4.25	0.50	0.25	0.85	G	6.42
MOLINE OLD (SOUTH) CITY LAKE	3.75	1.25	0.25	1.01	F	4.83
SHAWNEE	3.75	1.25	0.25	1.58	F	4.42
GEARY	3.50	0.75	0.00	0.70	F	10.17
GREAT BEND - STONE PARK LAKE	3.33	2.00	0.33	1.01	F	3.33
DOUGLAS CO. - LONESTAR LAKE	3.25	1.50	0.50	0.90	F	3.50
JEFFREY EC - MAKEUP LAKE	3.25	2.25	0.50	1.09	F	3.08
PLEASANTON - EAST LAKE	3.25	2.50	0.75	0.85	F	2.63
POTTAWATOMIE #2	3.25	2.50	0.75	1.60	F	2.00
CHANUTE CITY LAKE	3.00	0.50	0.50	1.37	F	4.33
LOUISBURG CITY LAKE	3.00	3.00	0.50	1.04	F	3.00
EUREKA CITY LAKE	2.75	2.25	0.25	0.86	G	33.03
BARBER - LOWER	2.50	1.00	0.00	0.55	F	4.28
CHASE	2.25	1.75	1.50	1.14	F	4.25
YATES CENTER CITY LAKE - NEW	2.25	1.50	0.25	0.89	F	1.10
BOURBON	2.00	1.25	0.25	1.02	F	2.00
ELLIS CITY LAKE	2.00	0.67	0.33	0.83	F	6.83
MADISON CITY LAKE	2.00	1.50	1.00	1.75	F	3.75
MOUND CITY LAKE	2.00	1.50	0.00	0.65	F	2.00
OLPE CITY LAKE	2.00	1.00	0.25	0.98	F	5.08
<b>PONDS</b>						
GLEN ELDER SP POND	7.67	2.00	0.00	0.78	F	8.06
LAWRENCE - P. DAWSON BILLINGS - N	2.50	1.00	0.50	0.99	F	2.50



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# BLACK CRAPPIE

IMPOUNDMENT	Density Rating (>8")	Preferred Rating (>10")	Lunker Rating (>12")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>8")
<b>RESERVOIRS</b>						
KIRWIN	18.31	0.50	0.06	1.35	G	6.44
SEBELIUS (NORTON)	6.00	2.20	0.00	0.86	G	3.03
WEBSTER	5.44	0.69	0.00	0.95	F	2.10
MARION	1.60	0.40	0.00	0.90	P	1.20
LOVEWELL	1.27	0.27	0.00	0.86	F	1.07
CEDAR BLUFF	1.26	0.95	0.16	1.16	F	0.81
HILLSDALE	1.00	0.13	0.06	1.26	F	0.56
KANOPOLIS	0.81	0.81	0.19	1.02	F	0.46
EL DORADO	0.60	0.13	0.00	0.68	P	0.24
<b>LAKES</b>						
ATCHISON	31.50	2.50	0.00	0.51	G	16.00
MELVERN RIVER POND	22.00	2.50	0.00	0.53	G	11.00
GARDNER CITY LAKE	13.00	1.25	0.00	0.54	G	7.75
JEWELL	12.75	0.75	0.00	0.82	G	11.67
ANTHONY CITY LAKE	9.75	3.75	2.75	1.39	G	9.75
BELLEVILLE - PONY CREEK POND	9.50	4.00	0.00	0.94	G	9.50
SABETHA - PONY CREEK LAKE	9.25	3.50	0.25	1.44	G	4.58
LENEXA - LAKE LENEXA	7.00	3.00	0.50	1.13	F	3.33
PAOLA CITY LAKE	5.75	3.25	0.00	0.92	F	2.75
GARNETT CITY LAKE - NORTH	5.60	1.40	0.00	0.75	F	5.43
MIAMI	5.33	1.00	0.33	0.66	F	7.36
LOUISBURG CITY LAKE	5.00	3.50	0.00	0.84	F	5.00
BROWN	5.00	0.00	0.00	0.34	G	6.67
LYON	4.75	0.25	0.00	0.56	F	3.25
CENTRALIA CITY LAKE	4.63	0.38	0.25	1.28	F	2.54
FORT SCOTT CITY LAKE	4.00	1.00	0.00	0.63	F	4.00
HARVEY CO. LAKE - EAST	3.60	1.20	0.20	1.17	F	3.60
NEOSHO	3.50	0.25	0.00	0.66	F	3.83
MCPHERSON	3.33	0.17	0.00	0.49	F	3.11
PRATT CO. LAKE	3.25	0.25	0.00	0.76	F	4.22
COWLEY	3.25	2.25	0.00	0.00	P	3.50
SEDAN - NEW (SOUTH) CITY LAKE	3.00	0.50	0.00	0.57	P	3.00
POTT. CO. - CROSS CREEK LK	3.00	0.00	0.00	0.43	F	13.50
DOUGLAS	3.00	0.50	0.00	0.48	F	2.53
HOLTON - BANNER CREEK LAKE	3.00	0.63	0.25	1.27	F	4.88
OSAGE	2.75	0.75	0.25	0.75	F	2.58
POTTAWATOMIE #2	2.50	1.75	0.75	1.09	F	2.17
DOUGLAS CO. - LONESTAR LAKE	2.50	1.25	0.00	0.59	F	5.50
SHAWNEE CO. - LAKE SHAWNEE	2.25	1.88	0.13	1.01	F	5.00
POTTAWATOMIE #1	2.00	0.50	0.00	0.55	F	1.42
MIDDLE CREEK	2.00	0.00	0.00	0.37	F	1.50
MOLINE OLD (SOUTH) CITY LAKE	1.75	1.25	0.25	0.94	F	1.75
GREAT BEND - STONE PARK LAKE	1.67	0.00	0.00	0.46	F	1.67
SHERIDAN	1.38	1.38	0.00	0.77	F	3.42
WILSON	1.00	0.75	0.00	0.58	P	0.90
KINGMAN	1.00	0.60	0.40	1.19	P	1.00
<b>KIOWA</b>						
<b>PONDS</b>						
LAWRENCE - P. DAWSON BILLINGS - N	1.50	1.00	0.00	0.57	F	1.50
STERLING CITY LAKE	0.67	0.33	0.00	0.76	P	2.83



## LARGEMOUTH BASS

IMPOUNDMENT	Density Rating (>12")	Preferred Rating (>15")	Lunker Rating (>20")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>12")
<b>RESERVOIRS</b>						
LA CYGNE	89.09	66.36	17.27	10.69	E	78.24
SEBELIUS (NORTON)	38.89	29.86	0.00	3.12	E	89.19
BIG HILL	26.92	16.43	1.05	5.38	G	29.83
CEDAR BLUFF	19.46	7.16	0.00	4.11	F	11.19
GLEN ELDER	10.43	2.41	0.13	5.14	G	4.50
HILLSDALE	8.22	1.99	0.25	6.68	F	7.95
WILSON	8.06	5.32	0.00	3.38	F	4.86
CLINTON	5.62	0.56	0.00	4.35	P	3.00
KANOPOLIS	2.93	0.98	0.00	2.06	P	1.83
WOLF CREEK	2.37	1.18	0.00	2.86	F	5.03
PERRY	2.18	1.63	0.00	3.09	F	4.68
MELVERN	1.31	0.00	0.00	1.57	P	1.61
LOVEWELL	1.18	0.59	0.00	2.65	F	2.55
EL DORADO	0.59	0.00	0.00	0.91	F	10.36
KIRWIN	0.00	0.00	0.00	0.19	F	0.61
<b>LAKES</b>						
POTTAWATOMIE #1	228.11	13.33	1.48	4.44	E	172.93
COWLEY	139.22	33.33	1.96	4.93	E	143.68
GARNETT CITY LAKE - NORTH	115.73	33.71	0.00	3.59	G	103.45
BUTLER	114.71	57.84	10.78	6.19	E	125.49
DOUGLAS	106.86	9.80	1.96	4.76	G	74.84
RICHMOND CITY LAKE	106.00	54.00	6.00	5.68	E	106.00
GRIDLEY CITY LAKE	103.45	6.90	0.00	2.10	G	92.34
FORT SCOTT - GUNN PARK W PD - #2	96.67	16.67	3.33	4.08	E	51.33



## LARGEMOUTH BASS

IMPOUNDMENT	Density Rating (>12")	Preferred Rating (>15")	Lunker Rating (>20")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>12")
<b>LAKES</b>						
BOURBON	92.00	16.00	3.00	6.39	E	96.16
YATES CENTER CITY LAKE - NEW	84.62	20.00	0.00	2.72	G	77.44
LYON	83.83	42.91	0.00	3.36	G	75.80
MCPHERSON	83.77	55.84	2.60	6.28	G	69.52
GARNETT - CEDAR CREEK LAKE	79.03	37.63	7.53	8.51	G	62.93
KIOWA	77.55	44.90	0.00	5.08	F	57.98
LENEXA - LAKE LENEXA	72.55	7.84	0.98	6.01	G	58.54
SCOTT STATE LAKE	72.12	17.31	1.92	5.48	G	50.88
PRATT CO. LAKE	72.09	36.05	2.33	5.88	G	95.15
OLATHE - CEDAR LAKE	71.57	46.08	0.00	6.14	G	56.66
KINGMAN	70.86	35.93	0.00	4.32	G	58.05
POTT. CO. - CROSS CREEK LK	69.07	14.54	1.82	5.57	G	96.88
SHAWNEE CO. - LAKE SHAWNEE	67.97	15.69	0.00	4.22	G	41.39
HOWARD - POLK DANIELS LAKE	64.87	18.96	0.00	3.25	G	66.49
JEWELL	63.80	40.72	0.45	4.54	G	54.13
GARDNER CITY LAKE	61.54	20.19	0.00	4.48	G	52.23
NEBO	58.88	26.86	6.20	7.17	G	51.21
MADISON CITY LAKE	56.89	26.95	2.00	4.63	G	50.24
FORT SCOTT - ROCK CREEK LAKE	56.00	10.00	0.00	3.84	G	56.00
OLATHE - LAKE OLATHE	55.77	26.92	0.00	4.49	G	47.17
SHAWNEE	55.60	34.87	2.83	5.58	G	53.29
CLARK	55.35	26.42	5.66	7.57	G	35.06
COLDWATER LAKE	54.24	10.17	0.00	3.09	G	42.70
DOUGLAS CO. - LONESTAR LAKE	51.96	11.76	0.98	5.91	G	74.51
NEOSHO	51.47	16.18	2.21	4.94	G	64.22
HOLTON - PRAIRIE LAKE	47.90	35.07	1.71	4.22	G	54.62
MOLINE OLD (SOUTH) CITY LAKE	47.90	8.98	0.00	2.32	G	38.16
PLEASANTON - WEST LAKE	45.00	31.67	0.00	4.34	G	65.33
ATWOOD - LAKE ATWOOD - MAIN	43.14	26.47	0.00	2.58	G	37.96
MELVERN RIVER POND	42.61	21.74	0.87	5.46	G	34.46
CRITZER LAKE	42.50	20.00	0.00	3.48	G	31.96
CARBONDALE CITY LAKE - EAST	42.16	7.84	0.00	4.30	F	34.31
GRAHAM CO. - ANTELOPE LAKE	42.02	13.45	0.00	3.28	G	44.11
EUREKA CITY LAKE	41.92	6.99	0.00	3.37	G	49.87
GREAT BEND - STONE PARK LAKE	41.84	15.31	0.00	4.47	F	33.52
WILSON	40.74	11.11	0.00	3.64	G	60.58
MEADE STATE LAKE	40.00	28.57	2.86	6.41	G	51.31
PRESCOTT CITY LAKE	40.00	2.86	0.00	1.94	F	40.00
WASHINGTON	39.69	6.78	0.00	4.14	F	24.65
SHERIDAN	37.70	2.46	0.82	5.41	G	24.82
POTTAWATOMIE #2	34.99	20.00	1.00	4.91	F	49.34
YATES CENTER - SOUTH OWL LAKE	34.95	10.19	0.00	4.41	G	39.71
BARBER - LOWER	34.33	2.99	1.49	5.47	F	25.73
OSAGE	34.31	1.96	0.00	1.79	F	26.47
LEBO CITY LAKE	34.30	9.88	0.00	2.93	F	26.79
PLEASANTON - EAST LAKE	34.00	10.00	0.00	4.20	F	42.61
BONE CREEK LAKE	33.94	25.34	0.45	4.59	G	41.81
LEAVENWORTH	29.94	6.59	0.00	3.35	F	45.93
MONTGOMERY	28.87	9.86	0.00	3.37	G	31.98
HORSETHIEF	27.14	18.57	0.00	4.55	G	28.21
MIAMI	25.00	13.89	0.00	4.00	F	27.38
LOUISBURG CITY LAKE	23.30	0.97	0.00	2.82	F	23.30
OTTAWA	21.93	9.09	0.00	3.72	F	25.76
GEARY	21.57	3.27	0.00	3.13	F	19.04
HARVEY CO. LAKE - EAST	20.96	8.98	1.50	3.84	F	20.96
PAOLA CITY LAKE	20.00	10.91	0.00	3.80	F	23.70
HOLTON - BANNER CREEK LAKE	19.60	8.17	0.54	3.99	F	26.47
PLEASANTON CITY LAKE - OLD	18.33	11.67	0.00	3.42	F	18.33
MIDDLE CREEK	18.12	2.90	0.00	3.31	F	11.45
ELLIS CITY LAKE	17.65	2.61	0.00	2.07	F	8.80
CRAWFORD	17.19	10.86	0.90	5.00	F	19.24
<b>PONDS</b>						
STERLING CITY LAKE	95.59	19.12	0.00	3.22	G	54.20
EMPORIA - JONES PARK - WEST POND	75.00	8.33	0.00	1.47	G	84.33
OVERBROOK KIDS POND	70.83	8.33	0.00	2.68	F	52.08
EMPORIA - JONES PARK - NORTH POND	66.67	66.67	0.00	3.10	G	89.39
PARKER CITY LAKE	66.00	12.00	2.00	5.03	G	66.00
JEWELL CITY LAKE	62.17	38.59	0.00	3.77	G	100.19
EMPORIA - JONES PARK - EAST POND	54.05	13.51	0.00	1.98	G	92.55
OVERBROOK CITY LAKE	45.45	22.73	0.00	2.91	G	32.53
FALL RIVER RES. SP - KIDS POND	40.00	8.00	0.00	2.46	G	36.67
EMPORIA - PETER PAN PARK	35.00	15.00	0.00	3.64	G	27.71
OLPE - JONES PARK POND	25.00	8.33	0.00	2.08	F	28.51
GLEN ELDER SP POND	14.71	11.76	0.00	2.82	F	9.80



## SMALLMOUTH BASS

IMPOUNDMENT	Density Rating (>11")	Preferred Rating (>14")	Lunker Rating (>17")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>11")
<b>RESERVOIRS</b>						
WOLF CREEK	45.56	30.18	5.92	3.21	E	40.64
GLEN ELDER	21.93	12.70	1.60	3.38	G	16.00
EL DORADO	16.57	3.55	0.59	2.49	G	20.16
WILSON	9.95	5.66	1.20	3.18	G	5.24
MELVERN	9.67	3.14	0.00	2.06	G	12.51
BIG HILL	1.75	1.05	0.00	2.13	F	2.65
CLINTON	1.46	0.67	0.11	3.59	P	1.42
PERRY	0.54	0.54	0.00	1.76	P	1.58
CEDAR BLUFF	0.22	0.00	0.00	0.89	P	0.22
HILLSDALE	0.12	0.12	0.12	2.76	P	0.12
<b>LAKES</b>						
JEFFREY EC - AUX. MAKEUP LAKE	7.38	3.69	0.92	2.29	G	17.29
WINFIELD CITY LAKE	3.53	1.18	0.59	2.73	F	2.75
GRIDLEY CITY LAKE	3.45	3.45	0.00	1.45	F	4.98
JEFFREY EC - MAKEUP LAKE	3.27	2.18	0.00	1.70	F	13.05
SHAWNEE CO. - LAKE SHAWNEE	3.27	0.00	0.00	0.98	F	2.72
CRITZER LAKE	2.50	2.50	0.00	1.46	P	1.25
GREAT BEND - STONE PARK LAKE	2.04	1.02	0.00	2.51	F	4.38
POTTAWATOMIE #2	2.00	0.00	0.00	0.69	F	1.45
HOLTON - BANNER CREEK LAKE	1.63	1.63	1.09	3.51	F	1.55
PRATT CO. LAKE	1.16	0.00	0.00	0.73	P	1.16
DOUGLAS CO. - LONESTAR LAKE	0.98	0.00	0.00	0.76	P	0.33
MELVERN RIVER POND	0.87	0.87	0.00	1.91	P	0.87
LEAVENWORTH	0.00	0.00	0.00	0.09	P	0.00

## SPOTTED BASS

IMPOUNDMENT	Density Rating (>11")	Preferred Rating (>14")	Lunker Rating (>17")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>11")
<b>RESERVOIRS</b>						
SEBELIUS (NORTON)	13.89	4.17	0.00	1.74	E	9.53
CEDAR BLUFF	2.46	0.67	0.00	1.55	F	2.45
EL DORADO	1.18	0.00	0.00	0.91	P	3.79
GLEN ELDER	0.40	0.00	0.00	1.31	P	0.18
WILSON	0.34	0.34	0.00	2.04	P	0.34
MELVERN	0.00	0.00	0.00	0.40	P	0.52
<b>LAKES</b>						
BOURBON	33.00	0.00	0.00	0.94	E	34.27
WILSON	25.00	6.48	0.00	1.88	E	20.71
HOWARD - POLK DANIELS LAKE	6.99	1.00	0.00	1.79	G	12.59
WINFIELD CITY LAKE	5.88	0.59	0.00	1.94	F	2.94
CRAWFORD	5.43	1.81	0.00	1.74	F	8.67
EUREKA CITY LAKE	2.99	2.00	0.00	1.34	G	3.64
GARNETT - CEDAR CREEK LAKE	1.08	0.54	0.00	1.59	P	0.54

## NORTHERN PIKE

IMPOUNDMENT	Density Rating (>21")	Preferred Rating (>28")	Lunker Rating (>34")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>21")
<b>LAKES</b>						
KINGMAN	2.25	1.75	0.75	8.91	E	2.88



Todd Pearsons/Engbreitson Underwater Photography

# WHITE BASS

IMPOUNDMENT	Density Rating (>9")	Preferred Rating (>12")	Lunker Rating (>15")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>9")
<b>RESERVOIRS</b>						
GLEN ELDER	19.54	13.75	2.83	2.60	E	10.64
CEDAR BLUFF	17.13	14.78	4.35	1.93	E	14.70
TORONTO	9.00	7.08	1.42	2.76	G	5.36
ELK CITY	8.25	6.25	0.33	2.19	G	5.66
KANOPOLIS	8.00	7.33	1.38	2.65	G	9.02
WEBSTER	6.00	2.08	0.33	1.93	G	5.86
JOHN REDMOND	5.56	5.39	1.22	3.21	G	6.78
CLINTON	5.50	5.44	2.19	2.31	F	8.25
FALL RIVER	5.08	3.25	1.25	2.48	G	3.60
LOVEWELL	4.90	1.95	0.00	1.27	G	4.01
MARION	4.53	1.40	0.00	1.68	G	2.76
EL DORADO	4.20	3.60	0.80	2.16	G	2.79
MELVERN	3.88	3.56	0.56	2.59	F	9.58
PERRY	3.28	1.90	0.14	2.80	G	5.71
KIRWIN	3.17	2.25	0.42	2.93	G	3.83
LA CYGNE	3.00	1.58	0.08	1.60	G	2.40
WILSON	2.93	2.60	0.40	2.97	F	2.30
CHENEY	2.85	2.25	0.85	2.78	G	6.65
HILLSDALE	2.83	2.50	0.00	1.12	F	4.53
WOLF CREEK	2.63	1.75	0.06	1.56	F	2.99
POMONA	2.58	2.00	0.17	3.07	F	9.65
MILFORD	1.80	1.45	0.15	2.01	F	1.12
BIG HILL	0.90	0.90	0.20	1.76	F	2.29
COUNCIL GROVE	0.80	0.00	0.00	0.44	F	1.11
TUTTLE CREEK	0.15	0.10	0.00	1.40	P	0.27
<b>LAKES</b>						
CLARK	25.25	9.50	0.00	1.37	G	12.31
SHAWNEE CO. - LAKE SHAWNEE	11.00	5.00	1.38	2.41	G	7.13
HERINGTON CITY LAKE - NEW	9.00	7.75	0.75	1.83	G	11.08
JEFFREY EC - AUX. MAKEUP LAKE	7.25	6.63	2.63	2.16	E	8.58
JEFFREY EC - MAKEUP LAKE	6.33	4.00	0.00	1.53	G	4.72
OSAGE	5.33	3.50	0.67	1.79	F	3.83
HOLTON - BANNER CREEK LAKE	3.63	3.50	0.50	2.23	F	5.49
PAOLA CITY LAKE	3.50	3.17	0.50	1.94	G	1.67
GEARY	3.50	2.75	0.25	1.52	P	3.50
WINFIELD CITY LAKE	2.50	0.70	0.00	1.42	G	2.63
DOUGLAS CO. - LONESTAR LAKE	2.33	2.33	1.50	1.97	F	3.33
CENTRALIA CITY LAKE	2.25	2.00	0.88	2.62	F	1.00
HARVEY CO. LAKE - EAST	2.17	0.83	0.00	0.93	F	2.17
YATES CENTER CITY LAKE - NEW	2.00	2.00	0.33	1.68	F	1.67
MIDDLE CREEK	2.00	1.17	0.00	1.33	F	4.89
CHASE	1.50	1.25	0.50	2.30	P	1.58
SEDAN - NEW (SOUTH) CITY LAKE	1.25	1.25	0.75	2.06	P	1.25
MOLINE NEW (NORTH) CITY LAKE	0.83	0.33	0.00	0.85	P	0.75
GARDNER CITY LAKE	0.67	0.67	0.67	1.77	P	1.08
CARBONDALE CITY LAKE - EAST	0.67	0.50	0.00	1.51	P	0.94
LYON	0.67	0.50	0.17	1.51	P	1.67
FORT SCOTT CITY LAKE	0.63	0.63	0.25	1.56	F	0.63
WILSON	0.50	0.50	0.50	2.05	F	0.36
<b>PONDS</b>						
STERLING CITY LAKE	0.33	0.33	0.33	1.77	P	0.33
GLEN ELDER SP POND	0.33	0.33	0.00	0.89	P	0.33

# STRIPER

IMPOUNDMENT	Density Rating (>20")	Preferred Rating (>30")	Lunker Rating (>35")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>20")
<b>RESERVOIRS</b>						
WILSON	1.57	0.03	0.00	10.48	G	1.62
GLEN ELDER	0.08	0.00	0.00	4.38	P	0.03

# WIPER

IMPOUNDMENT	Density Rating (>16")	Preferred Rating (>20")	Lunker Rating (>24")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>16")
<b>RESERVOIRS</b>						
SEBELIUS (NORTON)	9.60	4.20	0.00	6.26	G	9.86
MARION	7.93	2.27	0.00	6.08	E	7.33
CHENEY	5.65	1.10	0.10	6.26	E	4.78
EL DORADO	4.20	1.80	0.00	5.41	G	5.28
MILFORD	3.35	1.60	0.00	9.37	G	7.57
GLEN ELDER	2.38	2.21	0.13	8.66	G	2.93
CEDAR BLUFF	2.17	1.43	0.09	6.68	G	3.08
POMONA	1.50	0.58	0.00	4.82	G	1.77
KANOPOLIS	1.29	0.38	0.00	5.69	F	1.48
KIRWIN	1.17	0.67	0.17	8.46	G	2.81
CLINTON	1.06	0.75	0.00	4.48	F	1.58
WEBSTER	0.75	0.33	0.00	4.97	G	1.18
LA CYGNE	0.50	0.17	0.00	4.42	G	0.95
COUNCIL GROVE	0.20	0.20	0.00	7.31	P	1.49
WOLF CREEK	0.13	0.00	0.00	3.24	F	0.47
<b>LAKES</b>						
WELLINGTON CITY LAKE	7.83	0.67	0.00	4.24	G	6.06
GRAHAM CO. - ANTELOPE LAKE	7.00	0.00	0.00	3.58	F	3.50
HERINGTON CITY LAKE - NEW	6.75	2.25	0.00	5.15	G	14.42
JEFFREY EC - AUX. MAKEUP LAKE	5.63	2.00	0.25	6.05	G	4.08
SABETHA - PONY CREEK LAKE	5.00	2.33	0.00	5.95	G	4.94
JEFFREY EC - MAKEUP LAKE	4.00	0.17	0.00	4.24	G	1.78
GRIDLEY CITY LAKE	3.67	0.00	0.00	3.20	F	2.22
WINFIELD CITY LAKE	2.20	1.20	0.30	6.92	F	1.80
PAOLA CITY LAKE	1.83	0.33	0.33	10.25	G	1.17
GREAT BEND - STONE PARK LAKE	1.67	0.83	0.00	3.95	F	1.00
LEBO CITY LAKE	1.50	0.00	0.00	3.38	F	0.88
MIDDLE CREEK	1.50	0.00	0.00	3.54	F	1.22
GARNETT CITY LAKE - NORTH	1.50	1.00	0.25	6.75	F	1.50
OSAGE	0.83	0.00	0.00	3.62	P	0.89
CRAWFORD	0.83	0.00	0.00	2.54	P	0.61
MELVERN RIVER POND	0.75	0.25	0.25	5.91	P	0.58
YATES CENTER CITY LAKE - NEW	0.50	0.00	0.00	2.60	F	0.44
DOUGLAS CO. - LONESTAR LAKE	0.50	0.17	0.17	7.96	P	1.17
CENTRALIA CITY LAKE	0.50	0.13	0.00	5.29	F	0.58
OLATHE - LAKE OLATHE	0.50	0.33	0.17	8.66	F	0.89
PLEASANTON - EAST LAKE	0.33	0.00	0.00	3.43	F	0.17
LEAVENWORTH	0.17	0.17	0.00	6.61	P	1.17
EUREKA CITY LAKE	0.17	0.00	0.00	3.11	P	0.28
<b>PONDS</b>						
STERLING CITY LAKE	0.33	0.00	0.00	2.11	P	0.33
OVERBROOK CITY LAKE	0.25	0.00	0.00	2.02	P	0.13





# SAUGER

IMPOUNDMENT	Density Rating (>11")	Preferred Rating (>14")	Lunker Rating (>17")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>11")
<b>RESERVOIRS</b>						
PERRY	2.83	2.38	0.93	2.48	G	2.34
CLINTON	1.56	1.31	0.13	1.81	F	1.17
MELVERN	0.13	0.13	0.13	2.38	P	0.13
<b>LAKES</b>						
HOLTEN - BANNER CREEK LAKE	3.88	2.63	1.88	3.54	G	6.19

# SAUGEYE

IMPOUNDMENT	Density Rating (>14")	Preferred Rating (>18")	Lunker Rating (>22")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>14")
<b>RESERVOIRS</b>						
KANOPOLIS	4.76	2.24	0.00	3.58	G	4.59
SEBELIUS (NORTON)	3.00	1.30	0.40	5.32	G	5.86
COUNCIL GROVE	1.40	0.80	0.60	5.26	F	0.80
<b>LAKES</b>						
GRAHAM CO. - ANTELOPE LAKE	13.50	1.50	0.00	2.36	G	18.42
CENTRALIA CITY LAKE	11.50	5.88	1.00	8.93	E	5.92
SCOTT STATE LAKE	10.17	2.67	0.42	7.13	G	9.36
WELLINGTON CITY LAKE	3.83	1.67	0.33	4.22	G	3.76
HOWARD - POLK DANIELS LAKE	3.75	3.00	1.25	4.76	G	3.50
SHERIDAN	3.50	0.00	0.00	1.52	F	2.67
ATWOOD - LAKE ATWOOD - MAIN	3.33	3.33	1.67	4.54	G	3.67
CARBONDALE CITY LAKE - EAST	2.83	0.17	0.17	4.74	G	2.33
OTTAWA	2.80	0.60	0.00	3.52	F	2.49
WASHINGTON	2.50	2.25	0.50	6.14	F	1.44
MCPHERSON	2.00	1.80	0.80	7.20	F	1.90
SEDAN - NEW (SOUTH) CITY LAKE	1.75	1.25	0.00	4.20	F	1.75
CHASE	1.75	1.00	0.50	4.41	F	1.17
MIDDLE CREEK	1.50	0.67	0.00	4.00	F	1.00
POTTAWATOMIE #2	1.25	1.25	0.50	4.09	F	0.75
OLPE CITY LAKE	1.25	1.25	1.00	5.41	G	0.88
GEARY	1.25	0.50	0.25	3.53	F	1.58
MADISON CITY LAKE	1.00	1.00	1.00	6.39	G	1.44
PARSONS CITY LAKE	0.88	0.38	0.25	4.93	G	0.88
DOUGLAS	0.83	0.83	0.50	4.85	P	0.67
GARNETT CITY LAKE - NORTH	0.75	0.50	0.00	2.52	F	0.75
EUREKA CITY LAKE	0.67	0.33	0.00	3.68	G	0.78

# WALLEYE

IMPOUNDMENT	Density Rating (>15")	Preferred Rating (>20")	Lunker Rating (>25")	Biggest Fish (lbs.)	Bio Rating	3 - Year Average (>15")
<b>RESERVOIRS</b>						
GLEN ELDER	6.00	0.96	0.00	4.99	G	3.36
CEDAR BLUFF	5.48	0.48	0.04	5.83	G	4.65
EL DORADO	5.07	1.60	0.20	8.20	G	3.29
WILSON	4.80	1.27	0.00	5.77	G	4.23
MARION	3.93	1.47	0.27	9.25	G	2.10
MILFORD	3.80	0.60	0.00	5.42	G	2.52
WEBSTER	3.42	0.92	0.08	6.32	G	1.88
KIRWIN	2.67	0.92	0.00	5.60	G	2.14
CHENEY	1.70	0.45	0.05	6.90	G	2.42
POMONA	1.58	1.08	0.08	5.63	F	0.69
LOVEWELL	1.55	0.45	0.10	9.04	F	1.10
HILLSDALE	1.08	0.33	0.00	4.63	G	0.92
COUNCIL GROVE	1.00	1.00	0.20	6.55	F	0.69
WOLF CREEK	0.44	0.19	0.00	3.64	F	0.55
MELVERN	0.44	0.13	0.00	3.36	F	0.21
CLINTON	0.38	0.06	0.00	3.88	F	0.60
BIG HILL	0.10	0.10	0.00	5.81	P	0.29
<b>LAKES</b>						
GRIDLEY CITY LAKE	3.67	0.33	0.00	3.07	G	3.78
SABETHA - PONY CREEK LAKE	1.50	1.00	0.00	4.85	F	1.17
HERINGTON CITY LAKE - NEW	1.50	0.00	0.00	2.18	F	0.83
PLEASANTON - EAST LAKE	1.33	1.17	0.17	4.46	G	1.33
SHAWNEE	1.00	0.83	0.17	7.26	F	0.61
SHAWNEE CO. - LAKE SHAWNEE	1.00	0.00	0.00	2.23	F	0.94
JEFFREY EC - MAKEUP LAKE	1.00	0.00	0.00	1.77	F	0.44
HOLTEN - BANNER CREEK LAKE	1.00	0.75	0.00	4.81	F	1.93
COUNCIL GROVE CITY LAKE	1.00	0.25	0.00	4.89	F	0.83
WINFIELD CITY LAKE	0.90	0.60	0.10	6.28	F	0.67
YATES CENTER - SOUTH OWL LAKE	0.67	0.00	0.00	2.37	F	0.94
BARBER - LOWER	0.67	0.00	0.00	2.62	F	0.92
JEFFREY EC - AUX. MAKEUP LAKE	0.63	0.13	0.00	3.70	F	0.54
YATES CENTER CITY LAKE - NEW	0.50	0.17	0.00	3.76	F	0.22
CLARK	0.38	0.13	0.00	4.01	F	0.98
HORSETHIEF	0.38	0.25	0.00	5.05	F	0.65
OSAGE	0.33	0.17	0.00	4.49	P	0.17
BROWN	0.25	0.00	0.00	1.32	P	0.25
LEAVENWORTH	0.17	0.17	0.00	2.65	P	0.61
CRITZER LAKE	0.00	0.00	0.00	0.32	P	0.00





# MORE WALLEYE, MORE EFFICIENTLY

text and photos by Daric Schneidewind  
manager, Milford Fish Hatchery

## Intensive walleye culture holds promise for better walleye fishing

Joseph Tomelleri illustration

For more than a century, the Kansas Department of Wildlife, Parks, and Tourism (KDWP) has performed fish culture, raising native sport fish species to bolster populations, and raising and introducing new species of sport fish. Over time, trial and error has improved fish culture techniques and we increased our knowledge and understanding of fisheries biology. But just as technology impacts our everyday lives, it has impacted fish culture. This article will illustrate how technology has changed walleye production.

Walleye are an important sport fish species, ranking near the top among surveyed Kansas anglers. Geographically, we are on the southern range for walleye, meaning we have relatively short-lived and fast-growing walleye compared to places farther north.

Construction of reservoirs in Kansas, which boomed in the 1960s and 1970s, created numerous impoundments ideal for stocking walleye. However, as reservoirs aged and habitats degraded,

most walleye fisheries became dependent on stocking to maintain populations. Research into stocking strategies has led to a greater understanding of how these populations are managed most effectively and efficiently. In my 20 years of working with walleye, we have come a long way in both management and production of this popular species. Some stocking strategies were obvious. It doesn't take a rocket scientist to figure out that stocking larger fish yields higher survival and recruitment rates. However, raising bigger fish costs more and requires more space at hatcheries. Fisheries Division staff rely on science to ensure resources are spent most efficiently and we have data that tells us what size walleye survive into populations best in the various waters we manage. For example, Cedar Bluff Reservoir still has good natural recruitment of walleye. However, El Dorado and Cheney reservoirs have limited or inconsistent recruitment when fry and/or fingerlings are stocked. Every lake is different and each requires





Walleye fry are stocked into tanks that have been painted black so the fry won't "cling" to the sides. Lighting is tightly controlled to prevent shadows, which scare the fry.

Water is sprayed on the water to break the surface tension and allow the fry to gulp air and inflate their air bladders.

different stocking and management strategies. Production capacity at our hatcheries is another limiting factor.

One potential solution to overcoming cost and space issues when raising larger walleye is intensive culture. Intensive culture is possible because of advancements in feed delivery systems, automation, pelleted feed and recirculating aquaculture. In 2015, the Milford and Meade fish hatcheries began a pilot project that rears walleye intensively using indoor tanks rather than ponds. This program has been developed by hatcheries in other states for a variety of species and allows rearing fish under controlled conditions, which requires less space and increases survival and growth rates. Intensive fish culture requires a larger investment in infrastructure, equipment, and skilled personnel compared to extensive culture. The intensive walleye culture program at Milford is performed in three phases: Phase I – Larva Culture, Phase II – Feed Habituation, and Phase III – Grow-out.

Intensive culture alleviates some pressure on stocking demand and will ultimately have a compounding affect. For example, fisheries managers generally stock walleye at rates of 1,000 fry, 25 fingerlings, or five intermediates per surface acre. El Dorado Reservoir is an example of how intensive culture can provide a better return on investment. To stock fingerling walleye at the 9,000-acre El Dorado Reservoir requires 200,000 fingerlings, which may only provide limited recruitment. However, if we stock larger, intermediate walleye at the rate of five per acre, we get better recruitment and only 40,000 intermediates are required. To produce 40,000 intermediates conservatively requires

130,000 fingerlings (as intensive culture experience is gained this number will decrease) leaving 70,000 fingerlings that can be stocked elsewhere.

Intensive walleye culture requires an understanding of the walleye's life history. Walleye have evolved as predators and eat live prey. Rearing them intensively requires a specific environment to achieve feed habituation (training) and reduce cannibalism. We do this by manipulating water temperature, turbidity, flow rate, and oxygen levels. The intensive system allows hatchery staff to provide daily care, use specialty feeds and feeders, monitor for disease and apply treatments, and control overhead lighting. At the Milford Hatchery, a special room and partially recirculating system was constructed to rear larval walleye in Phase I. To ensure equipment operates consistently, alarms and back-up power are in place during this 40- to 45-day period.

### PHASE I

Our first attempt at Phase I began at the Milford Hatchery in April 2015. We stocked two tanks with 8,250 walleye fry (30 fry/liter water), with a goal of producing fish that measured 43mm (1.7 inches) or longer in 40-45 days. Production protocols are much like a recipe for your favorite cookie and just like the first batch of cookies may not turn out perfect, we are still perfecting our recipe. The cookbook we used to develop our program is the *Walleye Culture Manual* by North Central Regional Aquaculture Center, managing editor Robert Summerfelt.

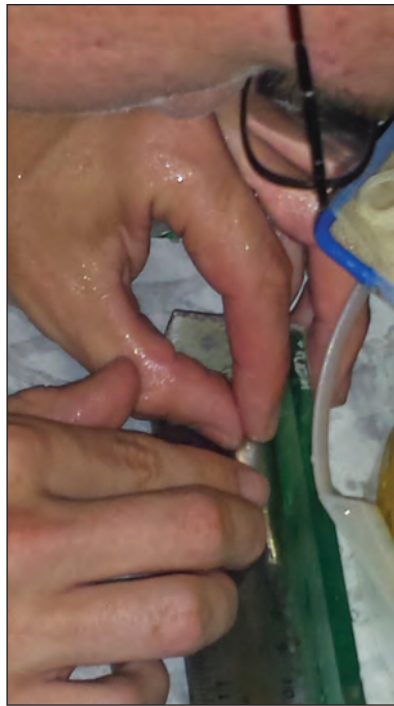
Providing all the ingredients of the recipe to create the right environment is essential. The sides of the tanks must be painted black to prevent the fish from clinging. Overhead lighting is maintained at 100 lux on the water's surface, which keeps

shadows minimal and reduces stress on the fry. Water turbidity is kept at 50 nephelometric turbidity units, which reduces cannibalism and keeps fish from congregating. A surface spray over a sufficient portion of the tank is necessary to break up the water's surface tension, allowing juvenile walleye to gulp air and inflate their air bladders. Initially the water temperature is warmed to 70 degrees for a 24-hour period, then cooled to 65 degrees.

As soon as the fry are stocked, feed training begins. Training predatory fish species to eat an artificial pelleted diet requires consistent feed intervals and distribution of feed that provides all fish opportunity. Specialty feeders, capable of dispensing 0.1 grams per event, were used. Feeders are initially set to dispense feed every five minutes for 21 hours a day. The feed is a specialty diet that is palatable, high quality, and uniform in size. Feed particle size must be comparable to that of a natural diet for the size of the fish. Feed rate is initially calculated at 5 grams per 1,000 fry and increased to a minimum of 10 percent of body weight daily, based upon the length of the fish from samples. Basically, we are teaching/training a fish to eat an un-natural diet by providing ample opportunity at regular intervals. You might wonder if this will inhibit a fish's ability to capture live prey once released into the wild. But this process doesn't override years of evolution, it merely teaches them to eat an alternative feed, and other species reared this way, such as channel catfish, hybrid bluegill, wipers, blue catfish, and rainbow trout, easily transition to natural diets. Stocking survival of intensively reared walleye will be evaluated to ensure they are recruiting

Walleye are observed, measured and tested daily to monitor growth rates, detect diseases and ensure overall health. Fish are graded regularly to remove larger fish and prevent cannibalism.

The fry stocked into tanks in Phase I grew to 1.7 inches in 40-45 days.



into the population following release.

Daily cleaning efforts remove wasted feed and fecal material. Mortalities are counted and removed. Fish are observed during cleaning and feeding for signs of disease. Common disease issues encountered include bacterial infections and secondary fungal infections. Water flows and oxygen levels are also monitored daily and increased over time as the fish grow, densities increase, and feed amounts increase. All of these requirements are maintained seven days a week.

Rearing of larval fish is like caring for any newborn in that care must be constant. For example, something as simple as a feeder not working early in the production period can result in the loss of hundreds of fish overnight. Daily care and a minimum of two checks of vital equipment operation daily is essential, as only major equipment is covered by the alarm system monitoring. On average, hatchery staff spent 3-3.5 hours daily performing the routine chores required of this small pilot program.

Walleye have been intensively produced at Milford Hatchery in 2015, 2016 and 2017. The number of tanks was doubled to four in 2016. As knowledge and experience has been gained, production has improved each year. In 2018, we plan to





scale up one tank to a larger size to potentially produce more fingerlings. If we are able to scale up production to larger tanks successfully, the future looks promising for production of intensively reared walleye fingerlings.

## PHASE II

In Phase II, fish are transferred from the larva culture room to the larger rectangular tanks in the hatchery. This is done at the same time walleye raised extensively in ponds are harvested. With our current set-up, we can't raise enough fingerlings required for Phase II, so we add some that have been raised in hatchery ponds. Phase II requires the same controlled environment, specialty equipment, water quality manipulation, and daily care, but it is done in a completely dark room. Each tank has one submersed light, and disease treatments are conducted three days on, two days off under the Investigational New Animal Drug (INAD) protocol. In Phase II, fish are graded for size, cannibals are removed, and the size and rate of feed is changed frequently as the fish grow. A key to the success of Phase II is removing natural prey items that young walleye prefer to consume by filtering the water.

Feed training is continued in Phase II because the extensively reared fingerlings have not been habituated to the pellet diet. Tank size is increased from the 75-gallon Phase I tanks to 1,000-gallon rectangular tanks. Each tank, which is fitted with a special

feeder that spans over 70 percent of the tank, is stocked with 13,000-13,500 walleye fingerlings (500-800 per pound or 1.7-2.0 inches long). The initial goal of Phase II was to habituate all walleye to the artificial diet and grow them to 50-75 per pound or 3.5-4.0 inches long at a return of greater than 60 percent in 40 to 45 days.

Every week during Phase II, a stab sample is collected from each culture tank while the tank is low during cleaning. A minimum of 30 fish are weighed and measured from each tank. Sample data is then analyzed to adjust feed rates and pellet sizes, determine grading requirements, and determine general health and condition. It is imperative to have accurate sampling equipment including scales that weigh to the nearest tenth of a gram.

Based upon weekly sample data, grading will be necessary to remove cannibals and as fish size ranges reach the established criteria. Basically, on about day 14 through day 17, the cannibal grade removes the largest fish that are eating that are eating their tank mates. Top grade, which removes 25 percent to 30 percent of the largest fish on days 23 through 27, is performed to reduce densities and combine like-size fish, and to reduce cannibalism. A final grading is performed in order to provide the most tightly uniform sizes possible for stocking into Phase III. When possible, it is best to stock walleye that are within 5mm from smallest to largest into the final grow out raceway.

Intensive culture of walleye creates conditions conducive to bacterial disease, so it is imperative to monitor daily and prevent chronic outbreaks with appropriate treatment. Walleye constantly nip/bite at one another, damaging the mucous "slime" coating that acts as a barrier to environmental bacteria. Columnaris is a very common disease due to the nipping and crowded conditions and requires regular treatment under the INAD process. There are less common diseases and parasites that are monitored and treated, as well.

Milford Hatchery staff spent on average 10-hours per day caring for the small Phase II pilot in 2017 over the 42-day duration. Our first attempt was considered very successful as we produced 33,410 walleye at 62 fish per pound or 3.8-4.0 inches in length after stocking 53,827 walleye at 552 per pound or 1.7-1.9 inches in length for a 62.1 percent return. This

Walleye are stocked into raceways for Phase III, with a goal of producing fish that are 8-9 inches long and weigh .25 pounds each in 100-120 days.



return was almost three times better than any previous attempts and the length of time needed to raise the size of fish required for Phase III was almost half that of previous efforts.

### PHASE III

Walleye produced in Phase II were transferred to outside raceways on July 4 for the final Phase III. Approximately 12,000-12,500 are stocked into a raceway to begin the grow-out phase. Each raceway is 100 feet long by 8 feet wide and 4 feet deep, and holds 18,000 gallons of water. Walleye that are as uniform in size as possible are stocked into raceways for the final 100-120 days of production. At this point, walleye are fully habituated to the pelleted diet and are being fed less frequently. In 2017, the goal was a better than 50 percent return of fish with an average size of 8 or more inches and weighing approximately .25 pounds each.



The feeders used during Phase III are capable of feeding 76 times per day and distributing feed evenly. Feeders are calibrated to dispense feed every 15 minutes from 12 p.m. to 7 a.m. daily. Raceways are cleaned daily to remove debris and fecal material. To promote optimal growth and health of the walleye, water temperature is maintained at about 76 degrees by mixing surface water and ground water. Flow is increased over the culture periods to maintain optimal levels of dissolved oxygen, unionized ammonia, and pH. Mortalities are collected and counted daily, and necropsies are performed on four to six fish per raceway to determine parasite loads and possible bacterial infections. Sample fish from each raceway are measured and weighed biweekly so the amount and size of feed can be adjusted accordingly.

On average, staff spend two hours per day on Phase III walleye. Fish health was very good in 2017, requiring less effort than expected. However, because the delivery of the feeders we had in place was insufficient, we experienced lower than expected returns. From the 24,992 Phase II walleye we stocked, 13,280 8-inch, 5.5 fish per pound walleye were produced for a 53 percent return (I expected at least 70 percent). I suspect that cannibalism, due to a higher-than-desired lengthly frequency at stocking played a role in our return rate. Overall, Phase III was considered successful for its pilot year, with staff gaining invaluable experience producing 8-plus-inch walleye for stocking.

Fisheries Division staff are excited that the intensive larva walleye project can improve Kansas walleye fishing by efficiently producing larger fish for stocking, which in turn will survive and begin showing up in anglers creels in three or four years. 🐻



Intensively reared walleye were stocked in El Dorado Reservoir last October and drew attention from local media. These fish should have a very high survival rate.





# WARMWATER



# FLYFISHING

TEXT AND PHOTOS BY RICK McNARY

**IF YOU EQUATE FLYFISHING ONLY WITH COLD MOUNTAIN STREAMS AND RAINBOW TROUT, YOU'RE MISSING EXCELLENT ANGLING ADVENTURES IN YOUR OWN BACKYARD.**

The lakes, rivers, streams and farm ponds of Kansas offer a veritable smorgasbord of species that can all be caught on fly tackle. A chubby bluegill, ounce-for-ounce, puts up as much fight as any fish and, on a light fly rod, feels like a monster. A large-mouth bass will explode on a popper with enough gusto to lift his entire body out of the water. Crappie cannot resist the slow stripping of a woolly-bugger and even the fierce northern pike can be caught at Kingman State Lake on streamer patterns.

The growing popularity of flyfishing in Kansas is

evidenced by the three independently owned fly shops in Wichita, Lawrence and Overland Park that cater solely to fly anglers.

"If it swims, I cast to it," says Kevin Kurz, owner of K & K Fly Fishers in Overland Park. "I have friends in Colorado who see the pictures of large fish we catch and want to come to Kansas for the multiple species we have. My favorite fish in Kansas is the white bass. They are strong, aggressive and swim in schools."

"I think carp is one of the smartest game fish we



have,” says Ronn Johnson, owner of Yager’s Flies in Lawrence. “When is the last time you caught a 15-pound bass? But a 15-pound carp is common. And catfish are fighters, too. It’s not unusual to catch them in the 30-inch-plus range.

“I have a rule about flyfishing during certain seasons at Clinton Lake that I stop after three empty casts. One evening, I quit after several hours only because my arm wore out,” Johnson added.

### HOW FLY FISHING WORKS

The difference between catching a fish with conventional gear compared to a flyrod is like the difference between air travel and a road trip. While the destination is the same, the method, equipment and experience are vastly different.

Perhaps you learned to fish as a child with a Zebco 202 reel and rod. With conventional fishing, casting is similar to throwing a ball; the energy is created when the rod moves forward as a heavy lure pulls the line off the reel.

However, some flies are so tiny, a dozen will fit on a quarter. Imagine casting a lure the size and weight of an ant 243 feet, or three-quarters of a football field, which is the world record flycast; It’s all in the action of the cast. Therefore, casting a tiny fly requires different dynamics with both the backward cast and forward cast of the rod creating energy. And of course, it requires different equipment.

“Fly fishing is a sport that anyone of any gender or age can easily get in to and create their own area of expertise,” says Songbin Chon, owner of Ark River Anglers in Wichita. “Some focus on gear, others on entomology and others on flytying. But no matter what, it all starts with casting.”

### THREE BASIC CATEGORIES OF FLIES

Conventional lures are made from wood, plastic and rubber. However, flies are made from feathers, animal hair and various fibers in order to mimic anything from an ant to a mouse. Although there are thousands of varieties, they are typically divided into topwater, steamers and nymphs.

A top water fly, such as a popper, is jerked quickly to make noise then paused for a few seconds. Bass and bluegill are particularly fond of poppers.

A dry fly is also a topwater lure and usually mimics an insect that has either emerged from the water, or, as in the case of an ant, one that has landed in the water.

Topwater flyfishing is enjoyable because of the way a fish breaks the surface after the fly. A light rod with a popper or dry fly is an easy way to begin. And you don’t have to cast 243 feet to reach bluegill or bass; often they are only a few feet away from the shore.

Streamers are designed to imitate a minnow, worm or anything that swims or wiggles below the surface. A Clouser minnow or a woolly bugger are two of the most popular streamers that will catch any fish. Fly angler, Eric Bird, caught seven different species one evening at El Dorado Lake using a Clouser minnow. The motion used to retrieve streamers is called stripping, which simulates the movements of swimming or injured fish.

Nymphs are aquatic insects in various stages of growth from egg to adult. A popular way to fish a nymph is to tie it 18 inches below a larger streamer or dry fly. Trout are often caught drifting a nymph in the current below a strike indicator. If you fish a two-fly rig with a dry fly above a nymph, you watch





the dry fly, as it serves as an indicator that a fish hit the nymph.

Aquatic insects mature in the water, eventually rising to the surface and emerging from their naiad skin to fly away. This often happens in response to the time of year, light conditions and water temperature and can involve thousands, or even millions, of emerging adults. This is called a hatch. Stoneflies are such insects, so fly tiers will mimic each stage of their growth, but the favorite stage for the angler is when the insect hatches and flies away. Fish gorge on these large flies, so the fly angler who ties on one of these is “matching the hatch.”

### THE FLY ROD

The trick in casting something as tiny as an ant up to 243 feet is in the fly rod, the line and the art of casting.

Fly rods come in various lengths and sizes. If you’re fishing for bluegill, a 3-weight is ideal; but if you’re horsing five-pound bass out from under lily pads, an 8-weight is better. The line is also measured by weight, so a 3-weight line is paired to a 3-weight rod. Fly lines come in various colors for visibility and are divided into two basic categories: floating and sinking.

The leader is the section of clear line used for invisibility, usually monofilament, from the end of the fly line to the fly. In an effort to make an ant pat-

tern land as if it fell from a tree branch, the leader is tapered from a large diameter to a small one.

### FLY TYING

Fly tying is one of the most exquisite forms of art in flyfishing. Browse any fly shop and you’ll discover walls lined with an assortment of materials, hooks and equipment ready to be crafted into a masterpiece. Popular fly patterns are often named after their creator; Bob Clouser, for example, created the Clouser Minnow.

The best place to start learning how to flyfish and tie flies is by visiting with staff at a fly shop or by getting involved with a flyfishing club, such as the Flatland Fly Fishers in Wichita, Free State Fly Fishers in Lawrence, or the Heart of America Fly Fishers in Kansas City. Members are anxious to share their knowledge through clinics on flycasting, fly tying and various club trips in and out of state. Members of the Flatland club also teach a course at Wichita State University. Conservation is also an important element of these clubs.

The River Runners Women’s Fly Fishing Club also has a chapter in Kansas. “Our business meetings last five minutes and the rest of the time we fish,” says Bobbi Hulett of Garnett. “I’ve made great friends and learned a lot from the other women. When you fish



Flyfishing from a float tube (above) is not only a good way to catch fish from small waters, but it provides a snag-free backcast. Largemouth bass are often caught on the Clouser minnow.



for trout, you know you're always going to catch a trout. But when you fish in Kansas, you never know what you might catch"

### HOW TO FLY FISH IN KANSAS

**From the shore** – spring is an excellent time to fish from the shore as fish move in closer. But give yourself plenty of room for the back cast; it's easy to hang up in trees and brush. Until you learn how to roll cast, you will need as much space behind you as in front of you for casting. A pair of waders helps to walk in further to provide adequate room to cast.

**Float tubes/pontoons** – My personal preference is a float tube. This requires a set of waders (unless you like turning into a prune) and flippers. Please follow the safety precautions with a life vest, whistle (to alert any boats near you) and high-visibility orange either on your tube or person.

A joy of float tubes is hooking a large fish that pulls you around the water like a dog on a leash. This is what Hulett calls a "Kansas sleigh ride."

**Kayaks/Canoes** – Drifting down a river or cruising a cove provides a quiet way to reach those hard-to-get-to spots. Before you go, practice casting at home while sitting in a lawn chair.

**Boats** – A boat with a trolling motor provides access to covered areas and room to cast.

Please remember that any device you use in the water, even waders, can carry zebra mussels. Apply

the same care to your float tube, pontoon, kayak, waders and canoe to prevent the spread of this invasive species.

### WHERE TO FISH IN KANSAS

- **Reservoirs/Lakes** – These are an excellent place to fish because of public access. Look for rocky points and shorelines the wind is blowing into.
- **City/Community/County Lakes** – The state leases fishing rights at more than 200 community lakes to provide licensed anglers with free access. Look for the Community Fisheries Assistance Program (CFAP) logo in the *2018 Kansas Fishing Regulations Summary* to identify these locations.
- **Farm ponds** – Most are on private property and require permission from the landowner, but offer probably some of the best fishing in the state.
- **Trout** – The state stocks trout in more than 30 waters November 1 through April 15. Visit ksoutdoors.com for a complete list of locations.
- **Rivers** – A kayak or canoe on a lazy river provides an excellent opportunity to fish near fallen limbs, rocky flats and hard-to-reach places holding large fish. Just make sure you're on a public portion of the river.

### THE APPEAL OF FLY FISHING

Flyfishing is a world of artistic creation, scientific research, environmental conservation and engineering complexities as diverse as any in the sporting industries. Yet, at the core, it really is amazingly simple.

"I was an avid bass fisherman for years with a bass boat and gear but I made the switch," Johnson says. "It's nice to be unplugged and not worry about electronics, batteries or any other part of fishing from a boat. I just grab a rod, a handful of flies and go."

Although fly anglers like to catch fish, they will be the first to tell you it's not about the fish. Rather, it's about the beauty of nature, the thrill of catching a fish on a self-tied fly, the poetic motion of casting the line, the knowledge acquired about each species, the life cycles of insects, the challenge of matching the hatch, and a quietness that envelopes you like a soft blanket.

Then the water explodes, the line grows tight and the fight is on. 🐻



Topwater flies – such as this handcrafted mouse – may be tied with deer hair because the hollow hairs are buoyant and can be sculpted.



*Off-season Camping at*

# CLINTON STATE PARK

text and photos by **Jennifer Leeper**



## **Taking On the Off-season**

When it comes to state parks, the phrase “off-season” probably conjures up images of unforgiving, winter land-

scapes and still, silent lakes muffled by ice. But really, off-season means a more tranquil park experience, free of in-season crowds. With this in mind, my husband, son and I embraced the off-season spirit at Clinton State Park last February, discovering we didn't

need leaves on trees or even sunshine to enjoy the outdoors, just an appreciation for the beauty and adventure every season brings to our state parks.

## **White-Tailed Welcome**

A gravelly drive led us to our cabin, where several unexpected hosts waited to greet us - a group of white-tailed deer. The toddler in the backseat enthusiastically identified our hosts by name, and his wonder and excitement was contagious. By our estimation, the off season at Clinton State Park had already climbed in rank.

We gingerly pulled forward, and finally made way into our comfortably rustic quarters to settle in for the night. Washington Creek cabin was just what we needed: a cozy place to lay our heads, a “real” bathroom, and heating. Our cabin ticked off these boxes and more, surprising us with a kitchen well stocked with plates, cups, silverware and



even paper towels and dish soap. It was both a bonus discovery and a reminder that we had forgotten to pack a cooler of food for the weekend. Luckily, a quick trip to nearby Lawrence had all the supplies we needed.

## A Morning Hike

We woke to an anticipated briskness in the air that was refreshing. In the daylight, I realized just how easily navigable Clinton State Park was – all one had to do was decide where to go. We opted to venture behind our cabin for a hike to a scenic lookout we found on a park map. The trail we chose is part of the park's larger North Shore Trails system. It offers convenient red, white and blue color coding to indicate different segments of the trail. And, double color markings identify intersecting trail legs, making it easy to find your way for-

ward, backward, or even when scrambling through the trees to access a parallel section.

Northeastern Kansas can be surprisingly hilly, and Clinton Lake reflects this topography with easy to moderately-difficult hiking that offers a fun challenge to hikers and trail runners of all experience levels. I once ran a competitive 5k through a strip of the North Shore Trails system and it certainly kept my feet dancing and my brain strategizing like moves on a video game, especially as I negotiated around rocks. There was nothing boring about it.

While dodging intermittent muddy spots throughout our segment of the 23-mile trails system – and maintaining a pace regulated by toddler-sized legs – we initially missed the turnoff for the official scenic lookout. But this was no matter; the lake sat just below, visible through the trees, so the path offered

plenty of other scenic views, including a bald eagle sighting. Pam, the park entrance attendant, kindly informed us of the prevalence of eagles between December and February. The birds often winter in Kansas, before migrating back to north. Although a growing number are nesting in Kansas.

## Exploring

Following our hike, my husband opted to stay back at the cabin with our napping toddler while I got the lay of the land, and by that I mean, picking Pam's brain.

Despite a line of cars forming behind me, Pam didn't rush me along. She took the time to give me a rundown of the park's off-season offerings, giving me a few ideas of what I might find. She listed off popular activities such as hiking and ice fishing, but there were also the unexpected recreational pursuits, such as cross-country skiing and disc golf – of which, according to Pam, people will play well into winter.

I continued west past our cabin site turnoff, noticing a few active campsites with some pretty brave primitive campers. Though I had no desire to trade in my cozy cabin, I admired their pioneer spirit.

The road eventually led me to a parking lot overlooking a section of the beautiful and icy Clinton Lake. Other than a couple of other vehicles, it was really just me and some much-appreciated solitude. I stood outside, gazing at geese touching down on their iced runway,



some padding along the mini-tundra for a few moments before taking off again, while others settled into conversation with feathered friends. While the geese got along just fine, the lake was a fascinating juxtaposition of liquid and solid – two worlds, normally at odds, coexisting if only for a short time. I soaked it all in a little longer before deciding to head back and check on the husband and son. Both were awake and fed, so we decided to take advantage of slightly warmer temps and venture on another hike in a different part of the park.



## Round Two

On the way, we noticed some visitors at the archery range. Archers ourselves, we decided to stop and chat. There, I met Mariah Barnett. Barnett, an orchestra teacher for a nearby school district, had just arrived for practice,

with an old-school recurve bow, no less. Despite strong winds, Barnett, expertly readied her bow and arrows.

“I’ve been out here a few times,” she said. “I like that it’s a nice, open space and has multiple ranges for targets.” Barnett went on to add that the area is big enough to bring your own targets, as well.

We left Barnett to her targets and drove east toward Overlook Park and it certainly lives up to its name, featuring a scenic cutout of sky and lake through the trees. Overlook Park sits near the park’s entrance. Aside from the mesmerizing view, it also boasts a playground and picnic shelter, parked conveniently in front of the overlook.

Making our way through an opening in the trees next to the overlook, we got on another leg of the North Shore Trails. We wandered for about 20 minutes before departing the trail for a clearing where we stumbled onto the reputed wintertime trout oasis: Lake Henry. There were even a couple of lines in the water.

As we moved alongside Lake Henry, we noticed the relative warmth of late afternoon drew out more park guests and their four-legged companions. We then cut away to more rugged terrain, down a nearby hill, finally arriving at a rough, deserted stretch of shoreline where a high sun glittered across the water. Seagulls cried out overhead while

**“The following morning, it was time to head back and we felt as though we were leaving all too soon. There was something about this place in winter.”**

geese cackled below on the ice. We couldn’t help but snap away some photos on our phones.

Cued by the fussy pleas of a toddler, we retreated to our cabin for a short rest, before making our last stop for the day: the marina. There, we continued down a rugged hill to another quiet shoreline nearby, and tossed rocks with our son into what wasn’t frozen. A night chill settled over everything, so we moved the festivities back to our cabin to start a fire in the outdoor pit.

My husband grilled burgers while my son and I watched our white-tailed friends from the previous night reappear one by one behind tall grasses, or more audaciously, at the end of our cabin drive. They eventually disappeared with the last bit of light in the sky, and the glow and warmth of the fire took over our thoughts.

The following morning, it was time to head back and we felt as though we were leaving all too soon. There was something about this place in winter. You can’t witness the majestic flight of an eagle in July in Kansas, or have an entire slice of shoreline all to yourself in May.

Spring and summer offer many obvious enjoyments, but the quieter, harder-won gems of the off season are all the more satisfying. 🐾



text and photo by Rick McNary  
**Grandpa Harry and Ole' Hiram (the Fly Rod)**

The musty smell of memories drifted through the cabin when Harry opened the leather tube and pulled out a bamboo fly rod. A curled envelope fell on the table.

"Wow, Grandpa Harry," Ethan cried. "That's cool! Where'd you get that?"

He had shelved the equipment ten years earlier after Gladys passed. Not only had he lost his mate of 60 years, he lost his fishing partner, too. However, another letter from his 11-year-old grandson, Ethan, had started this encounter six weeks earlier.

**Dear Grandpa Harry,**

***I can't wait to spend the summer with you again. My friends and I watched a movie about flyfishing and I want you to teach me. Mom will bring me up right after school. My friends are jealous that I get to do cool things with you and Chauncey.***

**Love, Ethan**

Harry and Chauncey had sat on the front porch the first two weeks of May eagerly gazing down the lane for Ethan's arrival. Finally, the car tooted up to the smiling faces of the old man and his dog.

"Your Grandma Gladys gave that rod to me in 1945 for our first anniversary," Harry said. "She saved money from selling eggs and milk and bought it. She was so proud."

"Whose signature is that?" Ethan asked.

"Hiram Leonard," Harry replied. "He is the grandfather of fly fishing in America. I call the rod, 'Ole' Hiram."

"Is it worth a lot?" inquired Ethan.

"Maybe, but I don't care," said Harry. "The real value is in the stories it tells. I was surprised when your grandma gave it to me but even more surprised that she wanted to be my flyfishing buddy instead of Charlie Muldoon. Charlie didn't talk to me for six months. She was better at it than me and him put together."

"Can you tell me a story about Ole' Hiram?" Ethan asked.

"See that gouge in the handle?" Harry chuckled. "I 'bout died when that happened but Gladys saved me. I hooked a large fish that ran my line plumb out of the reel, so I scrambled along the bank to keep from breaking off and ran smack

dab into a tree limb, knocked myself out and fell in the river. Gladys jumped in and pulled me out while I was still unconscious."

"Wow! She must have been a good swimmer," said Ethan.

"No," Harry chuckled. "She couldn't swim a lick. She said she remembered a phrase from Sunday school about love casting out fear and figured she loved me more than she was afraid of the water."

"Can you tell me another story?" Ethan begged.

Harry caressed the rod as memories washed over him as crisp as the morning's sunrise and warm like the sunlight draping through the window. Ethan sat in rapture with every one as Chauncey snored on his bed near the fireplace.

"Well, young man, the morning got away from us," Harry said. "It's time for lunch."

"Grandpa Harry," Ethan asked. "Do you fish anymore?"

"No, I stopped fishing when Gladys passed. Charlie asks me but my arthritis won't let me."

"Oh, okay, well, we don't have to then," replied Ethan.

"Oh, by all means, we'll fish," chuckled Harry. "I feel much better now and Ole' Hiram needs more stories to tell. A fly rod is like a library full of adventure stories."

"Oh, so you and Ole' Hiram are going to have a story about fishing with me?" giggled Ethan.

"No, Ole' Hiram and you are going to have a story about fishing with me," Harry said with a smile.

Ethan tilted his head like a confused puppy.

"This is your rod now," Harry said. "Grandma Gladys wanted me to give it to you. She died when you were a baby, but she wanted you to have it. Looky here, she even wrote you a note."

**Dear Ethan,**

***One day, Grandpa Harry will give you this rod full of stories we made together. You won't remember me, but I love you with all my heart.***

***Ole' Hiram is now yours to make new stories with.***

***Love always, Grandma Gladys***

***P.S. I'll be watching down on you and Grandpa. Please don't let him fall in the river again.***





# Species Profile: Black Crappie

Black crappie aren't really black, but they're referred to as such for their uniform, dark green and black speckled scales. You can distinguish a black crappie from a white crappie by looking for vertical barring. If the fish has dark vertical bands, it is not a black crappie. You can also count the spines in the spiny dorsal fin. A black crappie has seven or eight spines and a white crappie will have only six.

A non-native fish to Kansas, black crappie are stocked throughout the state's many reservoirs, and smaller lakes and ponds. Black crappie are a better option for stocking in small lakes and ponds because they are less likely to overpopulate.

Favoring habitats with clear, cool water, black crappie can often be caught with jigs, minnows and small spinner baits near fallen trees, stumps, and other structure along the shore.

These fish move shallow to spawn in the spring when water temperatures reach the high 50s and low 60s. A female can lay up to 188,000 small eggs, so when conditions are right, crappie populations can boom. Crappie have relatively short lifespans, most living less than six years. The state record black crappie weighed 4.63 pounds and was 22 inches long. Hazy Fey caught the giant in 1957 from Woodson State Fishing Lake.

Joseph Tomelleri illustration







# Backlash

with Mike Miller

## Clement Weather Days

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I once wrote about fishing and electric windows, and I wasn't referring to accessories on a new car. The windows I wrote about were the windows of time on hot summer days when fish and wildlife come alive; the time right after sunset on a pond when the air feels electric and you know the fish will bite.

This past Kansas winter and spring made me think of windows again because we had only tiny windows of decent weather to enjoy the outdoors. For every nice day we had, we had five that were either extremely windy (Have I mentioned how much I hate the wind?), very cold (We had our biggest snow of the year, 3 inches, on April 6.) or hot and windy. According to Weather Underground's weather history for Pratt County, we had a low temperature of 17 degrees on April 4 and a high temperature of 97 on April 12. There were days with wind gusts of 60 mph (and those weren't during thunderstorms). And every once in awhile, we had a nice day.

Unfortunately for me, those nice days usually coincided with a work day or some other commitment, so my outdoor time was limited to even smaller windows. I'll admit that I'm pickier than I used to be. I like to spend my time outdoors enjoying both what I'm doing and the weather. I'll freely admit that I'm a fairweather turkey hunter, choosing to go when it's warm and calm. I want to hear the birds gobble and I want them to hear my call. And I want to sit and enjoy the woods waking up on a beautiful spring day. I like to fish when the wind speed is less than 20 mph. While the fish will definitely bite on windy days, fighting the wind in a boat is tiring. Everything is more enjoyable to me when the weather is nice.

Another weather factor that influenced my time outdoors this year was the drought. We endured a very dry winter. And while it may seem that I'm making excuses, the dry, warm and windy days we suffered this winter cut into my bird hunting. It's hard to get excited about hunting pheasants and quail under those conditions. Warm, dusty and windy conditions are tough on dogs and hunters alike.

Our weather is an interesting topic of discussion no matter what it's doing. There's no doubt



that our weather patterns are different than they were 20 or 30 years ago. And while our 2018 weather was near record-setting, as far as minimum and maximum temperatures, we've seen colder and hotter. It was 101 degrees on April 10, 1967 and it was 14 degrees on April 3, 1975. What really stands out this year are the enormous swings – frigid one day, sweltering the next.

I still chuckle when I think of the old saying, "Everyone talks about the weather, but no one does anything about it." (No one seems to know if Mark Twain wrote it or if his friend and partner, Charles Dudley Warner, wrote it.) And the fact is, we can't do anything about the weather. We can either complain and be miserable or we can make the best of it.

So while I may not hunt turkeys or fish when the wind is howling or the temperature is unduly hot or cold, I will make the best of my time outdoors when the weather is good. I will appreciate the good days and never take them for granted. When we're given small windows to enjoy hunting or fishing, we must go. Perhaps we need a new category of leave time. We already have inclement weather days, which keeps us home when there is heavy snow, ice or an approaching blizzard. This year, we could have used "clement weather" days, which I define as required time off when the weather is good. I'll run that by our Human Resources director. 🐻





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