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Fall River/Toronto Fisheries District Newsletter

Do You Like Feeders?

Fish feeders in Kansas are controversial. Some people like them, and some don't. There are five fish feeders on Lyon SFL. Some people don't like the looks of them. They visit the lake for a natural pristine experience. The presence of the artificial fish feeders destroys the natural aesthetics of the lake.



Solar powered automatic fish feeder at Lyon SFL.

It would seem that fish feeders serve an obvious purpose, to feed the fish. Why do we want to feed the fish? Don't they get enough natural food in the lake? Well, yes they do. The fisheries sampling database goes back to 1982, before the addition of fish feeders. It showed that fish condition, W_r (relative weight), was within the normal range of 80-100 percent. But what if we could grow fish bigger and faster? That would make the fishing better.

Feeders serve a second purpose, besides feeding fish. They concentrate fish around the feeder when it goes off. Anglers have access to catch large numbers of fish in a small area. Angling success improves. Anglers don't have to search throughout the lake to locate fish. Naturally, fish are spread out in different habitats. Some are deep, some shallow, some feed on the surface, and some on the weed line. While it's fun and challenging to figure out a pattern where fish are located under certain conditions, and on what they

are feeding, when the feeder goes off you know hungry fish will be around the feeder eating fish food.

Is this cheating, to draw fish into an area making them easier to catch? Don't brush piles do the same thing? They provide habitat that concentrate fish. Brush piles draw fish away from areas with less habitat. Fish are less spread out. People often ask me if they should put a brush pile in a one acre pond. I say, "Why? Where are the fish going to go?" Lyon SFL is 135 acres. That has a lot of places for fish to hide. How are fish feeders and brush piles different than sophisticated fish finders that can show anglers where fish are hiding? At what point does angling stop being sport?

Talk to anglers around the feeders at Lyon SFL and they have stories to tell of huge catfish that broke off. There are stories of fishing poles being pulled into the lake, too. Channel catfish aren't the only fish to benefit from fish feeders. Bluegill and redear sunfish can be seen feeding on pellets. Gizzard shad will even eat the dust. Their mouth is too small for most pellets. Unfortunately, turtles, geese, and carp also take pellets away from sport fish.



Bluegill sunfish feeding on fish food pellets at Lyon SFL.

Fish feeders don't feed all the fish in a lake. For channel catfish, there is a pecking order. Bigger fish push smaller ones aside as they feed on pellets. Anyone who's seen hogs feed at a trough has witnessed the same thing. The big hogs get most of the food. In lakes with fish feeders, fall gill netting shows that channel catfish body condition (W_r) increases with size. The big channel catfish are getting more food than the smaller ones. As anglers catch big fish around the

feeder, this leaves room for smaller, less well fed ones around the edges to move in and eat more food. A fish feeder only supplements a small portion of the population.

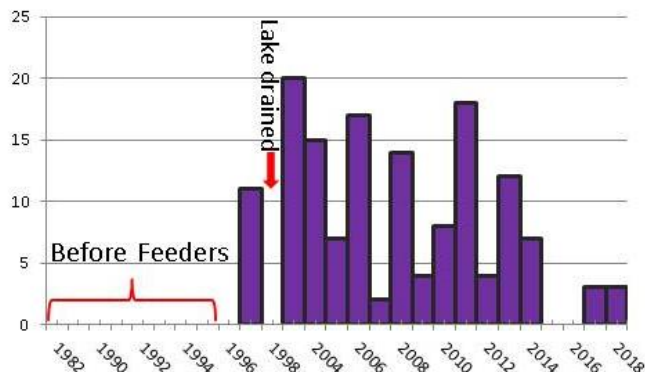
Two KDWPT research biologists showed just how few channel catfish actually feed at feeders. Marteney and Stephen (2008) used baited hoop nets in summer at 12 Kansas lakes with fish feeders and reported no correlation between growth and feeding rate. These nets were very effective at sampling large numbers of smaller fish in the population. Fall gill nets, however, catch all sizes of channel catfish.



23lbs. channel catfish from Eureka City Lake with feeders

Fall gill netting results from Lyon SFL from 1982 through 2018 showed that the addition of five solar powered automatic fish feeders set to dispense 75 pounds per acre per year of 32 percent protein floating fish food from April 15 through October 15 improved growth and condition of channel catfish. Fish feeders were installed on Lyon SFL in 1996. Before feeders, there were no fish greater than 24 inches sampled. However, after feeders 10 percent of channel catfish on average were over 24 inches (5 ¼ pounds). Anglers routinely report catching fish over 20 pounds now. Channel catfish grew larger when supplementally feed.

Channel Catfish %>24"

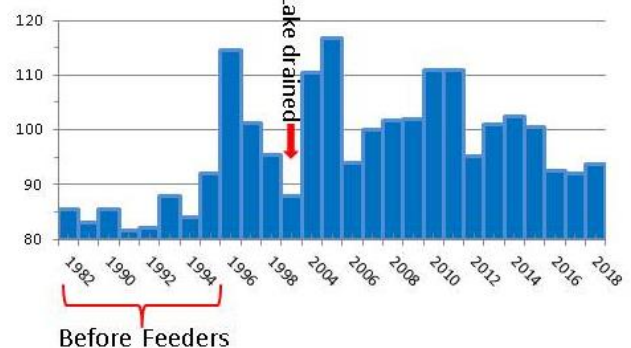


Lyon SFL was drained in 1999 to restore the sport fish population. The lake was closed to fishing for three years until the water level returned to normal. The fish feeders were operated during refilling. The fish population was monitored and sampled as usual during refilling. The year following draining, there were no channel catfish sampled over 24 inches. Mean channel catfish body condition (Wr) was lower the first year after draining. Fish simply hadn't had time to grow to larger sizes.

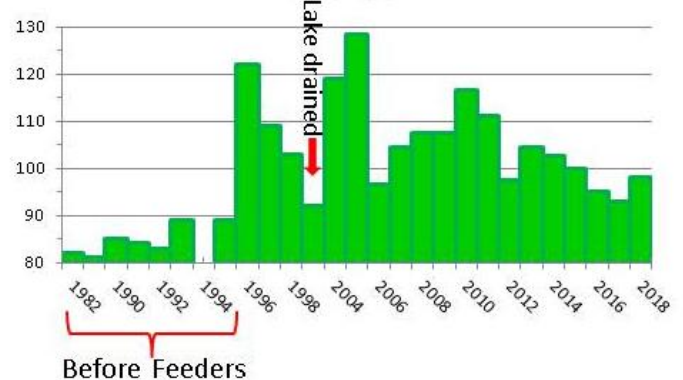
All sizes of channel catfish at Lyon SFL were fatter after supplemental feeding. Before feeders, mean body condition (Wr) was 85 percent. However, after fish feeders were installed, it improved to 101 percent. Bigger fish showed even greater improvement. Before feeders, body condition (Wr) of channel catfish over 16 inches was 85 percent. Furthermore, after feeding, it increased to 106 percent. Fish were really fat.

Channel catfish body condition (Wr) increased and decreased between years resulting from changes in fish density. Right after the lake received stockings of large numbers of small 8-12 inch channel catfish, fish condition was lower. After anglers began thinning down the population, more food was available for surviving fish and body condition increased, until the next stocking.

Mean Wr



Wr >16"



Do you like fish feeders? Many anglers benefit from more, bigger, easier to catch fish because of them. There aren't fish feeders at every lake in Kansas. Some lakes would be a poor choice for feeders because they would also make more, bigger carp. And then there's the cost. The same feeders have been on Lyon SFL

since 1996. Batteries (\$17 each) have to be replaced about every three years. The 203 bags of fish food cost \$3,187 last year. The number of resident fishing licenses sold to pay for 25 percent of fish food was 29. The federal sport fish restoration tax payed 75 percent of the cost. Judging by the lack of vandalism damage, number of fishermen surrounding them, and lunker catch stories, anglers at Lyon SFL seem to really like the feeders.

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