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# Perry District Fisheries Newsletter

Fall 2022

#### **Common Carp Survey**

Common Carp were first introduced to Kansas waters in June of 1878 and were highly favored by residents of the Sunflower State. Near the turn of the century, however, opinions began to sour on the species with then State Fish Commissioner J.W. Shults noting them as "the most worthless of all fish for table use" and opining that "it was a great mistake that they were ever planted on this continent." It is believed by many that this opinion largely holds true today, but it may be changing. That's what we aimed to find out when we conducted a survey of Kansas anglers earlier this year.

The survey was first sent to our entire Fisheries Division to get internal opinions. At the same time, postcards were sent to a random selection of 2000 Kansas residents who had purchased a fishing license in the past year. This was done in to get an unbiased representation of our license base; or how many of our license buyers actually do or do not fish for carp. The third step was posting a link to the survey on our agency's social media channels. The goal of this was to boost our survey responses, specifically responses to certain questions within the survey. In summary, we sent the survey to learn opinions and experiences of our fisheries staff, our license base, and the die -hard carp anglers and bowfishers.

......We will get into the results on the next page!



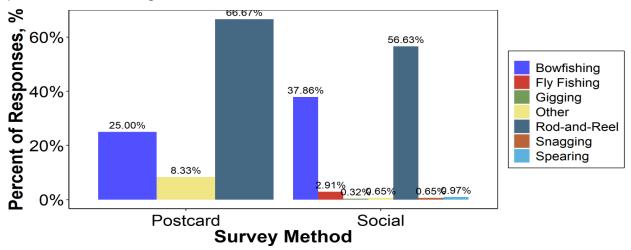


#### Survey Says



The first question of the survey asked 'Have you ever specifically targeted Common Carp using any method?' Of our unbiased postcard survey responses, 68% had never intentionally fished for Common Carp while 32% had. It was the exact opposite in the social media responses, illustrating the bias we anticipated. The rest of our summary will focus on only the anglers who had fished for carp.

The next question asked which method the respondent used most often; the results are below. We see a similar ratio between the two survey methods with majority using rod and reel, and bowfishing coming in second, fly fishing came in third among social respondents, interesting!

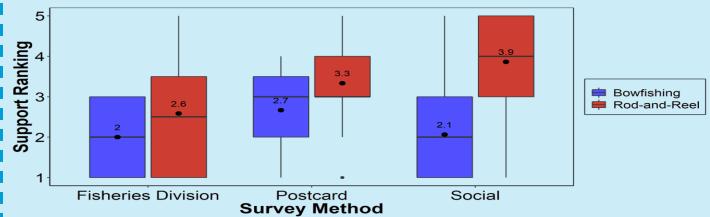


Now we will only look at bowfishers and rod and reel moving forward. These groups are pretty similar over the next few questions: They fish between 10 and 25 days per year, for 5 hours at a time, and they drive about 20 miles to do so. When they get to the water, they catch fish that are about 20 inches long and weigh about 7 pounds. Where they differ is the number of fish they catch and the fate of those fish. Bowfishers shoot 20 to 40 fish per outing and those fish are typically discarded in some manner. The rod and reel anglers typically land 3 to 5 fish per outing and mostly release their fish. They also differ in their current concerns about Common Carp. Bowfishers view carp as detrimental, there are too many carp, and there is a lack of disposal sites. Rod and reel anglers cite a lack of regulations, no management focus, and a lack of shoreline access as concerns.

We then asked a series of questions about angler's thoughts of trophy sized Common Carp. Again, the two groups were similar, thinking a trophy sized carp was 34 inches and weighed between 20 and 25 pounds. Our postcard respondents would be willing to drive about 40 miles and the social respondents willing to go a little further, traveling about 100 miles. When we switch and look at out of state residents, they would be willing to drive over 500 miles to target trophy sized Common Carp.

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One of the goals of the survey was to figure out what size of fish was a trophy carp which we just went over on the previous page. Another goal was to determine the level of support for managing waterbodies for trophy Common Carp. The graph below shows the support rankings of respondents; 1 equals strongly opposed, 5 equals strongly supportive, and 3 is neutral. The social media respondents were pretty split depending on the method they used; when comparing average responses rod and reel anglers were slightly supportive but the bowfishers were equally as slightly against. That trend was echoed in the postcard responses however both groups were much closer to a neutral opinion. Among our fisheries staff, responses were skewed towards opposition. All of those answers were only respondents who had fished for carp before, how did those that hadn't answer? They were all fairly neutral on the idea of trophy carp management with a little dip towards opposing.



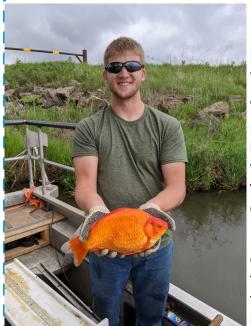
So, where does this lead us? What did we learn in this survey? We learned that a trophy Common Carp is roughly 34 inches long. When we dig in to our sampling information, we do sample some fish of that size already. We likely have more swimming throughout our waters but the gear that we use just doesn't sample them frequently enough; we probably don't need to implement any management actions at this time, just different sampling methods. But, our instate anglers don't seem too interested in the opportunity, our unbiased, postcard respondents would only drive 20 miles further to target the big fish. The more avid social media responses would travel further and there's a chance to lure some out of staters but would it be worth it? It could only take a little more sampling to discover the trophy fish we already have.

If it takes some management actions, it may not even be effective. Another question we asked was what management actions should we implement to achieve trophy carp. A popular response among rod and reel anglers, and a method that I think would be successful in growing trophy Common Carp is a maximum length limit (i.e., fish over X inches could not be harvested). However, we also asked if a length limit was put in place, would you harvest fish. Harvest is required to make length limits work as a management action and 75% of respondents who wanted length limits, would not harvest legal fish. So, even if we do implement length limits, they likely would not do any good because there would be minimal harvest.



In summary, we already have some trophy Common Carp swimming in our Kansas lakes and streams and are likely to find more if we devote more sampling focus towards finding them. At this time, I would consider it more likely that we simply point those interested anglers towards waters where we find those fish than to implement regulations specifically to develop other trophy waters.

## Whatcha been up to?



It's been awhile since I put out a newsletter; I guess I've been pretty busy! To prove that not all of my time has been spent putting out a survey about carp, I'll try to bring you up to speed from Spring of 2021 to now.

While conducting electrofishing samples for Largemouth Bass on Brown State Fishing Lake, we found a large 15 inch goldfish. It was quite the find! We also found some nice bass too. All of the lakes we sampled were good for either numbers or size of fish with the exception of Browning Oxbow.

In the summer months we normally shift to sampling catfish. In 2021 we focused a lot of attention on electrofishing Blue Catfish on Perry Reservoir. We also took part in a statewide Flathead Catfish study that had us sampling Leavenworth State Fishing Lake and

Middle Creek State Fishing Lake once a week for most of the summer. There were six other lakes that were also in the study. They all had pretty different flathead populations. Some had a good size distribution and others were pretty skewed towards small or large sizes. Leavenworth had an even distribution between 8 inches and 40 inches. This study found fish as old as 22 years however, the oldest in Leavenworth was only 17 but most were six years old or younger. The growth of flatheads in Leavenworth was pretty good too, not the fastest in the state but also not the slowest growing. Another goal of this project was to develop population estimates, or how many Flathead Catfish are there in a lake. These estimates ranged from 65 fish to 449 fish per lake or for an easier comparison across lakes, 0.3 per acre to 3.8 fish per acre. Leavenworth sat right in the middle of these estimates at 213 fish or 1.3 per acre.

We also wrapped up a project using an over-the-counter blood glucose meter to analyze blood samples from Blue Catfish to determine if the size, flow, and crowding of a livewell influenced their stress levels (the release of glucose is a secondary response to stress). We placed Blue Catfish in livewells that had a constant supply of fresh water being pumped in, livewells that had the same water recirculated, and livewells that were left stagnant for a period of two hours. We took blood samples before and after and found there to be no difference between the flows; all fish had similar changes in blood glucose levels. We did the same thing for crowding and livewell size. Half of the livewells were 16"x36"x18" and the other half were 16"x60"x18". We placed 5 fish each in a portion of those livewells and one fish each in the remaining. We again took blood samples and found there to be no difference between livewell size and crowding.

### Whatcha been up to?

In November I flew to Baltimore to attend the 151st Annual Meeting of the American Fisheries Society. There I was able to hear talks from scientists across he country and network with many of them while taking in a bit of the local scene that Baltimore's Inner Harbor offered. I then flew back and was stuck behind a computer until February when I attended the Midwest Fish and Wildlife Conference in Des Moines, Iowa. This meeting was much the same as the one in Baltimore, but with a more regional focus. Afterwards, back in front of a computer but only for a few

weeks this time before getting the cycle started again with collecting our broodstock Sauger from Perry. After collection, I made frequent trips over to Milford Fish Hatchery to squeeze those fish to make both Sauger and Saugeye for distribution around the state.

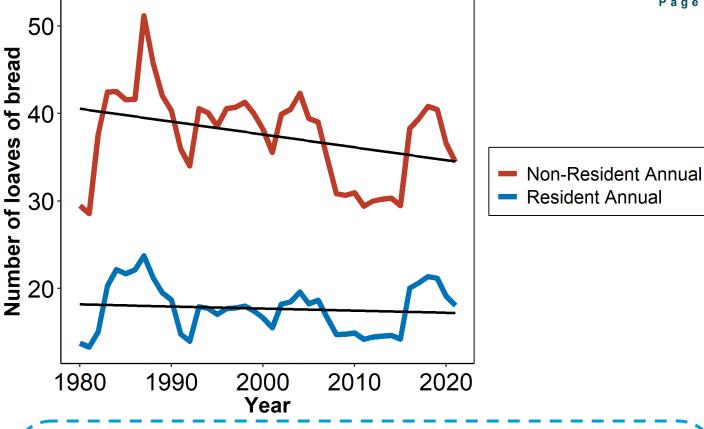
The sampling calendar then restarted with spring electrofishing for bass. No goldfish were shocked up this spring but again I was pleased with either numbers or size of fish at all the lakes I sampled. As a bonus to readers, I'll give you a tip: go fish Mission Lake in Horton for a good chance at big bass. The biggest five fish limit from one of our shocking runs was 27 pounds!

This summer was again filled with catfish sampling but of a different variety: tandem baited hoop nets for Channel Catfish. This is a relatively new gear for me and this region so I spent the summer getting used to the gear and sampling as many waters as I could. It is a very effective gear for sampling Channel Catfish and sometimes does too good of job sampling them, leading to some long days working up A LOT of fish. One day, we had so many fish that we couldn't lift the net in the boat and had to cut a hole in the side and scoop fish out of the middle before we could lift the whole thing in! We did sample most of the state owned lakes at least once this summer but returned to Sabetha City Lake and Brown State Fishing Lake once a month. At these two we tagged Channel Catfish to develop population estimates and took pectoral spines to develop age estimates. We aren't done summarizing all of that data but so far have seen some interesting differences that I look forward to sharing with

Until then, if you see me on the water, say hello!

you in the spring.





## A lot of dough

I was recently digging through some of our agency's historical documents, specifically old regulation summaries. The cost of all licenses available was listed and I thought it was interesting to see the cost of some of these and how cheap they seemed in the "early days." So, I decided to jot down the numbers for a yet to be determined use; well, here is that use.

I decided to compare the cost of resident and non-resident fishing licenses to the cost of a loaf of bread. I was only able to find data for 1980 onward so we'll miss out on the early years of our agency's history but I think we'll still find some interesting things.

The graph above shows the number of loaves of bread needed to purchase a fishing license each year for both a resident and non-resident annual fishing license. The black lines represent the general trend of the data and both are decreasing. The relative cost of a fishing license has actually decreased over time! That, or a loaf of bread has become more valuable.

Regardless of the price, the funds from your fishing license go back to the fish you're targeting. In Kansas, we do not receive any sales tax-generated funds to monitor and enhance fish populations so the funds generated from the sale of fishing licenses are our only source of income. And in most cases, we are able to utilize federal grants to turn your \$27.50 fishing license in to \$110.00. That is why many state agencies push so hard for the recruitment, retention, and reactivation of anglers, because without them and the licenses they purchase, none of the Walleye, Rainbow Trout, Channel Catfish, or Paddlefish stockings would occur or any of the other programs we offer.