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Backlash.....by Mike Miller **Optimism** Rewarded

Front Cover: These hand-tied crappie jigs serve as a creative outlet and source of income for Army combat veteran, Joe Bragg. Nadia Marji design. Inside Front Cover: Liza Ward clutches her first bird during spring turkey season last year. Nadia Marji photo.





Contact the Editor: mike.miller@ksoutdoors.com



## **Boat Kansas!**

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Those warm February days had me dreaming of being on the water, and I was dreaming of Kansas waters. Believe it or not, water-based recreation is big business in Kansas. For a state with no natural lakes, our rivers and man-made ponds, lakes, and reservoirs draw thousands of anglers and boaters. In fact, more than 80,000 motorboats, sail boats and personal water craft are registered in Kansas. While canoes, kayaks and other non-motor-ized boats don't require registration, there is an estimated 30,000 owned by people who enjoy paddle sports.

Here are a few stats put together by the National Marine Manufacturers Association. There are 137 recreational boating businesses in Kansas, accounting for more than 7,000 jobs. Annual recreational boating-related spending is more than \$382 million.

Most boats owned in Kansas are categorized as powerboats (78 percent), the rest are made up with PWCs (17 percent), and sailboats (3 percent). About half of the boats registered in Kansas are used for fishing.

According to the U.S. Fish and Wildlife Service's National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, there are 400,000 anglers in Kansas and those anglers spend 4.6 million days fishing. Anglers in Kansas spend \$2.1 million on trips, equipment and other fishing-related stuff each year. When the total multiplier or ripple effect is applied, anglers pump \$3.2 million into our economy.

Where do Kansans boat? We have 24 federal reservoirs scattered around the state, and they range in size from 1,200 acres (Big Hill) to 16,000 acres (Milford). There are 200 community lakes and 45 state fishing lakes. We have 26 state parks in Kansas and most are located on the shores of a reservoir or state fishing lake. They all provide multiple access points to the water, including multi-lane boat ramps protected by piers, courtesy docks, parking areas and restroom facilities. Boating recre-

ation and fishing are big reasons our state parks host more than 6 million visits each year.

There are more than 10,000 miles of streams and rivers in Kansas, but most are privately owned. There are three rivers defined as navigable by statute and thus are open to public access between the high-water marks: the Kansas, Missouri and Arkansas. All three have public access points and offer fantastic canoeing and kayaking opportunities. In fact, the Kansas (or Kaw) River has been designated as a National Water Trail. There are 173 miles open for recreation, beginning at Junction City and ending where it flows into the Missouri River in Kansas City. There are 19 access points, five that provide restrooms, four that have picnic areas and two that allow camping. To see maps, go to www.travelks.com/ksrivertrail.

On the Arkansas River Coalition's website (www.arkrivercoalition.org), you can learn about access points for floaters on the stretch of river between Great Bend and the Oklahoma border. Downloads describe access point locations and include descriptions of each.

On many of our federal reservoirs, public lands include stretches of streams and rivers that feed into the reservoirs, and canoers and kayakers may find great float opportunities here. Go to www.ksoutdoors.com for more information and maps.

And while we may not be famous for water recreation, those who sail and windsurf love Kansas lakes because we have a dependable supply of wind. Crappie fishing at some of our reservoirs can be some of the finest in the Midwest, and hard-fighting wipers and colossal blue catfish are drawing a growing angler fan base. Kansas is known for great pheasant, quail, turkey and deer hunting, but interest in water-based recreation is building.

Wildlife & Parks

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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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## **Letters to The Editor**

#### MIXED BAG SUCCESS Editor:

This duck hunt was on a private pond near Alta Vista with three youth hunters and a good friend, Shane Tiffany. It was our first waterfowl hunt of the season. I have not been hunting with such a mixed bag of success early season. To have success with the three youth was a blessing from the Lord.

Lucas Haines, Hays



#### CHLOE'S FIRST BUCK Editor:

This is Chloe Christensen, age 11, on Dec 2, 2015, opening morning of the 2015 whitetail rifle season. Chloe harvested her firstever Kansas white-tailed buck in Harper County. She used a Savage .243 rifle to drop the buck from 150 yards.

Chloe is a 6th grader at Andover Middle School in Andover. Thanks!

Ben Christensen, Andover



#### THANKS FOR TROUT KDWPT:

Thank you for supporting the trout stocking program at Big Slough Creek. Gorgeous day for fishing, only two trout but the second one was a first for me.

Need to make it up to Kanapolis next, I hear they are stocking browns again this year. Mark Pierce, Wichita



# BIRD BRAIN

## **Kansas Spring Birding**

After weeks of cold, dreary weather, I always look forward to the signs of spring. In the Kansas bird world, it starts in late February and early March with the sight and sound of sandhill cranes streaming overhead on their annual trek to the Platte River in southcentral Nebraska. There, tremendous numbers of cranes will gather, creating one of the truly awe-inspiring wildlife events in the country. We Kansans witness the impressive flocks en route. The numbers of cranes on the Platte can swell to around a half-million, with most leaving by late March for nesting grounds in Alaska, Siberia, truly wild. Spending a morning in a blind on a prairie chicken lek requires an early alarm since you need to be in place at least a half hour before dawn. But it's worth it.

The 2016 Kansas Birding Festival is scheduled for the last weekend of April in Wakefield, at the north end of Milford Lake. The festival is scheduled to take advantage of the spring migration in Kansas and also provides opportunities to visit a greater prairie chicken lek. To learn more about the festival visit www.kansasbirdingfestival.org or www.ksoutdoors.com.

The Spring Meeting of the Kansas Ornithological Society will be held May 6-8 in the Winfield/Arkansas City area, providing attendees the chance to see migrating songbirds, waterfowl and shorebirds in this diversity-rich part of our state. Information about this event will be available on the KOS website: www.ksbirds.org.

In mid- to late April, Kansas birders will see other migrating species such as warblers, thrushes, and tanagers.

Canada, and the midwest. upper These majestic birds can live from 20 to 40 years, so many will travel tens of thousands of miles over a lifetime. In the right conditions, cranes can travel 200 to 500 miles a day. We get to enjoy them longer in the fall when they are not in such a hurry to reach their wintering grounds. They are one of my favorite bird species and I consider myself fortunate to live in a state where we see and hear so many.

Early spring is also a great time to observe ducks and

geese, many that may have spent the winter in Kansas. This time of year, the birds are in their best plumage in preparation for the breeding season. Numbers of ducks and geese can reach into the millions around the lakes and marshes of Kansas.

Spring is also the time for prairie chickens to begin their annual courtship ritual. Kansas is fortunate to have both greater and lesser prairie chickens and watching them display and fight on a lek is one the more rewarding wildlife experiences a birder can have. As with the trumpeting calls of sandhill cranes, the sound of prairie chickens booming has a surreal, primal feel to it, giving the sense of something



These neo-tropical migrants will grace our borders for a few weeks before they take off on the final leg of their trek to the breeding grounds. The months of March through Mav are considered to be the best for birding in the state if you are trying to observe the most species. Birds are in their best plumage in spring, making identification much easier than in fall. Migrating shorebirds are also abundant during this time and our wetlands (Chevenne Bottoms, Quivira, Jamestown, McPherson, Marias des Cygnes, Neosho

and others) provide great birding opportunities.

Be sure to check with local birding clubs that may sponsor guided field trips to various locations in search of birds. You might discover a local or regional hotspot with folks who know the areas and are happy to share their expertise. These trips can be rewarding, not only for the birds seen, but also for the friendships and camaraderie. Many of the best friends I have came from a common interest in birds and birding. So, not only can you get a lifetime of enjoyment from birds, you can get lifetime friends, as well.



# IT'S THE LAW

Kansas game wardens experience challenges in their work every day. While game wardens are primarily tasked with enforcing the laws and regulations related to hunting, fishing and boating, challenges can come from different directions. Some examples include serving as storm spotters during severe weather; responding to water-related emergencies such as boat accidents, searches for missing persons and drownings; responding to trespassing calls from landowners; and investigating the illegal take of fish and wildlife. Game wardens are often called upon to assist on both land and water for search and rescue missions. We are called to assist local law enforcement and emergency management personnel with traditional police and/or emergency calls, including vehicle pursuits, domestic violence calls, and search warrants. In many instances, the Kansas game warden is the closest law enforcement officer who can respond.

The job is diverse with hidden dangers and can take a Kansas game warden in many directions at all hours of the day and night. We typically only get one weekend off a month and can be called out at any hour to respond to public safety, emergency or enforcement issues. We may be gone for extended periods of time, either investigating

## "There are missed dinners (and sometimes breakfasts, too) holidays, kids' special events, birthdays and anniversaries."

these various incidents or conducting search and rescue or recovery efforts after boating, hunting or fishing accidents. This lifestyle means a game warden is often away from his or her family.

Most Kansans support enforcement of our wildlife-related laws, but the real support for game wardens comes from the "unsung heroes" - the wives, husbands, significant others and family members who experience the highs and lows of living with a game warden. These unsung heroes act as secretaries, counselors and many times the second source of information for the questions that come for the game warden.

Since the game wardens work from a home

office, the family members inevitably become intertwined in the day-to-day dealings with the public. There are few other careers where the public comes to your house at all hours of the day and night to get information, report problems, or just discuss a big deer or bobcat they've taken. This inevitably leaves the family members trying to help with the problem, listen to the story, or take the information. They then act as secretary or dispatcher. These unsung heroes are members of the Kansas Department of Wildlife, Parks and Tourism's Law Enforcement division family whether they realize it or not.

Family members worry every time their game warden leaves the house to go to work, hoping and praying for their safe return. There are missed dinners (and sometimes breakfasts), holidays, kids' special events, birthdays and anniversaries. With all that being said, these unsung heroes (like family and friends of any first responders and law enforcement officers) know that these men and women are dedicated to the resource they love and serve.



UNSUNG

HEROES

The unsung heroes support and defend the lifestyle and beliefs of their game warden by picking up the slack on the home front for the things that time will not allow; things like helping kids with homework, or attending baseball games, family dinners, and holiday celebrations. Many people take these things for granted, but attending these events are considered luxuries to game wardens. When we are able to slow down and take a breath, that kind smile and "I am proud of you" from a game warden's unsung hero can breathe new life into a worn out game warden. That support is a priceless gift.

Many benefits of the work done by the game wardens in Kansas, protecting our natural resources and citizens, will not be realized in their career or lifetime. The impact these people have on the resource will be enjoyed and appreciated by our children and grandchildren. I would like to personally say "Thank You," to our Kansas game wardens and the unsung heroes who support them every day.

# AT WOODS EDGE

WITH ANDRA BRYAN STEFANONI

## The Many Roles of Raven

It started with a detailed journal entry:

"Friday, July 18, 2014: Went through "Train the Trainer" workshop at puppy pick-up day. Started crate training on the nine-hour drive home. Stopped every two hours for bathroom breaks. Woke her every two to three hours to go outside to pee."

It continued with 500 more detailed journal entries – nearly every day from the time we brought home our black Lab pup, Raven, to the time she was ready for a hunt in our duck blind this January.

After 18 months of training, our floppy-eared bundle of softness had become a steady, obedient, athletic dog that we can officially call a gun dog: This past duck season saw her make her first successful retrieves.

But she also can officially be called so much more:

A family dog. (She is trained to sit on her "place" – a Kuranda bed – to watch our family play cards and Monopoly, or to read by the fireplace.)

A gardening dog. (She follows me closely around our two acres and helps with chores, picking up sticks and taking them to the burn pile, sitting next to me as I kneel to clip plants or work soil, and retrieving my gloves.)

A hiking dog. (Off leash, she trots along the trails, up and over hills, and sniffs out wildlife in leaf litter, returning to us whenever we whistle or call.)

A walking dog. (She is our primary form of daily exercise in all seasons – my husband covers the early morning one-mile walk, I cover the mid-day one-mile walk, and we both do the suppertime walk, generally around our wetland and through our prairie.)

A fishing dog. (Trained to sit quietly on a tie-out, she watches from the bank of our favorite trout fishing hole as we bait hooks, cast, and net fish. She never barks and is appropriately social with other anglers who pass by and pet her head.)

And, of course, a writing dog. (She is my sounding board when I get stuck while working on a story, and my nudge when it's time for me to take a break and stand up and stretch. At this very moment, she is curled at my feet.)

Our training with Raven has been much more successful than it was with our previous dog, a beautiful yellow lab named Aggie who was with us 15 years. Of course, we had 13 years of parenting experience with human children when we brought home Raven. But we also used better strategies.

We read all we could before we brought her home and as we trained her; books such as *British Training for American Retrievers, Water Dog,* and *Retriever Training for the Duck Hunter.* Our hands-down favorite and one we followed to the letter was *Sporting Dog and Retriever Training the Wildrose* 



Way by Mike Stewart.

We involved the family. Our sons were 13 and 8 when we began, old enough to learn how and why to do things and what not to do. All four of us used the same verbal commands, and our sons had ownership in training methods such as throwing a retrieving dummy and firing a cap gun as we trained her in pond retrieves.

We were consistent. We borrowed a page from the U.S. Postal Service and trained and exercised her in rain, snow, and 100-degree heat. Every day, we provided her varying activity to enrich her life, enrich ours, and provide her a duty and a reward.

We set goals and documented progress. Just as teachers do with students, we decided upon milestones she should be able to reach by specific ages, then structured our training with those in mind. The journal entries, as well as photos and videos I captured with my smartphone, helped us stay on track, rewind if necessary, and celebrate accomplishments.

We had fun. As cliché as it sounds, all work and no play makes a dog – and us – a "dull boy." Last winter after several inches of snow, we threw a few snowballs instead of retrieving bumpers. Hilarity ensued when she tried to pick them up and they came apart in her mouth.

We didn't train in what we would eventually want to train out. Dogs are creatures of habit, and once a precedent is set, it's nearly impossible to make a behavior go away.

After Aggie died, our grief made us unsure for a while whether we would ever have another canine member of the family. Now, we're so glad we do. We're proud of what we accomplished with Raven, and can't imagine our lives without her. Is she perfect? Of course not. But then neither are we.

For more At Woods Edge, visit www.atwoodsedge.net or www.facebook.com/atwoodsedgelife.

## HUNTING HERITAGE WITH KENT BARRETT

## Why You Should Hunt Solo

It is the first of February and I am sitting in my office staring at a blinking cursor (I guess that is one way of describing it) with my cell phone dinging and my telephone ringing away. It is obvious that we now live in a world of technology, of constant contact, a place where being alone is becoming increasingly more difficult to accomplish. With the closing of most of the hunting seasons, I already miss being alone.

One of the results of all this serious social interaction is that most of us rarely have time to be alone. I am sure that being around others and being connected to a network of friends and associates has a positive influence on us, but I am also sure that there can be too much of a good thing.

A few years back a sociologist asked some hunters a tough question. Would they rather hunt with their buddies where there were only a few deer OR hunt alone where there were lots of deer? Interestingly, more than two thirds of the hunters said they would rather hunt with their friends. That statistic tells us something about why people choose to hunt. For many it is the friendships, the family connections, and camaraderie that brings people to the hunters' fire. For those hunters who have reached the sportsman stage, the animal is a necessary part of the hunt, but it is far from being the only part of the hunt. There are many trophies that we take away from the hunt, but the memories are the best as well as being the longest lasting.

But being alone has some virtue, as well. We are finding that solitude is good for your mental and emotional wellbeing. To get the most out of life, especially life outdoors, you must learn to enjoy spending time alone. Here are just two benefits that I have discovered.

Being alone gives you time to recover and recharge and everyone, including the most hopeless extrovert, needs that. The outdoors is a great place to accomplish this. The peace and quiet found outdoors can be somewhat disquieting at first, but in the end it can provide the perfect place to recover from the stresses of being constantly connected. Many native peoples equate mountains with the home of God. The outdoors can be a very spiritual place once we become comfortable being alone, and nature has a tremendous ability to heal us.

The second benefit is that being alone lets you learn to trust yourself. Freedom is more than doing what you want to do. Freedom involves taking responsibility for your actions, whether they are good or bad. When you cultivate the ability to trust your gut and think clearly without any outside pressure or influence, you have developed your own ethic and are ready to exercise personal responsibility for your actions. Being alone helps you gain a clear understanding of who you are, what you know and what's right for you. You can develop your own ideas and opinions without them being watered down by those around you. Being alone can provide you with a valuable opportunity to become who you really want to be.

So even if most of the hunts are over for this season, keep looking outside. Late winter is a beautiful time as seasons change and the earth recharges and renews itself once again, and turkey season is just around the corner. Trust yourself to take it outside and embrace the wild. It will do wonders for you.



Fish Squéézér-Réfire, but not yet fire) WITH TOMMIE BERGER

## Send a Youth to Outdoor Adventure Camp

Outdoor Adventure Camp (OAC) is a six-day summer camp for kids who either enjoy the outdoors or want to learn more about it. The conservation/education program is sponsored by the Kansas Wildlife Federation (KWF), and 2016 marks the 28th year for this popular camp. Dates for this year's camp are June 5 through June 10.

OAC was started in 1986, by KWF and then camp coordinator Steve Sorensen. In recent years, the camp has been scheduled in early June for the chance of better weather and fewer conflicts with family vacations, baseball, and other camps. OAC has always been conducted at Rock Springs 4-H Center south of Junction City, an ideal setting for outdoor camps.

OAC instructors are all volunteers, and originally most camp counselors were KWF members. Over time, other volunteers have been invited to participate. Today, we are extremely fortunate to have a full slate of counselors who were past campers, as well as a Junior Counselor training program that has a waiting list. We now have a few past campers who are sending their kids to camp!

My wife Theresa, an elementary school science/math teacher, has coordinated the camp since the mid-1990s. I have been involved with OAC since the first year, so Theresa and I have a big investment in this program. Our son Fritz attended camp nearly every year until he was 13 years old and continues to help with camp when he has time. In 2011, OAC was recognized by Field & Stream magazine as one of the top six "Heroes of Conservation" in the nation. Theresa and I were invited to Washington DC for a gala event to honor the heroes. We were proud to represent this outdoor education legacy dedicated to Kansas youth!

Any youngster between the ages of

10 and 12 this summer who has an interest in the outdoors should be encouraged to attend, and now is the time to make plans. Youngsters must be 10 prior to camp and those 12 years old as of January 1 may attend even if they turn 13 prior to the completion of camp.

Over the years, we have averaged about 42 youngsters per year with usually about half being returnees. Many campers attend for all three years of eligibility. We have had as many as 68 campers but now limit the number to 50. Our educational structure generally splits our camp number in half for each instructor and most instructors feel that 20 to 25 kids per class is about the maximum for a quality learning experience.

At OAC, youngsters get hands-on lessons about the various critters and plants in the Kansas ecosystem. Campers will learn about ecology, wetlands, riparian areas, wildlife and watersheds. Instructors come from Kansas Wildlife, Parks and Tourism, Kansas State University, the Natural Resource Conservation Service, county conservation districts, Fort Riley Environmental Education, as well as Kansas school teachers. Other fun activities include scavenger hunts; swimming; canoeing; fishing; rifle, shotgun, and archery marksmanship; and arts and crafts - fish print T-shirts and survival bracelets. We always take a morning trip to the Milford Nature Center and Fish Hatcherv.

Last year's activities included sessions on wildlife and fisheries management, plants, fossils, and more.

There was even time for swimming, campfires with s'mores, charades, and Jeopardy.

Sponsors include KDWPT's Pass It On and Aquatic Education programs, Federal Ammunition, the Youth Shooting Sports Alliance, and the Fishing Future Foundation. We are continually accepting monetary donations and equipment.

So, a swim suit, sleeping gear, and clothes you'll wear for a week are about all you need to bring along. Food, instruction, and lodging are all included in the price of the camp. Things like sun screen, insect repellent, a cap, a fishing pole, and a water bottle are other things that will certainly come in handy. The price of the camp is \$325. Space is limited and the registration deadline is June 3. Outdoor Writers of Kansas provides 10 scholarships yearly for Big Brothers/Big Sisters youngsters from around the state and KWF generally provides a couple of scholarships for needy youngsters, too.

For more information, or to sign up a camper, contact Tommie and Theresa Berger at bergkwf@wtciweb.com or by phone at (785) 526-7466.

Hope to see you there!



Wildlife & Parks

## **EVERYTHING OUTDOORS**

## Hunting the Light Goose Conservation Order



It feels like cheating. The rules for hunting light geese change in February, giving hunters an edge. By regulation, light geese include snow and Ross' geese (blue geese are a color phase of snow geese). The Light Goose Spring Conservation Order was implemented throughout the Central Flyway in 1998 to use hunting as a tool to reduce the light goose population.

The mid-continent populations of light geese have increased by 300 percent since the 1970s, and these birds are literally eating themselves out of house and home on the fragile arctic tundra where they nest and rear young. The resulting damage often takes years, if not decades to recover

Harvest of light geese peaked in 1999 when more than 1 million birds were taken by hunters. Harvest dropped considerably after that and in recent years about 500,000 light geese have been harvested annually nationwide, with a slight uptick in the last two years. The increased pressure and intense pursuit of snow geese throughout their migration has made them increasingly difficult to decoy and kill.

Kansas lies in the heart of the

Central Flyway, but each state within the flyway has plenty of opportunity to hunt snow geese on their spring migration back to the Arctic Tundra. The Kansas Light Goose Conservation Order begins the day after the regular goose seasons close (February 15, 2016) and runs through the end of April. There are no daily bag or possession limits. Hunters must have a 2016 hunting license, unless exempt, as well as Kansas Harvest Information Program (HIP) and state and federal waterfowl stamps. Unplugged shotguns and electronic calls may be used during this season. Shooting hours are extended to one-half hour after sunset. Certain parts or all of some state or federally-owned areas may be closed to light goose hunting, so check local regulations.

Depending on the year, the first few weeks of the season are typically better for light goose hunting, but much of the birds' movement is dictated by weather patterns. A warm spring to the south sends them packing while cooler temperatures delay their trek.

As with any type of waterfowl

hunting, scouting is critical, but it is even more important during the spring season. Fields void of any life can quickly become snow white overnight and the birds will typically stay in areas until they clean out a field, usually waste grain in corn or milo fields. Permission to hunt private land in the spring isn't as hard to obtain as it may be in the fall. Hunters must track flocks' movements and "follow" the birds as they fly from roosting site to feed fields.

Once an active field is found, most hunters use a combination of rags, socks, shell or full body decoys, often setting out hundreds to create a realistic spread. Most hunters use 12 gauge shotguns and 3 or  $3\frac{1}{2}$  inch shells loaded with nontoxic shot as large as BBB to as small as 2s.

Hunting snow geese during the Conservation Order can be aweinspiring as well as frustrating as huge flocks of white birds circle the decoy spread wary of danger. When the hunters have the right setup in the right place with the right wind and the birds commit, the experience is like no other.

Answer from Page 7: gray treefrog



## Let's Do It All

In the 2013 March/April issue of *Kansas Wildlife & Parks* magazine, we introduced the first Accidental Huntress column, titled "Goodbye Flip-flops, Hello Muck Boots!" It was a Reader's Digest version of how in the world a southern California girl became captivated by the Kansas outdoors. To say I wasn't the typical hunterangler was an understatement, and to be honest, I'm still not. It's a fact that I'm totally cool wit, because to my

surprise, sharing my unusual transition from flip-flops to muck boots has inspired and entertained more people than I could have ever hoped for.

Looking back on that debut column, I realize how much I've grown as an outdoorswoman, writer, and as a Kansan. I'm no longer drawn to clothing or equipment generously adorned with the color pink; oddly enough, the more low-key something is these days, the more I like it. I've intermittently caught myself referring to soda as

"pop," even though it still feels a little odd. But the most significant change of all since the inception of Accidental Huntress is that I'm not really a "beginner" anymore, and I say that with pride and reluctance. I'm extremely satisfied with the strides I've made over the past three years, particularly from never having shot a deer to taking my first mature buck with a bow this past fall. But I know that leaving behind the safety net of first-timer status comes with it's own set of new challenges and expectations. Will my "I'll just be happy to get one bird" attitude still stick when pheasant hunting? Will I visually dissect every deer I see now before considering filling my tag, fearing taking one smaller than my last? These are all things I'll explore, amid a new series of questions, adventures, and experiences.

If you haven't figured it out by now, this is the end of my chapter as an Accidental Huntress. While this

"To say I wasn't the typical hunter-angler was an understatement, and to be honest, I'm still not."

column has been an incredible source of joy and a necessary catalyst for self-reflection, it's time to open the second chapter of my outdoor journey. Welcome to "Life Unpaved with Nadia Marji."

Life Unpaved will hold true to parts of Accidental Huntress: I'll still poke fun at the shenanigans that will inevitably ensue each time I'm afield, share recipes from my latest hunts, and I still want to see more women and girls get outdoors. I'll just be widening

my scope to welcome in everything else that's out there; all that encompasses living life off the blacktop. Whether my next adventure is testing my physical endurance along Switchgrass Trail, exploring the fine art of fly-tying, or monitoring the use of a newly-built wood duck box, I hope you'll enjoy this new theme and continue to follow along.

For this next chapter of my outdoor journey, I'm choosing to do it all.

Here's to living Life Unpaved.



I've heard many times that the main reason customers return to our state parks is our people. They say staff are helpful and treat them like family.

We have amazing staff. I tried to analyze what makes so many of our staff stay on the job 10, 20, 30 or more years. It isn't the pay or easy work. Then, as I listened to a manager describe the projects he and his staff had completed on their park, and the dreams they yet had, I understood what it is: it is passion. Our staff are passionate about the work they do to provide the best recreation experience possible for their customers. Our customers are passionate about the parks they call their own and about the activities they pursue there. Many of our staff share the same pursuits, and they celebrate as much as the parent when a kid brings in that first fish or an angler with the catch of a lifetime. They happily score a trophy deer or tag bobcat pelts. They have the same passions.

Often, it's the passion of our constituents that brings new recreation opportunities to the parks. From geocaching, to new trails, to pickle ball, we often get caught up in the passion of the customer and find a way to offer that experience.

And our state park volunteers go the extra mile because of their passion about the park they serve. The passion

# Find Your Passion at a Kansas State Park

and vision of our leadership takes us beyond what we think we can accomplish.

What passion can you discover in a Kansas state park? Teaching your children to read the stars? Landing a fighting trout? Discovering a new trail or helping build it? Honing your archery skills? Testing yourself against others in a triathlon? Sailing? Watching a sunrise or sunset? Find your passion in a Kansas state park.

And through March 31, you can save money by purchasing annual and fourteen-day camping permits at a reduced price. They go up to full price on April 1, so get to your favorite park today.



## wiтн Dan Witt

I thought he was exaggerating when my friend called and said he had a large number of snakes in a water trap in his front yard. I grabbed the camera and drove out to his farm. I was amazed when he lifted the iron cover to expose the mass of reptiles. Practically every crevasse housed a serpent. They were mainly Great Plains rat snakes and eastern racers, but there was a gopher snake (we grew up calling it a bull snake) and a milk snake. The temperature was in the 70s, and the snakes were lively and active. There were no venomous snakes that I could discern. We wondered if the presence of a gopher snake, or bull snake, kept rattlesnakes away, since we believed that bull snakes ate or killed rattlesnakes. I decided to research the actual facts about bull snake vs. rattlesnake. I was surprised with the results.

Byron Shipley is a rattlesnake researcher at the Plains Conservation Center in Aurora, Colorado. His information is precise and carefully documented. One of the main myths is that bull snakes kill or eat rattlesnakes and that having them around will eliminate the risk of being bitten by a rattler. In all the literature he reviewed, there were only two instances of rattlesnakes being found in the gut of a bull snake out of 1,000 bull snakes examined. That is only 0.5 percent of the entire list of prey items, which is negligible for population control. It has been documented that rattlesnakes and bull snakes hibernate together. They can't cross-breed since the rattlesnakes bear live young, and the bull snakes lay eggs.

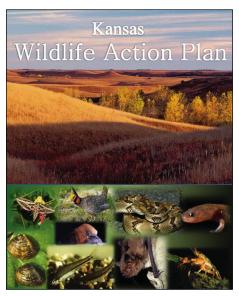


Rattlesnakes seem to disappear in mid-spring. I know we see very few of the massasauga rattlers at Cheyenne Bottoms after the frequent sightings in early spring. That is due to the fact that rattlesnakes become mainly nocturnal after midspring. Bull snakes are busy day and night in their feeding patterns. Bull snakes seem to favor warm-blooded animals and bird eggs. I wondered about their effect on pheasant and quail populations but could not find any reliable information. Rattlesnakes eat other snakes, lizards, amphibians, and all types of warm-blooded animals.

I was somewhat disappointed to learn that bull snakes share space and don't really mess with rattlesnakes. Bull snakes are cranky and have a much worse attitude than rattlers when disturbed or caught. Brian and I found a little massasauga in one of the goose pits at the Bottoms when we were duck hunting last fall. It seemed to appreciate being lifted out of the cold water in that pit and returned to the warm earth of the shore when we exited the marsh. It will probably be the star of a "rattlesnake-in-the-marsh" photograph one of these days. They are one of the less-appreciated species in our marsh – but everything has a place.



## Kansas' State Wildlife Action Plan



The State Wildlife Action Plan (often referred to as SWAP) is a conservation plan that assesses the health of Kansas' wildlife and habitats, identifies the problems they face, and outlines the actions that are needed to conserve them over the long term.

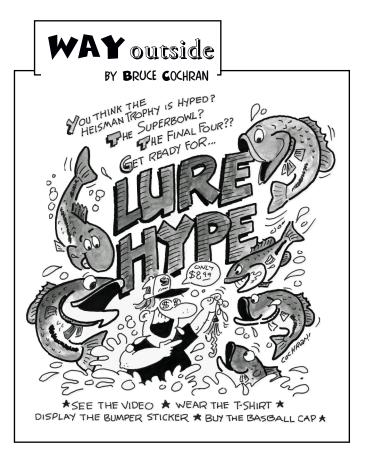
Back in 2001, Congress created the State and Tribal Wildlife Grants (SWG) pro-

gram to assist states and their partners with the conservation of at-risk species. The goal of this federal program is to prevent species from being put on the endangered list. As a condition for receiving SWG funding, each state and territorial fish and wildlife agency developed a comprehensive wildlife conservation strategy.

The 2015 Kansas SWAP revises and replaces the original 2005 Kansas Comprehensive Wildlife Conservation Plan. It is built upon the eight required elements identified by Congress, with an overall focus as a habitat-based plan that began with the consideration of species. Kansas' SWAP identifies priority species (known as Species of Greatest Conservation Need, SGCN) that include rare and declining species, as well as quintessential Kansas native species. Also identified are the habitats essential for the SGCN, the priority issues/threats affecting the SGCN and their habitats, and the potential conservation actions needed to address the identified issues/threats. New additions to the plan are information on climate change, as well as the development of geographically explicit areas in which to address conservation, called Ecological Focus Areas. The plan also highlights past projects and success stories implemented through the SWG program since the former plan was developed.

The plan is based on the best available information, and KDWPT collaborated with agency partners, conservation organizations, academic institutions, and other stakeholders to review and revise the plan. The feedback and assistance from these groups, their willingness to participate in all aspects of the plan revision, and overall support is outstanding. The SWAP is not meant to be just a conservation plan for KDWPT. It's a dynamic and adaptive document that can serve as a guide for other agencies, organizations, stakeholders, experts and interested parties to ensure that Kansas' wildlife and habitats are conserved for future generations. Implementation of the plan is key. This is a strategic plan – not an operational plan. It identifies broad priorities on species' habitats, issues, and by influence, conservation actions. It is expected that through frequent contact with potential partners and stakeholders, along with the monitoring of new information and conservation progress, needed changes or updates will be identified. Through on-going communication and coordination with all stakeholders, Kansas' SWAP will remain a vital, adaptive template for future fish and wildlife conservation efforts in the state.

The draft SWAP document and information regarding it can be found at www.ksoutdoors.com (type SWAP in the search box). The plan will receive its final approval after its US Fish and Wildlife Service review.





Growing up on the farm, I wasn't around a lot of people outside of school and family. My sisters and brother were older and were beginning to live lives outside the home by the time I was 10. Veronica was my closest sibling and she often went out of her way to make time for me. Her boyfriend at the time, John Novotny, now her husband, would often take me hunting and fishing.

Occasionally, after a day of fishing farm ponds, we would visit John's Uncle Al. I wasn't related to Al but I only knew him as "Uncle Al."

One day after catching a bunch of bluegills, John and I stopped by Uncle Al's to show them off. We found him tinkering in his shed and he offered to help us clean them. I was too young to wield a knife, so I was charged with washing fillets. When finished, we had a bucket halffull of bluegill fillets.



## The Best Time to Fish

Well-known outdoor humor writer Patrick McManus wrote, "The two best times to fish is when it's rainin' and when it ain't." I agree. I can't be so picky as to go fishing only when the barometer is rising or when the solunar tables are right. I fit fishing in around work and I like to go with the wind is blowing less than 25 mph, which narrows it down some in Kansas. And, for me, fishing on a reservoir requires at least an hour drive. To decide where to go, I like to learn a little about current lake and fishing conditions. I don't want to drive two or three hours to find the lake is three feet high and muddy.

## UNCLE AL'S BLUEGILLS

Uncle Al mentioned that he loved smoked bluegills, but had rarely caught enough to justify cranking up the smoke house. Once we were convinced to try it, he retrieved a half-full bag of Morton Sugar Cure and dissolved it into two or three gallons of water. Adding cure until no more

would dissolve. He then poured the solution into the bucket with the cleaned fillets.

With the brining process started we finished cleaning up and left. The next day, we arrived around lunchtime, just in time to see the second rotation of fillets loaded into the smoker. When Al opened the smoker door and the smoke cleared, we could see rows of caramel-colored fillets hanging on individual hooks painstakingly stacked from top to bottom.

The first few pieces were done and Al offered us a sample from the stainless steel bowl sitting on a nearby table. The outer layer was leathery-textured but broke way to perfectly cooked flaky meat. The flavor of smoke, salt and hint of sweetness was delicious, and we soon polished off those first pieces and waited for more. I remember taking a Ziploc bag or two with us that evening and being grateful

for the experience.

I hadn't thought about that weekend or fish jerky in years, but when my sister called in January with news of Uncle Al's passing, a flood of memories came. I remembered his patience when I was trying to sneak a peek in the smoker and I'll never forget the lingering smell of smoke on the hot summer air.

Unfortunately, I don't remember the specifics of smoking time or temperature, but I made it a goal this year to try my hand at smoking some bluegill fillets with my family. I'll pull from my resources and experience to hopefully get close. I'm looking forward to them already because I know the smell and flavor will bring back a cherished childhood memory of Uncle Al.

I know there are lots of Kansas anglers just like me because the "Weekly Fishing Reports" on the Kansas Department of Wildlife, Parks and Tourism (KDWPT) website (www.ksoutdoors.com) are the most popular landing pages in the spring and summer. I also hear from anglers when the reports haven't been updated. I understand their frustration, but I also know that district fisheries biologists are busy this time of year, and all have several reservoirs, community lakes and state fishing lakes they manage. During a given week in the spring, a biologist may be working 50 miles away from a particular lake and have no information to report. There are also times when conditions are such that very little fishing activity is occurring and reports aren't possible.

I recommend anglers put together a three-tiered approach to get fishing reports. First, look up the fishing reports on the KDWPT website. Even if the fishing activity hasn't been updated, you can find links for lake level and water temperature reports. Next, look at a fishing website that includes state and local forums where anglers provide reports on their recent trips. Two that come to mind are kansasangler.com and crappie.com.

The final piece of the puzzle is a local contact; an angler, marina, bait shop owner, or state park office staff you can call. If they're located near the lake, these folks will often know someone who's fished recently. You might even get some tidbits about lake conditions, best methods and depth fish are being caught at.

Deciding to go fishing is easy – when it's rainin' and when it ain't (and when the wind is less than 25 mph). But the puzzle of deciding where to go needs all the pieces. Of course, even with great information, you can still get skunked, but you'll increase your odds of success.



## Sam Brownback Kansas Governor

This is the eighth article in a series featuring elected officials and their views on wildlife resources and outdoor recreation.

#### BY MIKE MILLER EXECUTIVE EDITOR, PRATT

Governor Sam Brownback is Kansas' 46th governor. He took office Jan. 10, 2011 and was re-elected for a second term in November 2014. He started in state government when he was appointed Kansas Secretary of Agriculture in 1986. He was elected to the U.S. House of Representatives in 1994, but when Sen. Bob Dole resigned his seat in the Senate during the 1996 presidential campaign, Gov. Brownback ran in a special election and was elected to the Senate. He was elected to a full six-year Senate term in 1998 and was re-elected to a second term in 2004. True to this support of term limits, Gov. Brownback did not file for re-election to the Senate in 2010.

Kansas born and raised, the governor grew up on a working farm near Parker, and spent a great deal of time outdoors as a young boy and teenager.

"I grew up quail hunting," he said. "We didn't have turkeys then and we didn't have pheasants in that part of the state, so I grew up quail hunting with a single-shot .410 shotgun, so I rarely hit one. I was the dog. I was the one sent into the brush to flush the birds, which also hurt my shooting.

Gov. Brownback remembered fishing with his brothers. "We had several ponds that were stocked with bass and we'd regularly catch bass and bring them back and clean them. That was a big thrill."

His early outdoor experiences revolved around family and working on the farm.

"When you're on the farm, you're outdoors all day every day," he remembered. "Looking back, I enjoyed it, but at the time, I wanted more time just to goof around and be with my friends."

Now, Gov. Brownback can appreciate that the farm life was a fantastic way to grow up and learn an appreciation for nature.

"We learned the value of work; turning fresh soil, cutting hay, combining, and we were out in nature every day, and some days it wasn't all that pleasant. But it was a great environment, and to learn that perspective at a young age was invaluable," he added. "It makes you appreciate nature and the vagrancies of nature and weather. It makes you appreciate God, as well."

Since taking office, Gov. Brownback has participated in the Governor's One-shot Turkey Hunt in El Dorado, and he was instrumental with the creation of the Kansas Ringneck Classic, an annual pheasant hunt that was hosted in Oakley last year. Both annual events are designed to promote the great hunting and outdoor resources Kansas has to offer. When asked about the economic impact of hunting, fishing and outdoor recreation



in Kansas, he elaborated.

"It's a big part of why we moved the Tourism Division from the Department of Commerce over to Wildlife and Parks. One of the best things we have to offer, tourism-wise, to the country is hunting, fishing, and exploring experiences. And promoting those can be done best in the agency that has wildlife and parks in it," he said. "Of course, that's not all the tourism we have to offer. There are many activities that draw people to Kansas, basketball, rodeos, car races, and more. But some of the best things we have to offer include the great pheasant hunting, turkey hunting, deer hunting, fishing at some of the wonderful reservoirs, the Flint Hills, and the Gyp Hills. We have some very unique places and activities in the state."

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He talked about the Flint Hills and the Kaw River finally getting recognized as attractions.

"We have the last stand of the tallgrass prairie, and it is becoming known and appreciated for what it is and its unique nature. We have this great national river trail on the Kaw River and I don't think it gets used nearly enough for the asset that it is. I hope more people get into canoeing and kayaking and enjoy this great resource."

Gov. Brownback said one threat to our natural resources and outdoor heritage was a lack of appreciation by residents.

"I really want to see Kansans get more into Kansas; hit one of the trails, get out on a reservoir or hunt pheasants or turkeys. Then you become a sales person for it," he said.

"I love events such as the Symphony In The Flint Hills because it gets people out to appreciate nature and the tallgrass prairie. Once they appreciate something, they want to conserve it," he added.

In closing, Governor Brownback encouraged everyone to put together a Kansas bucket list of places they want to visit or things they want to do.

"When you see something as amazing as the Arikaree Breaks out by St. Francis or Cheyenne Bottoms near Great Bend, you're seeing and experiencing some of the great nature and what this state is all about."

## The Magic of Maxwell By IRALEE BARNARD

KANSAS NATIVE PLANT SOCIETY



Maxwell Wildlife Refuge, home to the state's largest bison and elk herds, is located just six miles north of Canton in central Kansas. Tours of the native-prairie refuge can be scheduled by calling the tour center at (620) 628-4455.

What has colorful petals and woolly red hair? It's the Maxwell Spring Wildflower Tour on June 4 and 11, 2016. Not only will you find a dazzling variety of blooming wildflowers, but you will also see the new little red buffalo calves.

Maxwell Wildlife Refuge is located in McPherson County in the scenic Smoky Hills region of Kansas. Red sandstone and sand prairies, springs, creeks, and native wildflowers greet visitors. Wildlife abounds with resident buffalo, elk, deer, beaver, lizards, turtles, and many bird species. It is a special treat to see eastern bluebirds that are drawn to nesting boxes mounted on the refuge fence posts. Throughout the summer, the rolling hills are covered with a parade of wildflowers, but in May and June there is a spectacular burst of color and variety.

Yucca is easy to spot and noteworthy not just because of its large, white flowers, but also because of its many purposes. Fibers from the yucca leaves are tough and can be used as thread or braided for rope. The young flower shoots and flower petals can be eaten raw or cooked. Buffalo also like to eat the vucca flowers. The root can be used as soap. In fact, yucca soap

was manufactured at 1213 East Douglas in Wichita from 1889 to 1906. Besides soap, which sold \$7 to \$12 per gross, the Yucca Company also produced tooth paste, shaving cream, and lotion for eczema from yucca plants.

Goat's rue is an interesting plant with pea-like flowers that are twotoned with deep pink in the center and a large, lime green outer petal. Foliage is a gravish-green due to silky hairs that cover the plant. The 2-inch long, flat seed pods hang in clusters at the tops of the plants and persist a long time. The seeds are enjoyed by bobwhite and wild turkey.

Carolina gromwell, also called puccoon, has brilliant yellow-orange flowers. Each flower is about 1 inch across and attracts butterflies and bees. The common name, puccoon, is the Omaha-Ponca Indian name, often given to plants that yield dyes. The scientific name, Lithospermum, means "stone seed" in reference to the seed being stony in hardness.

Catclaw sensitive briar has pink, puffball flowers. The name catclaw comes from the barbs along the trailing stems of the plant. The small leaflets are sensitive to contact and will quickly fold up when touched. The nutritious plants are relished by buffalo.

Evening primroses, wild yarrow, blue spiderwort, several beautiful milkweeds, purple and white prairie clovers, and many others will be in bloom by early June. Many grasses also will be at their showiest, including Canada wildrye, porcupinegrass, Scribner's panicum, Junegrass, and eastern gammagrass. There is a lot to see!

All of this was made possible when the property was acquired by the state through a generous donation from the Henry Maxwell estate in the 1940s. Henry's father John appreciated beauty of the land and wanted to preserve the wild

prairie with its magnificent buffalo and other wildlife for future generations to enjoy.

Adjoining the refuge on the west side, McPherson State Fishing Lake has camping and the Gypsum Creek Nature Trail. The prairie surrounding the lake will also be full of blooms at the time of the spring tours.

2016 Maxwell The Spring Wildflower Tours on June 4 and June 11, will offer guided tours that last approximately 45 minutes. Visitors are taken into the prairie on a tram that allows great views of the plants and the buffalo. Be sure to bring your camera. Guides will answer questions and describe points of interest along the way. At the tour center there are displays and a gift shop. Nearby, a 50foot-tower offers panoramic views of the refuge and lake.

Tours are by reservation only. Call the tour center at (620) 628-4455 for information or reservations. Special events are held year-round. Also mark your calendar now for the Fall Wildflower Tours at Maxwell on August 27 and September 3. Maxwell Wildlife Refuge is located just 6 miles north of Canton in central Kansas.

TEXT AND PHOTOS BY MARC MURRELL MANAGER, GREAT PLAINS NATURE CENTER, WICHITA

Wildlife & Parks

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WE OWE OUR FREEDOM TO THE MEN AND WOMEN IN OUR MILITARY; THOSE WHO HAVE SACRIFICED TO KEEP US SAFE AND FREE TO ENJOY THE WAY OF LIFE WE ARE ACCUSTOMED TO. THE SOLDIERS LUCKY ENOUGH TO COME HOME OFTEN RETURN WITH SCARS, SOME OF WHICH AREN'T ALWAYS VISIBLE. ONE SUCH SOLDIER IS TOPEKA RESIDENT, JOE BRAGG.

We owe our freedom to the men and women in our military; those who have sacrificed to keep us safe and free to enjoy the way of life we are accustomed to. The soldiers lucky enough to come home often return with scars, some of which aren't always visible. One of those soldiers is Topeka resident, Joe Bragg.

"I've seen and done things you can't imagine," Bragg said. "It's a time I wish I could forget."

Bragg, 36, completed two tours in Iraq and 24 months of total combat in 2008-2009 and 2010-2011, but when the Army Scout returned home, he had trouble getting back to civilian life.

To cope, Bragg turned to fishing and hand-tying jigs, one of the few refuges he's found since leaving the Army in 2013. Both activities occupy his time, but mostly his mind. "When I came back, they told me at the VA (Veteran's Administration) Hospital I needed to find a hobby or I'd be dead in six months," he said.

Bragg suffers from Post Traumatic Stress Disorder (PTSD) and injuries to his body suffered as a result of war. It's little wonder, too, as he described one instance where he spent a week in a trash pile with a Long Range Marksmanship Team watching a supply route.

"We'd see these guys coming and trying to plant explosives along the road or hauling mortars and it would get ugly," he said. "There's not a lot of places to hide in a city of that size so the trash pile was the best we could do."

Bragg entered the Army at age 27. Growing up in central Florida, Bragg was working as a contractor for Home Depot and making about \$1,800 a week. He fished for specks (what we call crappie) with his late father, Roy, every Saturday after watching Jimmy Houston and Roland Martin fishing shows. He enjoyed his life. But something didn't feel right.

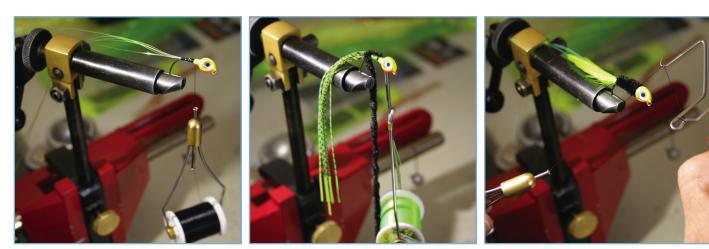
"I was sitting in my recliner one night and I felt guilty watching those 18 and 19 year old kids getting their butts shot off," Bragg said.

His father and uncle served in the military so he felt he should do the same. He decided to enlist.

Recruits are asked to list three bases where they'd like to be stationed. Bragg admits Ft. Riley in Kansas wasn't even close to the top of his list.

"But that's where I ended up," he laughed.

The area grew on him and the hunting and fishing sur-



Wildlife & Parks



## "IT WAS HONESTLY RAMEN NOODLE MONEY," HE SAID. "THAT'S HOW BAD IT WAS."

rounding Milford Reservoir was a definite bonus for Bragg. When he was discharged seven years later, he decided to make Kansas home. After his service he tried to do some of the same construction-type jobs he'd done back in Florida.

"But I didn't consider the winters here as most of that slows way down when it gets cold," Bragg said. "So I didn't have enough work and struggled to make it."

His 80 percent disability check from the Army is about \$1,550/month, which, he admits, is enough to pay the bills but he was still having trouble making ends meet. Times were tough after two divorces and losing most of his guns, boats, and vehicles in the process.

That's when he decided to start hand-tying jigs and trying to sell them. His late father had done it some and he'd dabbled in it over the years, so he figured it was worth a shot.

"You see all of these jigs in the fishing aisle and most of it is just crap," he said. "I figured if something was worth doing it was worth doing right."

Bragg admits it was a slow start and money was tight.

"It was honestly Ramen Noodle money," he said. "That's how bad it was."

But word has spread and with the help of a few friends and businesses, Bragg said his jig business is booming. He sells them through his Facebook page "Patriot Jig Works" and he's got jigs at Tightlines Bait, Tackle and Trapping (formerly the Bait Hut) on Highway 24 in Topeka.

Many of his customers are associated with professional crappie fishing tournaments. He's helped several anglers place near the top in some prestigious tournaments. Bragg takes a lot of pride knowing something he handcrafted helped anglers achieve success.

Today Bragg seems genuinely concerned about helping others more than helping himself. He organizes charity crappie fishing tournaments, which benefit the Kansas Chapter of Heroes on the Water and other veteran projects and pays for the permits to host these tournaments out of his own pocket. Entry fees are only \$40/boat and there's 100 percent payback to tournament anglers. Bragg solicits prizes from sponsors and uses these for "Big Fish" pots at \$10/angler. All of the money from this pot is donated back to that tournament's veteran charity.

"It just makes me feel good being able to do some of this stuff," Bragg said. "If I can help some of these guys with PTSD then I'm doing just fine. I really





WHEN I'M ON THE WATER I'M AT PEACE... BRAGG SAID.

... IT TAKES MY PAST COMPLETELY OUT OF MY MIND."

love helping others."

Bragg is in a better state now. He knows he's not going to get rich but he's at peace with how things turned out after a trip down a pretty rough road.

"I've just about lost my life enough that money isn't all that important," he said. "I just gave up chasing the big house and fancy car dream and realize now what's important."

His trips to the VA reinforce those beliefs and he's thankful.

"It could be a lot worse," he said. "At least I came back with all my fingers and toes."

And the fact he came back at all is a constant reminder, too.

"I was lucky," he admits. "I had a few friends who weren't so fortunate."

Bragg knows he won't ever be able to completely forget all of the scenes he's witnessed but he's trying.

"If I can't sleep I'll just get up and start tying jigs," he said. "Once I start doing that I get to thinking about what colors or flash might trick that crappie and I just get lost in it.

"The same is true of fishing," he added. "When I'm on the water I'm at peace and I just get absorbed in it," Bragg said. "I'm focused on catching fish and trying to figure it out and it takes my past completely out of my mind."



How to use the forecast

Use the following pages to find high-quality fishing for the sport fish you prefer. The forecast lists reservoirs (water bodies larger than 1,200 acres), lakes (waters from 10 to 1,200 acres), and ponds (waters less than 10 acres) for each species of sport fish. Ratings include the **Density Rating**, which is the number of high-quality fish captured per unit of effort by fisheries biologists; **Preferred Rating**, which is the number of fish at a preferred length for that species; **Lunker Rating**, which is the number of fish sampled at a length most anglers consider a trophy; and **Biggest Fish**, which is simply the largest fish caught during sampling. The **Biologist's Rating** is a rating of E - excellent, G - good, F - fair or P - poor given by the biologist who considers other factors in addition to sampling. In theory, a lake with a **Density Rating** of 24 will have twice as many high-quality fish per acre as a lake with a **Density Rating** of 12.

The **3-Year Average** figure represents a three-year average in density ratings of a particular species. This column provides a history, allowing the angler to compare past fishing outings at the lake with the ratings.

Lengths for high-quality, preferred- and lunker-sized fish are different for each species and are listed in parenthesis at the top of each column. This information will help you find lakes with high populations, as well as those which have larger fish. You may view these tables at www.ksoutdoors.com or a brochure can be mailed or picked up at a KDWPT office.

Combined with the 2016 Fishing Regulations Summary, the 2016 Fish Atlas and the Weekly Fishing Reports (www.ksoutdoors.com), the 2016 Fishing Forecast is a tool that will help you catch more fish, and it will help you select lakes that provide the kind of fish and type of fishing you desire. Kansas anglers can choose from 24 federal reservoirs, 258 community lakes, 58 state fishing lakes, as well as 150,000 privately-owned farm ponds and 10,000 miles of fishable streams. Better get busy – as the old saying goes — so much water, so little time.

## **BLUE CATFISH**

IMPOUNDMENT	Density Rating (>20")	Preferred Rating (>30")	Lunker Rating (>35")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>20")
RESERVOIRS						
WOLF CREEK	1.75	0.25	0.06	25.35	G	2.08
CLINTON	1.25	0.00	0.00	4.55	F	0.46
MILFORD	0.75	0.10	0.00	31.00	G	1.07
EL DORADO	0.73	0.13	0.00	14.75	G	0.71
LOVEWELL	0.41	0.00	0.00	5.91	F	0.34
WILSON	0.33	0.00	0.00	7.74	F	0.37
PERRY	0.20	0.00	0.00	5.28	F	0.08
MELVERN	0.19	0.06	0.00	21.02	F	0.15
TUTTLE CREEK	0.10	0.05	0.00	19.62	F	0.12
LACYGNE	0.08	0.00	0.00	4.50	F	0.10
JOHN REDMOND	0.05	0.05	0.00	16.09	Р	0.03
LAKES						
YATES CENTER-SOUTH OWL LAKE	0.50	0.00	0.00	3.64	Р	0.17
YATES CENTER CITY LAKE-NEW	0.33	0.00	0.00	6.59	Р	0.50
SABETHA – PONY CREEK LAKE	0.17	0.00	0.00	15.10	Р	0.17
PONDS						
TUTTLE CREEK RIVER POND	1.75	0.00	0.00	3.61	F	0.88

CHANNEL CATE	SH					
IMPOUNDMENT	Density Rating (>16")	Preferred Rating (>24")	Lunker Rating (>28")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>18")
RESERVOIRS						
BIG HILL	4.60	0.10	0.00	9.61	G	5.20
POMONA	4.33	0.17	0.00	7.34	G	3.18
CLINTON	4.31	0.19	0.00	5.80	G	4.15
ELK CITY	4.30	0.40	0.00	6.81	Е	3.45
KANOPOLIS	3.95	0.00	0.00	4.41	G	4.79
MELVERN	3.38	0.19	0.00	7.22	G	3.10
HILLSDALE	3.25	0.08	0.00	4.88	F	2.50
PERRY	2.65	0.25	0.05	9.70	G	3.15
GLEN ELDER	2.63	0.38	0.17	14.37	G	2.26
TORONTO	2.42	0.58	0.25	10.36	G	1.58
MARION	2.25	0.33	0.00	9.94	G	4.25
WILSON	1.87	0.13	0.00	6.03	G	2.91
MILFORD	1.70	0.05	0.00	7.49	G	1.45
LACYGNE	1.50	0.08	0.00	6.00	G	1.01
COUNCIL GROVE	1.47	0.00	0.00	4.20	G	1.07
KIRWIN	1.42	0.58	0.17	17.59	F	1.03
WEBSTER	1.40	0.00	0.00	3.89	F	0.77
LOVEWELL	1.29	0.06	0.06	9.36	G	1.47
WOLF CREEK	1.06	0.00	0.00	3.97	F	2.13
CHENEY	1.00	0.20	0.00	9.22	G	1.37
FALL RIVER	1.00	0.30	0.10	8.35	G	1.37
TUTTLE CREEK	0.75	0.05	0.05	8.29	F	0.37
JOHN REDMOND	0.60	0.40	0.20	13.49	G	0.42
LAKES						
GARNETT-CEDAR CREEK LAKE	6.63	0.25	0.00	5.78	G	7.13
ATCHISON SFL	6.25	0.00	0.00	4.79	G	4.67
HOLTON-PRAIRIE LAKE	6.00	0.00	0.00	5.39	G	4.75
DOUGLAS SFL	5.67	0.00	0.00	3.76	G	7.67
CARBONDALE CITY LAKE - EAST	5.33	0.67	0.00	6.94	G	4.11
MARION CO. LAKE	5.25	0.00	0.00	4.30	G	3.63
OLATHE-CEDAR LAKE	5.25	0.00	0.00	3.80	G	3.89
JEWELL SFL	5.00	1.75	0.00	8.04	Е	4.94
GRIDLEY CITY LAKE	4.67	0.67	0.00	6.50	G	5.33
MELVERN RIVER POND	4.50	1.75	0.50	10.69	G	2.92
SPRING HILL CITY LAKE	4.33	0.33	0.00	4.74	G	4.33
SABETHA – PONY CREEK LAKE	4.00	1.17	0.33	15.43	G	3.83
KINGMAN SFL	4.00	2.00	0.00	6.39	G	7.39
CLARK SFL	3.83	0.67	0.17	10.61	Е	4.86
EUREKA CITY LAKE	3.83	0.83	0.17	7.32	G	4.56
NEOSHO SFL	3.75	1.00	0.50	17.24	G	4.42
COWLEY SFL	3.50	0.25	0.00	6.64	G	2.17
OSAGE SFL	3.50	0.33	0.17	9.01	G	3.11
WASHINGTON SFL	3.33	0.33	0.00	6.98	G	2.03
BONE CREEK LAKE	3.25	1.13	0.38	19.14	G	2.42
BROWNING OXBOW	3.00	0.00	0.00	4.96	F	3.00
CRAWFORD SFL	3.00	0.00	0.00	3.81	G	3.06
JAWHAWK BOY SCOUT LAKE	2.75	0.00	0.00	4.23	G	2.54
CHASE SFL	2.75	0.25	0.25	14.97	G	2.33

## CHANNEL CATFISH

	Density	Preferred	Lunker	Biggest	gu	3-Year
IMPOUNDMENT	Rating (>16")	Rating (>24")	Rating (>28")	Fish (lbs.)	Bio Rating	Average (>18")
LAKES continued						
HOWARD-POLK DANIELS LAKE	2.75	0.50	0.00	6.14	G	3.08
CENTRALIA CITY LAKE	2.75	0.75	0.00	6.97	G	5.83
MIDDLE CREEK SFL	2.67	0.00	0.00	3.18	F	3.06
NEBO SFL	2.50	0.00	0.00	4.39	F	4.14
SEDGWICK COLAKE AFTON	2.50	0.17	0.00	6.33	Е	2.89
CHANUTE CITY LAKE	2.50	0.50	0.00	6.15	G	3.44
MADISON CITY LAKE	2.33	0.17	0.00	7.89	G	2.56
SEDAN – OLD (NORTH) CITY LAKE	2.25	0.00	0.00	4.85	F	4.92
HOLTON – BANNER CREEK LAKE	2.00	0.57	0.00	5.79	G	4.33
COLDWATER LAKE	2.00	0.00	0.00	1.44	F	1.80
PRATT CO. LAKE	2.00	0.33	0.00	6.93	Е	1.44
WELLINGTON CITY LAKE	2.00	0.13	0.13	11.82	G	1.88
CHERRYVALE CITY LAKE – TANKO	2.00	2.00	0.33	13.05	G	2.00
WILSON SFL	2.00	0.50	0.00	7.91	G	2.00
HERINGTON CITY LAKE-NEW	1.75	0.00	0.00	4.80	G	1.42
LENEXA-LAKE LENEXA	1.67	0.00	0.00	2.00	F	1.00
SHAWNEE SFL	1.67	0.00	0.00	2.61	G	2.56
BROWN SFL	1.50	0.00	0.00	3.08	F	4.17
LEAVENWORTH SFL	1.50	0.00	0.00	4.30	F	1.61
MEADE STATE LAKE	1.50	0.00	0.00	4.19	G	1.33
WINFIELD CITY LAKE	1.50	0.10	0.00	7.19	G	1.47
DOUGLAS COLONESTAR LAKE	1.33	0.00	0.00	4.89	F	3.17
POTT. CO-CROSS CREEK LAKE	1.33	0.00	0.00	3.37	F	2.33
GRAHAM COANTELOPE LAKE	1.25	0.00	0.00	3.27	F	1.00
COUNCIL GROVE CITY LAKE	1.25	0.25	0.00	8.15	F	1.71
KIOWA SFL	1.00	0.00	0.00	2.50	F	0.50
EDNA CITY LAKE	1.00	0.25	0.25	21.14	F	1.00
GARDNER CITY LAKE	1.00	0.00	0.00	3.32	F	0.94
POTTAWATOMIE SFL #2	1.00	0.00	0.00	4.37	G	0.67
MCPHERSON SFL	0.90	0.00	0.00	1.77	F	1.41
YATES CENTER-SOUTH OWL LAKE	0.83	0.00	0.00	3.46	F	1.61
MOLINE OLD (SOUTH) CITY LAKE	0.75	0.00	0.00	2.10	Р	1.25
SCOTT STATE LAKE	0.75	0.00	0.00	1.92	F	0.64
GREAT BEND-VETS PARK LAKE	0.67	0.00	0.00	5.59	G	0.67
MOLINE NEW (NORTH) CITY LAKE	0.67	0.17	0.00	8.91	G	0.56
OLATHE-LAKE OLATHE	0.67	0.00	0.00	3.49	F	0.67
PAOLA CITY LAKE	0.67	0.17	0.00	5.29	F	0.89
OLPE CITY LAKE	0.50	0.00	0.00	3.56	F	0.75
MONTGOMERY SFL	0.50	0.00	0.00	4.25	G	1.67
PONDS						
JEWELL CITY LAKE	2.00	0.00	0.00	1.85	G	1.44
BALDWIN – SPRING CREEK LAKE	2.00	0.33	0.00	5.19	F	1.83
ATCHISON CITY LAKE #3	1.50	0.00	0.00	6.83	F	1.50
HORTON-LITTLE LAKE	1.50	0.00	0.00	2.40	F	3.25
SEVERY CITY LAKE	0.67	0.00	0.00	1.38	Р	0.56
TUTTLE CREEK RIVER POND	0.50	0.00	0.00	1.38	F	0.38

FLATHEAD CATFISH										
IMPOUNDMENT	Density Rating (>20")	Preferred Rating (>28")	Lunker Rating (>34")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>20")				
RESERVOIRS										
LACYGNE	0.33	0.00	0.00	5.26	F	0.33				
EL DORADO	0.20	0.00	0.00	4.48	F	0.20				
HILLSDALE	0.17	0.08	0.00	5.56	F	0.08				
JOHN REDMOND	0.15	0.00	0.00	3.88	F	0.08				
WILSON	0.13	0.03	0.03	7.94	Р	0.15				
MELVERN	0.13	0.00	0.00	1.86	F	0.13				
FALL RIVER	0.10	0.00	0.00	2.51	G	0.12				
KIRWIN	0.08	0.08	0.00	6.08	F	0.14				
GLEN ELDER	0.04	0.00	0.00	3.41	G	0.11				
LAKES										
HOWARD-POLK DANIELS LAKE	0.75	0.00	0.00	5.15	Р	0.75				
CHASE SFL	0.25	0.00	0.00	3.99	F	0.25				
OLPE CITY LAKE	0.25	0.25	0.00	8.51	F	0.25				
HERINGTON CITY LAKE-NEW	0.25	0.00	0.00	3.12	F	0.38				
GARDNER CITY LAKE	0.20	0.00	0.00	0.00	Р	0.18				
LEAVENWORTH SFL	0.17	0.00	0.00	1.64	Р	0.17				
CLARK SFL	0.17	0.00	0.00	2.73	F	0.15				
YATES CENTER-SOUTH OWL LAKE	0.17	0.00	0.00	5.42	Р	0.28				
WINFIELD CITY LAKE	0.10	0.00	0.00	2.93	G	0.10				
ATCHISON SFL	0.00	0.00	0.00	1.37	Р	0.13				

REDEAR						
IMPOUNDMENT	Density Rating (>7")	Preferred Rating (>9")	Lunker Rating (>11")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>7")
RESERVOIRS						
CLINTON	0.06	0.00	0.00	0.42	Р	0.06
MELVERN	0.06	0.00	0.00	0.34	Р	0.03
LACYGNE	0.06	0.00	0.00	0.37	Р	0.06
LAKES						
LEAVENWORTH SFL	13.25	1.50	0.00	0.59	G	9.58
DOUGLAS SFL	11.33	0.33	0.00	0.49	F	15.19
COWLEY SFL	9.25	3.00	0.00	0.00	G	6.00
MOLINE OLD (SOUTH) CITY LAKE	7.25	2.75	0.00	0.77	G	8.42
BONE CREEK LAKE	7.13	0.25	0.00	0.75	G	5.46
JEWELL SFL	5.00	0.25	0.00	0.68	G	3.25
YATES CENTER CITY LAKE-NEW	4.75	0.25	0.00	0.60	F	2.75
DOUGLAS COLONESTAR LAKE	3.50	0.75	0.00	0.62	F	5.03
MIAMI SFL	3.25	0.00	0.00	0.47	F	2.50
LYON SFL	3.00	1.25	0.00	0.84	G	3.33
GRIDLEY CITY LAKE	3.00	3.00	0.00	0.93	F	1.75
JAWHAWK BOY SCOUT LAKE	2.25	0.00	0.00	0.44	F	2.25
LENEXA-LAKE LENEXA	2.00	0.00	0.00	0.31	F	2.17
OSAGE SFL	1.25	0.75	0.00	0.52	Р	3.33
YATES CENTER-SOUTH OWL LAKE	1.25	0.00	0.00	0.37	Р	1.50
ATCHISON SFL	0.75	0.00	0.00	0.44	G	3.58
MONTGOMERY SFL	0.75	0.25	0.00	0.55	G	1.15
SHAWNEE SFL	0.75	0.00	0.00	0.35	F	0.63
THAYER CITY LAKE	0.50	0.00	0.00	0.33	G	0.50
LEBO CITY LAKE	0.33	0.00	0.00	0.31	F	0.61
MADISON CITY LAKE	0.25	0.25	0.00	0.66	F	0.25
MIDDLE CREEK SFL	0.25	0.00	0.00	0.29	Р	0.33
PAOLA CITY LAKE	0.25	0.00	0.00	0.29	Р	0.25
PONDS						
SEVERY CITY LAKE	2.00	1.00	0.00	0.75	G	1.17
BALDWIN – SPRING CREEK LAKE	1.00	0.50	0.00	0.61	Р	1.25



Rating (>8")	Rating (>10")	Fish		Averag
	(~10 )	(lbs.)	Bio Rating	(>6")
0.00	0.00	0.24	Р	7.43
0.00	0.00	0.21	F	3.13
1.13	0.00	0.73	G	10.75
0.00	0.00	0.37	P F	1.80 5.73
0.00	0.00	0.29	г Р	2.42
0.00	0.00	0.31	Р	0.81
0.00	0.00	0.34	Р	1.08
0.00	0.00	0.30	F	2.19
0.00	0.00	0.31	г G	3.87
0.25	0.00	0.46	G	19.0
0.25	0.00	0.36	G	25.0
1.25 0.00	0.00	0.59	G G	23.0
1.50	0.00	0.38	G	15.9
0.00	0.00	0.29	G	19.5
0.00	0.00	0.35	F	11.2
0.25	0.00	0.41	G G	12.0 9.83
0.00	0.00	0.22	G	9.82
4.50	0.00	0.49	E	10.5
0.00	0.00	0.25	G	14.1
0.67	0.00	0.46	G	12.8
3.00 0.00	0.00	0.68	G F	9.33 13.4
0.50	0.00	0.45	G	4.42
0.00	0.00	0.30	F	5.17
0.00	0.00	0.20	F	9.67
0.50	0.00	0.44	G	7.67
0.00	0.00	0.29	G G	7.67
1.50	0.00	0.43	G	4.13
0.50	0.00	0.42	F	5.25
0.00	0.00	0.24	F	2.97
0.25	0.00	0.37	F F	2.25
0.00	0.00	0.20	F	3.58
0.75	0.00	0.00	G	5.17
0.00	0.00	0.28	F	5.67
0.00	0.00	0.30	F	8.47
0.00	0.00	0.18	G	9.50
0.25	0.00	0.46	G	4.83
0.00	0.00	0.34	Р	4.92
0.00	0.00	0.30	F	3.58
0.00	0.00	0.35	G F	7.83
0.23	0.00	0.44	G	1.14
0.25	0.00	0.43	Е	1.97
0.00	0.00	0.22	F	4.42
0.00	0.00	0.31	G	4.25
0.00	0.00	0.21	F	1.50
0.63	0.00	0.20	G	1.96
0.13	0.00	0.43	F	2.21
0.00	0.00	0.30	F	0.92
0.00	0.00	0.29	G F	0.93
0.00	0.00	0.22	F	1.88
0.00	0.00	0.16	F	0.50
0.00	0.00	0.20	F	1.25
0.00	0.00	0.14	P G	7.86
0.25	0.00	0.42	G	3.63
0.00	0.00	0.40	G	45.0
0.00	0.00	0.29	F	36.0
0.50	0.00	0.43	G	15.5
1.00	0.00	0.42	G F	6.67 9.75
0.00	0.00	0.28	F	5.50
0.00	0.00	0.39	G	13.4
	0.00	0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00         0.28           0.00         0.00         0.25           0.00         0.00         0.39	0.00         0.00         0.28         F           0.00         0.00         0.25         F           0.00         0.00         0.39         G

## **BLACK CRAPPIE**

IMPOUNDMENT         Density Rating (s8")         Preferred (s10")         Lunker (s10")         Bigget (s10") $get(s10")         get(s10")         get$
SEBELIUS (NORTON)         2.00         0.75         0.13         1.44         G         2.2.5           MARION         1.71         0.43         0.14         1.08         P         1.7           LOVEWELL         1.38         0.19         0.00         0.84         F         1.8           BIG HILL         1.30         0.00         0.00         0.49         F         0.8           CEDAR BLUFF         0.78         0.17         0.11         1.17         F         0.6           LAKES         0.78         0.77         0.11         1.17         F         0.6           POTT. CO-CROSS CREEK LAKE         24.00         2.50         0.00         0.58         G         25.5           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.11           JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.26         R6         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           GARDNER CITY LAKE         6.67         0.00         0.00
MARION         1.71         0.43         0.14         1.08         P         1.7           LOVEWELL         1.38         0.19         0.00         0.84         F         1.8           BIG HIL         1.30         0.00         0.00         0.49         F         0.8           CEDAR BLUFF         0.78         0.17         0.11         1.17         F         1.6           CEDAR BLUFF         0.78         0.77         0.11         1.17         F         1.6           LAKES         0.78         0.77         0.11         1.17         F         1.6           POTT. CO-CROSS CREEK LAKE         24.00         2.50         0.00         0.58         G         25.5           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.11           JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.3           MONTGOMERY SFL         5.00         0.00 <t< td=""></t<>
IDVEWELL         1.38         0.19         0.00         0.84         F         1.8           BIG HILL         1.30         0.00         0.00         0.49         F         1.8           BIG HILL         1.30         0.00         0.00         0.49         F         0.8           CEDAR BLUFF         0.78         0.17         0.11         1.17         F         1.6           LAKES         0         0         0.00         0.58         G         2.57           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.1           JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.33         0.3         G         3.5           PRATT CO. LAKE         6.67         0.00         0.00         0.52         F         6.5           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00
BIG HILL         1.30         0.00         0.49         F         0.80           CEDAR BLUFF         0.78         0.17         0.11         1.17         F         0.80           CEDAR BLUFF         0.78         0.17         0.11         1.17         F         0.80           LAKES         0.00         0.00         0.58         G         25.0           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.1           JEWELL SFL         13.50         0.00         0.048         F         4.7.5           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           PATT CO. LAKE         6.67         0.00         0.00         0.52         F         6.5           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOUXAP-POLK DANIELS LAKE         5.50         3.75         1.68         G         6.0
CEDAR BLUFF         0.78         0.17         0.11         1.17         F         1.6           LAKES         7         0.11         1.17         F         1.6           POTT. CO-CROSS CREEK LAKE         24.00         2.50         0.00         0.58         G         25.5           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.1           JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7.5           DOUGLAS CO-LONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           PRATT CO. LAKE         6.67         0.00         0.00         0.62         F         3.7           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOUXARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.67           NEOSHO SFL         5.75         0.00         0.00         0.35         G         7.00           HOUTON - BANNER CREEK LAKE         4.88
LAKES         Automatic         Automatic         Automatic         Automatic           POTT. CO-CROSS CREEK LAKE         24.00         2.50         0.00         0.58         G         25.5           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.1           JEWELL SFL         13.75         7.00         0.00         0.04         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.26         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           PRATT CO. LAKE         6.67         0.00         0.00         0.62         F         5.3           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOUXARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.0           NEOSHO SFL         5.50         0.00         0.00         0.63         G         7.0           HOUXARD-POLK DANIELS LAKE         5.50
POTT. CO-CROSS CREEK LAKE         24.00         2.50         0.00         0.58         G         25.5           MIAMI SFL         13.75         7.00         1.25         2.68         E         6.1           JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           GARDNER CITY LAKE         6.67         0.00         0.00         0.52         F         6.5           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.0           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.7           HOUTON BANNER CREEK LAKE         4.83         3.63         0.63         1.10         G         1.7           MELVERN RIVER PON
MIAMI SFL         13.75         7.00         1.25         2.68         E         6.1           JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           GARDNER CITY LAKE         6.67         0.00         0.00         0.52         F         6.5           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.0           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.7           HOLTON – BANNER CREEK LAKE         4.83         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.55         F         21.           MELVERN RIVER POND         <
JEWELL SFL         13.50         0.00         0.00         0.46         F         4.7           DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.5           PRATT CO. LAKE         6.67         0.00         0.00         0.52         F         6.5           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.67           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.6           HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.7           BROWN SFL         4.00         0.25         0.00         0.05         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.6
DOUGLAS COLONESTAR LAKE         7.25         4.25         0.25         0.86         F         5.3           SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.3           PRATT CO. LAKE         6.67         0.00         0.00         0.52         F         6.53           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.33           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.73           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.67           NEOSHO SFL         5.50         0.00         0.035         G         7.62           HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.7           BROWN SFL         4.00         0.25         0.00         0.055         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.63
SHERIDAN SFL         7.00         1.13         0.13         0.83         G         3.3           PRATT CO. LAKE         6.67         0.00         0.00         0.52         F         6.53           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.33           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.62           NEOSHO SFL         5.50         0.00         0.035         G         7.62           HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.7           BROWN SFL         4.00         0.25         0.00         0.055         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.63
PRATT CO. LAKE         6.67         0.00         0.00         0.52         F         6.5.           GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3.           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7.           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.0.           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.0.           HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.055         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.0.
GARDNER CITY LAKE         6.25         3.50         0.50         0.90         G         5.3           MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.60           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.7           HOLTON – BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.55         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.6
MONTGOMERY SFL         5.75         0.50         0.00         0.62         F         3.7           HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.00           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.6           HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.05         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.0
HOWARD-POLK DANIELS LAKE         5.50         3.75         0.75         1.68         G         6.0           NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.6           HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.05         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.0
NEOSHO SFL         5.50         0.00         0.00         0.35         G         7.6           HOLTON – BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.55         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.0
HOLTON - BANNER CREEK LAKE         4.88         3.63         0.63         1.10         G         17.           BROWN SFL         4.00         0.25         0.00         0.55         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.0
BROWN SFL         4.00         0.25         0.00         0.55         F         21.           MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.0
MELVERN RIVER POND         3.50         0.50         0.00         0.60         F         8.00
DOUGLAS SFL 3,33 0,33 0,00 0.58 F 3,4
LYON SFL 3.25 1.50 0.75 1.01 G 1.9
MCPHERSON SFL 3.00 0.00 0.00 F 2.0
GRAHAM COANTELOPE LAKE 2.75 2.50 1.25 1.43 G 3.3
CENTRALIA CITY LAKE 2.63 1.38 0.50 1.40 F 5.3
LENEXA-LAKE LENEXA 2.50 1.50 0.50 0.88 F 2.7
MOLINE OLD (SOUTH) CITY LAKE 2.25 0.75 0.00 0.55 G 2.7
OSAGE SFL 2.25 2.00 0.50 1.16 F 5.0
YATES CENTER CITY LAKE-NEW         2.25         0.75         0.00         0.73         G         2.00
SABETHA – PONY CREEK LAKE 2.00 1.75 1.00 1.49 G 2.5
COWLEY SFL 2.00 1.00 0.00 P 2.1
GRIDLEY CITY LAKE 2.00 2.00 0.00 0.71 F 2.6
SPRING HILL CITY LAKE         1.50         0.00         0.07         P         1.5
POTTAWATOMIE SFL #1 1.50 0.50 0.00 0.52 F 1.8
PONDS
BALDWIN – SPRING CREEK LAKE 4.00 1.00 0.00 0.57 F 7.7
HORTON-LITTLE LAKE 2.33 1.33 0.67 2.38 F 1.6
ATCHISON CITY LAKE #1 1.00 0.00 0.00 0.35 P 1.0
HOLTON-ELKHORN LAKE 1.00 1.00 0.50 0.97 F 1.0



#### WHITE CRAPPIE Bio Rating Density Rating (>8") Preferred Rating (>10") Lunker Rating (>12") 3-Year Average (>8") Biggest Fish (lbs.) IMPOUNDMENT RESERVOIRS JOHN REDMOND 43.50 36.70 3.60 1.98 E 37.00 TORONTO 25.81 17.81 3.13 2.03 G 13.65 ELK CITY 22.38 8.38 0.50 1.41 Е 8.64 LACYGNI 16.88 9.63 1.44 1.36 G 12.52 MARION 16.29 6.43 0.71 1.50 G 16.29 HILLSDALE 15.81 7.25 0.19 0.94 G 24.08 FALL RIVER 13.50 7.69 2.06 1.84 G 8.94 1.59 G 11.15 LOVEWELL 9.63 2.81 1.81 BIG HILL 8 90 4.000.20 073 E 7.07 POMONA 8.19 2.56 0.69 1.38 G 7.98 PERRY 8.05 1.47 0.00 0.82 F 21.35 CLINTON 6.50 2.06 0.56 1.31 F 11.38 MILFORD 5.63 2.25 0.50 1 60 G 4 65 KANOPOLIS 3.50 0.93 0.00 0.78 F 2.31 WOLF CREEK 3.38 2.19 1.25 1.63 F 4.21 TUTTLE CREEK F 2.81 2.44 0.56 1.12 2.94 2.75 1.81 0.56 5.69 EL DORADO 1.48 G 2.25 MELVERN 0.63 0.38 1.40 F 2.42 CEDAR BLUFF 2.11 0.44 0 4 4 1.66 F 0.92 LAKES SCOTT STATE LAKI 76.00 7.56 0.22 1.11 G 47.07 CENTRALIA CITY LAKE 9.75 39.29 32.13 0.38 1.43 G MOLINE NEW (NORTH) CITY LAKE 28.75 18.00 0.25 0.91 G 27.50 EUREKA CITY LAKI 13.67 3.00 G 23.44 28.33 OLATHE-CEDAR LAKE 26.00 11.00 0.50 0.80 G 22.83 MCPHERSON SFL 0.00 24.50 0.75 0.70 G 11.67 5.75 GEARY SFL 23.75 0.25 13.75 1.02 G MIAMI SFL 19.00 15 75 8 50 1.18 E 9.25 OTTAWA SFL 15.00 1.33 0.00 0.56 G 11.33 GARNETT-CEDAR CREEK LAKE 13.88 0.50 0.38 2.84 F 14.29 HOLTON-PRAIRIE LAKE 13.75 8.00 0.25 0.88 F 16.75 6.25 NEBO SFL 11.50 4.75 1.25 1.78 F PRATT CO LAKE 11 33 3 3 3 0.33 0.86 F 8 67 SHERIDAN SFL 10.38 6.00 0.13 0.85 G 4.92 9.75 6.17 LYON SFL 4.00 1.25 1.79 G HOWARD-POLK DANIELS LAKE 2.50 2.00 G 14.50 9.25 7.25 9.02 WOODSON SFL 8.80 1.40 0.60 1.19 F OLPE CITY LAKE 8.75 4.25 1.25 1.60 G 6.25 WINFIELD CITY LAKE 8.20 4.60 0.50 G 19.64 1.21 ATCHISON SFL 8.00 0.25 0.00 0.67 F 9.25 SEDAN - OLD (NORTH) CITY LAKE 1.50 0.55 14.00 8.00 0.00 F CARBONDALE CITY LAKE - EAST 7.50 3.00 0.00 0.78 F 11.83 KIOWA SFL 7.00 2 33 0.67 0.99 F 4 69 0.00 5.00 CHASE SFL 7.00 0.71 G 10.42 SPRING HILL CITY LAKE 7.00 4.00 7.00 0.00 0.78 F MELVERN RIVER POND 7.00 5.00 0.50 1.31 14.83 G WASHINGTON SFL 6.50 3.00 0.00 0.61 F 5.83 YATES CENTER-SOUTH OWL LAKE 6.50 3.50 0.00 0.64 G 5.25 6.00 0.63 0.50 1.09 F 2.21 CLARK SFL MADISON CITY LAKE 2.50 6.00 3.00 1.63 G 3.25 MOLINE OLD (SOUTH) CITY LAKE 1.50 0.50 5.50 6.00 1.01 G NEOSHO SFL 5 50 0.50 0.00 0.57 G 13 33 BARBER SFL-LOWER 5.33 0.67 0.00 0.74 P 2.11 COLDWATER LAKE 5.25 0.00 0.00 0.49 Р 2.96 MARION CO. LAKE 4.50 2.75 1.75 1.28 G 4.50 P CHANUTE CITY LAKE 4.50 3.00 1.00 1.06 6.33 LEBO CITY LAKE 3 67 1.67 0.67 1 4 1 F 4 22 SHAWNEE SFL 3.25 0.25 0.25 1.13 F BROWN SFL 3.00 0.00 0.00 0.47 F 2.75 DOUGLAS CO.-LONESTAR LAKE 3.00 1.00 0.25 1.53 F 3.64 WILSON SFL 2.86 1.14 0.29 1.15 F 2.26 PAOLA CITY LAKE 2.75 0.75 0.25 0.99 F 6.83 JEFFREY EC - MAKE UP LAKE 2.75 1.75 0.00 0.69 F 27.17 MEADE STATE LAKE 2.33 1.33 0.33 1.06 Р 1.67 MONTGOMERY SFL 2.00 1.25 1.00 1.61 F 4.30 CRAWFORD SFI 0.25 0.25 2.25 1.75 1.06 F OLATHE-LAKE OLATHE 1.67 1 3 3 0.33 0.73 F 5.31 PONDS ATCHISON CITY LAKE #3 27.00 10.00 4.00 1.31 G 27.00 HORTON-LITTLE LAKE 9.00 5.00 1.67 1.12 G 11.00 BALDWIN - SPRING CREEK LAKE 3.00 0.50 0.00 0.58 P 4.50 GLEN ELDER STATE PARK POND 2.50 1.00 0.00 0.65 F 9.83 TUTTLE CREEK RIVER POND 2.00 0.25 0.00 0.50 F 13.00 1.25 SEVERY CITY LAKE 1.50 1.50 1.00 1.46 P

## LARGEMOUTH BASS

IMPOUNDMENT	Density Rating	Preferred Rating	Lunker Rating	Biggest Fish	Bio Rating	3-Year Average
	(>12")	(>15")	(>20")	(lbs.)	R. I	(>12")
RESERVOIRS						
SEBELIUS (NORTON)	156.62	11.76	0.00	3.49	E	187.45
LACYGNE	79.84	33.93	4.99	6.14	Е	78.45
BIG HILL	26.65	6.29	0.30	4.85	G	24.55
MILFORD	10.85	5.29	0.00	3.81	G	12.93
PERRY	7.19	2.61	0.00	3.44	F	12.51
CEDAR BLUFF	6.48	5.65	0.00	3.60	F	6.86
WOLF CREEK	4.65	3.10	0.00	2.98	F	8.33
HILLSDALE	4.35	2.40	0.00	4.10	Р	7.30
WILSON	4.17	3.12	0.00	2.18	F	11.09
FALL RIVER	2.99	2.00	0.00	2.09	Р	2.63
WEBSTER	2.35	2.35	0.00	2.07	Р	21.05
LAKES						
POTT. CO-CROSS CREEK LAKE	155.00	27.50	5.00	5.35	Е	104.69
BUTLER SFL	149.02	86.27	5.88	6.24	Е	149.02
BROWN SFL	130.43	34.78	0.87	4.60	G	134.47
COWLEY SFL	126.47	26.47	0.98	5.07	G	100.19
ATCHISON SFL	113.73	10.78	0.00	4.48	G	69.56
PLEASANTON - WEST LAKE	106.98	32.56	2.33	5.40	G	106.98
GRIDLEY CITY LAKE	101.15	29.89	0.00	2.67	G	63.01
SABETHA – PONY CREEK LAKE	99.26	59.56	0.00	4.30	G	90.36
DOUGLAS COLONESTAR LAKE	84.31	10.78	1.96	4.49	G	66.30
YATES CENTER CITY LAKE-NEW	78.06	20.65	0.00	3.59	G	63.34
GARNETT-CRYSTAL LAKE	77.78	46.30	3.70	5.75	Е	99.26
GARNETT CITY LAKE-NORTH	74.81	6.67	0.00	3.02	G	86.49
BOURBON SFL	74.26	0.74	0.00	1.59	F	72.92
KINGMAN SFL	72.71	28.23	0.00	2.54	F	34.61
HOWARD-POLK DANIELS LAKE	71.86	32.93	1.00	4.98	G	57.68
POTTAWATOMIE SFL #1	71.63	1.24	0.00	2.09	G	102.39
NEOSHO SFL	70.59	22.79	1.47	5.47	G	57.43
POTTAWATOMIE SFL #2	67.29	14.08	0.00	4.59	G	66.30
MCPHERSON SFL	67.18	35.88	1.53	6.10	Е	95.91
LYON SFL	66.72	15.40	0.00	1.90	G	81.72
FORT SCOTT CITY LAKE	65.69	17.65	0.00	2.12	F	65.69
LEAVENWORTH SFL	64.71	11.76	0.00	2.65	G	50.42
GARDNER CITY LAKE	64.10	8.97	0.00	3.11	G	64.36
JEWELL SFL	63.89	23.33	0.56	5.87	G	79.47
HOLTON-PRAIRIE LAKE	61.34	36.13	1.68	5.70	G	58.61
CHANUTE CITY LAKE	54.62	24.37	0.00	4.61	G	62.14
WILSON SFL	54.49	16.17	0.60	4.94	Е	50,70
GARNETT-CEDAR CREEK LAKE	53.75	36.25	2.50	5.25	G	34.88
CLARK SFL	52.83	35.85	1.89	4.98	G	44.15
SHAWNEE SFL	49.81	34.48	1.92	4.46	G	67.67
OTTAWA SFL	49.02	24.84	0.00	3.43	G	33.27
EUREKA CITY LAKE	47.90	19.96	1.00	5.04	G	45.05
OLATHE-LAKE OLATHE	46.85	15.32	0.00	3.84	G	87.23
PLEASANTON – EAST LAKE	45.22	23.48	1.74	5.38	F	45.22
SCOTT STATE LAKE	44.29	16.26	1.73	5.85	E	38.66
DOUGLAS SFL	44.12	0.00	0.00	1.14	F	22.88
NEBO SFL	44.12	31.76	1.18	5.74	г G	60.78
	42.72	1.94	0.00	3.26	G	95.49
LENEXA-LAKE LENEXA	42.72	1.94	0.00	3.20	U	95.49

## LARGEMOUTH BASS

LANGLMOUTH B						
IMPOUNDMENT	Density Rating (>12")	Preferred Rating (>15")	Lunker Rating (>20")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>12")
LAKES continued						
GRAHAM COANTELOPE LAKE	41.48	30.68	0.00	3.24	G	32.70
SEDAN - NEW (SOUTH) CITY LAKE	40.92	14.97	0.00	3.86	Е	51.87
MADISON CITY LAKE	38.92	19.96	1.00	4.94	G	66.24
JAWHAWK BOY SCOUT LAKE	38.82	4.71	2.35	6.55	F	32.94
SEDAN - OLD (NORTH) CITY LAKE	37.43	22.46	2.99	4.67	Е	64.37
YATES CENTER-SOUTH OWL LAKE	37.31	13.43	0.00	4.10	F	38.79
OLATHE-CEDAR LAKE	37.23	10.64	1.06	4.92	G	54.08
BONE CREEK LAKE	34.87	16.39	0.00	4.10	G	50.28
CHERRYVALE CITY LAKE – TANKO	33.93	7.98	0.00	3.09	G	33.93
HOLTON – BANNER CREEK LAKE	33.33	23.04	0.00	4.35	F	55.00
MONTGOMERY SFL	33.13	4.79	2.40	5.80	G	26.87
ATWOOD-LAKE ATWOOD-MAIN	31.03	6.90	0.00	2.86	F	18.56
MIAMI SFL	29.41	4.90	0.00	2.26	F	42.02
THAYER CITY LAKE	27.73	8.40	0.84	6.08	G	30.53
HORSETHIEF	25.71	22.86	1.43	5.22	P	36.36
SHERIDAN SFL	24.85	2.42	0.61	4.77	F	32.42
SHEKIDAN SFL SHAWNEE COLAKE SHAWNEE	23.53	2.42	0.01	2.45	F	27.54
CHASE SFL	22.55	5.88	0.00	3.95	G	18.63
	22.35	5.99	0.00	2.09	G	51.44
MOLINE OLD (SOUTH) CITY LAKE	22.40			3.04		
LEBO CITY LAKE	-	18.60	0.00		G	29.38
WOODSON SFL	20.75	8.02	0.94	6.00	G	20.51
PAOLA CITY LAKE	19.47	6.19	0.00	3.25	F	39.61
MOLINE NEW (NORTH) CITY LAKE	18.96	8.98	0.00	2.37	G	28.87
EDNA CITY LAKE	18.96	2.99	0.00	3.17	G	18.96
CRAWFORD SFL	16.99	11.76	2.61	6.26	F	21.93
OSAGE SFL	15.69	0.00	0.00	1.25	F	19.61
WINFIELD CITY LAKE	14.71	4.12	0.59	5.53	F	9.71
SPRING HILL CITY LAKE	14.49	11.59	0.00	3.00	F	14.49
MELVERN RIVER POND	13.73	8.82	0.00	3.81	F	31.99
GEARY SFL	13.64	5.30	0.00	2.75	G	21.39
SEDGWICK COLAKE AFTON	10.18	3.59	0.00	4.19	F	13.62
MIDDLE CREEK SFL	9.37	1.56	0.00	2.57	Р	7.92
WASHINGTON SFL	8.45	3.17	0.00	4.65	F	15.46
CENTRALIA CITY LAKE	7.99	7.99	2.40	6.23	Р	9.98
CARBONDALE CITY LAKE – EAST	7.84	4.90	0.98	4.25	Р	20.92
PONDS						
NEW STRAWN CITY LAKE	157.78	64.44	2.22	4.96	Е	107.89
SEVERY CITY LAKE	105.79	23.95	0.00	3.57	G	84.76
JEWELL CITY LAKE	98.72	8.97	0.00	3.28	G	77.02
EMPORIA-JONES PARK- W PND	91.67	16.67	0.00	2.41	G	95.09
EMPORIA–JONES PARK - N PND	83.33	16.67	0.00	1.66	G	47.22
ATCHISON CITY LAKE #3	67.65	5.88	0.00	2.65	F	67.65
BALDWIN - SPRING CREEK LAKE	63.27	10.20	2.04	4.33	G	52.88
NEMAHA WILDLIFE AREA POND	52.71	37.14	0.00	3.16	G	77.47
OLPE-JONES PARK POND	41.67	25.00	0.00	1.90	G	45.83
	29.94	29.94	0.00	3.33	G	77.74
					F	22.97
EMPORIA-PETER PAN PARK SALINA-LAKEWOOD LAKE	22.97	6.76	0.00	3.17	г	
EMPORIA-PETER PAN PARK	22.97 14.97	6.76 9.73	0.00	4.52	F	11.40
EMPORIA–PETER PAN PARK SALINA–LAKEWOOD LAKE						



## NORTHERN PIKE

IMPOUNDMENT	Density Rating (>21")	Preferred Rating (>28")	Lunker Rating (>34")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>21")
LAKES						
KINGMAN SFL	3.50	2.00	0.00	7.39	F	2.67
LYON SFL	0.17	0.00	0.00	2.71	Р	0.17

SMALLMOUTH BASS										
IMPOUNDMENT	Density Rating (>11")	Preferred Rating (>14")	Lunker Rating (>17")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>11")				
RESERVOIRS										
WOLF CREEK	41.47	29.07	2.71	2.58	Е	51.49				
EL DORADO	13.73	0.98	0.00	1.23	G	9.48				
GLEN ELDER	9.24	4.62	0.16	2.54	G	11.27				
MELVERN	4.51	2.55	0.78	3.10	G	13.61				
MILFORD	3.17	1.06	0.00	1.52	G	7.77				
LAKES										
JEFFREY EC-AUX. MAKEUP LAKE	25.47	3.75	0.00	2.15	Е	15.55				
JEFFREY EC - MAKE UP LAKE	21.00	3.00	0.00	2.00	Е	12.55				
GRIDLEY CITY LAKE	5.75	2.30	0.00	1.39	F	4.44				
SHAWNEE COLAKE SHAWNEE	2.94	2.21	0.00	2.39	F	3.29				
POTTAWATOMIE SFL #2	2.35	0.78	0.00	1.79	F	2.72				
GEARY SFL	1.52	0.00	0.00	1.00	F	1.52				

## SPOTTED BASS

IMPOUNDMENT	Density Rating (>11")	Preferred Rating (>14")	Lunker Rating (>17")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>11")
RESERVOIRS						
SEBELIUS (NORTON)	8.09	2.94	0.00	1.81	G	13.38
MILFORD	3.44	0.79	0.00	1.71	F	3.48
CEDAR BLUFF	3.32	0.33	0.00	1.36	F	1.54
WILSON	2.20	0.00	0.00	6.21	F	2.20
MELVERN	1.57	0.59	0.00	1.82	F	1.76
FALL RIVER	1.00	0.00	0.00	1.05	Р	0.50
GLEN ELDER	0.16	0.00	0.00	0.97	Р	0.23
LAKES						
HOWARD-POLK DANIELS LAKE	21.96	14.97	1.00	2.20	G	20.65
CHASE SFL	19.61	0.98	0.00	1.17	G	14.22
WILSON SFL	19.16	7.78	0.60	2.95	Е	24.15
BOURBON SFL	13.24	0.00	0.00	1.08	F	27.70
FORT SCOTT CITY LAKE	9.80	0.00	0.00	1.15	F	9.80
CRAWFORD SFL	7.84	4.58	0.00	2.45	G	10.52
EUREKA CITY LAKE	4.99	0.00	0.00	1.12	G	7.87
WINFIELD CITY LAKE	1.18	1.18	0.59	2.34	F	2.35
PONDS						
WALNUT CREEK - TORONTO RES.	0.75	0.00	0.00	1.04	Р	0.37



WHITE BASS						
IMPOUNDMENT	Density Rating (>9")	Preferred Rating (>12")	Lunker Rating (>15")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>9")
RESERVOIRS						
POMONA	23.50	11.58	0.92	2.28	G	11.63
CEDAR BLUFF	14.32	11.64	7.36	1.92	Е	12.72
KANOPOLIS	12.14	10.90	2.81	2.79	G	12.64
JOHN REDMOND	10.85	7.55	0.60	2.89	G	9.38
PERRY	9.40	4.25	0.40	2.51	G	7.12
MELVERN CHENEY	8.31 7.50	8.06 6.15	3.38	2.45	G	7.00
KIRWIN	7.08	6.08	1.08	2.34	G	4.25
CLINTON	6.44	5.56	2.38	2.38	G	9.75
ELK CITY	6.10	0.60	0.10	2.12	G	3.45
WEBSTER	6.00	4.80	0.20	1.52	G	11.03
TORONTO	5.58	3.25	0.50	3.02	G	3.00
FALL RIVER	5.30	3.20	0.80	2.61	G	5.01
HILLSDALE	4.50	3.75	0.08	1.71	F	5.50
GLEN ELDER	3.58	3.46	1.63	2.41	F	7.17
LACYGNE	3.25	2.92	0.33	1.77	F	3.72
LOVEWELL	2.53	0.71	0.00	1.64	F	3.53
WOLF CREEK	2.44	2.31	0.56	2.20	G	3.26
WILSON	2.33	2.33	2.20	3.04	Р	2.33
MARION	1.83	1.67	0.00	1.46	G	4.98
COUNCIL GROVE	1.80	1.60	0.33	2.28	G	2.04
EL DORADO	1.67	1.40	0.00	1.41	F	1.89
MILFORD	0.75	0.70	0.20	1.80	F	0.48
JEFFREY EC-AUX. MAKEUP LAKE	13.00	11.25	9.50	2.10	Е	8.08
COUNCIL GROVE CITY LAKE	10.75	7.50	5.00	2.10	G	7.04
MIDDLE CREEK SFL	10.67	8.17	0.00	1.23	G	4.22
HOLTON – BANNER CREEK LAKE	8.00	8.00	0.00	1.49	F	5.44
DOUGLAS COLONESTAR LAKE	6.00	6.00	1.33	2.32	F	3.06
HERINGTON CITY LAKE-NEW	5.75	4.75	0.50	1.68	G	5.08
CLARK SFL	4.83	1.33	0.00	0.94	Е	9.81
GEARY SFL	3.75	3.75	0.25	1.57	F	1.83
WINFIELD CITY LAKE	3.50	2.70	0.70	1.92	F	1.40
SABETHA – PONY CREEK LAKE	3.33	3.17	0.83	2.86	F	2.17
JEFFREY EC - MAKE UP LAKE	3.00	2.00	0.00	1.60	G	2.33
MIAMI SFL	2.67	2.67	2.33	2.68	G	2.78
OSAGE SFL	2.33	2.00	0.00	1.34	F	1.83
LYON SFL	2.00	1.67	0.50	2.90	F	1.11
GARDNER CITY LAKE MARION CO. LAKE	1.40	1.40	0.40	1.59	G	2.41
CHASE SFL	1.23	1.00	0.00	1.08	F	1.33
CARBONDALE CITY LAKE – EAST	1.00	1.00	0.00	1.37	Р	1.08

WIPER						
WIPER						
IMPOUNDMENT	Density Rating (>12")	Preferred Rating (>15")	Lunker Rating (>20")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>12")
RESERVOIRS						
SEBELIUS (NORTON)	11.38	5.13	0.13	14.67	G	10.96
EL DORADO	8.00	0.20	0.00	4.12	G	6.96
MILFORD	8.00	0.50	0.05	5.20	G	4.92
MARION	6.17	1.33	0.00	5.38	Е	6.08
KIRWIN	5.25	0.33	0.00	4.70	G	5.92
CHENEY	5.10	1.05	0.05	6.15	G	4.56
CEDAR BLUFF	4.55	2.23	0.23	6.31	G	3.57
GLEN ELDER	3.46	0.96	0.00	6.31	G	2.06
CLINTON	2.88	1.63	0.00	6.06	G	2.67
WEBSTER	2.20	0.00	0.00	3.06	G	4.83
COUNCIL GROVE	2.13	1.53	0.00	5.49	G	2.54
POMONA	2.00	0.75	0.00	5.03	F	1.83
KANOPOLIS	1.90	1.14	0.00	6.33	G	1.94
LOVEWELL	1.29	0.18	0.00	5.37	F	1.17
LACYGNE	1.08	0.33	0.00	4.56	F	1.81
LAKES						
HERINGTON CITY LAKE-NEW	21.50	5.00	0.25	5.78	G	18.75
WELLINGTON CITY LAKE	5.50	0.13	0.00	3.42	G	5.46
CARBONDALE CITY LAKE - EAST	5.33	0.17	0.00	3.80	G	2.06
JEFFREY EC-AUX. MAKEUP LAKE	5.25	4.50	0.25	6.29	G	2.92
SABETHA – PONY CREEK LAKE	4.00	1.33	0.17	7.39	G	4.56
LEAVENWORTH SFL	2.00	0.00	0.00	2.81	F	2.39
OLATHE-LAKE OLATHE	2.00	0.00	0.00	3.49	G	2.00
DOUGLAS COLONESTAR LAKE	2.00	0.33	0.00	6.06	F	0.94
GRAHAM COANTELOPE LAKE	1.25	0.00	0.00	3.18	F	0.92
WINFIELD CITY LAKE	1.20	0.00	0.00	3.77	G	1.90
MELVERN RIVER POND	1.00	0.00	0.00	2.31	Р	0.58
OSAGE SFL	1.00	0.00	0.00	2.76	F	0.78
PAOLA CITY LAKE	1.00	0.33	0.00	4.43	F	2.44
PONDS	_					
HORTON-LITTLE LAKE	3.00	0.00	0.00	2.14	F	1.67

STRIPER						
IMPOUNDMENT	Density Rating (>20")	Preferred Rating (>30")	Lunker Rating (>35")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>20")
RESERVOIRS						
WILSON	2.20	0.00	0.00	6.21	G	2.20
GLEN ELDER	0.00	0.00	0.00	1.84	Р	0.00



SAUGEYE						
IMPOUNDMENT	Density Rating (>14")	Preferred Rating (>18")	Lunker Rating (>22")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>14")
RESERVOIRS						
SEBELIUS (NORTON)	10.38	3.50	0.00	4.05	G	11.46
KANOPOLIS	6.00	0.71	0.19	5.58	G	6.22
COUNCIL GROVE	0.47	0.40	0.13	4.20	F	1.04
LAKES						
GRAHAM COANTELOPE LAKE	17.25	2.00	0.25	5.05	G	8.25
SCOTT STATE LAKE	5.42	1.08	0.67	5.80	Е	3.75
ATWOOD-LAKE ATWOOD-MAIN	4.67	3.67	0.00	3.57	G	4.11
HOWARD-POLK DANIELS LAKE	2.75	0.75	0.00	2.19	G	2.33
MADISON CITY LAKE	2.33	2.33	2.33	5.87	G	1.50
MARION CO. LAKE	2.25	0.50	0.00	2.38	G	1.21
MCPHERSON SFL	2.00	1.00	0.40	4.29	F	1.67
SEDAN - OLD (NORTH) CITY LAKE	2.00	1.50	0.50	4.30	F	1.42
CENTRALIA CITY LAKE	2.00	1.63	1.13	7.16	G	2.92
LEBO CITY LAKE	2.00	0.50	0.25	4.59	F	1.63
OLATHE-LAKE OLATHE	1.67	1.67	1.00	5.51	G	1.06
OTTAWA SFL	1.50	0.17	0.17	4.35	G	3.25
PAOLA CITY LAKE	1.33	0.50	0.33	5.68	G	1.61
WASHINGTON SFL	1.33	1.00	0.33	4.10	F	2.36
WELLINGTON CITY LAKE	1.13	0.13	0.13	4.06	G	3.58
CRAWFORD SFL	1.00	1.00	0.60	5.82	Р	0.50
DOUGLAS SFL	0.83	0.83	0.00	2.60	Р	0.56
SHERIDAN SFL	0.83	0.33	0.33	4.91	F	1.78
OLATHE-CEDAR LAKE	0.75	0.75	0.50	5.58	F	1.39
PONDS						
TUTTLE CREEK RIVER POND	0.75	0.75	0.25	5.85	F	0.88

SAUGER						
IMPOUNDMENT	Density Rating (>11")	Preferred Rating (>14")	Lunker Rating (>17")	Biggest Fish (lbs.)	Bio Rating	3-Year Average (>11")
RESERVOIRS						
PERRY	2.20	1.50	1.00	3.34	G	2.37
CLINTON	0.31	0.31	0.13	1.86	F	0.71
LAKES						
HOLTON – BANNER CREEK LAKE	9.86	6.43	0.43	2.26	G	4.62

IMPOUNDMENT	Density Rating (>15")	Preferred Rating (>20")	Lunker Rating (>25")	Biggest Fish (lbs.)	Bio Rating	3-Year Averag (>15")
RESERVOIRS						
CEDAR BLUFF	3.73	0.59	0.05	5.96	G	3.30
WILSON	3.43	0.13	0.00	3.77	G	2.37
EL DORADO	2.73	1.00	0.20	6.75	G	2.76
GLEN ELDER	2.42	0.13	0.00	4.29	G	2.72
KIRWIN	2.08	0.67	0.08	6.23	G	4.42
CHENEY	1.75	0.50	0.00	4.96	Е	2.99
MARION	1.67	0.58	0.00	4.74	G	2.21
MILFORD	1.55	0.10	0.00	3.17	G	1.38
WEBSTER	1.30	0.00	0.00	2.64	F	3.40
HILLSDALE	1.08	0.33	0.00	5.60	F	0.64
WOLF CREEK	0.56	0.06	0.00	3.53	F	0.42
COUNCIL GROVE	0.47	0.20	0.00	4.07	F	0.47
LOVEWELL	0.29	0.18	0.06	7.18	Р	1.12
POMONA	0.25	0.00	0.00	2.47	Р	0.27
CLINTON	0.19	0.06	0.00	4.22	F	0.40
BIG HILL	0.10	0.10	0.00	4.17	Р	0.10
MELVERN	0.06	0.00	0.00	1.23	F	0.38
LAKES						
GRIDLEY CITY LAKE	3.67	0.00	0.00	1.96	F	4.67
HOLTON – BANNER CREEK LAKE	2.29	0.14	0.00	4.60	F	2.01
PRATT CO. LAKE	2.00	1.00	0.00	4.42	G	2.67
YATES CENTER-SOUTH OWL LAKE	1.67	0.83	0.00	4.14	F	1.06
BARBER SFL-LOWER	1.33	0.00	0.00	1.11	F	1.00
LEAVENWORTH SFL	1.17	0.50	0.17	6.39	F	0.67
CLARK SFL	1.00	0.00	0.00	2.34	G	1.08
HORSETHIEF	1.00	0.63	0.13	5.16	F	1.72
SABETHA – PONY CREEK LAKE	0.83	0.33	0.00	4.57	F	1.11
HERINGTON CITY LAKE-NEW	0.75	0.00	0.00	2.48	F	0.50
COUNCIL GROVE CITY LAKE	0.75	0.00	0.00	2.34	F	0.79
JEFFREY EC-AUX. MAKEUP LAKE	0.50	0.00	0.00	1.58	F	0.54
SHAWNEE SFL	0.50	0.50	0.00	4.99	Р	0.72
WINFIELD CITY LAKE	0.40	0.10	0.00	3.77	F	0.63
BROWN SFL	0.25	0.25	0.00	3.49	Р	0.38
YATES CENTER CITY LAKE-NEW	0.17	0.00	0.00	1.81	F	0.42
OSAGE SFL	0.00	0.00	0.00	0.28	Р	0.08
JEFFREY EC - MAKE UP LAKE	0.00	0.00	0.00	0.29	Р	0.44



# Banded

## by Tom Bidrowski

migratory game bird program manager

Each trade has a set of tools unique to members of its profession. For a carpenter, it may be a hammer, a painter a brush, and so on. For those who study birds, it is a small metallic ring with a few numbers scribed on it – a band.

## Banding Migratory Birds Is A Research Tool

The information from a simple band placed on a bird's leg provides wildlife biologists the necessary information to help manage birds, not only for the benefit of the species but for those who enjoy them.

Many hunters and birdwatchers have likely observed a bird with one of these bands around its leg. Each year, the U.S. Fish and Wildlife Service (USFWS), the Canadian Wildlife Service, as well as state and provincial wildlife agencies band more than 350,000 ducks, geese, and swans. Banding activities occur across North America from the arctic to the Gulf of Mexico. Closer to home, banding efforts by the Kansas Department of Wildlife, Parks and Tourism (KDWPT) include species such as mourning doves, Canada geese, and wood ducks. KDWPT staff band more 5,000 migratory game birds each year in Kansas.

Early banding studies provided the concept of flyways. Recoveries of banded waterfowl provide biologists with important information on distribution, harvest rates, and survival. Banding is a fundamental tool in discerning breeding and wintering affiliations, identifying migration corridors, obtaining behavioral data, gaining information on local movements and biology, assessing harvest regulations and estimating populations. Banding efforts also provide information on survival, recovery rates, harvest rates, harvest distribution, and the impacts of hunting regulations. KDWPT's banding studies have helped with development of specific management strategies, including special hunting seasons, such as those for resident Canada geese.

The banding of migratory birds in North America is conducted through the North American Bird Banding Program, which is jointly administered by the United States Department of the Interior and the Canadian Wildlife Service. In the United States, the U.S. Geological Service Bird Banding Laboratory (BBL) is the managing authority. The BBL issues bands to KDWPT and other states/organizations (i.e. universities, researchers) who are permitted to capture and mark a wide array of songbirds, wading birds, raptors, sea birds, and waterfowl. So, all banders are using similar bands and collecting the same information for all species and locations. BBL



sets bird banding protocols, which standardize banding methods, bands, and the band inscriptions. These protocols aid in band reporting and ensure banding is conducted safely and efficiently. All banding reports go to the Bird Banding Laboratory in Laurel, Maryland, which acts as a clearinghouse for banding information. This is where the 1-800 band reporting line is located. So when a bird is subsequently found and reported, the BBL acts as the central processing station for banding information. After someone reports a band, a "Certificate of Appreciation" will provide information on where and when the bird was banded. Data obtained from band recoveries is very important in determining population characteristics and monitoring bird movements and distribution their relative

numbers, annual production, life span, and causes of mortality. This information is needed to establish or modify migratory game bird hunting seasons and to improve our habitat and harvest management strategies.

## KDWPT Resident Canada Goose Banding

As resident Canada goose populations have increased, so has the need to improve biological data to support management decisions. For example: hunting is the principle means for managing populations, and there is increasing desire to maximize harvest in order to curb resident Canada goose population growth. However, there is uncertainty about how expanded hunting measures address some of these management dilemmas. Given large preseason movements (molt migration), and mixing with other populations during fall and winter, we need a better understanding of temporal aspects of resident Canada goose harvest and the impacts increased bag limits may have on other goose populations

Geese are captured during their annual molt cycle when they are flightless for two to three weeks in late June and early July. Each bird captured is banded with an aluminum leg band that has a unique number code, as well as contact information for reporting.

If you recover a bird band, report it through the toll-free banded bird hotline, 1-800-327-BAND, or online at www.reportband.gov. You can keep the band and you'll receive the certificate with information on where and when the bird was banded.





## Canada Goose Neck-Collars

Goose collars are used to study goose populations or track geese as part of a research project. Collars can be easily read from a distance with binoculars or a spotting scope. This allows researchers to identify an individual bird using the combination of collar color, code color, and the alphanumeric code on the collar.

Goose collars come in many different colors and it's possible to see several colors in one area, as color may indicate the flyway or project. Collars come in two shapes: most are cylindrical and made of hard plastic while some are bib-type collars that are coneshaped and made of flexible vinyl. Collars may have three or four characters on them. When reporting collars, it's important to designate which direction the characters are facing. Drawing the collars or stating "vertical 1 horizontal 2 3" will help ensure codes are reported correctly.

Small subspecies of Canada geese have codes that are three characters, and the cone-shaped collars in the Atlantic Flyway are also only three characters. Collars on most large Canada geese have four characters. Collars on snow geese, whitefronted geese, and other species of geese have three or four characters. Codes may be vertical, horizontal, or some combination. The letters, numbers, and other symbols may be highly stylized to allow for easier separation of similar characters.

In 2014, KDWPT crews spent nine days capturing and banding Canada geese at 13 locations across the state. Three thousand, four hundred and thirty birds were captured, 2,738 that were banded and 692 that had been captured and banded in previous years. In 2015, 4,879 geese were captured. One thousand, fiftyone of those were recaptures, and the rest were new to the banding program.



# Please help us help you manage migratory game birds by reporting banded birds.

Report all banded birds you harvest or find by calling toll-free 1-800-327-BAND or via the Internet at Bird Banding Lab.

• If you observe a bird with a neck-collar it can be reported at: www.pwrc.usgs.gov

## For more information on bird banding visit:

- USGS Bird Banding Laboratory www.pwrc.usgs.gov
- www.flyway.us
- Watch the video on the history of bird banding in North America, "Closing the Circle" www.flyways.us
- KDWPT Mourning Dove Banding Project www.ksoutdoors.com



TEXT & PHOTOS BY NADIA MARJI, MANAGING EDITOR

The Governor's One Shot Turkey Hunt, a 29-year standing tradition of the Sunflower State, joins select Kansans, celebrities, and youth each year for a single purpose: to celebrate Kansas and one of it's most notable natural resources, the wild turkey.

The hunt first began in 1983 as an effort of Kansas Governor Mike Hayden to draw attention to all that El Dorado and Kansas had to offer, and to recognize the importance of Kansas' outdoor opportunities. Initially, those invited to attend consisted of business professionals from around the state, but over the years, that guest list has expanded to add entertainment professionals, sports icons, military veterans, wildlife enthusiasts, artists, past participants, and most importantly, youth.

While the event remains invitation-only, six spots are reserved each year for Kansas youth who, through an application process, compete to earn a spot in the hunt. There is also a special spot reserved each year for the winner of the National Wild Turkey Federation's National JAKE Essay Contest.

Last year, I had the privilege of partnering up with and photographing Liza Ward, one of the six lucky Kansas youth who earned a spot at the 2015 hunt. Her hunt was an experience that all involved will not soon forget. It was a day filled with excitement, disappointment, perseverance, and ultimately, triumph. Granted, those are some pretty powerful words, but this was a pretty powerful young lady.

#### Excitement

When I first met Liza, we were lacing up bowling shoes at the local El Dorado bowling alley for the event's youth social. Her calm and reserved demeanor was typical of any young adult put into a new social situation, but a couple slices of pizza later and a round of bowling quickly changed that. It



wasn't too long after speaking with her and her dad, Richard, that I realized there was much, much more than met the eye with Liza. As it turns out, the young lady before me was a junior sprint car racer. Now, I'm not a big race aficionado, but I know enough to recognize that a sport like that requires one very crucial thing, among others – dedication. After learning this of Liza, I was convinced her hunt would be successful. Not because she was an extremely skilled hunter, or because I knew the hunting ground would be teeming with birds, but because I knew she could be dedicated enough to not give up when the going got tough. It did, and she didn't..

The morning began promptly with a 4 a.m. breakfast, followed by meet-and-greets with hunting guides. Liza, and fellow youth hunter Josey Mestagh, were paired with Paul Wilkins and John Sutherland – a duo that clearly were motivated to show these youth the best day of turkey hunting they possibly could. Excitement was high, extra snacks were packed, and as soon as plates were cleared, we were on our way.

Our caravan headed to a private spot of Sutherland's, not too far from town. The blackness of early morning made the drive seem that much more mysterious, only adding to the anticipation. Once the truck came to a stop, everyone crept out, and fell silent, listening for distant gobbles. Not wanting to waste too much time, bug spray was quickly applied and the short trek to the hunting spot ensued.

A total of three blinds were set up, one for each youth party, and myself.

As I unpacked my camera gear and positioned the tripod, I noticed the trees surrounding us began to take form against a black sky morphing to indigo. The area had all the makings for an incredible hunt, now we just needed birds.



Josey Mestagh

#### Paul Wilkins (left) & John Sutherland

#### Disappointment

It wasn't long after everyone got settled in when the whispers and giggles became indistinct as a gentle mist the blinds. fell on Conversations continued until the mist turned into a light sprinkle. Then silence fell, and so did the rain. As I watched droplets combine and feed into thin streams of water falling from the top of my blind window, I couldn't help but acknowledge that an almost palpable sense of disappointment crept across our group. Our hunt was interrupted quicker than it begun.

Nearly an hour had passed before the rain let-up, but our patience was rewarded as the sound of a creature walking was heard from a distance.

The group, including Liza, immediately went into "hunt mode." Silence fell across the spread as shotguns were carefully moved to the front of each blind, preparing for a shot. We waited for what seemed like an eternity before the mysterious animal surfaced. A doe.

Shotguns were lowered, only to be brought back up when another sound was heard shortly thereafter. This time, a squirrel. A few chuckles fell across the group.

About 15 minutes passed when the figure of a turkey could be seen through the trees. Guides began giving their hunters soft-spoken instruction on where to aim as the turkey slowly made it's way to the spread. As it drew near the decoy, it was evident this turkey was no tom or jake, but rather a hen. Shotguns were lowered, and the waiting game began again. The hen took residence near the decoy for the better part of 40 minutes, preening her feathers from the morning rain. Albeit exciting to watch, it was a morning of stop-go-stop-go that had every ready for some lunch.

#### Perseverance

A consensus was made that the group would take a short break,



eat lunch, and regroup for the afternoon. Sutherland and Wilkins welcomed everyone to host of treats back at the trucks, and lighthearted conversations ensued. Both guides remained confident there was still plenty of action to be had that afternoon.

While the guides talked strategy, Liza and Josey refueled and exchanged stories of their take on the morning's events, laughing at the luck they had so far.

It was a perfect opportunity to photograph one of the best parts of being a hunter – the camaraderie.

After everyone had their fill of nutty bars and bathroom breaks, it was on to round two.

Exactly seven minutes after zipping up the last blind, a beautiful jake appeared, followed by three more. In just a matter of hours, a rained-out morning hunt had turned into a buffet of jakes right in front of us.

Finally, the girls had a real shot.

#### Triumph

I focused my lens, framing the shot, unaware of the activity in the other blinds. My ears begin adjusting to the loud noise that just penetrated the air. At the time, I didn't know whose gun went off first, but it was clear that in that moment I had just captured someone's first successful turkey hunt.

Everyone emerged from the blinds and began searching each other's faces, trying to determine who was the successful hunter. It was Liza. She had bagged her first turkey.

Her dad Richard was filled with pride as guides Wilkins and Sutherland encouraged the duo to approach the bird. The two,







walking side-by-side, made the short jaunt to the bird and smiled. After a quick inspection by dad, Liza held up her bird with pride.

After Liza filled out her tag using her father's back as a table, she hoisted her bird over her shoulder and followed the group back to the trucks; it was getting close to weighin time back in El Dorado.

While Josey wasn't able to tag a bird the first day, her chance came less than 24-hours later on the Saturday hunt and she seized it without hesitation. (As luck would have it, it rained that day, too.)

In less than three days, the mission of the Kansas Governor's One Shot Turkey Hunt had been fulfilled, and several lucky Kansas youth now had an incredible story to tell.

This event brought together people from all walks of life, to take a break from every day life and to accomplish a single mission: hunt a turkey.

If that's not a celebration of Kansas outdoors, I don't know what is. 😯

If you know a youth that has yet to experience a "first bird" and would enjoy participating in this hunt, visit www.ksgovsturkeyhunt.com



Liza Ward & her one-shot turkey

Wildlife & Parks

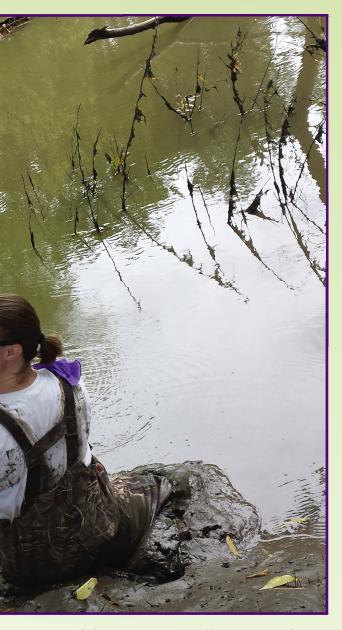


Rain sliced through the black sky as we made our way to the two agency trucks parked side by side. Was it an omen of the week to come or just the release of bad luck prior to the start of sampling? We could only hope it was the latter, because we had a hefty work load and a tight schedule. The two federal biologists moved quickly, moving this tote to our state truck, setting aside that container to remain in their truck. This wasn't their first trip, so the transition only took a few minutes of shuffling equipment. Still, we were drenched by the time our two crews went separate directions out of the city of Independence. A week of unknowns lay ahead, and a nervous anticipation filled the cab of our truck as we eagerly made small talk with our guest, Allie.

Allie's job was to regularly collect water samples for the U.S. Fish and Wildlife Service (USFWS) in and around the Great Lakes, looking for evidence of the presence of bighead and silver carp, two species of

Asian carp that can have devastating environmental impacts. These water samples are analyzed for environmental DNA (eDNA), which are DNA fragments in the water from fish skin cells, mucus, or excrement. The process of collecting and analyzing the samples is complex, so the USFWS trains personnel to collect samples following a detailed manual that describes everything from collection, processing, and reporting. The USFWS had never collected eDNA samples in Kansas before but agreed to help the Kansas Department of Wildlife, Parks and Tourism (KDWPT) collect samples in July 2015 and to later analyze them at the USFWS Whitney Genetics Lab in LaCrosse, Wisconsin. The USFWS supplied two field collection biologists (one for each of our two KDWPT-run boat crews), as well as a crew that processed our samples and prepared them for the lab.

When the USFWS agreed to assist KDWPT, we were ecstatic. Results from eDNA sampling are very



CCARP SCENE INVESTIGATION

> text and photos by Jessica Howe aquatic nuisance species coordinator Emporia

Biologists use modern science to determine if envrionmental DNA of Asian carp exists in Kansas waters.

powerful. Even very small amounts of DNA in the water can be detected, indicating the presence of DNA either from a fish or DNA moved there by fisheating birds excreting Asian carp remains within a known distance from the sampling location. For KDWPT, the presence of eDNA from Asian carp would help focus additional sampling using a combination of standard fish sampling gear, including nets and electrofishing. Although KDWPT has known locations of Asian carp from a survey conducted in 2010, as well as periodic reports from anglers and staff, a more comprehensive survey was needed to locate any new populations or affected areas. We selected 11 locations in six river basins throughout eastern Kansas, with a focus on those river stretches into which Asian carp may have moved upstream or where isolated reports occurred.

Many Kansas anglers remember when KDWPT changed bait regulations in 2012 that prohibited

moving wild-caught bait alive from one drainage to another. Asian carp were a major driving force behind this decision, as small Asian carp can look very similar to gizzard shad, which are a popular native bait fish. Kansas anglers have a long history of appreciating and taking care of the natural resources in the state, including preventing the spread of ANS. But it has always been difficult to provide strong examples of prevention. At least, it was until 2015.

Jacob, my technician, and I had read the 196-page eDNA sampling manual several times, but our first sample site gave us a much better idea of what lay ahead. The sampling process itself started out a little slow, but our work steadily became second nature as we adjusted to the new rhythm under Allie's guidance. Since we were looking for fragments of DNA in the water, we had to be careful not to contaminate our samples. That meant bleach, a lot of bleach. Everything, including our boots, were thoroughly dis-



To determine if Asian carp infest new waters, biologists from the U.S. Fish and Wildlife Service assisted KDWPT staff collecting water samples, which were then tested at a lab for evidence of environmental DNA, or eDNA, from Asian carp.

infected before we used them, and again after every sampling site. It also meant boxes and boxes of disposable gloves to keep us from accidentally transferring our own genetic material into the samples. Everything had to be as sterile as possible, which is hard to do on a boat in the middle of the river.

One team member was the "dirty" person. This person was actually collecting samples and either leaned out of a boat or carefully waded from shore to use sample tubes to collect the top part of the water column, where the water current concentrates DNA

and biological material (think of where the "foam" collects). A second person acted as the "clean" person, who ensured that we were not contaminating samples, prepared new sterile tubes for the collector, and in turn held containers for the collector to store their samples. The third and final team member was responsible for collecting GPS locations and recording data. This person was also responsible for driving the boat when it was possible to sample from a boat. Jacob, Allie, and I took turns collecting samples, transferring materials, and recording data at different locations so we all had a thorough understanding of the process. Our second field crew followed the same procedures under the guidance of Ollie, another USFWS biologist who had been trained by the same teacher as Allie. This allowed us to split the work between two field crews while maintaining a consistency in sample collection.

At our first site, the river had dropped several feet since our scouting visit the previous week, and parts of the upper stretches we had planned to sample were inaccessible even with our small boat. Since we had to collect samples from downstream while moving upstream, we ended up only collecting 18 of the 25 target samples at our first site. Throughout the week, we found that most of the rivers had dropped significantly, and our plans become as fluid as the water flowing in the rivers we were sampling. At some locations we were able to collect all 25 samples; however, others had very limited access and only a handful of samples were possible. A couple of sites were even completely covered in mud, making sample collection impossible by boat and dirty work from shore, but we managed to collect the samples. Dealing with these fluctuating conditions was a learning experi-

ence for not only our KDWPT staff, but also for the seasoned USFWS staff that were accustomed to working on the large rivers around the Great Lakes.

We learned that quick turnaround was crucial, as leaving samples sit too long or get too hot would degrade any DNA in the water. Since we were already only looking for DNA fragments, degraded DNA would make it more difficult or impossible to detect the Asian carp DNA that may have been present. Many times our sampling crews were able to drive



Staff took great care to ensure water samples did not become contaminated, using latex gloves, bleach disaffectant, and being meticulous with procedure.

samples directly to the trailer crew, but the large geographical scope made sample runners necessary periodically. Emporia Research and Survey staff stepped up to act as runners to speed our efforts, meeting us at a designated area and driving samples to the trailer crew at their processing station. The trailer crew still ended up waiting to receive samples at times, but were soon busy with the hours-long process of cen-



**receive samples at times, but** Samples were centrofuged and prepared to be transwere soon busy with the ported to USFWS Whitney Genetics Lab in Wisconsin.

trifuging samples and preparing them for transport to Wisconsin.

As anticipated, the week was busy. Major setbacks came up every day, but our crews worked to overcome each problem and stick to the grueling schedule. When the week was done, we managed to collect 204 samples throughout eastern Kansas at all of our target locations.

In this short time, a strong sense of camaraderie had developed between KDWPT and USFWS staff. A true partnership developed as both entities struggled to adapt protocols to fit the fluctuating nature of Kansas rivers, and it was difficult to say goodbye to all the USFWS staff that dedicated their time to this important project. All their hard work paid off, though, when KDWPT received the results a few months later: all negative.

What does that mean? All negative results mean that there was no Asian carp DNA present in the water we collected or within two kilometers of river (or reservoir in many cases) upstream of where we sampled. It means that not only were fish absent, but even fish-eating birds hadn't transported Asian carp DNA to these locations from nearby. Most importantly, it means that Kansas anglers should pat themselves on the back, as Asian carp had not been moved to these areas. Finally, strong evidence exists that Kansas anglers maintain their excellent stewardship of natural resources by preventing the spread of Asian carp.

Since all the results from 2015 were negative, KDWPT was able to hold off on weeks' worth of sampling with nets and electrofishing. This freed up staff to do other work such as sampling for zebra mussels, electrofishing saugeye for a research project, sampling fish for diseases, and analyzing data from other experiments. Overall, the Asian carp eDNA sampling in 2015 was a positive experience that provided a tremendous amount of information in a limited amount of time and aided KDWPT in conserving and managing the state's natural resources.

There's a chance the USFWS will be back in 2016 to

collect another round of samples in Kansas. Using what we learned from our first sampling experience in 2015 and with a little luck, we may even be able to collect a few extra samples. If possible, this would be a great opportunity to expand the database on Asian carp in Kansas. It would also give us a chance to show the world once more how much Kansas anglers care about the resource.

For more information about Asian carp or Kansas bait regulations, visit www.protectKSwaters.org.



Not only do Asian carp negatively impact native aquatic wildlife, they also have a weird and potentially dangerous habit of launching from the water when a motorboat passes over.

#### ASIAN CARP

• Asian carp are prolific under the right conditions, and one female silver carp can produce over 2,000,000 eggs each year!

• Both bighead and silver carp are filter feeders and can out-compete desirable fish for food and space.

• Bighead and silver carp look very similar to gizzard shad, a popular native bait fish.

• Silver carp can weigh up to 80 pounds, and because of their habit of leaping out of the water as a boat passes over, pose a physical danger to boaters and anglers.

• The largest reported bighead carp in Kansas was 80 pounds, though this species has been known to grow to over 100 pounds in the U.S.



#### WILD-CAUGHT BAITFISH

• Wild-caught bait must be used in the common drainage where it is caught and may not be transported upstream of a fish barrier. This helps prevent the movement of ANS and diseases from one lake or stream to another.

• Since bluegill and green sunfish often look different from ANS, they may be used as bait anywhere in the state. However, see the restriction about aquatic nuisance species designated waters below.

#### PURCHASED BAIT FISH

• If purchasing bait, only purchase from a permitted Kansas commercial bait dealer. They carry legal species, bring in fish from sources tested for diseases, and have clean sources of water.

• You must have a receipt at all times while fishing with purchased bait that indicates where you purchased your fish, the number, and species.

• At ANS designated waters, no live fish, including bait, may be transported away alive. ANS-designated Waters are those waters containing Asian carp, white perch, zebra mussels, or any combination of these species. These waters are posted with signs at major water accesses, and a current list can be found online at www.protectKSwaters.org.

• Dispose of unused bait on land or in an approved bait receptacle. Remember that stocking or releasing wildlife on public lands and waters is illegal.

This photo illustrates the similarities among three species of Asian carp and a gizzard shad, bottom. Wild-caught bait laws are designed to prevent anglers from inadvertantly spreading Asian carp with bait fish caught in a sein.



#### **STOPPING THE SPREAD**

Aquatic nuisance species (ANS) are non-native plants and animals that harm the environment, recreation, and the economy. They can be spread naturally but are often moved to new locations through human actions, often accidentally. It's important to remember the following:

• Clean, Drain, and Dry all equipment every time you use it. This includes boats, waders, decoys, water toys, and any equipment used in a Kansas lake or stream.

• Clean – thoroughly inspect and remove any plants, animals or mud.

• Drain – areas that may hold water and remove any standing water.

• Dry – Allow equipment to dry completely (usually at least 5 days) or use high-pressure hot water (140 degrees F for 10 seconds of contact time) to thoroughly decontaminate all equipment.

• Don't dump unused bait. Instead, dispose of it on land.

• Never release unwanted aquarium pets or plants. It's illegal to release wildlife on public lands, and most released organisms cannot survive Kansas winters. However, those that do could have unintended impacts on the environment.

• Report any aquatic plant or animal that's out of place to KDWPT by calling (620) 342-0658 or reporting it online at www.protectKSwaters.org. If possible, take pictures, note the location, and freeze the organism in a re-sealable plastic bag.

### **2016 SPORTSMEN'S CALENDAR**

SPRING TURKEY Youth/Disabled Hunters: April 1-12, 2016 Archery: April 4-12, 2016 Regular Season: April 13-May 31, 2016

**FALL TURKEY** Oct. 1-Nov. 29. 1, 2016 AND Dec. 12, 2016-Jan. 31, 2017

DEER (proposed) Youth/Disabled Hunters: Sept. 3-11, 2016 Archery: Sept. 12-Dec. 31, 2016 Pre-rut Whitetail Antlerless: Oct. 8-9, 2016 Muzzleloader: Sept. 12-25, 2016 Regular Firearm: Nov. 30-Dec. 11, 2016 Firearm Extended Whitetail Antlerless Season: Jan. 1-2, 2017 (Units 6, 8, 9, 10, 16, and 17) Jan. 1-8, 2017 (Units 1, 2, 3, 4, 5, 7, 11, 12, 13, and 14) Jan. 1-15, 2017 (Units 10a, 15 and 19) Archery Extended Whitetail Antlerless Season: Jan. 16-31, 2017 (Unit 19 only)

**DOVE (proposed)** Sept. I-Nov. 29, 2016 (mourning, white-winged, Eurasian collared, and ringed turtle doves)

**EXOTIC DOVE** Nov. 30, 2016-Feb. 28, 2017 (Eurasian collared and ringed turtle doves only)

**RAIL** Sept. I-Nov. 9, 2016 (Sora and Virginia)

**SNIPE** Sept. 1-Dec. 16, 2016

WOODCOCK Oct. 15-Nov. 28, 2016

DUCKS To be set

CANADA GEESE To be set

WHITE-FRONTED GEESE To be set

LIGHT GEESE To be set

SANDHILL CRANE Nov. 9, 2016-Jan. 5, 2017

GREATER PRAIRIE CHICKEN Early Season: Sept. 15-Oct. 15, 2016 Regular Season (Greater Prairie Chicken Unit): Nov. 19, 2016-Jan. 31, 2017

PHEASANTS Nov. 12, 2016-Jan. 31, 2017 Youth: Nov. 5-6, 2016

QUAIL Nov. 12, 2015-Jan. 31, 2016 Youth: Nov. 5-6, 2016

SQUIRREL June 1, 2016-Feb. 28, 2017 RABBITS

Open year-round (cottontail and jackrabbit)

**CROW** Nov. 10, 2016-March 10, 2017

**TRAPPING/HUNTING** Nov. 16, 2016-Feb. 15, 2017 (badger, bobcat, mink, muskrat, opossum, raccoon, swift fox, red fox, gray fox, striped skunk, weasel)

BEAVER & OTTER TRAPPING Nov. 16, 2016-March 31, 2017

RUNNING March I-Nov. 8, 2016

**TROUT** Nov. 1-April 15, 2016

FLOATLINE FISHING July 15-Sept. 15 2016

HANDFISHING June 15-Aug. 31, 2016

PADDLEFISH SNAGGING March 15-May 15, 2016

BULLFROG July I-Oct. 31, 2016

# Species Profile: Mink

A member of the weasel family, the mink has a distinct short head, pointed muzzle, and long, slender body. Mink can be distinguished by a white marking underneath their chin, and a noticeably bushy tail. Cunning hunters both on land and in water, mink feed primarily on mammals, muskrats, and fish; however they will eat a host of other items. Mink usually mate during March and April, producing litters of around five kits. Once summer hits, the family will split up, and each member will go their separate ways.

The solitary animals can be found throughout the state, and while they aren't a danger to people, beware as they can emit a strong musk similar to that of a skunk.

Dan Witt photo



## **Optimism Rewarded**

In the March/April 2013 Backlash, "Optimism Necessary," I considered that optimism was an important trait for anyone living on the Great Plains, from early settlers to current residents. While we don't face the perils our ancestors faced when settling this country in the 1800s, we still live with the uncertainty of the weather and resulting conditions.

At that time, we were in the third year of a brutal drought, and our pheasant and quail populations were nearing record lows. There were obviously many other hardships as a result of the drought, but because of my love of bird hunting, I focused on pheasants and quail. I did some research of past annual bird harvests and regained some optimism.

Looking back at annual harvest of pheasants and quail, the roller coaster path was evident. I found the lowest harvest on record, which was 1957, then looked at rainfall records for the southwest part of Kansas. The state was enduring one the worst droughts since the 1930s. When the drought broke in 1957, pheasant harvest tripled the next year.

And that bit of information fueled my optimism. I know that the only constant in life is that things will change and in 2013, it felt like things could only change for the better (Obviously, they could have gotten worse, but thankfully, they didn't). Change came in the form of mid- and late-summer rains in 2014 and while the precipitation came too late for the pheasant hatch, it benefitted the later-nesting quail, improving nesting and brood-rearing habitat. Winter habitat conditions also improved dramatically in 2014, and quail populations were much improved that fall. There were some bright spots for pheasants, but populations were still very spotty.

Things were ideal through 2015 in much of the state, and pheasants and quail took advantage. While the harvest, overall, will probably come in below average for pheasants, the stories I heard and the experiences I had lit a bonfire of optimism in me.

In the Flint Hills and areas of southcentral and southwest Kansas, quail populations are very good. One hunter put it this way, "Every spot that had quail at any



time in the past, has a covey this year." It wasn't uncommon to flush large coveys along crop field edges and CRP field edges, which are considered peripheral habitats. And quail were back in the traditional permanent covers, as well.

Pheasant numbers were dramatically better. However, in some areas, improvement was limited by the low numbers of breeding birds last spring. Even so, to flush multiple pheasants from fields that just a couple years ago were pheasantless was encouraging. And in some areas of southwest Kansas, hunters were reminded of how good the hunting was in 2010.

So now, with seasons over for a year, we're talking about 2016. Optimism is running high, and the thought is that if we have decent moisture this spring and avoid the severe heat this summer, bird numbers will be fantastic next fall. Of course, there are lots of "ifs" in that prediction. But for now, I'll stay content with my bolstered optimism.



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