Management Plan
For
Brock Point Lake

June 1, 2020

Introduction

Management of bass-bluegill sportfish ponds in the Southeast is based on the ideas of H.S. Swingle, founder of the Fisheries Management program at Auburn University. Southeastern Pond Management combines Dr. Swingle's management principles with the latest and most innovative management techniques to provide quality pond care. Successful pond management is based on assessing and manipulating pond fertility, aquatic weeds, and fish populations. Control of these three factors allows fish ponds to provide the maximum benefit to the pond owner. It is important to note that "benefit" is defined by the owner and can take the form of trophy bass, trophy bluegill, or a well-balanced fish community. Fortunately, modern pond management is flexible enough to fine-tune a pond to precisely fit the goals of the owner.

Southeastern Pond Management visited Brock Point on June 1, 2020, in order to conduct a comprehensive evaluation of the 13 acre Brock Point Lake. A representative sample of the fish community was collected by electrofishing to accurately assess the present state of balance between the predator and prey species. In addition, the physical and chemical properties of the water were inspected to assess water quality. The degree of aquatic weed infestation was also recorded. Results of these assessments, plus consultation with Richard Crumpton, provide the basis for this management plan.

The goal of this management plan is to create and maintain a balanced fish community with the potential for trophy largemouth bass in Brock Point Lake. The following evaluation report and management plan details and explains our recommendations with the following goals in mind:

- Create conditions favorable for the consistent production of "quality size" and "trophy size" largemouth bass (Table 1).
- Create conditions favorable for the consistent production of "quality size" bluegill (Table 1).
- Generally maintain a high level of water quality as well as an aesthetically pleasing environment for aquatic recreation.

Table 1.

	LMB	Bluegill
"Quality Size"	16-20"	7-10"
"Trophy Size"	20"+	10"+

This report is designed with the above interests in mind. Normally, we feel most comfortable with the recommendations listed at the end of this report. However, we encourage you to pursue whatever goals you may choose. In addition, although parts of this report may seem quite technical, we include this information only to clearly illustrate the present fish community structure. As biologists, we depend on the electrofishing survey to show us where management input is necessary.

It is important to note that quality fishing will not be accomplished "overnight". As you read through this plan, bear in mind that the specific activities we have recommended are not one-time inputs, but rather a collection of ongoing management activities that will establish and maintain long-term quality fishing. Proper pond management, like the management of any natural resource, is an ongoing process. Each management input is recommended individually; however, it should be noted that the *management program* suffers if all activities are not implemented. Feel free to contact us and further discuss management ideas you may have.

Electrofishing equipment was used to collect a fish sample from Brock Point Lake, June 2020.

Lake Assessment

Brock Point Lake is a 13-acre watershed impoundment located in Shelby County, Alabama. The lake was recently renovated in 2016. An emergency spillway as well as a steel stand pipe with a functional trash rack, are present. In addition, we noted a moderate amount of cover for bass and bluegill in the form of brush piles and fallen trees.

The surrounding topography is characterized by rolling hills of mostly pine and some hardwood tree growth. Brock Point Lake is located in a region of the state where soils are often relatively fertile, and highly alkaline (high pH). Ponds constructed on such soils usually do not require the application of agricultural lime to ensure a successful fertilization program. At the time of our visit, total water alkalinity was measured at **31.5** parts per million (ppm). This level of alkalinity is well above the minimum recommended threshold of **20** ppm, and represents conditions suitable for effective fertilization. Brock Point Lake appeared to have a light plankton bloom at the time of our visit.

Brock Point Lake contains areas along the margins and in the upper end that are less than 3 feet deep and highly susceptible to aquatic weed growth. During the evaluation, we did not observe any problematic aquatic vegetation. Aquatic weeds and problems associated with them will be discussed in the Aquatic Weed Control section.

Fish harvest has been reported as none in the recent past. Harvest, and its importance in structuring fish communities will be discussed later in this report.

Brock Point Lake, June 2020.

Fish Community Balance

Ponds and the animals they support are governed by a predator-prey relationship. The interactions of predator and prey are characterized by a concept we refer to as *balance*. By definition, suitable balance in a fish community is characterized by a healthy distribution of both predator and prey over a wide range of age and size classes. In order to assess the relative balance of a fish community, the species functioning as predators and the species functioning as prey must be defined. **Predators** are species which rely on other fish as their primary food source. **Prey** species rely on sources other than fish for their food source.

Classic balance in small impoundments is defined by several parameters, not the least of which involves a suitable ratio (by weight) of predator to prey. Further, the key to maintaining balance in a sport fish pond is a healthy size distribution of both predator and prey. If one size-class becomes overly abundant or lacking, a condition of imbalance results. By analyzing an electrofishing sample it is possible to determine the state of balance within a given fish community.

In fisheries science, the *condition* of individual fish is used as another indicator of the overall balance of the entire fish community. Relative weight (Wr) is an index used to categorize the condition of fish within a given population. Calculated Wr values greater than 100 indicate plump, robust fish. Wr values less than 100 suggest that individuals are in less than excellent condition, perhaps the result of some predator:prey imbalance. Wr values less than 85 would indicate malnourished fish; a sign of intense competition for forage.

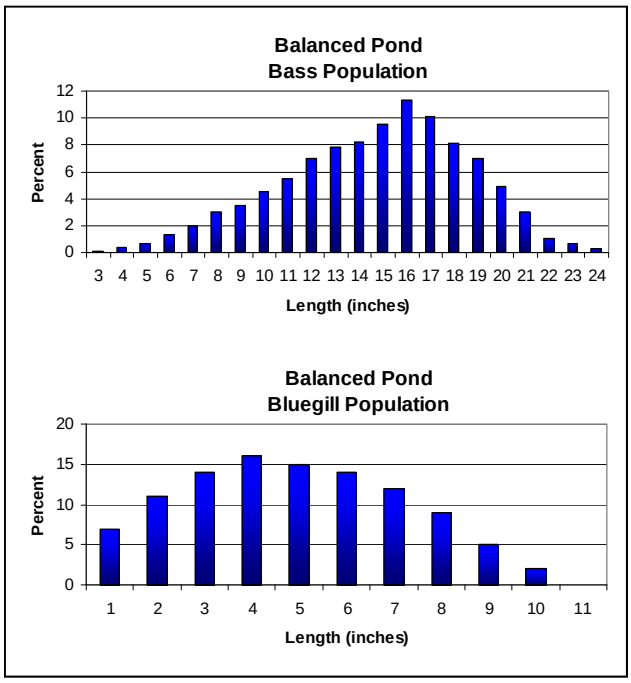


Figure 1. Length distribution of bass and bluegill in a typical balanced pond.

Figure 1 depicts balanced populations of predator and prey in a typical sport fish pond. Note that all sizes are well represented; no noticeable gaps are present.

Predator and prey fish are measured and weighed to analyze the overall balance of the fish community.

Fishery Assessment

The fishery in Brock Point Lake was sampled with standard boat-mounted electrofishing equipment. The sample contained largemouth bass, coppernose bluegill, threadfin shad and redear sunfish (shellcracker). Currently, largemouth bass are functioning as the primary predators in Brock Point Lake. The bluegill, shad and shellcracker are the prey.

Largemouth bass ranging in size from 6 to 21 inches in total length were collected in moderate abundance (Figure 2). The bass population was dominated by bass measuring 13 to 14 inches. Largemouth bass 14 inches and smaller represent the primary targets for harvest over the coming months. We harvested 63 pounds of bass during the evaluation.

The larger bass collected from Brock Point Lake were individually tagged with an identification number so their growth can be monitored (refer to the Tagged Fish Data section of the report).

Bluegill and shellcracker were collected ranging in size from 2 to 9 inches in total length. Figure 3 depicts the length distribution of the bluegill population. Of note, an abundance of intermediate (3-5") bluegill were collected.

The average relative weight of adult bass collected from Brock Point Lake was 99 (Figure 4). In other words, most of the adult bass were in excellent condition. The bass population is dominated by healthy, fast growing individuals.

Overall, we characterize the fish community in Brock Point Lake as balanced. A more detailed explanation of balanced ponds in general, and Brock Point Lake in particular is located in the Current State of Balance section of this report.

Management inputs aimed at maintaining balance are listed in the Recommended Management Activities section of this report.

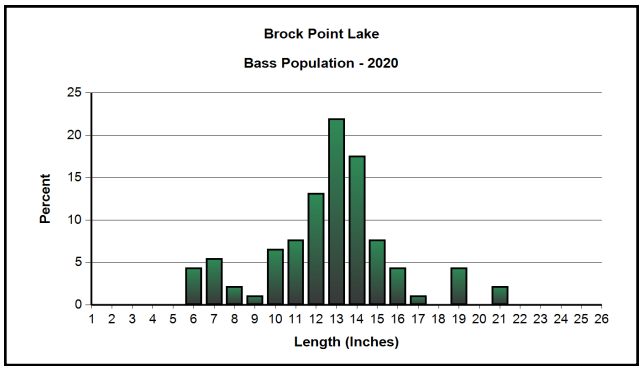


Figure 2. Length distribution of bass collected from Brock Point Lake in June 2020.

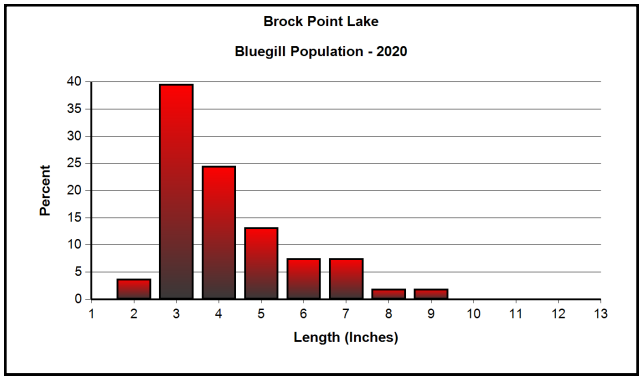


Figure 3. Length distribution of bluegill collected from Brock Point Lake in June 2020.

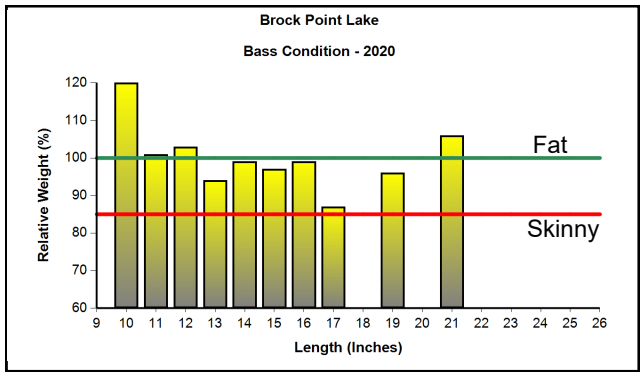


Figure 4. Relative weights (W_r) of adult largemouth bass collected from Brock Point Lake in June 2020.

Length, Weight, and Condition of Tagged Bass in Brock Point Lake
June 1, 2020

Tag #	Length (in)	Weight (lbs)	W_r
20242	13.1	1.4	120 %
20241	20.5	5.9	119 %
20240	20.8	4.8	93 %

Balance

Most pond management activities are centered on creating or maintaining a balanced fish community. A balanced sport fish pond is preferred by most anglers because it provides quality bass and bluegill, both in terms of number and size. A balanced fish community is characterized by a wide size distribution of bass, bluegill and other forage species; adequate reproduction of all species is present.

As mentioned previously, our recent electrofishing sample from Brock Point Lake contained a healthy distribution of bass across many different size groups. Additionally, the majority of the bass were in good condition. Bass in the 10 to 12 inch length group were in excellent condition, indicating an abundant forage base for this length group of bass. However, bass in the 13 to 19 inch group were in slightly poorer condition, indicating the need for selective bass harvest and/or supplemental forage stocking to maintain a well balanced fishery.

The presence of intermediate size (3-5") prey is critically important in sport fish ponds. These individuals are the size preferred by the more abundant, younger bass in a typical population. A high relative abundance of intermediate size prey is often an indication of a balanced pond.

When a state of balance exists, intermediate size prey are among the most abundant segment of the overall fish community. Under these conditions, bass typically grow quickly, and are capable of reaching their full growth potential.

During our electrofishing sample, we observed a healthy forage base, particularly the distribution of intermediate sized prey. In order to maintain the predatory:prey balance and the continued growth of bass in Brock Point Lake, it will be necessary to ensure that conditions for the production of forage such as fertilization, supplemental feeding and selective bass harvest are sustained or even enhanced.

In a typical fertilized sport fish pond, bass harvest is required in order to prevent overcrowding. The old idea of "throw him back and catch him when he gets bigger" is not a sound approach in small impoundments. If sufficient harvest does not occur, a bass-crowded condition is the likely result. This usually leads to a low quality bass fishery.

Strategies to improve the quality of the bass and bluegill fishing are discussed in the Recommended Management Activities section of the report.

A balanced pond supports an abundance of bass, bluegill and other forage species of all sizes.

Fish Harvest

One of the keys to a balanced fish community, as well as the growth of trophy largemouth bass in your pond, is the selective removal of largemouth bass. Largemouth bass, when present with bluegill as their primary source of forage, produce an annual surplus which must be harvested in order to maintain balance. We generally recommend harvesting the smaller, more abundant size range of bass at a rate of **25 to 35 pounds per acre per year**. Bass harvest rates are designed to reduce the level of predation on the bluegill population as well as increase the growth rate and condition of the remaining bass. Recommended harvest quotas often change in response to population changes and should be re-evaluated annually. Harvesting largemouth bass can be accomplished by the following methods:

(1) Hook and Line Harvest: Largemouth bass of the appropriate size should be removed whenever they are caught up to the harvest goals. A record should be kept of the total number and weight of bass removed during each fishing trip. Larger bass, those presently exceeding the size limit, may be "protected" since these represent the potential trophy bass in the pond.

(2) Electrofishing Harvest: Selective bass harvest through electrofishing is a particularly effective management tool. This method of harvest may be quite productive if hook-and-line efforts are not adequate. The cost for this service is based on time spent (hourly). We will keep close records of the total number and weight of individuals removed.

A measuring device should be kept handy to determine the correct size bass to harvest.

One important point is that bluegill and shellcracker harvest is strictly optional in balanced ponds. It is not necessary to harvest a certain weight of bluegill per acre to maintain the predator/prey balance or to prevent bluegill overpopulation. The bass will more than adequately control bluegill numbers. Typically, a generous amount of adult bluegill can be harvested in a well-fertilized, balanced lake. However, over-harvest of bluegill may be a concern, depending on the number of anglers and fishing pressure. We often recommend limiting bluegill harvest to **10 per person per day** in bass-crowded ponds to prevent over-harvest. In severely bass-crowded ponds, we recommend **suspending bluegill harvest** until the population increases through management efforts.

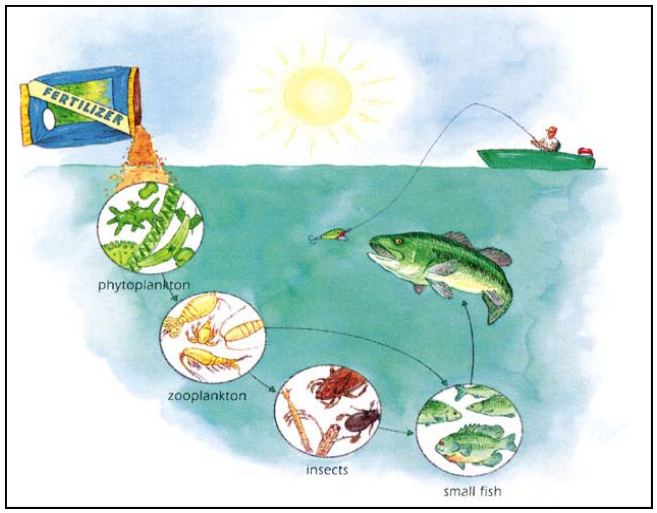
Bass must be harvested at the proper rate each year in order to maintain a balanced fish community in small impoundments.

Fertilization

The concept of *carrying capacity* describes the total biomass (i.e., weight) of fish a pond is capable of producing. A given body of water, subject to varying levels of fertility, has a finite limit, or carrying capacity, in terms of the overall biomass which it can support. Lake fertility limits the number as well as the average and maximum size of fish present.

The limiting nutrient in most freshwater systems, as it relates to plankton production and a generally high level of fertility, is phosphorous. Phosphorous must be added on a regular basis during the growing season in order to stimulate significant plankton growth. Plankton, both plant and animal, are the base of the food chain in ponds. Infertile ponds, those with low alkalinity and relatively little nutrient input, are characterized by low levels of plankton production. In effect, this limits the amount of food available to the small insects and insect larvae which are the next link in the food chain. The *ripple effect* of low fertility is observed far up the food chain, all the way to the primary predators, largemouth bass. In order to create and maintain a high level of plankton production, thus providing conditions most favorable for fish production, fertilizing on a regular basis is required.

Fertilization takes place during the growing season, from March through October. We recommend SportMAX® Water Soluble Pond Fertilizer (10-52-4), applied at a rate of 4-8 pounds per surface acre per application. Fertilizer should be applied according to the Standard Pond Fertilization Schedule:



Food chain of a typical fertilized pond.

When you subscribe to our Fertilization Service, our technicians will routinely visit your pond and properly apply fertilizer. A well fertilized pond should have 18 to 24 inches of visibility.

Standard Pond Fertilization Schedule

- Beginning in early March, make three applications at two week intervals.
- Make the next three applications at three week intervals.
- Thereafter, apply once per month or whenever visibility exceeds 18-24 inches.
- Cease fertilization by the end of October.

Our **Fertilization Service** completely removes the burden and nuisance of fertilizing your lake. Our trained technicians will visit your pond, at prescribed intervals, carefully measuring and recording water visibility and applying the proper dosage of fertilizer. Our visits are conveniently recorded on a small sign, situated on the pond bank. In addition, we regularly check and log total water alkalinity as well as keep an eye out for potentially problematic vegetation.

Fertilization is the most basic and important element necessary to create an environment conducive to the production and growth of sport fish.

The cost of our Fertilization Service is listed in the Recommended Management Activities section of this report.

Supplemental Feeding

Feeding bluegill pellet food is a proven management practice used to increase the number of "quality" and "trophy" size bluegill in ponds. Feeding produces unusually large and healthy bluegill and increases their reproductive potential. In addition, feeding concentrates fish for improved catch rates and provides entertainment from watching the fish eat. Given these benefits we recommend maintaining the feeding program in your pond.

In an effort to benefit the entire bluegill population, fish food should be applied from at least 1 feeding station for every 5 acres of water. Each feeding station should dispense feed at a rate of 5-10 lbs/day during the growing season (March - October). The daily ration should be divided into 3 short feeding periods, such as: early morning, late morning, and late afternoon. Several short periods are necessary to reduce feed waste because bluegill have small stomachs and will not consume much at once. Most commercial floating catfish fingerling pellets are suitable for feeding bluegill. These types of feeds are readily available on the market; Purina® makes an excellent pellet, under the name, "Game Fish Chow". Game Fish Chow is made up of several different pellet sizes that can be consumed by a wide size range of bluegill.

A good bluegill feed has several different pellet sizes.

For an additional boost to the bluegill population, feeding in the winter is an option. Winter feeding keeps the bluegill plump and healthy during a period when natural food is not readily available. To improve consumption in the cold months, a sinking feed may be used. Sinking feed can be purchased during the winter at most dealers that normally stock fish food. Several feeding periods should be maintained for the winter also. However, the timer on the feeder should be changed in late October to adjust for the shorter day length.

Supplemental feeding attracts bluegill to certain areas so they are easier to catch.

We market Sweeney and Texas Hunter automated game and fish feeders. Simply put, these feeders are the finest of their kind. Sweeney directional feeders are offered in two sizes (AF1100 - 75 pound capacity and AF1300 - 225 pound capacity) and three colors (galvanized, hunter green and camo). Texas Hunter directional feeders are also offered in two sizes (DF125 - 75 pound capacity and DF425 - 225 pound capacity) and they are only available in green. They are powered by rechargeable 12-volt batteries and most models come equipped with a solar charger. Sweeney and Texas Hunter directional feeders may be conveniently mounted on the bank or on piers.

Aquatic Weed Control

Aquatic weed growth can be a serious problem in recreational ponds. Weeds use up important nutrients in fertilizers that are intended for fish production, as well as interfere with normal activities such as fishing and swimming. In addition, excessive weed growth detracts from the aesthetic value of a pond, particularly if it is the focal point of a recreational area.

There are three approaches we use to prevent or reduce unwanted aquatic weeds. They can be placed in 3 different categories: chemical control, biological control, and sunlight-limiting control. Often, an integrated approach involving a combination of these tools offers the most effective solution.

Chemical control involves the use of aquatically approved herbicides to reduce or eradicate aquatic weeds. Although chemical control can be costly on large areas, it is usually the best method for a quick response.

The most common form of biological control is stocking grass carp. Grass carp are often introduced into ponds at low stocking densities as a preventive measure before weeds become established. However, once weeds have become established, a higher density of grass carp is needed to control them. Grass carp readily eat a variety of common weeds, do not reproduce, and are fairly inexpensive. Typically, grass carp become less effective when they reach 6 to 7 years old and must be restocked. One drawback to grass carp is their propensity to train on pellet food intended for bluegill; thereby reducing the effectiveness of a supplemental feeding program.

Grass carp are often introduced for long-term control (top). Pond dyes temporarily limit sunlight to retard aquatic weed growth (bottom).

There are also a variety of water colorants or dyes that can be added to ponds before weeds become established that limit sunlight penetration and "shade out" certain types of weeds. A regimented fertilization program is often the most effective form of sunlight-limiting control. Typically, phytoplankton blooms stimulated early in the spring through fertilization can shade out potential weed growth before it becomes a problem.

Herbicide application is typically the quickest form of weed control.

Fish Attractors

Cover, whether natural or artificial, is attractive to fish for many reasons. Cover attracts many aquatic invertebrates that are consumed by fish, protects fish from other predators, provides ambush locations for predator fish, and provides fish with shade from the sun. For these reasons, fish attractors play an important role in the management of small impoundments. By concentrating high numbers of bass, fish attractors help anglers meet recommended annual bass harvest goals. To maintain a balance between the predator and prey species within a pond, adequate predator harvest is necessary. Not only do fish attractors enhance the fishing experience by making the fish easier to locate, but the added strategy of locating each attractor creates a whole new dimension to pond fishing.

Any object placed under water has the potential to attract fish. Certain types of cover will attract more fish than others. Generally, objects with a high surface area (i.e., brush piles) will attract more fish than objects with a low surface area (i.e., large rocks). However, cover with a high surface area tends to decompose or deteriorate quicker. A variety of different cover types, whether grouped together or mixed, will attract the most fish in ponds.

When choosing natural cover to be added to ponds, keep in mind that hardwoods such as oaks and hickories last longer than softwoods. Cedar trees are also an excellent choice because their branches are finely divided and they maintain their structure for 3 to 5 years. Osage-orange (Mock-orange or "horse apple") trees, located in black belt soils, provide exceptionally long-lasting cover. Trees can be weighted using concrete blocks and wire. However, another popular method of sinking trees or limbs is by placing them in a bucket and filling with concrete. These "pickle barrels" offer excellent vertical structure. Small beds of pea gravel

Structure piles attract fish to certain areas so they are easy to locate, thereby making it easier to achieve annual harvest goals.

can be placed in 2 to 3 feet of water to attract bluegill for spawning.

Many different types of artificial material can provide good, long-lasting cover for fish. Wooden pallets will attract all sizes of fish when tied together in a triangular formation and weighted. Used tires should be tied together in rows and the rows can then be tied together. If tires are used, be sure to drill a large hole at the upper most point on each tire to allow air to escape. Large construction materials such as concrete culverts can be stacked on top of one another. Materials such as car bodies or other motorized appliances should have all potential pollutants removed before sinking. Plastic Honey Hole trees and shrubs are excellent artificial fish attractors. These structures are made of plastic and will last nearly forever. They also have a large surface area providing plenty of cover for baitfish and attracting predators.

The location and size of fish attractors is more important than the type of material used. Most small impoundments develop a thermocline during the warmer months below which oxygen is too low to support fish. To ensure the attractors are where the fish can use them year-round, a high percentage should be placed in water less than 10 feet deep. Fish will utilize cover in deeper water during the colder months. Typically, any sharp change in bottom contour is attractive to fish. Often, bottom structure such as humps, points, ridges, ditches, etc., are formed when building ponds. Cover placed in these areas is usually very productive. However, areas with a relatively flat bottom can be greatly enhanced as well with fish attractors. Placing fish attractors within casting distance of piers is also popular.

Keep in mind, it is possible to have too much cover spread out in the bottom of a pond. If too many fish attractors are put in a lake, catch rates can decline because the fish are spread out instead of concentrated. Extreme amounts of cover can decrease bass foraging ability and growth rates. Generally, fish attractors should be at least a full "cast" away from each other.

Obviously, fish attractors are not useful to anglers unless they can be found. Some attractors may be visible while others may be strategically placed in areas that are hard to find. One popular method of marking off-shore fish attractors is with a physical marker like a floating duck decoy or a metal stake. Physical markers will facilitate the addition of new cover when the attractors deteriorate over time. Triangulating between 2 or 3 spots on the bank is a more inconspicuous method of marking these spots. On larger lakes, a GPS unit can be used to store fish attractor locations. Most hand-held GPS units will allow you to navigate within several feet of a location. These locations along with their coordinates can then be plotted on a map using mapping software.

Honey Hole trees are a popular artificial cover that provide ample surface area and will last a long time.

Too much cover placed in the bottom of ponds may spread the fish out where they are difficult to locate.

Dam and Shoreline Maintenance

Dam and shoreline maintenance should be addressed periodically to ensure the integrity of the dam and overall recreational value of the pond. The dam should be kept free of trees; roots may eventually tunnel into the dam, creating weak spots. If mature trees are already present, they should not be cut down, as dead and decaying roots are potentially more harmful. Generally, tress less than 4 inches in diameter at breast height do not have roots penetrating the core of the dam and should be removed before they become a threat to the structure of the dam.

In an effort to prevent erosion the entire dam should be covered with a manageable grass. Large rock is recommended at the waterline along the dam face if there is the potential for erosion from wave action. The spillway should also have some type of erosion prevention. The amount and frequency of water flow should determine the type. The bottom and sides of the spillway should be lined with large rock or concrete if water flows across it often. For spillways that are used less frequently, well maintained grass provides sufficient erosion protection. Spillways should be checked periodically and any debris should be cleared.

Additionally, the shoreline and surrounding watershed should be vegetated to prevent erosion and muddy water. If necessary, livestock should be provided limited access to the pond. Heavier vegetation should be trimmed or treated with herbicide.

Beavers and muskrats can cause aesthetic and structural damage to sport fish lakes. Large rock placed along the waterline of the dam will usually prevent beavers and muskrats from boring in. Trees can be protected by wrapping steel mesh around the base of the tree to a height of about 4 feet. Otters often visit ponds from nearby creeks and can have a significant impact of the fish population. Droppings with scales and fish bones are evidence of otter visits. These nuisance animals should be removed as soon as detected. Techniques include body-gripping traps, snares, foothold traps, and shooting. Permits and licenses may be required.

Beavers and muskrats can bore in to the side of the dam and weaken its structure. Emergency spillways should be lined with concrete if they receive heavy flow (inset).

Annual Evaluation

In addition to ongoing management, your pond should be checked on a regular basis. Our annual maintenance plan includes an aquatic weed assessment, a water test to determine lime requirement, and an electrofishing balance check to assess the fish community.

Regular electrofishing evaluations are necessary to assess the effectiveness of a management program. Electrofishing allows us to stay on top of the pond's condition in order to make necessary changes in management recommendations.

Annual electrofishing evaluations determine the effectiveness of management practices.

Summary of Management Recommendations

Brock Point Lake is functioning as a balanced system that has a high level of fertility. Several management inputs are necessary to maintain balance as well as increase the total density of sport fish. The management activities we are recommending for Brock Point Lake will center on reducing the total number of adult predators and enhancing the conditions for the production of forage.

To maintain a high density of sport fish as well as help control aquatic vegetation, we recommend **intensifying the fertilization program** in Brock Point Lake. **SportMax® Water Soluble Pond Fertilizer** (10-52-4) should be applied according to the *Standard Pond Fertilization Schedule*.

For Brock Point Lake, **harvest bass 14 inches and smaller** at a rate of **20 pounds per acre per year (260 lbs./yr.).** The recommended bass harvest rate and size will likely change over the next few years as the fish community responds to management inputs.

We recommend **limiting bluegill harvest** in Brock Point Lake to a "consumptive" level, meaning ONLY bluegill and shellcracker which are intended for table fare should be removed; the over-harvest of adult bluegill, particularly during the spawning season, may lead to a decrease in the total number of mature, adult bluegill and a corresponding decline in angling catch per unit of effort. **Annual electrofishing evaluations** will help determine if fish harvest recommendations should be adjusted.

We recommend **maintaining an intensive supplemental feeding program** in Brock Point Lake. Fish food should be applied from feeding stations at a rate of at least 5 lbs/ feeder/day from March through October.

Aquatic weed control will also be an integral part of the management program for Brock Point Lake. We did not observe any problematic aquatic vegetation during the evaluation. However, many aquatic plants have the potential to multiply quickly and should be monitored closely, particularly during the growing season. We feel that the quickest and most efficient way to control aquatic weeds in Brock Point Lake, if they should become a problem in the future, is by herbicide application.

Finally, **additional cover in the form of brush or rock piles** would increase the catch rates of sport fish in Brock Point Lake.

The management activities we recommend over the course of the next twelve months are listed in the following pages. In an effort to assist in the prioritization of these management inputs, we have developed a simple color-coding system. You will note this system in the bottom right-hand corner of the respective Management Recommendations to follow:

LEVEL 1	Highest priority. Generally, require immediate attention.
LEVEL 2	Secondary in importance to Level 1. Directed toward achieving your stated management objectives.
LEVEL 3	Increase enjoyment and/or functionality of your pond but have less impact on the overall management program.

ANNUAL HARVEST

ANNUALLY 2020

Current Status: Owner Responsibility

☐ Approved ☐ Declined ☐ Done

Date Approved: _____

Date Done: _____

COST:
Hook and line: N/A

MANAGEMENT ACTIVITY:
Harvest ~260 pounds of LMB (14" inches and less)

LEVEL 1

SUPPLEMENTAL FEEDING

SUMMER 2020

Current Status: Owner Responsibility

☐ Approved ☐ Declined ☐ Done

Date Approved: _____

Date Done: _____

COST: Cost of Food

MANAGEMENT ACTIVITY:
Continue feeding program.
Feed at a rate of 5-10 pounds/day from each feeder

LEVEL 2

FERTILIZATION

SUMMER 2020

Current Status: Owner Responsibility

☐ Approved ☐ Declined ☐ Done

Date Approved: _____

Date Done: _____

COST: Cost of Fertilizer

MANAGEMENT ACTIVITY:
Continue fertilization program

LEVEL 1

ADD STRUCTURE

SUMMER 2020

Current Status: Owner Responsibility

☐ Approved ☐ Declined ☐ Done

Date Approved: _____

Date Done: _____

COST: N/A

MANAGEMENT ACTIVITY:
Install fish structure/cover

LEVEL 2

FERTILIZATION ROUTE

SPRING 2021

Current Status: Awaiting Owner Approval

☐ Approved ☐ Declined ☐ Done

Date Approved: _____

Date Done: _____

MANAGEMENT ACTIVITY:
Begin fertilization program

COST: $ 163.00 per application*

* Price subject to change. Cost includes 4 pounds of fertilizer per acre applied by our technicians according to the Standard Pond Fertilization Schedule. Additional fertilizer may be applied to achieve desired results. Cost of additional fertilizer is $1.95 per pound, also subject to change.

LEVEL 1

ANNUAL EVALUATION

SUMMER 2021

Current Status: Awaiting Owner Approval

☐ Approved ☐ Declined ☐ Done

Date Approved: _____

Date Done: _____

MANAGEMENT ACTIVITY:
Annual electrofishing evaluation

COST: $ 900.00*

* This price includes comprehensive written Management Report. An additional mileage charge will be added.

LEVEL 2

Bass Harvest Records

Date	Number Harvested	Total Pounds Harvested	Comments

Bass Harvest Records

Date	Number Harvested	Total Pounds Harvested	Comments

Tagged Fish Data

Date	Tag Number	Length (in.)	Weight (lbs.)	Comments

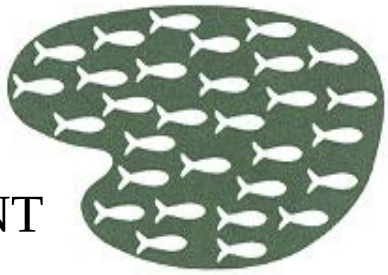
Fertilizer Application Records

Date	Water Color	Water Visibility (in.)	Fertilizer Applied (lbs.)	Comments

Other Records

Date	Comments

SOUTHEASTERN
POND
MANAGEMENT



"Managing Your Liquid Assets"

Southeastern Pond Management

Birmingham Office
2469 Highway 31
Calera, AL 35040
(205) 664-5596

Auburn Office
9944 Highway 280 West
Auburn, AL 36830
(334) 887-7663

Mississippi Office
254 Commercial Parkway
Canton, MS 39046
(601) 853-0680

Tennessee Office
131-A Miller Ave.
Jackson, TN 38305
(731) 664-6355

www.sepond.com
e-mail: pondhelp@sepond.com