

Fall River/Toronto Fisheries District Newsletter

Carson Cox, Fisheries Biologist

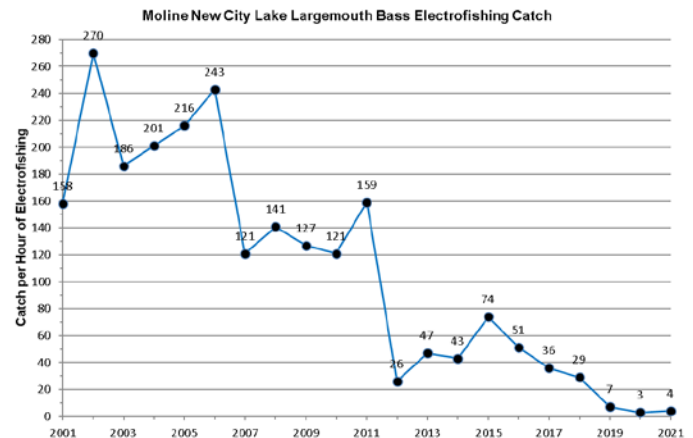
Viruses Affect Fish Too

For the past year everyone's been talking about the Covid-19 virus and its affect on the human population. Fish get viruses, too. Largemouth bass virus has been spreading through Kansas lakes. Its lethality is varibale in each lake. Every lake and sport fish species in the Fall River/Toronto Fisheries District are monitored annually to document changes in fish populations. A pattern has emerged that is quite likely the result of largemouth bass virus.

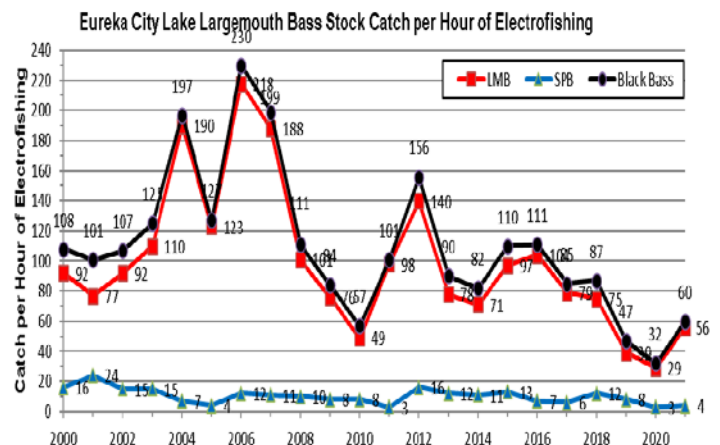
Largemouth bass virus is a naturally occurring disease that affects a variety of fish species, but not warm blooded hosts. While the virus has never been shown to be spread to man, it is important to throughly cook fish before ingesting and don't eat obviously sick fish. Sick fish may not be able to swim normally in an upright manor, have open sores or leasions, or just look sickly or skinny. While the virus is lethal in black bass populations, other sunfish such as crappie, bluegill, green sunfish, and redear sunfish have been reported carriers.

Initially, largemouth bass virus was reported throughout southern reservoirs. It appeared to come on during hot weather, kill larger bass, and only percist in a lake for a few years. It appears likely that the viruses occurance in Kansas may have been spread from wet livewells from infected waters. The first lake to document the virus in Kansas was Crawford State Fishing Lake in 2007. Concern over the prevelance and effect on bass populations in Kansas prompted KDWP to conduct a research investigation. Of the 25 impoundments tested, only 14 came back positive. Furthermore, the virus did not affect growth or body condition.

Moline New City Lake historically contained a high-density largemouth bass population and hosted several fishing tournaments. This was the result of abundant aquatic vegetation providing hiding places for small bass. In 2012 the largemouth bass population suffered catastrophic loss due to largemouth bass virus which was confirmed by virology samples. Today, few bass can be caught and there are no more tournaments at the lake. In 2020, 15,113 fingerlings were stocked to increase population density. However, few of those fish appeared to survive. Only four fish per hour of electrofishing were sampled in 2021. It is unknown how long it will take natural immunity to recover this population.



Three other lakes; Eureka, Howard, and Madison City Lakes are suspected to have largemouth bass virus based on population declines similar to Moline New City Lake. This has not been confirmed by virology samples. Historically, all three lakes had high density bass populations and hosted several tournaments annually. Today, however, catch rates have declinded to a near fraction of what they once were, especially for large bass and none of these lakes are worthy of tournaments.



Fresh Fish Habitat Brush Piles

For those of you who know how great the crappie fishing is at Toronto and Fall River Reservoirs, you also know where the brush piles are located. The GPS coordinates and Google Earth mapping instructions are located on the fishing report web page for each reservoir. It would be impractical to mark the brush piles with buoys on these reservoirs due to extreme water level fluctuations. Toronto Reservoir raised 33-feet in the flood of 2019 and Fall River Reservoir raised 41-feet. Toronto Reservoir has 33 brush piles and Fall River Reservoir has 30. These fish habitat brush piles are authorized by the US Army Corps of Engineers under Section 404 Permit of the Clean Water Act.



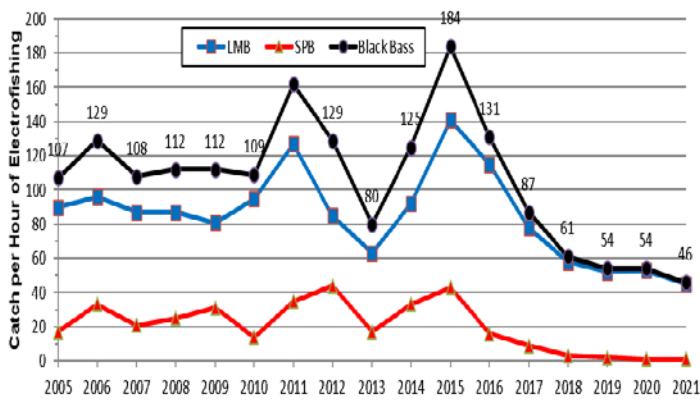
Cedar tree on jon boat at Toronto Reservoir

Each brush pile is constructed from the largest cedar tree one man can drag on the bow of a jon boat. They weigh an estimated 300-pounds. Smaller trees and Christmas size trees just won't do. First, they don't provide maximum habitat surface area and second, they rot down too quickly compared to larger trees. Each tree is chained to 100-pounds of concrete blocks for anchors.

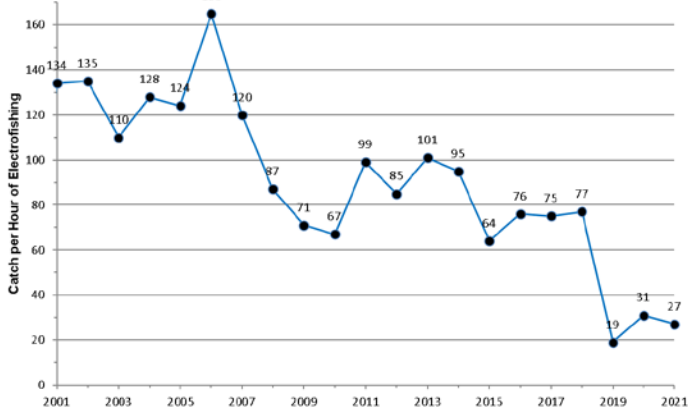


Cedar tree weight attachment

Howard City Lake Black Bass Stock Catch per Hour of Electrofishing



Madison City Lake Largemouth Bass Stock Catch per Hour of Electrofishing



Chris Steffen, KDWP Aquatic Nuisance Species Coordinator, personal communication revealed that that largemouth bass virus effect on each lake was quite variable in both mortality and duration. Some lakes had catastrophic mortality and had slow recovery. Other lakes tested positive but had no obvious bass mortality or signs of the virus. Lyon State Fishing Lake, Severy and Moline Old City Lakes show no signs of largemouth bass virus or population decline.

What can anglers do? Anglers can help minimize the spread of LMBV virus and its activation into a lethal disease by doing the following:

- Clean, drain, and dry boats, live wells, trailers, and other equipment thoroughly between fishing trips to keep from transporting LMBV as well as other undesirable pathogens and organisms from one water body to another.
- Never move fish or fish parts from one body of water to another. Do not release live bait into a fishery.
- Handle bass as gently as possible if you intend to release them.
- Hold tournaments during cooler weather to reduce fish stress.
- Report dead or dying fish to KDWP.

In December 2021 twenty-four of these brush piles were rejuvenated with fresh cedars. They are in exactly the same locations. Some of the original brush piles had begun to rot down, so the addition of the new fresh trees should really attract crappie this year. The upcoming spring newsletter will describe the crappie fishing forecast for each lake.

Fall test netting revealed a different pattern of usage of brush piles by crappie. Usually, crappie congregate around brush piles throughout the month of October. That was not the case in 2021. Very strong early cold fronts pushed crappie into deep channels and away from the brush piles. After several warm sunny days and southerly winds, crappie would again return to windy shoreline and resume feeding activity. They would congregate around brush piles on the windy shoreline during these warm days. As soon as the next cold front pushed through, however, they would abandon the brush piles again and head for deep water. The brush piles did not seem to hold fish during fall cold fronts this year. There was a pattern of ebb and flow as powerful cold fronts manipulated crappie movement.



2.58 lbs. white crappie from Fall River Reservoir

The following crappie movement patterns seemed to hold true this year at Toronto and Fall River Reservoirs: When the wind blows from the south, fish feed on the windy shoreline. The waves drift the plankton to the windy shoreline. Baitfish follow the wind driven plankton. Second, cold fronts reduce feeding and move fish to deep water. That's where most crappie spend the winter months, in channel breaks and deep holes in the river. Ladd Bridge on Fall River and Toronto Bridge on the Verdigris River not only have deep water, but woody brush piles. Thirdly, when the flood gates open up, it appears to move crappie off the shoreline and brush piles to deeper water.

There were many days this fall when the wind would blow lightly from the northeast or southeast. I found no pattern to crappie movement during these days. They were good days to be on the water in a boat, but I couldn't find concentrations of fish. Yes, I caught some fish around brush piles and some on rocky shorelines, but none in good numbers. This reminds me of an old angler saying, "When the wind blows from the east, the fishing is the least."

I have described the spring crappie spawning pattern in detail in previous newsletters, so I won't repeat

it here. Changing crappie movement patterns has got me to wanting one of those new livescope fish viewers. I'm sure I could spend a lot of time driving around the reservoirs and rivers looking for concentrations of fish. Looking isn't fishing and finding isn't necessarily catching. I wonder at what point fishing stops becoming fun when locating the fish is too easy. For me, there is as much fun in the finding and predicting as the catching. Best of luck fishing out there.

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