



HERMAN BROTHERS FISHERIES

Electrofishing Survey Results/Data/Recommendations

August 3rd, 2020

Oak Run Fish & Sports
1468 Knox Road 1725 N.
Dahinda, IL 61428

Dear Ron,

Within this document you will find my report on the fishery survey which we completed on June 3rd at Spoon Lake (Oak Run). The report will outline the entirety of our process collecting data, the analyzed data, the results, as well as my specific recommendations that will continue to take the lake in the direction of the specific goals of the lake.

Please do not hesitate to contact me if you have any questions concerning the report.

Thank you!

Sincerely

Austin Bennett

Fisheries Biologist

Herman Brothers Fisheries

Introduction

On June 3rd of 2020 we were out to Spoon Lake - Oak Run to conduct an electrofishing survey to check in on the fish population. We ran the survey as we have in the past (split into sections of upper lake, middle lake, and lower lake). We piece all of this together to provide a full assessment of the overall fish health and balance in the lake and use the information to provide recommendations for future management (stocking, harvest, etc). We spent 30 minutes using DC electrofishing equipment at each of the transects listed above as we have in the past. Following the collecting of fish, we weighed, measured, counted and observed the fish population while recording this data.

Electrofishing Survey

We began the survey around 8 am with air temperatures around 72 degrees and water temperature right at the same number. The water clarity varied slightly across the three transects. The clearest water was found in the lower lake while the more murky water was found in the upper lake near the main creek influx.

While conducting the survey we were observing the types of vegetation growing as well. We observed a higher than usual amount of Coontail, Curly Leaf Pondweed, Milfoil and also started to see a few more patches of American Pondweed than we have in the past. I feel as though the water clarity is increasing quite a bit over the past year since the Zebra Mussels have become established very well and this is allowing more good native vegetation to take root.

The common carp are still as abundant as ever so they are causing some uprooting of this vegetation, but they have always been a factor in this lake. We collected the following fish in our survey this year: Bluegill, Redear Sunfish, Black Crappie, White Crappie, Largemouth Bass, Smallmouth Bass, Walleye, Yellow Perch, White Bass, Channel Catfish.

Data Analysis/Breakdown

1. Upper Lake

The upper lake has always been a beautiful area of Oak Run. The water is very fertile, has great habitat and seems to always hold a good number of quality fish. During our survey this year we observed an overall CPUE (catch per unit effort) of 3.9. This is considered a “good” level in regards of fish caught in the survey. This helps us determine the abundance of fish found overall. One downfall in this area is the very high number of common carp. I would highly recommend the continued goal of removing as many of these as possible.

We collected a high number of largemouth bass this year. It seemed as though the bass numbers were up this year. In the past we have collected good numbers, but this year was higher than usual and will make for a great year of bass fishing. We collected many largemouth bass over 14” with a few 17+” fish mixed in. One thing that we have tracked for the past few years is the relative weights of the largemouth bass in the lake. Overall this year, the relative weights have been continuing along the upward trend line we have seen for the past 3 years. This year the average largemouth bass relative weight in this tract was 98.5% with a large number of very

healthy young fish coming up the ranks. I was very impressed by this number, but after seeing the condition of the forage base in the lake I was not surprised. The forage base is doing exceptionally in the lake. The higher levels of aquatic vegetation have given the young of the year fish a chance to survive and turn into food for the next level of predator fish. As always I was impressed by the quality of walleye in the survey. We collected 5 walleye up here this year. The largest one collected was 23.5" long and weighted almost 5 pounds. This is an exceptional fish! We also collected a few 14-15" walleye. The panfish population as whole was doing very well. We collected higher than ever numbers of panfish including a number of 10"+ crappie. One more fish to note is the redear sunfish. Their population is doing very well also. I have seen a major increase in average size of redear this year with many 9-10" redear collected. These fish forage on the Zebra Mussels and are obviously taking advantage of that additional food source currently. Catfish were very healthy, but most of the catfish we have been collecting for the past 3 years have been large adults. This tells me the natural recruitment has been low in the lake. We can overcome this by stocking fingerling catfish though.

2. Main Lake

This area of the lake has been very productive in our survey since we began adding one of the main coves into this transect last year. We spent half of the time in the main channel area of the lake and the other half surveying the cove area. We were able to find good numbers of all fish at this area with a few very nice size largemouth here. We also were able to collect smallmouth bass around some of the large rock structures in this area of the lake.

In regards to relative weights, we saw an average of 99% relative weights in this area of the lake. The size class that impressed me the most within the largemouth bass is the 13-14" fish. This is typically where most bass begin to struggle to continue growing, but in your lake they are doing great! There has always been a good number of bluegill in this area, but this year we noticed a very high number of bluegill and the overall size was exceptional. This is great to see!! I am still very happy with the walleye health in the lake. The number of smaller fish collected has been decreasing, and we will overcome that by stocking walleye fingerlings. One other fish I will recommend stocking at some point will be smallmouth bass. The lake is set up to sustain a great smallmouth population!

3. Lower Lake

This area of the lake was actually the least productive section from our survey with a low CPUE of only 3.25. The average relative weight of the bass in this section was 93% which is still within a healthy range. Again, in this area we saw many of the largemouth averaging around 13-14". This is a great average for the bass especially when they are actively growing. We did see a high number of young redear sunfish (5") in this area which is great to see that they are actively moving throughout the lake eating on the Zebra Mussels.

The one main thing that this area of the lake is lacking is shallow water. If we can help provide more structure in the already minimal shallow water areas here, I

believe we will see the fish population benefit from this. It would be awesome to add some more woody debris to areas of 6 ft and less in this portion of the lake!

Recommendations

- As I have recommended in the past, I will begin by saying each year we should be focusing on adding additional habitat to the lake. Not only because this structure is necessary for the fish, but needs to be freshened up every year or two. One thing to overcome this need to add habitat every year is by adding artificial habitat to the lake. I am a huge proponent of creating homemade fish crates to provide the exact habitat that the fish need exactly where they need it! We can get creative with these structures if this is ever something you guys want to do. I would be happy to volunteer some time to help build and place some structures throughout the lake!
- We checked back in on the zebra mussels this year as we have for the past two years since we first observed them. I am not concerned that there have been any major negative changes with the fishery in the past year, therefore do not have any major changes to make in our management strategy besides taking them seriously and doing our best to make sure these are not spread due to our negligence. Make sure to check boats, trailers, etc when moving from lake to lake and try not keeping water in live wells when moving from one lake to another. I actually believe that these mussels are providing an incredible food source for the redear sunfish as well as the smallmouth and we have been seeing a great increase in both of these fish overall sizes.

- I would go ahead and keep the largemouth harvest recommendations/slot limit numbers the same this year. No need to change this up right now.
- I would recommend harvesting as many white bass as possible. We saw a few large adults in our survey this year. Anytime these are caught, encourage people to keep them. They compete with other gamefish in the lake.
- I recommend updating the walleye limit to 3 walleye 14-18" and 1 over 18". I believe this will still allow for the harvest desired by the angler while helping protect some of the larger fish that have major trophy potential.
- In regards to stocking I recommend the following:
 - Stock 6,000-8,000 walleye 6-8" this fall. I strongly recommend keeping this stocking going. The lake is producing very healthy walleye and I believe it will continue to with the abundance of food here. Herman Brothers would be happy to provide these fish for you guys.
 - Stock 5,000 channel catfish 8-10" this fall. This is a fish that we have not seen great recruitment out of in the lake and so supplemental stocking will be our best bet to overcoming this. These fish are great to have in the lake as they will provide a great fish for kids to catch frequently and also make for a good fish to fish for from docks around the lake. We would be happy to supply these fish as well.

I am very impressed by the numbers we collected during our spring survey this year as well as the numbers coming in each week from the Thursday night tournaments. I am

confident that the lake is producing some very quality fish and this trend is very clear. This set of stocking recommendations is meant to keep things going in the right direction! We are happy to help answer any questions you may have. Feel free to reach out anytime! We look forward to coming back to check back in this next spring!



Sincerely,

Austin Bennett

Fisheries Biologist

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