

Pittsburg District Fisheries Newsletter

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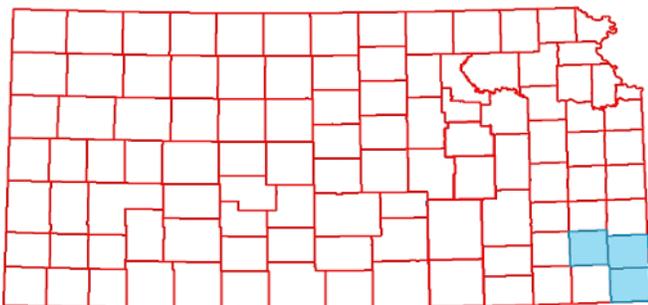
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KS Aquatic Biodiversity Center Nears Completion

FARLINGTON – Construction is coming to completion on the new Kansas Aquatic Biodiversity Center, located at the Farlington Fish Hatchery in southeast Kansas. The primary function of the facility will be to propagate and raise freshwater mussels, and then stock individuals back into Kansas streams and rivers. The biodiversity center will also serve as a mussel refuge, providing a place to hold wild populations of mussels in the event of a toxic spill or polluted segment of stream or river. Because freshwater mussels are parasitic during the early stages of development, the facility will also house several species of host fish to aid in propagation. The project is mainly being funded with Natural Resource Damage Assessment funds, as well as State Wildlife Grants. Tours will be available after construction is complete! Contact the Farlington Fish Hatchery and Kansas Aquatic Biodiversity Center at 620-362-4166.



The Pittsburg Fisheries District.
Crawford, Cherokee and Neosho Counties



Construction begins at the Aquatic Biodiversity Center.
You can see the grow-out pond in the background.



Thousands of rare mussels will be propagated.



The new mussel and host-fish rearing facility at Farlington will look similar to Alabama's Aquatic Biodiversity Center shown here.



The new grow-out pond will contain floating cages and provide the water supply needed at the indoor culture facility. The water used for tanks and hatching batteries will be recirculated from the pond, making the system totally separate from existing fish rearing ponds.

A big thank you goes out to Kyle Steinert, fisheries biologist at the Farlington Hatchery, for providing this KS Aquatic Biodiversity Center update with pictures.



Fisheries biologist Kyle Steinert is an avid fisherman. Kyle is shown here with a trophy saugeye he caught at Crawford State Lake in June 2017.



Floating cages similar to these will hold thousands of small mussels in the new grow-out pond at the Farlington Fish Hatchery.

Saugeye Stockings Completed in Three Area Lakes

Crawford State Lake, Bone Creek Lake and Chanute City Lake received saugeye fry stockings in April 2017. The newly-hatched “fry” saugeye were about the size of a mosquito when stocked. Saugeye are a hybrid of walleye and sauger.

Bone Creek received 1,000,000 fish. Saugeye were first stocked in Bone Creek in 2013, when 17,129 fingerlings (2 to 3 inches) were stocked. Saugeye have replaced walleye as an additional sportfish at Bone Creek because they are less vulnerable to flushing losses. Many walleye were being lost through Bone Creek’s outlet structure downstream. Crawford and Chanute also failed to establish fishable walleye populations largely due to flushing losses. The last walleye stocking at Bone Creek was in 2011, when 544,000 fry were stocked.

Crawford State Lake received a stocking of 300,000 saugeye fry on April 11, 2017. Saugeye were first stocked at Crawford in 2006. This year marked the sixth stocking in the 12 years since they were first introduced. Although saugeye fingerlings have been requested every year, the last stocking occurred in 2013. Fingerling saugeye have been in

Get your friends, get your family
... and FISH KANSAS!



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2017 Saugeye Stockings..... continued

short supply because of lack of pond space at our four state fish hatcheries. In 2013 the Kansas Department of Wildlife, Parks and Tourism (KDWPT) initiated an early-spawned largemouth bass project that will be evaluated through 2017. This project has required pond space formerly used for walleye and saugeye production. Saugeye fry were requested this year since they do not require pond space as do larger fingerling fish.

Chanute City Lake (Santa Fe Lake) saugeye stockings have mirrored those at Crawford State Lake. The first stocking was in 2006, and stockings have been completed in six of the past 12 years. As with Crawford, more saugeye have remained in the lake to reach quality size than did the walleye and wipers stocked before them. The additional predation provided by saugeye is badly needed in both lakes.



The early-spawned largemouth bass project was initiated to improve opportunities to catch larger bass like the one I'm holding here from Crawford State Lake.

Early-spawned Largemouth Bass Project Nears Final Evaluation

KDWPT's early-spawn bass research project was initiated on Hillsdale and Clinton Reservoirs in 2013. Wilson and Melvern Reservoirs have also been stocked. Final evaluation will be in 2017. The goal of the project is to evaluate the effectiveness of stocking early-spawned largemouth bass to enhance bass populations and improve angling success.

The basis for the project is that bass in the wild that hatch early in the season grow larger and survive better than those hatched later. Newly-hatched bass begin feeding on bugs and then switch to small fish as they get older. Stocking bass that are big enough to immediately take advantage of an abundant small fish crop increases their chances for survival. Early-spawned bass can eat those small fish rather than have to compete for food and space with them.

The anticipated benefits to bass anglers include improved angling success, an opportunity to catch larger bass, and more stable bass populations.

Adult bass are stimulated to spawn earlier than normal indoors at the Meade Fish Hatchery. This is done by controlling water temperature and photoperiod. When the bass are big enough to eat small fish, they are stocked into the best available habitat. Bass growth rates and survival are being monitored. To differentiate wild bass from stocked bass, fin clippings are being taken to conduct genetic analysis. Creel surveys are being conducted in 2015 and 2017 to determine whether angler bass catch rates improve. Bass tournament catch data is also be used to evaluate changes in angler catch rates.



Fin-clippings taken from bass sampled at study lakes are genetically tested to differentiate wild bass from stocked bass. Preliminary results are promising, as early-stocked bass comprised 46 percent of the 2016 bass sample at Hillsdale and 37 percent at Clinton.



The handicapped accessible fishing dock and much of the sidewalk has been completed at Lakeside Park in Pittsburg.

CFAP Grants at Pittsburg and Thayer are Progressing Nicely

Two grants awarded through KDWPT's Community Fisheries Assistance Program (CFAP) in July 2016 are moving toward completion.

The City of Pittsburg is nearing completion of their \$29,300 project to construct a handicapped accessible fishing dock at Lakeside Park in Pittsburg. In addition to the dock, a 30-foot by 30-foot parking area with an accessible parking stall is being built on the east side of the restroom building. A 225-foot by 6-foot sidewalk will lead from the parking area to the fishing dock. The City is providing \$11,670 (40%) of the total cost. Labor and the use of City equipment for the project is being used as a significant part of the City's match.



Lakeside Park is a favorite fishing spot for kids and their families. The addition of this handicapped accessible parking area and sidewalk will provide those with disabilities a new fishing opportunity.



Nice purple tables (Go Wildcats!) were recently installed in the new pavilion at Thayer City Lake.

In addition to the Pittsburg grant, the City of Thayer was awarded a grant for a handicapped accessible floating dock, pavilion, restroom, expanded parking, and an earthen fishing pier at their 45-acre "new" lake. To date the earthen fishing pier, pavilion, and parking area have been completed. The restroom contractor is ready to complete their installation. The floating fishing dock is their last order of business.

The CFAP grant program is made available to nearly 240 Kansas lakes for development projects that benefit anglers and boaters. Cooperators are required to pay a minimum of 25 percent of development costs. Application for these funds is competitive and based on needs and benefits of the project. Approximately \$225,000 is available statewide annually.



Thayer's John Dean did a nice job overseeing construction of the new earthen fishing pier at Thayer City Lake.

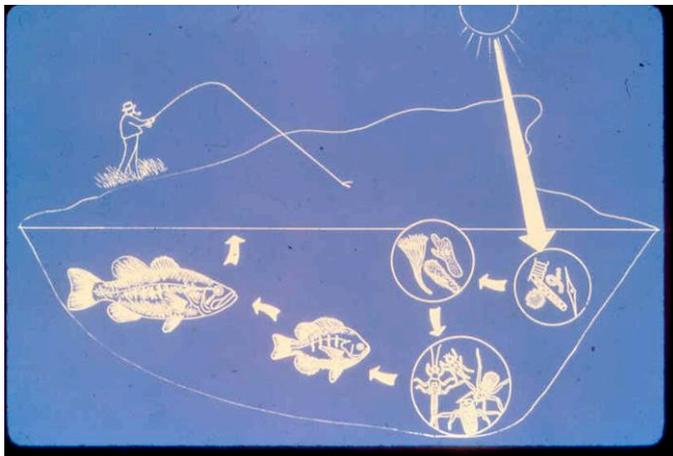
Neosho State Lake Included in Food Web Study

KDWPT is cooperating with Kansas State University over the next four years to gain a better understanding of aquatic food webs in 12 Kansas state fishing lakes, with an emphasis on quantifying the influence of gizzard shad on system-level food webs. Abundant gizzard shad populations in small impoundments can result in slower growth of bluegill, cause declines in water quality, and can sometimes comprise a large proportion of fish biomass, replacing desirable sport fish.

Eight of the lakes in the study are control lakes, and will only receive additional sampling. Four of the lakes, including Neosho State Lake, will be treated with a low concentration of rotenone in December 2018 to reduce gizzard shad abundance. This will require a partial lake drawdown to reduce chemical cost and increase effectiveness.

Project objectives are: to characterize food webs in small Kansas impoundments; identify the role of gizzard shad in these food webs; and to characterize changes in these food webs following reduction or expiration of gizzard shad.

The growth of sport fish including bluegill, crappie and largemouth bass will be an important aspect of the study. The diets of bluegill, crappie, gizzard shad and largemouth bass will be examined.

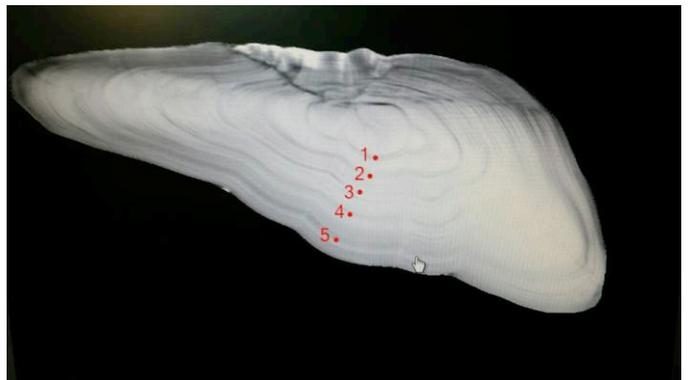


All parts of the food web will be studied in the twelve study lakes, including water quality, algal community, plankton community, and fish community and their abundances.



Gizzard shad are often bad news for bluegill populations in small impoundments. The food web study will help us understand the impact that shad have on water quality and the quality of the sport fishery.

K-State students began sampling in June 2017, and for the next four years, will be sampling each lake in June, August and October. Fish sampling will consist mostly of shoreline seining to measure abundance of young-of-the-year fish. Electrofishing will be used to gather fish for diet and age structure analysis. Gill nets and frame nets may be used by graduate students to fulfill samples for diet and age analysis. KDWPT fisheries biologists will provide supplemental fish data, including relative abundance, size structure and body condition through their spring and fall standard samplings.



Otoliths are calcified structures used for a fishes balance and/or hearing. They grow from before hatching to death, and will be used in the age and growth analysis.





Hundreds of fish are weighed and measured during our standard samplings, but fish are not all we catch. Wildlife biologist Logan Martin is shown here with a huge common snapping turtle caught at Bone Creek.

2017 Spring Largemouth Bass Sampling Results

Three lakes in the Pittsburg District were sampled by electro-fishing in 2017. Unfortunately, the samplings were not completed until late in the season (May 30 – June 1) because of mechanical problems with the electrofishing boat. Water temperatures were in the high 70s by the time we sampled, and most of the bass had completed spawning by then. Catch rates can be expected to be lower than previous years because of this. I also suspect that we missed many of the bigger, older and experienced fish that spawned early and moved to deeper water. I guess you should expect breakdowns when working with sampling equipment nearly 20 years old, but this year was certainly disappointing and frustrating.

Bone Creek Lake – The bass fishery at Bone Creek continues to be one of the best around. A total of 102 largemouth bass were collected by electrofishing at Bone Creek Lake on May 31, 2017. The resulting

stock catch rate (bass 8 inches or larger) of 46 fish/hour is lower than the 62 fish/hour last year or the 58 fish/hour in 2015. The average stock catch rate from 2013 to 2017 is 71 fish/hour. The quality of the fishery remained very good. High numbers of bass 15-inch and larger fish are available. An eye-opening fifty-five percent of the stock catch were 15 inches or larger, well above the 20 to 30 percent objective. The largest bass sampled at Bone Creek in 2017 was 4.6 pounds.

Crawford State Lake - Largemouth bass numbers at Crawford State Lake (CRSL) have remained low since the largemouth bass virus epidemic in 2007. The May 30, 2017 bass electrofishing catch rate of only 27.6 stock fish/hour is consistent with all samplings since 2014. The mean stock catch rate from 2013-2017 is 30.1 fish/hour, well below the 50-75 fish/hour objective. Spotted bass are also common at CRSL, and the 2017 stock catch of 17.2 spotted bass/hour raises the total black bass catch rate to 44.8 fish/hour.

The quality of the largemouth fishery remains good. The percentage of quality-size fish (12-inch-plus) remained high in 2017, as 62 percent of the catch fell into this size group. The population continues to have a very high percentage of preferred-size (15-inch-plus) fish, as 39 percent of the stock catch were preferred-size fish. Body condition of all size groups was very good.

Neosho State Fishing Lake - A total of 125 bass were collected by electro-fishing in the June 1, 2017 sampling. The catch rate for stock-size fish (8-inch-plus) declined to 85 fish/hour. The lake management objective is to maintain the catch rate near 100 stock-size fish/hour. The mean stock catch rate in the four previous years (2013-2016) is 102 fish/hour. Maintaining a substantial bass population is imperative to exert the predation necessary to control abundant shad and sunfish populations at Neosho State Lake.

The quality of the 2017 bass sample was good. Sixty percent of the bass were quality-size fish (12 inches or larger). Nineteen percent of the bass were 15 inches or larger, falling within the 10 to 40 percent objective. Three fish over 20 inches were collected with the largest weighing 4.9 pounds. Body condition of all size groups was good.

