

Ellsworth District Fisheries



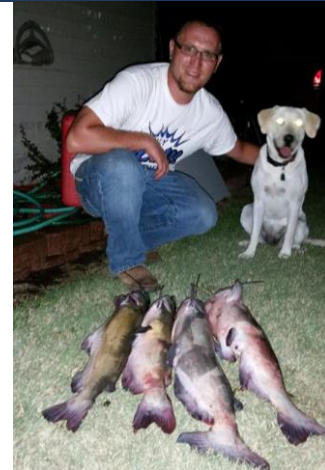
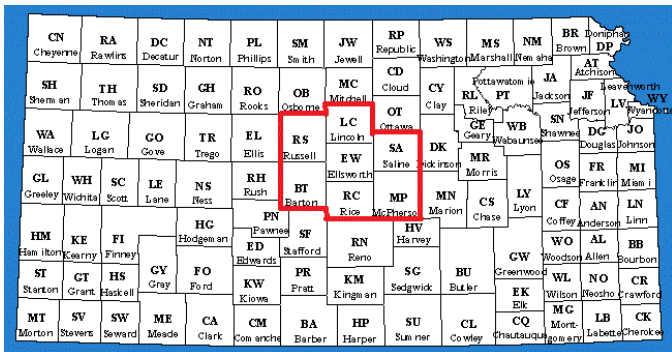
Kansas Department of Wildlife, Parks & Tourism Fisheries Division

Fall 2015

District Information

Bryan Sowards – Fisheries Biologist
 Wilson Area Office
 #3 State Park Rd. Sylvan Grove, KS 67481
 (785)658-2465

Counties and Reservoirs



First off, I am happy to be here and look forward to meeting the anglers and outdoorsmen and women of the district. I have already met a few of you while I was out and about and stopping by Knotheads Baitshop. If you haven't been to this bait shop at Wilson Reservoir yet, I would recommend you go there. The folks are good to work with and have all the bait you need to have a successful fishing trip. They have surely been helpful welcoming me to the lake.

I grew up in Washington County, Kansas where I developed a strong adoration for the outdoors, more specifically, archery deer hunting and fishing. This passion led me to pursue a degree in Biology from Fort Hays State University in 2008 and I continued on and finished my Master's degree in 2012. I was able to learn sampling methods and management strategies for fish but also got to travel all across the state surveying lakes and streams for what they have to offer.

My interests broadened for all things related to the aquatic world and I was offered a job in 2012 to be a research scientist for Texas A&M University out of San Antonio Texas. I had the opportunity to lead a crew that traveled to some beautiful places and sampled freshwater mussels (clams). The research was focused on some species that aren't doing particularly well and we were searching for answers.

Russell	Wilson Reservoir - 9000 acres
Lincoln	Only leased F.I.S.H. properties
Saline	Saline State Lake (DRY)
	Lakewood Lake - Salina – 6 acres
	Indian Rock Lake - Salina (DRY)
Barton	Cheyenne Bottoms Wildlife Area
	Stone Lake – Great Bend - 40 acres
	Veteran's Lake – Great Bend - 13 acres
Ellsworth	Kanopolis Reservoir - 3550 acres
	Holyrod City Lake – 13 acres
Rice	Sterling City Lake - 10 acres
McPherson	McPherson State Lake - 47 acres
	Black Kettle State Lake – 8 acres
	Windom City Pond – 1 acre

Note: Keep in mind that there are various Arkansas River access points throughout the region and F.I.S.H. Program properties. The F.I.S.H. Program leases the angling rights from private landowners to allow you to fish their ponds. Get the latest Kansas Fishing Atlas for details.



The New Fisheries Biologist

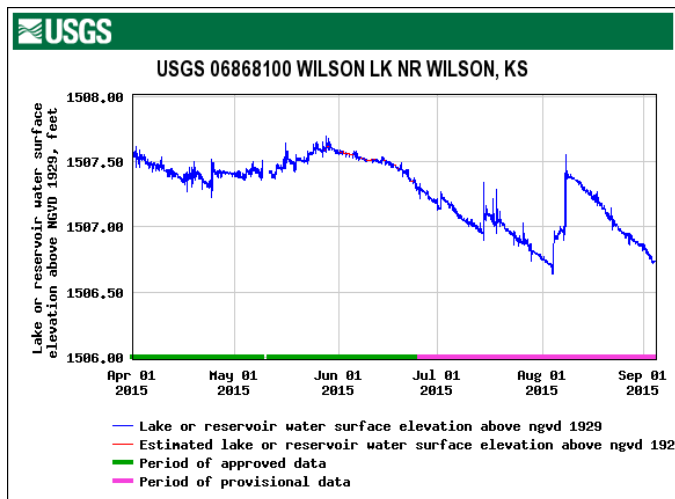


Washboard mussels from the Leon River, TX.

In 2013 I took the opportunity to return to Kansas to work within the Fisheries Division of the Kansas Department of Wildlife, Parks & Tourism (KDWPT). I worked the last two years as the Fisheries Program Specialist for KDWPT out of Pratt. Those job duties varied but mostly dealt with coordinating some of our popular fishing programs such as the Community Fisheries Assistance Program (CFAP) and the trout and urban channel catfish programs.

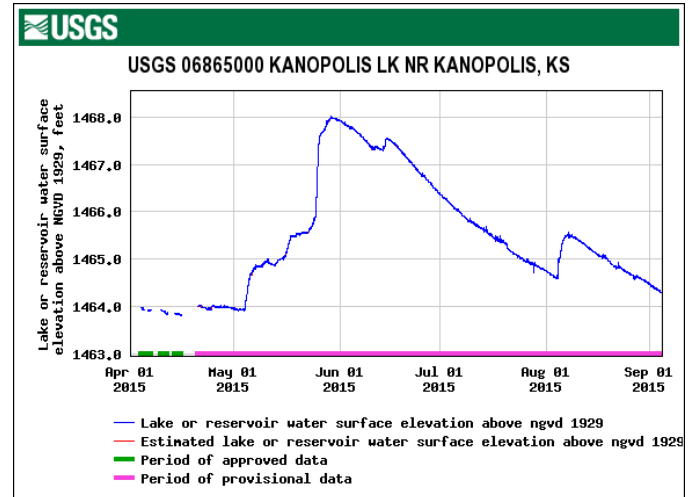
I feel very strongly that our agency is taking a long, hard look at what anglers want. With you anglers in mind we're looking for the best management strategies to provide for the best fishing opportunities our lakes can support. My job duties in Pratt focused on these big picture ideas and I learned a lot. When the opportunity came to apply for the Ellsworth District Fisheries biologist position I was excited to get back into the field and watch these strategies go to work on the ground.

Summer Weather Conditions



Wilson Reservoir would be at the top of its conservation pool when at an elevation of 1516 feet but continues to drop in elevation and reached its record low this summer (nearly 9.5 ft. low). Early August rains dropped nearly 5 inches of precipitation in the area and added nearly a

foot of elevation to the lake. This was enough to account for most of the summer evaporation but not enough to have a significant impact on the fishery. Since those rains, the lake continued to drop and is currently 9.3 ft. low.



Kanopolis Reservoir would be at the top of its conservation pool when at an elevation of 1463 feet. The reservoir has remained full ever since it's rebound in the spring of 2013. It is currently 1.3 feet high.

Spring Largemouth Bass Samples

Wilson Reservoir

The Wilson Reservoir largemouth bass population is continuing its downward trend. While fishing tournaments and summer seining shows that their numbers are still adequate, we will need some rain to submerge aquatic vegetation in the lake. This should improve bluegill reproductive success (their main forage species) and the reproductive success of the largemouth population. Flooded vegetation improves the food chain of a lake by providing surface area for algae, fungi, and aquatic insects which, in turn, get eaten by juvenile fish. The vegetation also provides habitat for young bass and bluegill to hide from predators, therefore increasing the likelihood of their survival.

	2014 sample	2015 sample
Total fish	29	8
% of 8-inch fish	3.5	0
% of 12-inch fish	58.5	25
% of 15-inch fish	38	75

The salt concentration of Wilson Reservoir continues to make the electrofishing samples unreliable for an adequate forecast. Numbers continue to drop and the size structure is increasing. Low water levels might be negatively affecting recruitment.



There is other evidence that young fish are continuing to recruit to the Wilson Reservoir population (Photo taken in early July).

McPherson State Lake

The largemouth bass population at McPherson State Lake continues to be one of the best in the state. Our 2015 sample was similar to 2014. The largest fish sampled was over 6 pounds.

	2015 Sample
Total fish	150
% of 8-inch fish	21
% of 12-inch fish	37
% of 1-inch fish	40
% of 2-inch fish	2

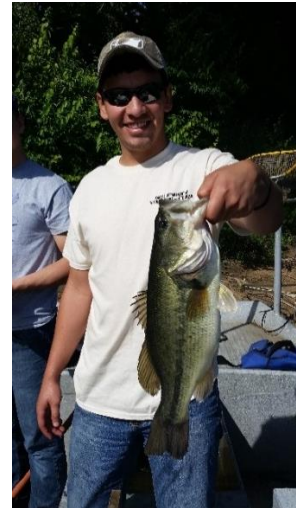
McPherson State Lake has a well-rounded size structure of largemouth bass with young fish moving into the population and plenty of 15- to 20-inch fish weighing 2-5 lbs.



A largemouth bass collected at McPherson State Lake. There is a population of gizzard shad in the lake. This is generally bad for bass as they can out-compete young bluegill for plankton. Gizzard shad in these situations usually get very large and become insignificant as forage but if bass can get big enough (like the one in this photo with a shad in its mouth) they can successfully feed on them.

Lakewood Lake – Salina

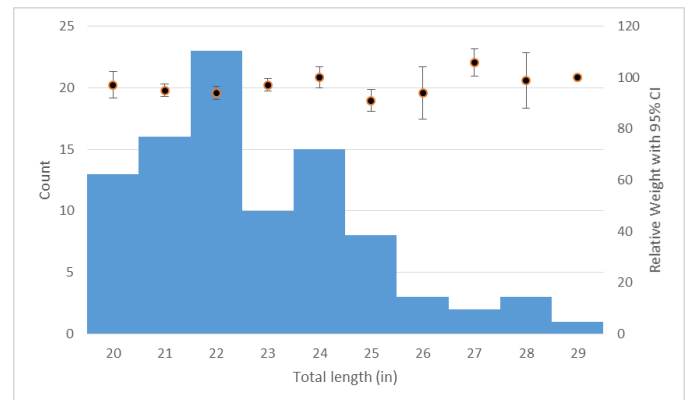
Lakewood might not be a common destination for anybody seeking anything other than a channel catfish but it does provide some largemouth bass. We collected a few fish over 15 inches and as large as 3.5 lbs.



Summer Blue Catfish Sample

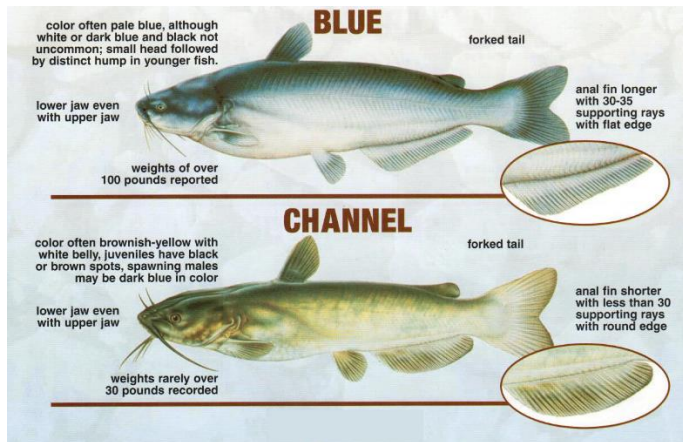
Wilson Reservoir

For those of you waiting for a trophy blue catfish fishery at Wilson Reservoir, you might have to wait just a few more years. The fish are getting closer. If conditions remain reasonable, there should be a few 35-inch fish (current length limit) within the next 3-4 years but only time will tell. The majority of fish are still less than 23 inches. Click [here](#) to see how KDWPT samples for blue catfish.



Blue catfish sample at Wilson Reservoir during the summer of 2015. Relative weight is a measure of the “plumpness” of the fish and numbers above 90 are pretty good.

Please be a good steward of our aquatic resources and know how to identify between channel catfish and blue catfish if you plan to harvest one.



The blue catfish looks much like the channel cat, except the blue has a humped back, a longer anal fin, and grows bigger. Blue catfish have more than 30 anal fin rays while channel catfish have 29 or less. Blues are seldom caught on the concoctions used for channel cats, preferring cut or live bait. The largest blue cat on record weighed 143 pounds. The Kansas record weighed 102.8 pounds.

Fish Habitat Enhancement

You might have seen a boat driving around Wilson Reservoir this summer filled with cedar trees. Don't worry; the trees didn't stay in the boat for very long as we were out dumping brush piles into the lake. We made new piles in Marshall and Rock Town coves. We also added the new "Georgia Cubes" to Rock Town. These coordinates will be available on the website soon. There is limited habitat in Wilson Reservoir, especially with the lake being this low, so any habitat we can add will be helpful.



Georgia cubes being taken by boat to a cove in the Rock Town area.

We have also started a project at Wilson with an attempt to grow native aquatic vegetation within the lake. The

hope is to get vegetation going and surround it with cages to prevent herbivory from carp and other fishes. It will then be up to the plant to spread out of the cage and hopefully gain a foothold throughout the coves we originally planted them in. This has begun in Rock Town and Marshall coves with American pondweed.



American pondweed cuttings being planted in pots within a kiddie pool. This is the nursery from which we'll take rooted plants and start separate colonies that will hopefully disperse on their own from there.

To Stock or Not to Stock Walleye?

Fish have been traditionally stocked for various reasons but the objective is always the same: to enhance fishing opportunities.



Put-and-Take) In Kansas, channel catfish are stocked at urban ponds and F.I.S.H. ponds to provide fish for immediate harvest at locations that might receive high angling pressure. Rainbow trout are stocked at approximately 32 locations across the state for an added winter fishing opportunity. Like the catfish, these fish are stocked at a larger size for immediate harvest.

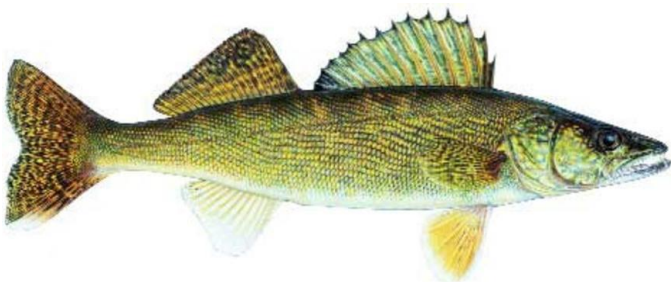


Biological control) In some situations forage species might be stunted and out of control (numerous small fish). This situation occurs commonly with crappie and bluegill. A pond might be lacking an adequate predator base to keep these smaller fish thinned down. What you end up with is too many fish competing for the same amount of food and you end up with a stunted population. Predators such as largemouth bass, walleye, saugeye, and wipers can be stocked to help control the stunted forage population and lead to larger crappie and bluegill for the angler to catch. Predators are also stocked to reduce populations of aquatic nuisance species such as white perch.

Supplement the population) In other situations, particularly large Kansas reservoirs, there can be inadequate spawning habitat for fish to reproduce. For walleye, in particular, you need plenty of large gravel and rock for reproduction. You also need good clean water with a high concentration of dissolved oxygen. If this habitat is lacking and reproduction is minimal, a biologist might consider stocking to supplement the population. This is done regularly with walleye in Kansas.

Genetic diversity) Inbreeding might become a problem in lakes separated from other fish populations. Stocking is occasionally needed to maintain genetic diversity of the population.

So, let's talk about walleye.



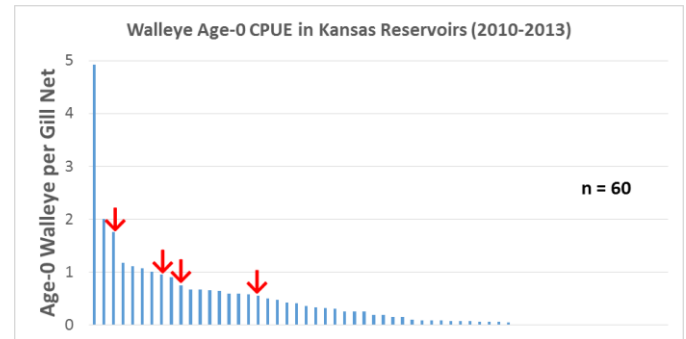
Some walleye, but usually saugeye, are stocked in smaller lakes for biological control and to provide additional opportunities.

The majority of walleye are stocked as supplemental stockings in our larger reservoirs. Some Kansas lakes lack the necessary spawning habitat for adequate walleye reproduction. They are shallow, filled with mud, and generally very warm. In years where the reservoir shows poor walleye reproduction we would want to stock them.

So, let's talk about walleye at Wilson Reservoir.

The following information was compiled by Scott Waters, district fisheries biologist for the Glen Elder District in a 2014 report entitled "Wilson Reservoir Walleye Management History."

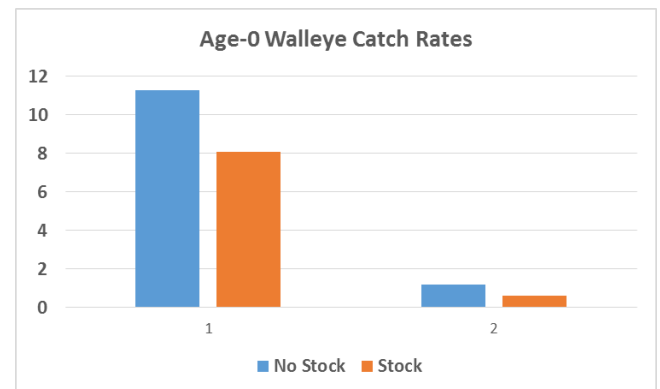
Wilson Reservoir was stocked with Walleye in 1997, 1998, 1999, 2000, 2001, and 2010. The reason Wilson is not stocked as often as other Kansas reservoirs is because it has adequate spawning habitat for good walleye reproduction. The proof is in the sampling. Walleye reproduction as indexed by Age-0 (fish less than 1 year old) fish catches in fall nets has ranked 3rd, 8th, 10th, and 18th from 2010-2013 in Kansas reservoirs.



Walleye Age-0 catch-per-unit-effort in 15 Kansas reservoirs from 2010 to 2013. Red arrows indicate Wilson Reservoir.

That's all fine and well but wouldn't it be even better if we stocked more walleye into Wilson?

This answer can be better explained by comparing the catches of young fish in the fall during years when walleye were stocked and years when no walleye were stocked.



Young walleye caught in fall nets during years that received supplemental walleye stockings (orange) and years that received no walleye stockings (blue). The comparison on the left was using the old style of gill nets and the comparison on the right is using the new style of gill nets.

The answer to the previous question seems to be no. Years where walleye fry and fingerlings were stocked showed poorer catch rates of young fish. Therefore, you would anticipate less fish being recruited to the fishery

the following year and less fish at the end of your line in 2-3 years.

The reason is probably complicated by natural factors such as weather and habitat conditions but can be simplified by assuming the population is producing enough young fish to take advantage of the limited forage at Wilson Reservoir. If you add more fish to the lake you add more mouths. The stocked fish and the wild fish are now competing for the same forage and both fish are suffering the consequences. There may simply not be enough forage, **or** some other habitat requirement, for additional young walleye in reservoirs that reproduce very well.

That being said, if reservoir conditions lead to poor walleye reproduction at Wilson, there is a reasonable chance they will be stocked to supplement the population or just to add genetic diversity.

Newsletter Subscription

If you know someone who might like to subscribe to the newsletter, they can do so by clicking [here](#). If you would like to unsubscribe, please send your info to [contact us](#) with “unsubscribe Ellsworth Fishing District newsletter” and we’ll get you taken off the list. If you have any questions or comments or story ideas feel free to send them in!

Go Fish Kansas!



Bryan Sowards
District Fisheries Biologist
Kansas Department of Wildlife, Parks & Tourism
#3 State Park Rd.
Sylvan Grove, KS 67481
(785)658-2465

All articles are copyright of Kansas Department of Wildlife, Parks & Tourism and cannot be copied or distributed without permission from KDWPT.