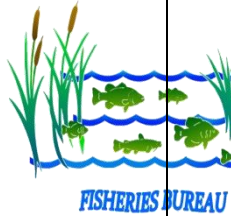




MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES, & PARKS

Jackson Office  
1505 Eastover Drive  
Jackson, MS 39211



September 9, 2021

Mike Espy  
Madison, MS 39110

Dear Mr. Espy,

Please find enclosed a management plan for Northeast Madison Recreational Park Lake, which was sampled by MDWFP fisheries biologists on September 8, 2021. The lake was estimated to contain 14 surface acres. Our management recommendations are based on your goals along with the status of the fish population, water quality, and habitat.

The fish population appeared to be in good condition as numerous bass and bream of multiple sizes were collected during electrofishing (see figures below). Numerous largemouth bass were collected ranging from nine to seventeen inches in average to excellent condition (Figure 1). Spawning was also evident from bass and bream. The forage base looks good with multiple sizes of bream from two to eight inches (Figure 2) and threadfin shad from two to five inches (Figure 3). A properly maintained fertilization program is essential to continue feeding the forage base. Continue to fertilize, maintaining 18-24 inches of visibility. Electrofishing during the late summer months can result in variable data due to the effective field of electrical current being six feet or less and many adult fish inhabiting deep water. Larger bass, bream, and catfish are most likely in these areas. Also, channel catfish are not very susceptible to electrofishing gear in ponds, but we did sample one 24-inch channel catfish. One green sunfish and two yellow bullhead catfish were also collected. These are nuisance species when in high abundance due to predation on bass nests. They are not abundant enough to be a concern at this time. A lack of cover was observed throughout the pond. I recommend natural or artificial cover to be deployed into multiple depths to provide quality habitat during all seasons. This is essential for maintaining consistent forage production as the fish population ages. Erosion was evident in multiple locations and should be addressed to reduce turbidity and sedimentation.

In order to accomplish your goals, I recommend the following:

- Fertilize consistently; maintain 18-24 inches of visibility during the growing season
- Deploy hardwood structure into multiple depths for adequate cover
- Allow vegetation stands to proliferate along the shoreline, only treat access issues
- Reduce erosion using hay roles, silt fencing, riprap, or the barriers on site.
- Regulate public harvest
  - Largemouth Bass      5/day      **14 inches and below, 1 over 22 inches**
  - Bream                      10/day      **no length limit**
  - Catfish                     5/day      **no length limit**

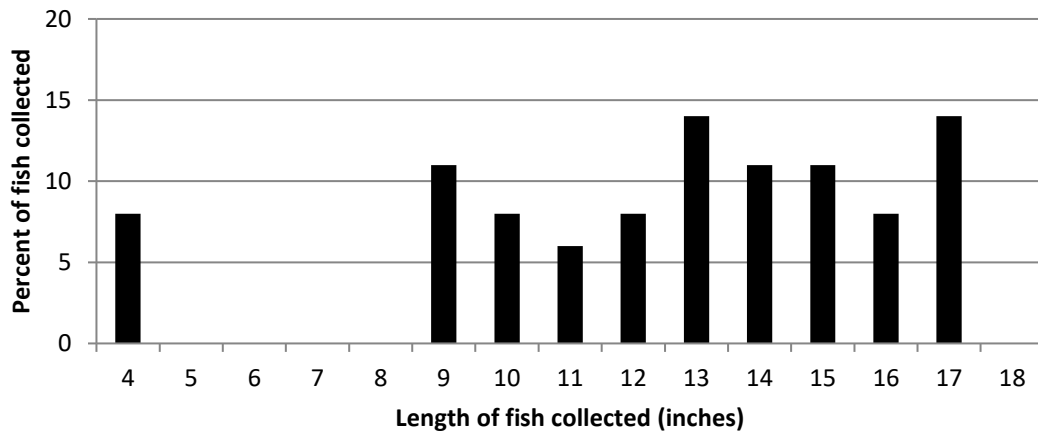


Figure 1: Largemouth Bass Length-Frequency Distribution, September 2021

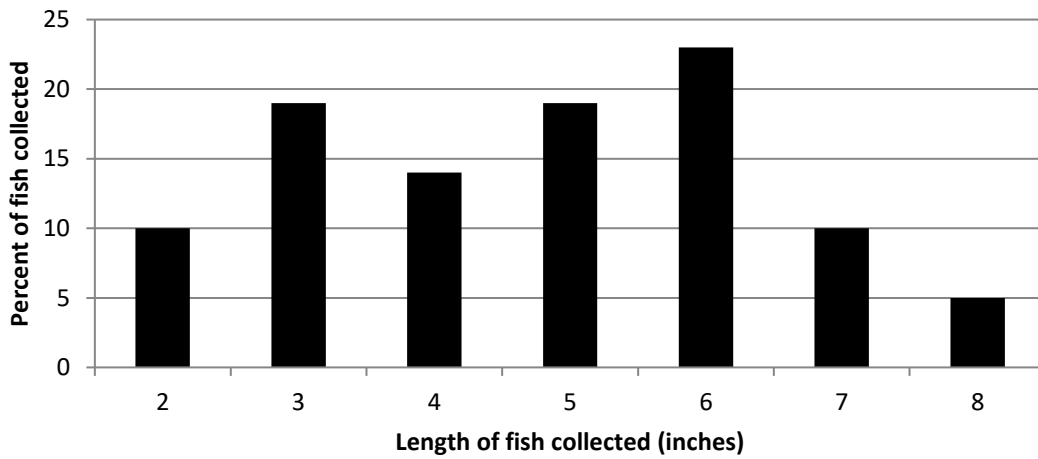


Figure 2: Bream Length-Frequency Distribution, September 2021

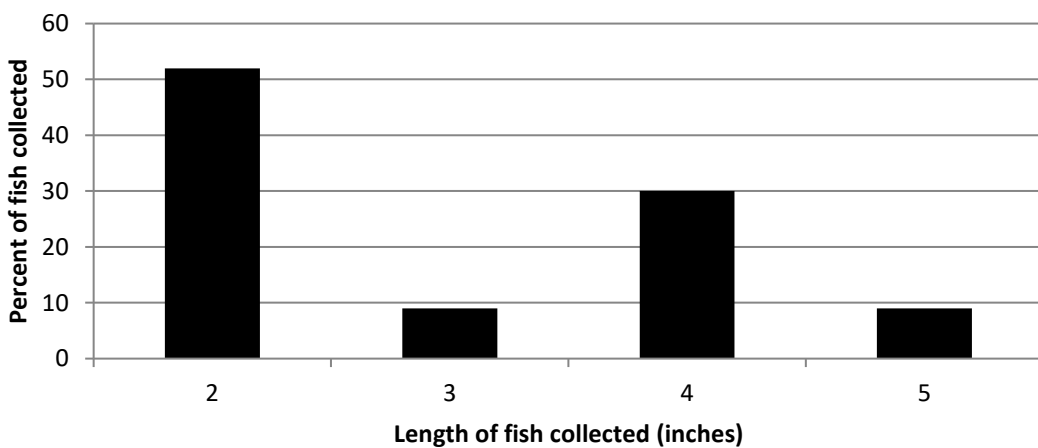


Figure 3: Threadfin Shad Length-Frequency Distribution, September 2021

## Recommendations:

1. **Fertilization** - Fertilizer promotes the growth of plankton in your pond. It is very important to maintain a bloom during the growing season to promote successful bream spawns and ultimately provide forage for the bass population. As we discussed, fertilizer applications are based on water clarity. If visibility exceeds 30 inches, a fertilizer application is necessary. Try to maintain 18-24 inches of visibility throughout the growing season (water temperature > 60°F). Apply five pounds of water-soluble powdered fertilizer per acre. If you do not get a bloom from your initial application within two weeks, reapply the same rate.
2. **Hardwood Structure** - Adequate structure is needed in multiple depths to provide cover for fish throughout the year. I recommend adding hardwood brush into these areas. All oak species will sink if green. Dead trees and some other species float and will need to be anchored. You may want to test a limb before cutting to be sure it will sink. Small, tight structures should be deployed in 3-5 ft. while larger limbs should be added to 6-9 ft.
3. **Aquatic vegetation** - Vegetation provides cover for fish as well as habitat for supplemental forage such as frogs and insects. Water primrose was identified along the shoreline providing limited habitat with less than a six-inch band. Allow the primrose to proliferate, do not spray at this time. Slender spike rush was also found emerging along the shoreline. Slender spikerush can be a nuisance when growing submerged, but is not an issue at this time. If access becomes an issue or submerged vegetation is observed, contact me for treatment recommendations.
4. **Erosion control** - Erosion will cause turbidity which can shade the water column and limit your ability to fertilize properly. Continued erosion will also result in sedimentation. Sedimentation will create shallow areas allowing nuisance aquatic vegetation to establish. All areas which are still eroding should be attended to by slowing down the flow while grass continues to establish. Rolls of hay, silt fencing, or riprap are typically used, but the floating containment boom on property could also be used if necessary. The ends could be staked down and reduce flow in these areas.
5. **Regulations** - I recommend implementing a 14-inch maximum length limit for largemouth bass when you open the lake to the public to be sure the bass population is conserved. This means all bass over the 14-inch mark should be immediately released. You may want to have signs explaining the limit to be sure the anglers understand. Removal of bass up to this size will reduce competition and increase growth rates. I also recommend allowing anglers the chance to take home a trophy fish, if caught. Of the five fish limit, one bass over 22 inches may be kept per day. I recommend a daily limit of ten bream per person and five catfish per person to conserve the forage base and the catfish population. Advanced size channel catfish will need to be restocked over time as the initial stock is harvested out. A lack of spawning habitat coupled with bass predation result in a lack of catfish recruitment in small impoundments.

Good luck and please feel free to contact me with any questions that you may have.

Sincerely,

Ryan Jones  
MDWFP Fisheries Biologist