AMERICAN SPORT FISH HATCHERY

Lake Ramsey Homeowners Association
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June 4, 2020

Dear Mr. Cossich,

We completed an electrofishing assessment of Lake Ramsey located near Covington, Louisiana on May 28, 2020. The last assessment was completed in June of 2018. Our goal was to evaluate the progress of the fish population, since bass had been stocked previously. During this assessment, we collected a nice sample of fish. We recorded length and weight data from the fish, took a water sample, identified any aquatic vegetation, and made other physical observations. We have included those data that were collected, our analysis, and our recommendations in the following report.

The bass were more abundant and in better condition than they have been in the past. The forage (food) fish species were less abundant than we would like, particularly the bluegill. The bluegill are the back bone of the forage in southern lakes, and they need to be more abundant in order to push the bass growth and sizes to the larger end of the spectrum. Focus on removing some of the competing species such as catfish in order to allow more food to be available to your more desirable fish species.

We appreciate you continuing to allow us to work with you on the lake. Please let us know if you have any questions about the report, recommendations, or the lake.

Sincerely,

Robby Mays
Certified Fisheries Biologist/Co-Owner
American Sport Fish Hatchery
334-799-8863

Site Description

Lake Ramsey is approximately 355-acres in surface area based on an aerial photo. It is surrounded by both wooded and developed shoreline with several homes with boat docks and boat houses. The lake collects rain runoff from the watershed and is fed by an artesian well. There is limited structure in the lake that has been added over time but it is difficult to find. The wooded shoreline has overhanging tree limbs that act as some habitat for younger fish. The fishing and the bluegill numbers would greatly benefit from the addition of more structure. Larger structure such as trees or logs provide habitat for bass and some bluegill, while structure with tighter spaces such as cedar trees or brush tops provide better cover for smaller bluegill. This allows the bluegill to find cover and grow to larger sizes. Better cover for smaller bluegill will help increase bluegill density over time.

Management Goals

The goal for the lake is to maintain a balanced fish population in order to produce quality fishing opportunities for bass, crappie, and bluegill. In order to achieve this goal, you must provide adequate forage to all species of fish, and at the proper sizes. Predators normally need to be harvested in a controlled way to limit their numbers. This will allow remaining fish to exhibit better growth, condition, and size. You have 3 top predators in the lake: largemouth bass, crappie, and catfish. They are competing for the same food items. In order for the condition and size of bass to increase, some of the competition needs to be reduced, more food needs to be added, or for best results, both.

Aquatic Vegetation

We did not observe any unwanted vegetation during our assessment. Some shoreline vegetation is present providing some cover to fish and is not a problem. As the grass carp age out, you may see submersed vegetation begin returning.

Water Quality

The visibility of the lake was approximately 22 inches at the time of our visit. In fertilized systems, we want the visibility to be around 18-24 inches and the water green in color. This indicates a moderate phytoplankton bloom, which is the base of the food chain. There is a natural fertility here, which is beneficial to fish production. The total alkalinity of the lake water was 56 ppm. The minimum recommended value of total alkalinity that maintains a healthy pH is 20 ppm. Therefore, conditions should be good for fish growth and reproduction.

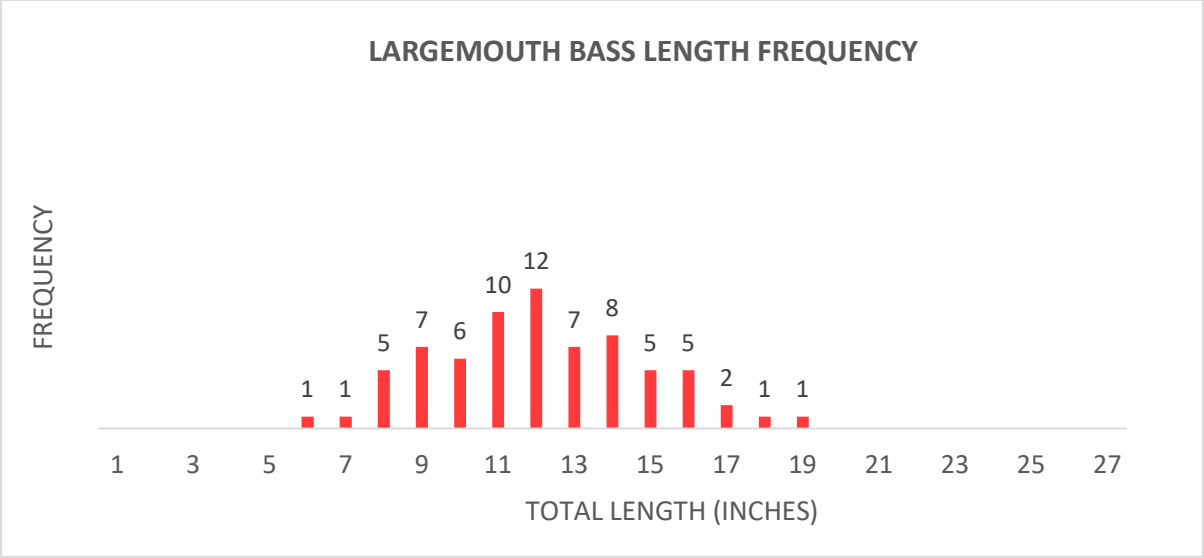
Supplemental Feeding

Providing supplemental feed helps to improve bluegill condition, which helps increase spawning activity. Fish in better condition have better egg quality, which gives their young a better start when hatching. This will lead to more food for the bass and crappie over time. Encourage homeowners to feed the fish from their docks. Automatic feeders work best to provide food consistently and at set times. The fish will train to the feed better if the feeding is done at similar times each day and is consistently offered.

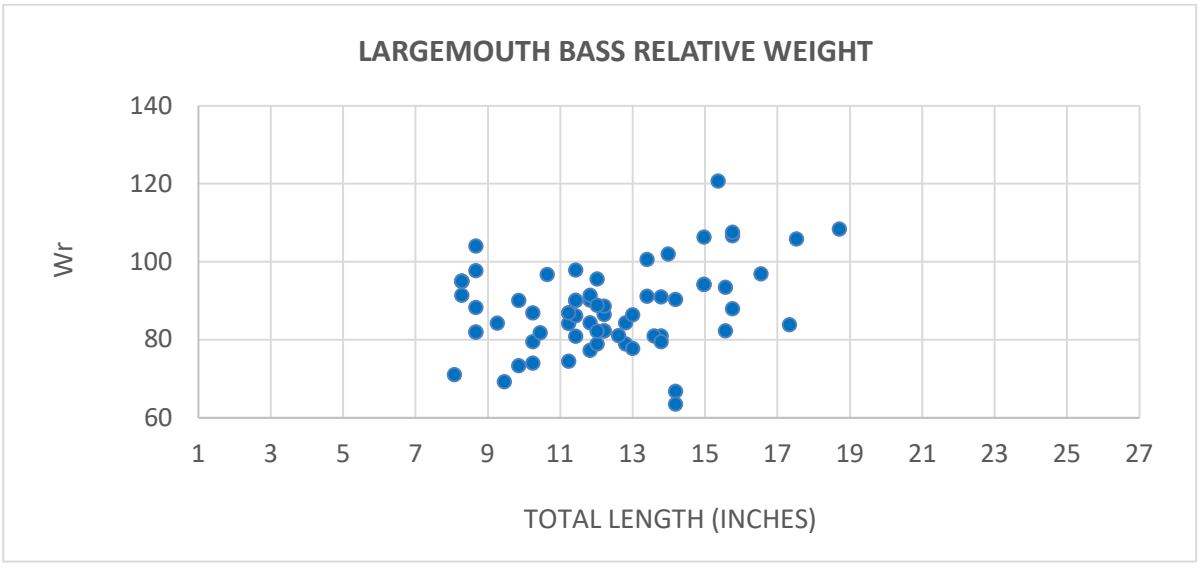
Fish Population

During our visit, we collected largemouth bass, bluegill, shellcracker, threadfin shad, gizzard shad, longear, and catfish. Crappie are present but we did not see any in our sample. It is possible that they were in deeper water than we could effectively sample. Adding structure to known areas would improve our ability and anglers ability to find them. The density of fish that we captured was good, however bluegill numbers were light. We saw several gizzard shad and some threadfin shad. Both are good forage items, but threadfin are more desirable since they are smaller in size, and don't get very large like gizzard shad do. We saw or captured several catfish, which indicates that their population is significant. Competing predators are a problem here. You have bass, crappie, and catfish feeding on the same food supply. Cormorants and otters are also likely contributing to the reduction of food items in the lake.

The first graph, which is Bass Length Frequency, illustrates the distribution of the various sizes of bass that we collected. We captured bass ranging from 6 to 19 inches in length. The most abundant size in the sample was 12 inches. In a balanced fish population, the most abundant size will be at 15 inches or greater. The shape of the size distribution is good, we just want to see entire graph move toward the larger sizes. We normally recommend harvesting some of the small bass each year in order to limit the number of mouths to feed. This prevents the forage from becoming depleted by an overabundance of predators. Consider opening up the harvest on bass to allow a light amount to be harvested. This will help more forage to be available to the remaining fish.

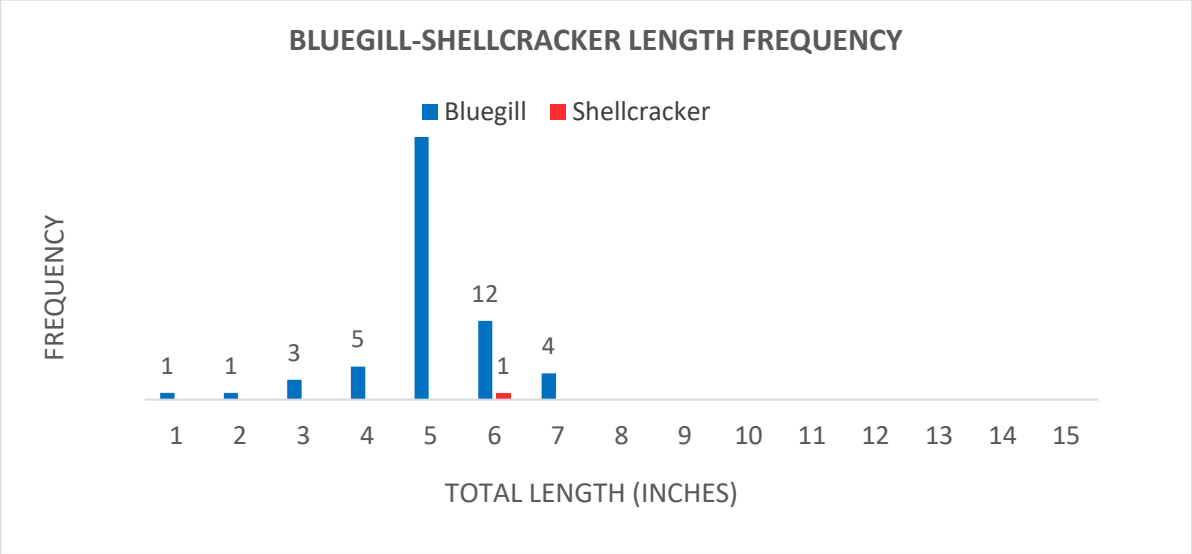


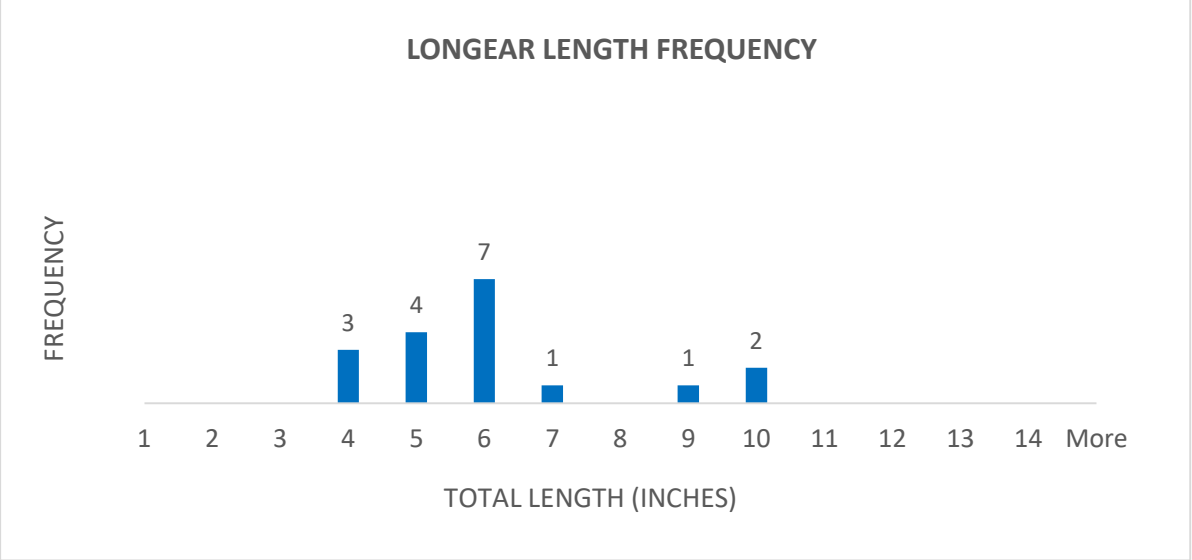
The second graph is the Relative Weight (Wr) of each bass in our sample. This is an indication of how plump your bass are and how they compare to an ideal bass of the same length. Wr values of 90 are good, 100 or above are excellent, and those of 80 or below indicate thin or poor condition. The overall average Wr across the sizes is 87, which means that the bass were in average condition. This is an improvement over the 80 (thin condition), that we saw in 2018. If we can get more bluegill into the system and remove some of the competition for food, we should see further improvement in the condition of the bass and more fish moving into the larger sizes.



The size distribution of the bluegill, shellcracker, and longear, is shown in the following graphs. We observed bluegill and longear from 1 to 10 inches in length. We like to see bluegill in all size categories with the most abundant size being 3-5 inches. These are the sizes that the bass rely

upon for good growth. The bass feed upon what will fit in their mouths. The most abundant size bass that you have is around 12 inches. Those fish are feeding on bluegill 4 inches or smaller. Notice how the smaller bluegill are not as abundant as those at 5 inches or greater. There needs to be more bluegill in the smaller sizes in order to feed the midsize bass and push them to larger sizes. The presence of the shad and longear help, but with the other predators present, the forage density needs to improve in order to grow more larger fish.





Recommendations

In order to grow larger bass and crappie and maintain them in better condition, some of the predators need to be harvested while also promoting the forage fish numbers. Focus on removing catfish and some crappie. Adding structure for fish habitat will improve fishing and fish growth. The areas where we found structure were holding nice fish, but the structure amount in the lake is limited.

1. Allow the harvest of bass that are 12" or smaller, at a rate of 2 fish per person per day. This will help reduce some of the smaller mouths to feed, improving the growth and size of the remaining bass. This is a light harvest rate that can be adjusted later, with the next assessment. The point of this harvest is to account for natural reproduction that should be occurring each spring.

2. Reduce the harvest of the bluegill and shellcracker by setting a limit. Only allow 10 fish per person per day. We need them to remain in the lake to contribute to the spawning activity. We also want more of them to reach larger sizes so that catch rates are better.

3. Harvest all crappie, regardless of size.

4. Harvest all catfish from the lake regardless of size. These fish are competing with your bass and crappie and are also predators on the smaller bass and crappie.

5. Stock additional bluegill into the lake in the near future to build up their numbers. We recommend stocking 50 to 100 fish per acre of the fingerling bluegill. Stocking threadfin shad would help build their density up as well. I suggest stocking the shad in either soon or spring of 2021.

Bluegill	1-2"	50-100 fish/acre	17,750-35,500 fish	$4,437.50-$8,875
Threadfin Shad		2-4 loads	~12,000-24,000 fish	$3,600-$7,200
Delivery fee				$293 each

6. Encourage homeowners to either feed by hand or by automatic feeders to promote the bluegill production.

7. Add structure to the lake for fish habitat. We recommend cedar trees, Christmas trees, brush, or artificial structure. Place the structure along the shoreline, in deep water, or under docks behind homes so that the structure does not interfere with boating or swimming. We can develop a quote to place some artificial structure for you if you are interested.

8. Electrofish the lake in spring of 2021 to evaluate the success of any stockings or harvest changes you make.