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June 3, 2011

Cameron Handyside
Edgewater
1030 Grandview Blvd.
Huntsville, Al 35824

Mr. Handyside,

Please find enclosed the 2011 Lady Ann Lake Fishery Management Report conducted by Aqua Services Inc. on May 4, 2011 which I am submitting for your consideration.

This report summarizes the findings from our survey. Your lake does not appear to be reaching your management goal of general balance as indicated by the condition and size structure of the largemouth bass and bream populations. Several recommendations have been outlined to help you maintain and manage your lake.

All of us at Aqua Services Inc. sincerely appreciate and thank you for your business. Should you have any questions or concerns regarding the report, we may be reached at the telephone number above. Please leave a voice message and phone number if we are unavailable and we will promptly return your call.

Sincerely,

Norman V. Haley, III

Enclosure

Lady Ann Lake Fishery Management Report

May 2011

Management Strategy

A generally balanced largemouth bass and bream fishery is the management focus for the lake. The goal is that the pond yield numerous, healthy 12"-16" bass and 6-8" bream with the occasional memorable or trophy sized fish.

Through this report, it is important to realize that electrofishing is bias towards small to medium size fish. Larger largemouth bass can easily escape the electrofishing boat and are rare to sample. With this fact in mind, when assessing a fishery, many of the management decisions must be made on fish body condition and length distributions.

Methods

Fish populations were sampled by conducting one, approximately 37 minute, electrofishing transect. Fish were collected for length frequency distributions and relative weight (Wr). Length frequency distributions allow insight regarding the population structure of the bass and bream. The calculation Wr is a measure of the body condition of each particular fish, which serves as an indication of the balance of fish and their food supply. In generally balanced bass and bream populations the majority of the Wr will be 90 or greater. These assessments may allow for indication of problem(s) with overcrowding, aquatic weeds, food supply, competing species, and/or water quality.

Aquatic Weeds

During our visit we saw no aquatic weeds of issue. Maintaining young grass carp (less than 5 years old) at a minimum rate of five per acre and proper water clarity through fertilization or lake dyeing are good techniques to reduce aquatic weed problems.

Fish Assessment

During electrofishing 37 bass, 39 bluegill, 13 redear sunfish, and numerous gizzard shad, channel catfish, and spotted gar were collected. The range of length and weight for the bass was 5-21 inches and 0.1-5.3 lb., and bream 4-8 inches. In a balanced lake, we would expect to see some 3-5 inch bream (the preferred size for largemouth bass

predation). These size ranges comprised of 48% of the bluegill catch (Fig. 2), indicating ample forage size bream.

Largemouth bass between 15-19 inches are at preferred length. Figure 1 shows that 4 individuals, or 11%, were at or above preferred length. In a balanced lake, we would expect to see 40-60% of the bass at or above preferred size. Bluegills are considered to be of quality length from 6-7 inches. In Figure 2, 27 or 52%, were at or above quality length. In a balanced pond, we would expect to see 20-40% of the bream at or above quality length.

The desired W_r for both bass and bream ranges from 85-105 for a well managed/balanced system; a W_r below 85 indicates fish in poor condition while a W_r below 80 indicates severely thin fish. The average W_r for bass was 83 with 32% of the fish sampled having W_r greater than 85 (Fig. 3). The average W_r for bluegill was 91 with 79% of the fish sampled having W_r greater than 85 (Fig. 4). The low W_r bass and good W_r for bream indicates an unbalanced fishery due to bass crowding and forage competition.

Management Recommendations

The information gathered during our visit indicates that your lake does not appear to be meeting your management goal of a generally balanced fishery. The largemouth bass length distribution (Fig. 1) and W_r plot (Fig. 2) suggests that the bass population is not able to forage at their maximum potential as their body condition and length distributions point towards bass crowding and/or competition with the black crappie and gar populations. The bream population displays good length distributions and relative weights because of their low numbers with reduced competition for food resources. Overall the pond has two problems to address: largemouth bass overcrowding and competing species (crappie, catfish, & gar).

Because the average W_r for bass was low at 83 and the size structure is dominated by bass less than 14" it is important to keep up with the harvest of largemouth bass as much as possible, as this is a critical management technique for producing and maintaining balance. A fertile lake that is managed for general balance should have 25-30 lb. of bass/acre/year removed. For the 118-acre Lady Ann Lake this converts to 2,950-3,540 lbs. of bass per year. Although practicing catch and release of larger

individuals is important to maintain a good number of trophy fish in a lake, it is suggested that when managing for general balance that you remove all bass under 14 inches that are angled. Removing these smaller predators will help in reaching your harvest quota and reduce the forage pressure on the smaller bluegills, in turn allowing for more available forage for the remaining bass to grow larger and healthier.

The low W_r of bass may also be due to competing species. Undesirable species within a system can have a profound effect on fish growth. The black crappie, gar, and channel catfish in your lake can compete with bass and bream for forage, and are therefore termed as a competing species. We gathered a substantial number of gar and catfish. Although it is known that crappie inhabit the lake none were collected as they tend to reside at greater depths where electroshocking is not as effective. With this fact in mind, be sure to harvest any crappie, gar, or catfish which are caught, regardless of size, to ensure good growth and forage availability for desired species. They may also be removed via trap netting or by electrofishing at night.

Bream harvest rates need not be restricted. In most cases, harvest through angling will rarely affect the bream population. The number of bream within a system is far greater than what could be affected by angling so largemouth bass should be considered the major management tool for controlling bream populations. A consistent supplemental feeding program can help to maintain and improve bream and bass populations. Pellet feeding can increase the body condition of bream which translates to improved spawning efforts and output which can also increase forage for largemouth bass.

Threadfin shad could be stocked this spring in order to increase diversity and to increase the forage for the existing largemouth bass and crappie populations. This additional prey base will provide another forage for the bass of Lady Ann Lake and can also reduce the foraging pressure on the bluegill populations and may also decrease the negative impact of competition between crappie/gar/catfish and bass.

Lady Ann Lake is capable achieving a state of general balance. For the upcoming 2011-2012 season actively harvest all bass less than 14" until the minimum harvest requirement of largemouth bass has been met. If this harvest quota can not be met by angling bass harvest through electrofishing should be conducted in the early spring, just prior spawning. Threadfin shad should be stocked in the early spring since none were

found during electrofishing. Should the current management recommendations be maintained and adhered to fishing quality should improve. With proper and consistent management, your lake will remain a fantastic resource that will provide you with quality recreational fishing.

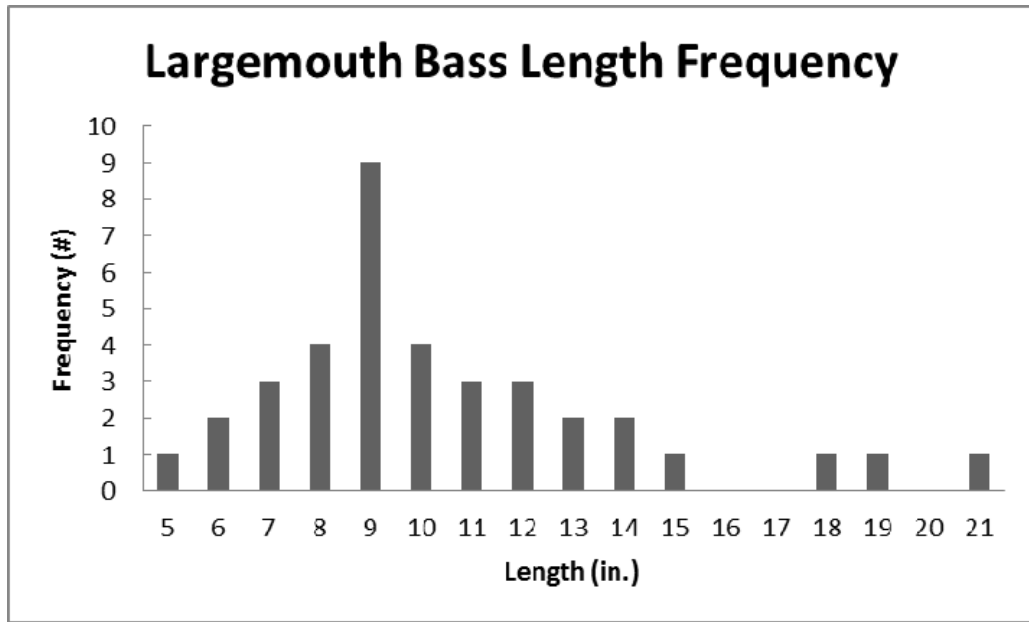


Figure 1. The length frequency by inch class for largemouth bass May 2011. The bar height indicates the number or largemouth bass within that inch group.

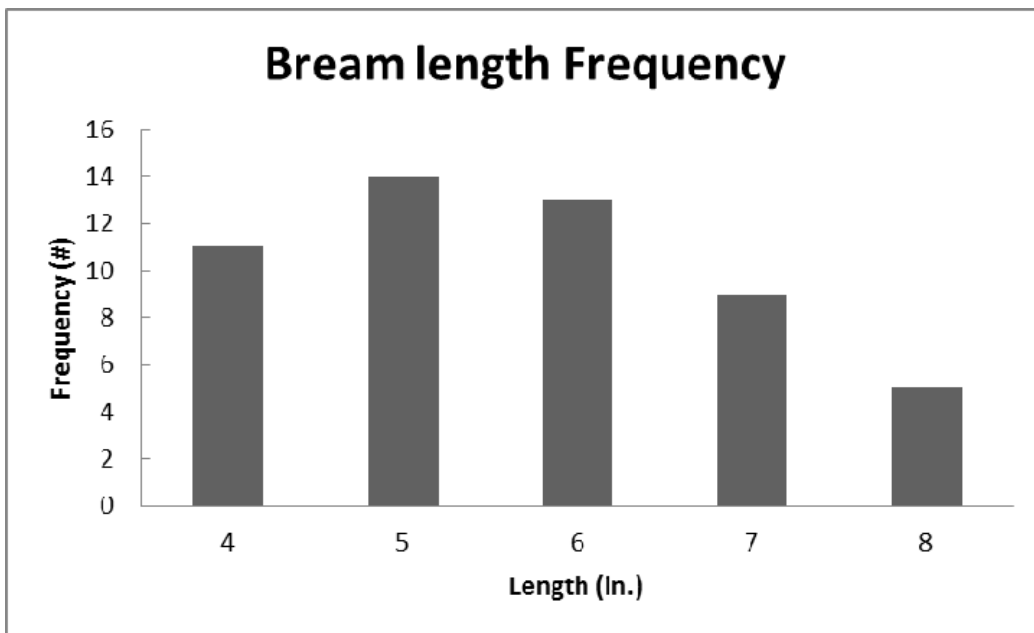


Figure 2. The length frequency by inch class for bluegill may 2011. The bar height indicates the number or largemouth bass within that inch group.

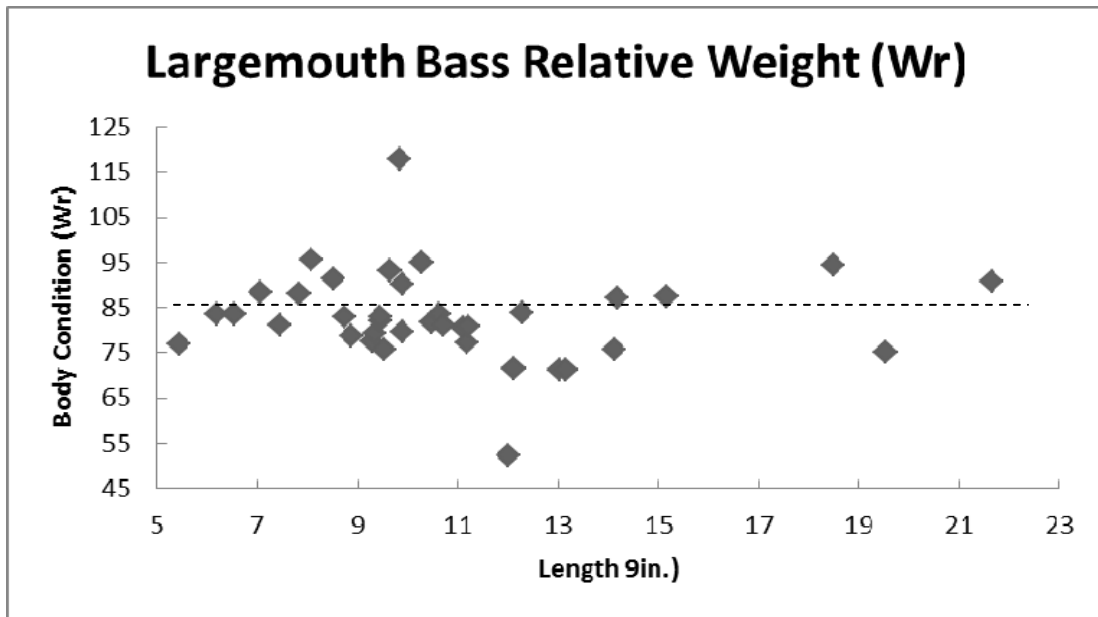


Figure 3. The relative weight (Wr) of largemouth bass for May 2011. Each point is representative of an individual fish. Points below the dashed line indicate severely thin fish with those above the line indicating fish in good condition.

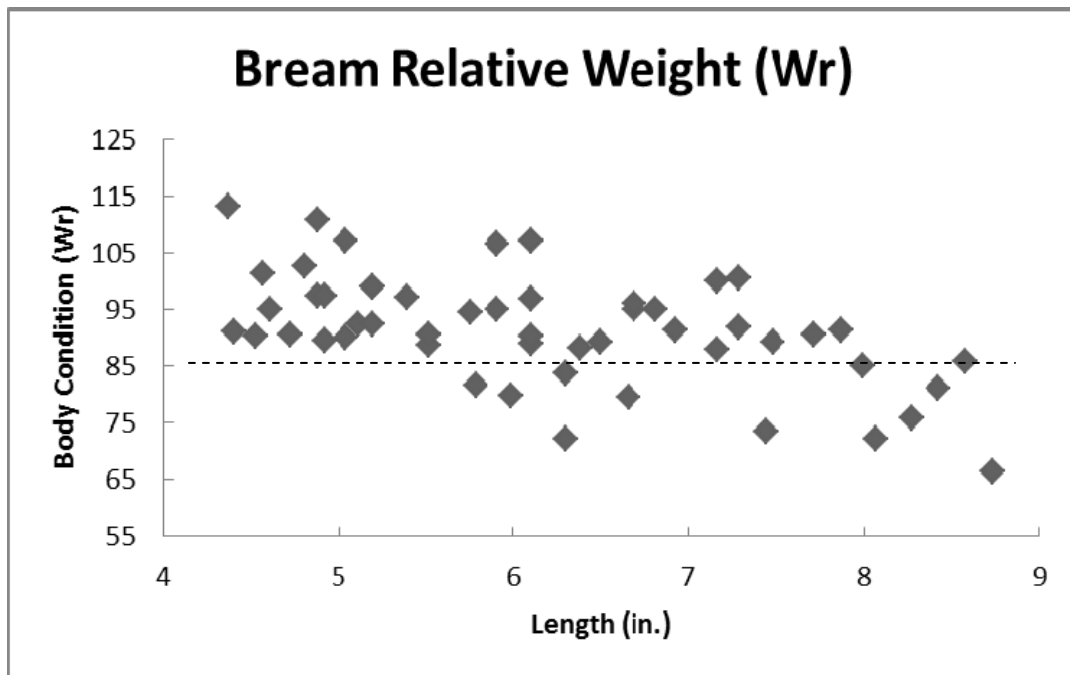


Figure 4. The relative weight (Wr) of bluegill for May 2011. Each point is representative of an individual fish. Points below the dashed line indicate severely thin fish with those above the line indicating fish in good condition.