
Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Arkansas

Name of Representative to Technical Committee: Brett Timmons

Date Submitted: 01/12/2024

District 1 – Northwest Arkansas, Biologists Jon Stein, Eric Gates

Lincoln Lake (100 acres)

Sampling: Conducted springtime electrofishing of the largemouth bass population in April.

Sampling: Sampled channel catfish population using tandem baited hoop nets in the summer.

Stocking: 1500 yearling Channel Catfish

Lake Elmdale (126 acres)

Habitat: Created 2 brushpiles from hardwood trees cut from the public parking area (Jan/Feb)

Research project: Collected black crappie in order to evaluate success of a five year stocking program in which advanced-sized crappie (5 inches) were stocked. Otolith microchemistry will be used to differentiate stocked and naturally-spawned conspecifics.

Stocking: 1000 Channel Catfish

Bob Kidd Lake (198 acres)

Sampling: Conducted springtime electrofishing of the largemouth bass population in April.

Sampling: Sampled channel catfish population using tandem baited hoop nets in the summer.

Research project: Collected black crappie in order to evaluate success of a five year stocking program in which advanced-sized crappie (5 inches) were stocked. Otolith microchemistry will be used to differentiate stocked and naturally-spawned conspecifics.

Stocking: 2000 yearling channel catfish

SWEPCO Lake (494 acres)

Conducted an access point creel survey (Jan- April 2023) to evaluate angling effort, catch, harvest, and angler opinions/preferences.

District 3 – Northeast Arkansas

Lake Poinsett (342 acres)

Sampling: Conducted springtime electrofishing of the largemouth bass population.

Sampling: Sampled channel catfish population using tandem baited hoop nets in the summer.
Sampling: Sampled crappie populations October – December.

Lake Ashbaugh (435 acres)

Two new deep wells were installed in the lake this past year to refill the lake. There are currently three wells running at the lake, pumping 9000 gals/min (3,000 gals/min each). The wells were installed to limit nuisance species in the lake, which was an issue in past years due to pumping surface water from the neighboring Wildlife Management Area.

District 6 – South Central Arkansas, Biologists Tyler Thomsen, Jacob Martin, and Elizabeth Chambers

Tri-County Lake (280 Acres)

The Largemouth Bass population was sampled with daytime electrofishing on March 30th. One hundred and three Largemouth Bass were sampled across 10 sites.

Tri-County Lake was treated with herbicide once in 2023 to treat Alligatorweed.

Calion Lake- (500 Acres)

Crappie were sampled from September to November. Eight nets were set across the lake on each sampling event. Over 600 crappie were sampled with the majority of them being Black Crappie.

Herbicide was applied to Calion Lake to control spatterdock in May and July.

Lake June- (80 Acres)

The Largemouth Bass population was sampled with daytime electrofishing on April 4th. The entire perimeter of the lake was sampled to ensure we would have adequate numbers for size and structure indices. A total of 87 bass were caught.

Lake June was treated twice with herbicide in May and June to control for pennywort and Alligatorweed.

A large flooding event occurred in June that destroyed a portion of the dam. Repairs to it was finished in August.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report

State Reporting: Florida

Name of Representative to Technical Committee: Hayden Wennerdahl

Date Submitted: 1/12/2024

Project Name or Description: FWC Small Impoundments; Fish Orlando and the Community Fishing Project

Contact Information:

Name: Hayden Wennerdahl

Co-Authors: Kyle Miller, Kyle Williams

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Phone: 863-209-2634

Objective: Maintain and enhance freshwater fishing opportunities in developed/developing regions throughout the state of Florida. Existing sites are primarily located in the Greater Tampa Bay and Orlando areas.

Current Status: In-progress; current projects include developing a standardized sampling protocol for both sportfish and full fish communities, revegetation work at multiple sites, establishing sportfish populations in three developing waterbodies and working to enhance the sportfish quality in existing waterbodies.

Abbreviated abstract: Since 1991 the Community Fishing Project (*previously the Urban Fishery Project*) has aimed to provide quality freshwater fishing opportunities in developed/developing areas throughout the State of Florida, with active programs in Jacksonville, Orlando, Tampa, and South Florida. Waterbodies within developed areas (often small park ponds) are managed in partnership with city and county organizations to create robust outdoor recreation opportunities. Tools used by FWC biologists to manage and improve community fishing locations include regulation changes at designated Fish Management Areas, stocking programs, habitat enhancement, providing and improving access and promotion through community outreach activities.

FWC Southwest Region; Community Fishing Project

2023 Sampling Efforts

In early May 2023, DFFM biologists completed sampling efforts on Jungle Lake in St Petersburg. The sampling was requested by local community members who were concerned about the status of the fish population after a recent fish kill. The full perimeter of the lake was sampled via 600 second transects. During sampling, all Largemouth Bass seen were collected, while a representative subset of all other species was collected as well. All other fish seen, but not collected, were noted. Jungle Lake holds a quality population of Largemouth Bass and native Sunfish species. The LMB CPUE was 1.64 fish/min with most ranging in size from 150mm to 350mm. Although several exotic species were discovered in sampling, abundances appeared to be relatively low overall. The pond could benefit from the addition of catchable sized Channel Catfish to provide further opportunities to shore-based anglers.

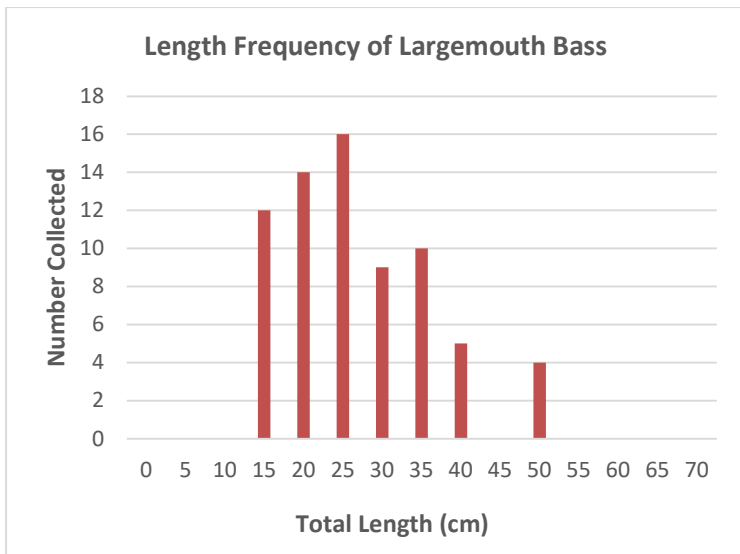


Figure 1. Length Frequency data of Largemouth Bass (left) and four catchable Bass (right) sampled from Jungle Lake in St. Petersburg.

Throughout April and early May 2023, DFFM biologists completed sampling activities on four of the Community Based Fishing Project Ponds in Tampa and St Petersburg. Ponds at Al Lopez, Bobby Hicks, Gadsden and Walsingham parks were sampled primarily to assess the status of Largemouth Bass and Panfish populations, while also assessing the variety of species in each waterbody. The full perimeter of each lake was sampled via 600 second transects. During each transect all Largemouth Bass were collected, as well as a collection of all other species seen. All the lakes held quality populations of Largemouth Bass and native Sunfish but varied in size and abundances. LMB CPUEs ranged from 0.77 fish/min from Bobby Hicks to 2.05 fish/min from Gadsden. The overall condition of each fishery varied, and future sampling and

stocking efforts are being considered. Notably, Bobby Hicks yielded many Common Snook that ranged in size from 400mm to close to 900mm, which will provide an exciting alternative to typical freshwater species.



Figure 2. A pair of Bass sampled from Al Lopez FMA (top left), and a Common Snook sampled from Bobby Hicks FMA (top right).

At the end of June 2023, DFFM biologists completed a hobby shock survey of a lake at the Scherer-Thaxton Preserve near Oscar-Scherer State Park in Osprey. Although it was late in the season and water temperatures were high, an entire perimeter sample yielded eight Largemouth Bass of varying sizes. The lake possesses a gradual littoral zone before dropping to nearly 10ft in the center. The perimeter is surrounded by abundant Cattail, Spikerush and Egyptian Paspalidium. Additional stocking efforts are planned and will include an initial input of Bluegill and Redear Sunfish followed by Largemouth Bass. The Preserve is currently set to open in Fall 2023 and will include a public fishing pier, walking paths and kayak launch. In mid-August, DFFM biologists joined biologists from the HSC section and staff with Sarasota County Parks and Recreation to assess the lake at the Scherer-Thaxton preserve for potential improvements of aquatic vegetation at the site. The lake has an excellent littoral shelf with exiting patches of Coontail and Maidenrain, as well as an over-abundant cattail population surrounding the lake. Staff with Sarasota County cleared cattail sporadically around the lake to open locations for public access and clear parcels for additional vegetation. Plans were put into place for a trial planting project at the site. Before the end of September DFFM and HSC biologists obtained Eelgrass and Illinois Pondweed from other lakes in the region for transplant into the Scherer-Thaxton Preserve. Plants were placed at three locations around the lake, with cages placed at two of the locations to protect against herbivory. The plantings will be monitored during the coming months to assess if any have established in the waterbody.



Figure 3. DFFM Biologist and interns with Sarasota County handle Largemouth Bass sampled from Scherer-Thaxton Preserve (left) and trial planting of Eel Grass (right).

In late November 2023 DFFM biologists joined staff from the HSC section and Sarasota County Parks and Recreation to complete a fish community sample at the Scherer-Thaxton Preserve in Sarasota County. Follow-up sampling was necessary following the low numbers yielded during the spring sample. Boat-mounted electrofishing equipment was used to sample the full perimeter of the lake, which was divided into five 600 second transects. At the conclusion of each 600 second transect, all fish collected were recorded and released away from the next sampling site. The sampling effort yielded 381 individual fish across 7 species, with Largemouth Bass, Redear Sunfish and Bluegill making up the sportfish population. Despite collecting many catchable Largemouth Bass there was very little difference in the size structure, with sizes ranging from 147mm – 335mm. When looking at the relative weight values of bass collected, many individuals fell on the “skinny” side with relative weights declining as the size increased. This seems to indicate there is a lack of forage for larger bass to feed efficiently. The size structure of collected panfish seems to support this idea, with abundances of both large (>200mm) and small (<80mm) individuals recorded. Of the 235 panfish collected, only two Bluegill were recorded between 80mm and 200mm. Further Largemouth Bass sampling is planned for 2024 to develop a more robust picture of the population. Future fisheries work at the site will be focused on improving the existing habitat with submersed aquatic vegetation and fish attractors. Similarly, the expansion of the forage base will likely be necessary as well to improve the Largemouth Bass fishery.

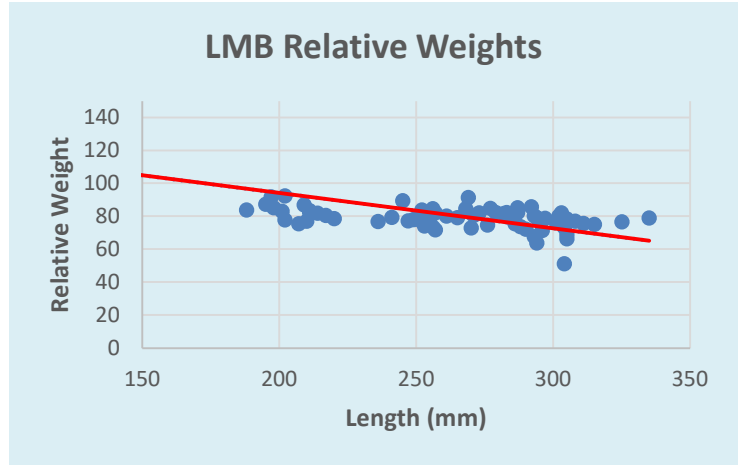


Figure 7. Two Quality Bluegill (left) and a comparison of Relative Weight values across size for 68 Largemouth Bass (right) collected at Scherer-Thaxton Preserve, Sarasota County.

In early October 2023 DFFM biologists collected a fish community sample at Alligator Lake in Pinellas County. Boat mounted electrofishing equipment was used to sample the entire lake perimeter, which was broken into 7 transects. Each transect was sampled for 600 seconds, during which all fish seen were collected. The sampling effort yielded 1,090 individual fish across 17 species, with Bluegill representing 86.51% of the sample by number. Similarly, the size structure and overall quantity of Bluegill seems to indicate that they are the primary forage species in the lake. Bay Anchovy (0.73%), Golden Shiner (0.92%) and both Gizzard (0.92%) and Threadfin Shad (0.09%) made up the rest of the forage base, but in lower abundances. Largemouth Bass (4.77%), Common Snook (0.64%) and large Bluegill and Redear Sunfish made up the sportfish population. Black Crappie have been reported in the lake in abundance by anglers, but none were collected in this sample. A spring sportfish sample is planned in 2024 to further assess the populations of Largemouth Bass and Common Snook. Although a quality fishery appears to be in place, biologists are planning to work with city and county staff to improve the aquatic habitat in the lake which is currently limited.

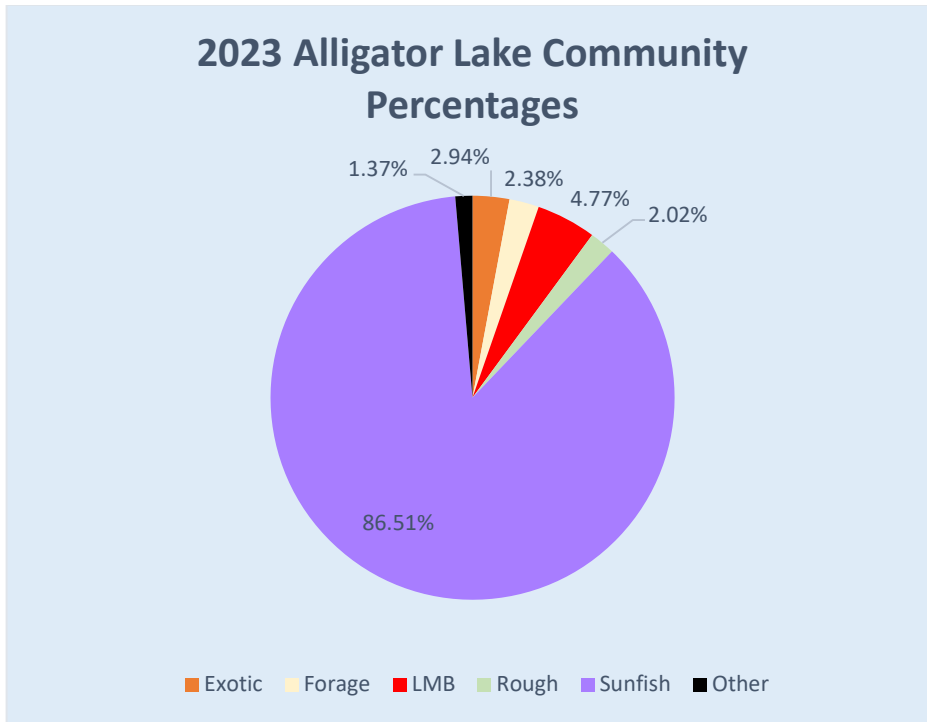


Figure 4. Fish community percentages across 1,090 collected fish by species guild (left) and 3 Common Snook (right) collected from Alligator Lake, Pinellas County.

In late October 2023 DFFM biologists travelled to Charlotte County to complete a fish community sample on Webb Lake, part of Babcock-Webb WMA. Boat mounted electrofishing equipment was used to sample 12 randomly selected transects along the lake perimeter. Each transect was sampled for 600 seconds, during which all fish seen were collected. Sampling yielded 362 individual fish across 11 species. Sunfish, including Bluegill (35.36%) and Redear Sunfish (4.97%) made up 40.33% of the total sample. Largemouth Bass were also abundant, making up 34.53% of the total sample. Although the contribution by forage increased from 8.97% in 2018 to 20.17% in 2023, forage abundances appeared low. Apart from a minor contribution of Lake Chubsucker (0.72%) there were no larger forage species found during sampling. Future work on the site will focus on the potential addition of larger forage species like Gizzard or Threadfin Shad to improve the bass fishery.

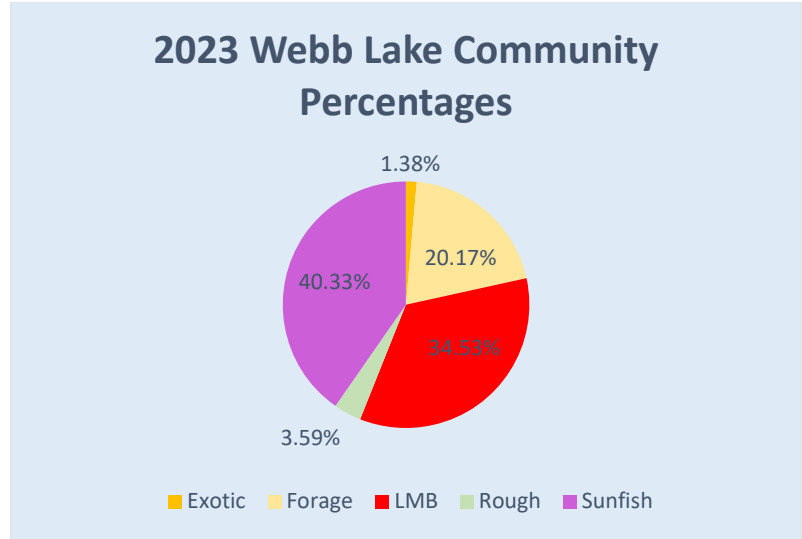


Figure 5. Quality size Largemouth Bass (left) and fish community percentages across 362 fish by species guild (right).

2023 Community Outreach

Throughout January and February 2023, DFFM staff visited the State Fairgrounds in Tampa several times to clean and refurbish the Red Barn. All fish tanks were cleaned and filled with water to prepare for the arrival of fish. The light lava rock substrate in the Big Bass tank was replaced by a heavier, darker stone substrate. The Crappie tank displayed at previous fairs was replaced by a collection of Non-Native fish species found throughout the Tampa Bay area. The week before the fair, staff collected fish from waterways around Tampa and delivered them to the fairgrounds. These fish included Common Snook, Largemouth Bass, a variety of Panfish species, Blue Tilapia, Sailfin Catfish and Channel Catfish. The FWC exhibits were open for the duration of the fair, which took place from 2/9/23 – 2/20/23 and was visited by an estimated 170,000 individuals. The Fair Grounds recorded 428,000 individuals in attendance, indicating approximately 42% of total fair guests visited the FWC displays.



Figure 8. Biologist replacing substrate in the Bass Tank at the State Fairgrounds (left) and the Bass Tank filled with fish after collections (right).

In early July and August 2023, DFFM Biologists presented at two sessions of the Florida Fantasy Fishing Camp at the Hula Bay Club in West Tampa. The 30-minute presentation summarized the goals of the FWC and dove deeper into the activities and objectives of the Division of Freshwater Fisheries Management. The presentation was given to approximately 32 kids ranging in ages from 7 to 15. The camp is designed to provide an opportunity for kids in the Tampa Bay Area to learn more about the fisheries resources in Southwest Florida while participating in hands-on activities like fishing with a guide and dissecting aquatic invertebrates. The talk concluded with an interactive session in which all participants held and guessed the weight of the 11.5lb Trophy Catch replica bass.

In mid-July 2023, DFFM Biologists staffed a Trophy Catch booth at I-Cast, the annual international fishing trade show in Orlando. The boat to be raffled for the 11th Season of Trophy Catch was brought in as the center piece for the booth and staff were present during the duration of the trade show. The booth was visited by anglers from around the country, many of whom were already enrolled in the Trophy Catch program and enjoyed discussing Florida bass fishing with staff. Of those who were not already enrolled, many expressed interests in enrolling in the future.



Figure 9. The Trophy Catch booth at I-Cast in Orlando, featuring the Phoenia bass boat to be given away at the conclusion of Season 11.

In early November 2023, DFFM biologists attended the first annual Teach Kids to Fish Event at Freedom Lake Park in Pinellas County. The event was hosted by the Pinellas Park Sheriff's Department and aimed to promote outdoor recreation to kids in the surrounding community. DFFM biologists set up a freshwater fish education station which included fish identification, proper de-hooking instruction, the Trophy Catch Program and other information regarding fishing best-practices. Approximately 250 people attended the event, with 100 participating in the fishing derby.

In mid-June 2023, DFFM biologists participated in the Annual Carrollwood Fishing Derby, hosted by Hillsborough County Parks and Recreation. The derby is hosted annually during Father's Day weekend and provides an opportunity for families to enjoy local natural resources and catch fish. Around 120 kids and parents participated in the fishing, many of whom utilized the fishing rods and bait provided by FWC.



Figure 10. FWC Biologist instructs new anglers on casting and knot tying at the Carrollwood Father's Day derby (left) and an FWC LE Officer assists a young angler catching a fish during the Fishing with Sheriff Grady Judd event (right).

During the last week of June 2023, DFFM biologists LE Officers participated in the Annual Fishing with Sheriff Grady Judd event at the Polk County Sheriff's Office near Lakeland. 153 kids participated in the fishing and were accompanied by deputies from the Sheriff's Office. FWC provided all the fishing rods and bait for the event. At the end of the day each kid had caught a fish, with many catching multiple. The event is designed to allow law enforcement personnel to interact with kids and members of the public in a relaxed and enjoyable setting.

Stocking

Annual Totals	Year		
	2021	2022	2023
Phase 1 Channel Catfish Fingerlings	0	0	0
Phase 2 Channel Catfish Sub-Adults	600	21,200	6,828
Derby Channel Catfish	0	0	0
Phase 1 Bluegill Fingerlings	7,650	33,000	92,000
Phase 1 Redear Fingerlings	1,800	16,900	20,000
Phase 1 LMB + Fingerlings	0	0	0
Phase 2 LMB + Sub-Adults (Spring)	1,000	0	1,700
Phase 2 LMB + Sub-Adults (Fall)	0	0	1,000
Threadfin Shad	0	0	0
TOTAL FISH Stocked	11,050	71,100	121,528
<i>Hillsborough</i>	9,950	32,000	29,000
<i>Polk</i>	300	12,500	7,028
<i>Pinellas</i>	800	18,200	9,700
<i>Manatee</i>	0	0	0
<i>Sarasota</i>	0	0	4,300
<i>Charlotte</i>	0	8,400	60,000
<i>Lee</i>	0	0	11,500

Figure 10. FWC SW Region Community Fishing Project recent stocking numbers by county and fish species from 2021-2023.

FWC Northeast Region; Fish Orlando

Fish Orlando Water bodies fit into one of four categories: Big Water Bodies, Fab 5, Fantastic Fishing Days Units, and Urban ponds. For the sake of this overview we will focus on the latter three, leaving out the big water bodies.

Fish Orlando Fab Five waterbodies are managed for unique and/or quality fishing experiences. Clear Lake, Lake Ivanhoe, Starke Lake, Turkey Lake, and Lake Underhill were selected as the Fab Five lakes in 1999 based on fishing opportunity and potential support from city and county partners. Management of these waterbodies requires intra-agency support from Invasive Plant Management, and interagency collaboration with municipalities. Submerged Aquatic Vegetation is monitored annually, while electrofishing samples take place on a rotational schedule. Hybrid Striped Bass are stocked when sportfish populations are low, and to provide a unique angling opportunity. In 2023, Clear Lake (15,000) and Starke Lake (2250) were stocked with HSB. Turkey lake provides anglers with the opportunity to rent boats through the Boat Loaner Program

in collaboration with Bass Pro Shops. This provides anglers with a vessel, fishing rod and tackle, and map of the lake and requires the completion of a creel data sheet upon completion. The lake has minimal outside pressure due to no public boat ramps and a combustion motor exclusion.

The next category of Fish Orlando waterbodies are the Fantastic Fishing Days Units which range from 0.5 to 30 acres. The waterbodies which are managed intensively by Fish Orlando partners, and only open on a limited basis, are Canoe Creek Pond, Central Winds Pond, Cornerstone Pond, St. Cloud Borrow Pit, and Toho Marine Pond. The units were established to embrace the American Sportfishing Association mission of recruitment, retaining, and reactivating anglers. For waters to participate in the program there must be a way to control access via fence or security, and partner support for fisheries and habitat enhancements. In return Fish Orlando provides expertise on stocking, fish feeding, vegetation management, and staff for fishing events. Each waterbody hosted a family fishing event in 2023.

Fish Orlando Urban ponds are managed for beginning anglers and for those who wish to eat their catch. There are four Fish Orlando urban ponds : Barnett Park, Bear Creek, MLK Jr. Park, and Lake Santiago. These are primarily put and take fisheries that are stocked 1-4 times per year depending on fish availability and angler harvest. Channel Catfish from the state hatchery are stocked each fall for the Barnett Park, Bear Creek, and MLK Jr ponds. Timing of the stocking coincides with the week prior to the Family Fishing Events in September and October. Previous management strategies have included installing aeration pumps on Bear Creek, Barnett Park, Lake Santiago, and MLK Jr Park. Currently the aeration pumps are all running, and the regular maintenance includes replenishing baited fishing areas monthly at each of the Urban ponds.

FWC North Central Region; Community Fishing and Trophy Bass Initiatives

Montgomery Fishing Pier: In 2017, the Lake Montgomery pier was removed due to safety concerns. This pier was extremely popular and utilized by more than 40 people per day, including anglers of all demographics, but frequented by families and veterans from the local VA just down the road. In 2023, great strides were made in the multiyear process of replacing the previously removed structure including the finalization of engineering plans, permit approval from multiple agencies, and coordination among FWC, city officials, county officials, and the community among others. Construction of the new pier is set to begin early in 2024 with completion expected by the early summer months. Additional improvements are being made to the park as well including multiple clean-up events, replacement of outdated/aging signage, the installation of a new ADA approved walkway leading to the new pier, maintenance of aeration system, and potential stocking of catchable size bass and catfish.

LMB Diet Trial and Calorimetry Study: Both the LMB diet trial and calorimetry study are intended to improve Florida's trophy bass fisheries and bass fishing in general. This research is a multiyear study that focuses on the diet aspect of fishery manipulation and is intended to determine which species of forage provides the best nutritional value and growth rates of adult Florida Bass, *Micropterus salmoides*. The diet trial is a functional experiment that observes predator-prey behaviors and tracks LMB growth rates while providing a single prey species to

each set of LMB for a standardized period. The calorimetry study compares the calorie content of more than 10 different species of LMB forage in juvenile and adult life stages. The results of these studies are intended to inform FWC biologists' stocking decisions throughout the state.

Department of Transportation (D.O.T.) Ponds: FWC was able to gain access to D.O.T. ponds in the North Central region in 2023. Assessments of these ponds are underway, and the best application of these ponds is still up for debate. However, the leading options include using them as a source of catchable size fish for use in youth fishing events or as Lake Chubsucker production ponds. While Lake Chubsuckers are great trophy bass forage, they are difficult to produce and raise in hatchery settings.

Suwannee Lake: This lake is intensively managed under the Florida Trophy Bass Project as a trophy bass fishery. Regulation changes have been made to allow for the harvest of 15 LMB under 16 inches per person with no harvest of bass over 16 inches allowed. This regulation protects larger bass while allowing and encouraging anglers to harvest more small bass. Lower bass densities are desired in this lake to optimize growth rates of the larger fish in the lake to produce more trophy size fish. Additionally, biologists removed over 1,000 LMB under 16 inches in length due to the overabundance of fish within that size class. Multiple forage stocking events have occurred including the introduction of threadfin shad and high rates of supplemental stocking of other forage species. One forage stocking of note is the stocking of rainbow trout during the winter months which act as a naïve and easily captured prey thought to be pivotal in the production of trophy sized bass.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Georgia

Name of Representative to Technical Committee: Tim Bonvechio

Date Submitted: 12/27/2023

Project Name or Description: Ocmulgee PFA

Contact Information:

Name: Tim Bonvechio

Co-Authors: Jackson Theimer

Email: Tim.Bonvechio@dnr.ga.gov

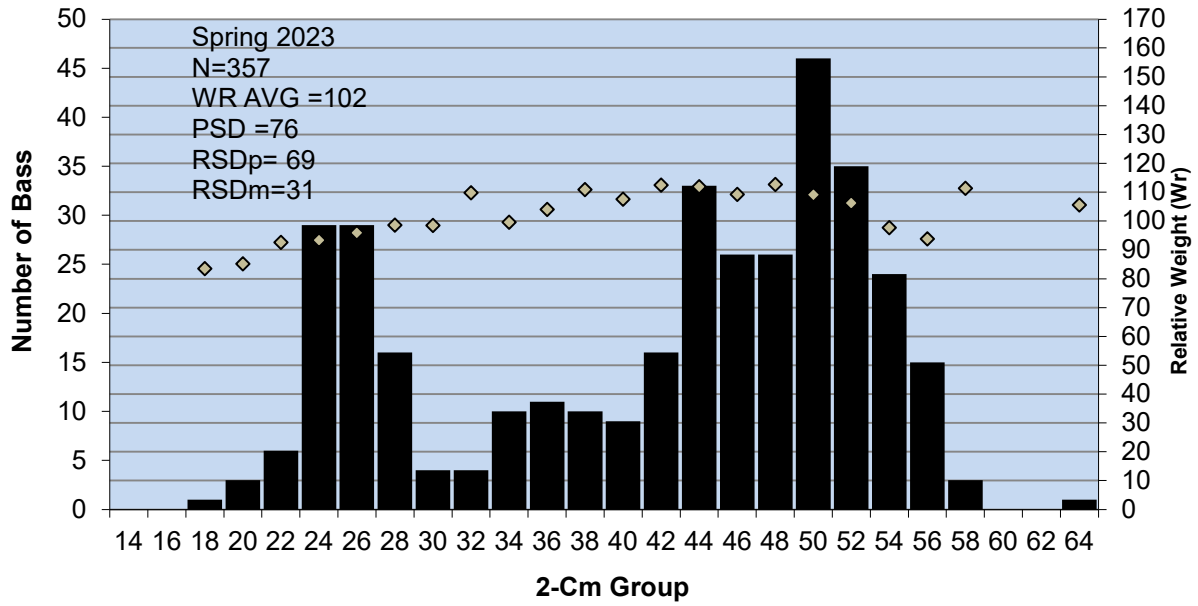
Phone: 912-285-6484

Objective: Manage the current trophy bass lake.

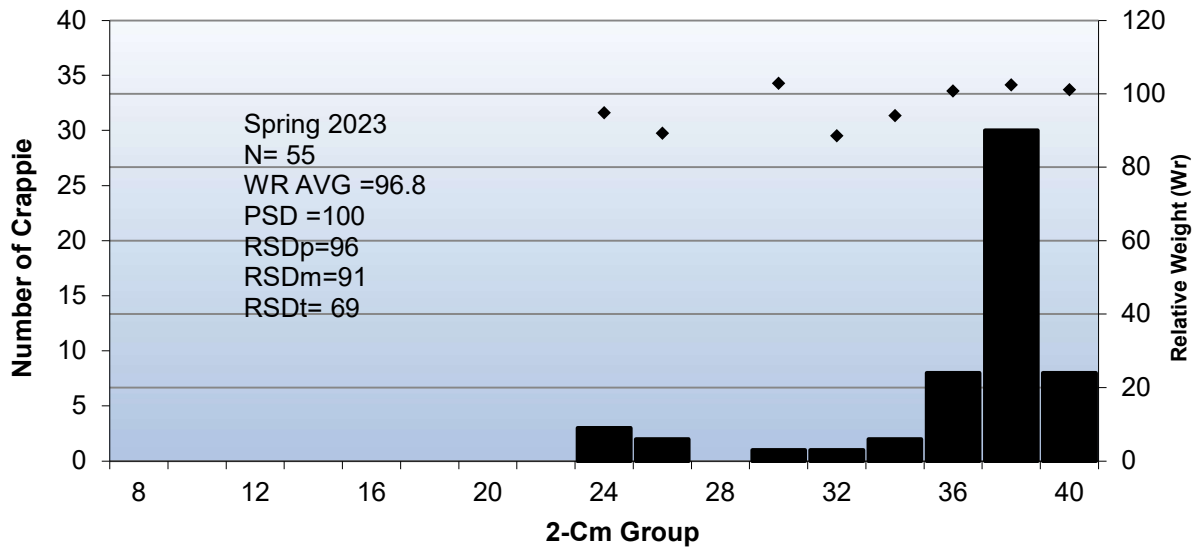
Current Status:

- **Abbreviated abstract:** Ocmulgee PFA is a newer PFA impounded for a second time in January 2017, and is a 106-acre small impoundment. Over the past 6 years, the lake has received a low-density stockings (around 22.9 per acre total) of advance female Georgia strain largemouth bass (Florida allele percentages of 70 to 100%). These female bass average 10 inches or more in length when stocked. The lake is fertilized, and stocked with annually with bluegill, redear sunfish, golden shiners, threadfin shad, and lake chubsuckers for forage to increase largemouth bass growth. The bass are protected from harvest with a catch-and-release regulation to allow the fast-growing females to live long enough to reach trophy size. Unfortunately, reproduction and male bass were documented in the lake and those numbers have grown. Each stocked female bass is PIT tagged to identify individual growth rates and document reproduction. With recruitment, there is approximately 32 or so bass per acre now in the lake. All non-tagged fish will continue to be culled from the population to keep the population in check. Sampling with (Hook and line and Electrofishing) revealed 10 bass over in 10lbs in 2020. In 2021 & 2022, the same gear turned up 4 over 10lbs each year. The current lake record largemouth bass stands at 10lbs & 10.56 ounces, caught by Orville Newlin of Bonaire on May 29, 2020. Several bass larger than the current angling record have been sampled with electrofishing by DNR personnel and record growth has been documented. The year-long access creel survey in 2022 revealed over 15,000 angler hours and the average bass caught was 5.05lbs but the catch rates were low (0.14 bass per hour). The latest lake record White Crappie of 2lbs & 9.76 ounces was caught on November 2, 2022 by Walter Bray of Warner Robins, GA. The crappie catch rate in the creel survey was 0.87 fish per hour.

Ocmulgee PFA Largemouth Bass



Ocmulgee PFA White Crappie



Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Kentucky

Name of Representative to Technical Committee: Dane Balsman

Date Submitted: 1/4/24

Project Name or Description of Activities: Overview of the Fishing in Neighborhoods (FINs) Program

Co-Authors: Dane Balsman

Email: dane.balsman@ky.gov

Phone: 502-892-4480

Objective: To develop high quality urban fisheries in Kentucky that lead to high angler use, catch rates, and satisfaction.

Current Status: Ongoing

During 2023, 93,615 catfish (channel catfish and channel catfish x blue catfish hybrids), 120,750 rainbow trout and 13,300 bluegill were stocked in the Fishing in Neighborhoods (FINs) lakes. These stockings of large keeper-size catfish (15-in avg), trout (10-in avg) and bluegill (6-in avg) provide anglers with quality fishing opportunities close to home. The program currently includes 45 lakes in 28 counties. A memorandum of agreement is in place with all lake owners enrolled in the FINs program giving Kentucky Department of Fish and Wildlife Resources (KDFWR) the authority to manage fish populations and set standardized regulations for all lakes in the program.

Advertising and marketing efforts were employed in a continuing attempt to raise awareness of the FINs program, increase participation, and recruit new anglers. Facebook and Twitter notifications were posted around stocking dates. District fisheries biologists also mentioned the FINs program and stocking schedules in their weekly fishing reports. Flyers promoting the FINs program were distributed at boat shows. A one-page advertisement for the FINs program appeared in Kentucky Fishing and Boating Guide. Additionally, a one-page stocking table appeared in the Kentucky Afield calendar. Newspaper, magazine and radio interviews, as well as press releases, were issued to promote the program. All lake owners were notified prior to fish being stocked so they could contact their followers via social media. The FINs website was routinely updated to convey the latest stocking information and list of lakes enrolled in the program. Kiosk posters promoting the FINs program and KDFWR's role in fish management and stocking was displayed at 25 of the 45 lakes. Information on the kiosk posters included the

FINs logo, mission statement, fish stocking dates and quantities, license requirements, fishing regulations, fish identification, poacher hotline, no littering graphic, brief overview of fishery and past sampling, basic knot tying and the location of a rod loaner program if present.

Spring electrofishing is conducted at every lake on an every other year basis. Samples are conducted to gather information on species composition, catch rates, and size structure. Furthermore, tandem hoop nets are used to sample catfish populations in the fall at every lake, every two to three years to monitor standing stock and condition of catfish.

Furthermore, exploitation studies, creel surveys, and use of time-lapse cameras to assess fishing pressure have been used to assess angling pressure at FINs lakes. Time lapse cameras have been deployed at 42 of the 44 lakes for a 12-month period to survey fishing pressure in recent years. Timelapse Image Analyzer was used to assist personnel with image analysis.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Kentucky

Name of Representative to Technical Committee: Dane Balsman

Date Submitted: 1/4/24

Project Name or Description: Can channel catfish nesting boxes replace stocking in small impoundments?

Contact Information:

Name: Tom Timmerman

Co-Authors: Jeff Crosby, Marcy Anderson, Jeremy Shiflet

Email: tom.timmerman@ky.gov

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Objective: Because channel catfish are not able to produce self-sustaining fisheries in small impoundments, KDFWR has been experimenting with artificial nesting boxes as a replacement to stockings.

Current Status: Ongoing – Usage of boxes for spawning is being observed with eggs and fry observed; however, recruitment appears to be limited. While the study is ongoing, catfish stockings have been paused at these study lakes. Catfish are being sampled with hoop nets and trot lines for age and growth to determine if recruitment is occurring, with low numbers observed. The density of spawning structure was increased from 0.2 spawning boxes/acre to 0.5 spawning boxes/acre to determine if additional boxes could provide enough fry to increase recruitment.

Abbreviated abstract: In most small impoundments, channel catfish do not produce a self-sustaining population of fish and anglers are reliant on state agencies to stock fish to maintain a fishable populations. The limiting factor in most instances is a lack of spawning habitat such as: hollow logs, undercut banks and rock crevices. Several other states have experimented with adding artificial spawning habitat in the form of nesting boxes to their lakes and have had success in creating habitat necessary to have self-sustaining fish populations in small impoundments. With hatchery space limited and expense of raising and stocking these fish high, alternative strategies for providing fish to small impoundments is of particular interest to state agencies. If channel catfish can self-sustain through artificial nesting boxes, then hatcheries can be freed up to use space and funding for other projects. The goals of this project are to (1) determine if artificial nesting boxes can create a self-sustaining population of channel catfish and (2) if so what rate of boxes are needed to maintain high quality populations of channel catfish.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Maryland

Name of Representative to Technical Committee: Matt Sell

Date Submitted: 1/4/24

Project Name or Description: Multiple sites ongoing

Contact Information:

Name: Matthew Sell

Co-Authors: N/A

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Phone: 301-334-8218

Objective/Current Status/Abbreviated abstract:

New Germany Lake

New Germany Lake (13 acres, Garrett County) fish population surveys were conducted during May, 2023 to evaluate current fish stocks and estimate the black bass population size using mark-recapture methods.

The largemouth bass population is characterized by a truncated size structure indicative of a slow growing or over-harvested fishery. It seems unlikely that harvest is a factor in New Germany Lake so the lack of larger size class fish is probably associated with cool water temperatures and limited productivity. Future surveys will provide additional information about the fishery and will be conducted before any management changes are considered.

Bluegill and pumpkinseed in New Germany Lake exhibited excellent condition with high relative weights. The PSD fell within the suggested range for a balanced population. Combined, these two species provide anglers with opportunities to catch quality panfish in this small impoundment.

The yellow perch population was first noted in New Germany Lake in 2018 when it was described as having a broad size structure and high PSD. Currently, the yellow perch population

in New Germany Lake is dominated by smaller individuals with PSD values and relative weights falling below the suggested range for a balanced population. Future monitoring will be necessary to fully understand the dynamics of the yellow perch population in NGL.

Historically, tiger muskellunge were stocked into NGL in order to improve panfish size structure and provide additional angling opportunities. However, due to reports of tiger muskellunge escaping NGL and occupying the high quality brook trout fishery in Poplar Lick downstream of the reservoir, stocking of this species has been discontinued. Although none were not collected during the 2023 sample, angler reports suggest that they currently exist in the lake.

Piney Reservoir

On 23 May 2023, FFHD staff conducted electrofishing surveys on Piney Reservoir to determine fish species composition, relative abundance, traditional and incremental size structure indices and relative weight of gamefish/panfish populations. In addition baseline data was collected for panfish species to assess the effectiveness of saugeye introductions.

The size distribution of largemouth bass is indicative of a balanced population with relative weights demonstrating good condition. The bass fishery in Piney reservoir is sufficient to provide anglers with a quality fishery.

Black and white crappie were collected during the electrofishing efforts in 2023. While crappie are generally difficult to sample due to habitat preferences, electrofishing efforts did provide a sufficient sample to characterize the size structure of the fishery. Size structure indices indicate that the fishery is dominated by larger size class fish, with only one sub-stock fish collected. Seining surveys indicate that recruitment is high for crappie in Piney Reservoir and possible explanations for the skewed size distribution are slow growth rates and/or high mortality rates (natural and/or angling). In order to most effectively manage this fishery, further investigations into the life history of crappie in Piney Reservoir are warranted, including trap net surveys to collect age and growth data. Likewise, fishery dependent data should be collected via formal creel surveys. Until which time this data is available, no management changes are being considered for this fishery.

During the spring of 2023, ~100,000 fry and ~15,000 fingerling saugeye were introduced to Piney Reservoir with the goal to improve panfish size structure through predation, ultimately improving reproductive success of largemouth bass by reducing panfish densities. Saugeye are also expected to provide anglers with an abundant and popular gamefish species, given access restrictions on the impoundment. Fall electrofishing surveys will be conducted during FY24 to determine stocking success, relative abundance, and early growth rates of the introduced saugeye. Saugeye have been included with walleye in regulation (15 inch minimum size, 5 fish daily creel, no closed season), which should protect them from harvest until they can reach an

adequate size to effectively prey on panfish. Future monitoring of this resource will be necessary to determine the most effective stocking strategy to maintain the fishery.

Yellow perch are the most abundant panfish species present in Piney Reservoir. Size structure indices indicate an unbalanced population, with smaller fish making up the majority of the fishery. Future monitoring of yellow perch will be necessary to determine whether the introduction of saugeye had a positive effect on the size distribution of yellow perch. No changes to the management of this resource are recommended at this time.

Bluegill and pumpkinseed exhibit a size structure indicative of a balanced population and provide anglers an abundant panfish fishery to target. The high PSD during this sample may have been influenced by larger, sexually mature fish occupying the littoral zone for spawning. Seining surveys conducted during the fall of 2022 suggest that reproduction is adequate to maintain this fishery and no changes to the management of this resource are recommended at this time.

A combined total of 2,500 adult rainbow trout and golden trout were stocked in Piney Reservoir during FY23. This was sufficient to support the popular Put and Take trout fishery and no modifications to future stocking rates are recommended.

Two tiger muskellunge were collected while conducting electrofishing surveys during 2023. Future stocking will continue, bi-annually, as a means of controlling the panfish population and to provide anglers with additional opportunities.

Broadford Lake

During 2023, approximately 50 donated Christmas trees were placed into Broadford Lake to provide fish holding structure in areas void of quality habitat.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report

State Reporting: North Carolina

Name of Representative to Technical Committee: David Belkoski

Date Submitted: 1/26/2024

Project Name or Description: NC Largemouth Bass Survey: Lake Lucas

Contact Information:

Name: Seth Mycko

Co-Authors: Danci Guiot

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Phone: 336-534-0019

Objective: Routine monitoring of the Largemouth Bass population at Lake Michie in Durham County NC

Current Status: Complete

Abbreviated abstract: Lake Michie is a small municipal water supply reservoir for the city of Durham in Durham County NC. This lake is open to fishing from sunrise to sunset of Friday-Monday March 10th through November 6th. In April of 2023, NC Wildlife Resources Commission Staff performed a routine Largemouth Bass survey of the lake. This survey was the first sampling event since 2012. The 2023 population size distribution is acceptable for a small reservoir where 4% of the spawning stock was of memorable size (510 mm) or greater (Figure 1). Approximately 20% of the survey consisted of fish age seven and older (Figure 2). Body conditions were suboptimal with all stock sizes being less than 90 (Figure 3). Fish reach 356 mm between ages two and three and live up to 11 years (Figure 4). Overall, Lake Michie supports a stable population showing signs of stunting. Lake Michie could benefit from an increase of harvest pressure to strengthen overall growth potential.

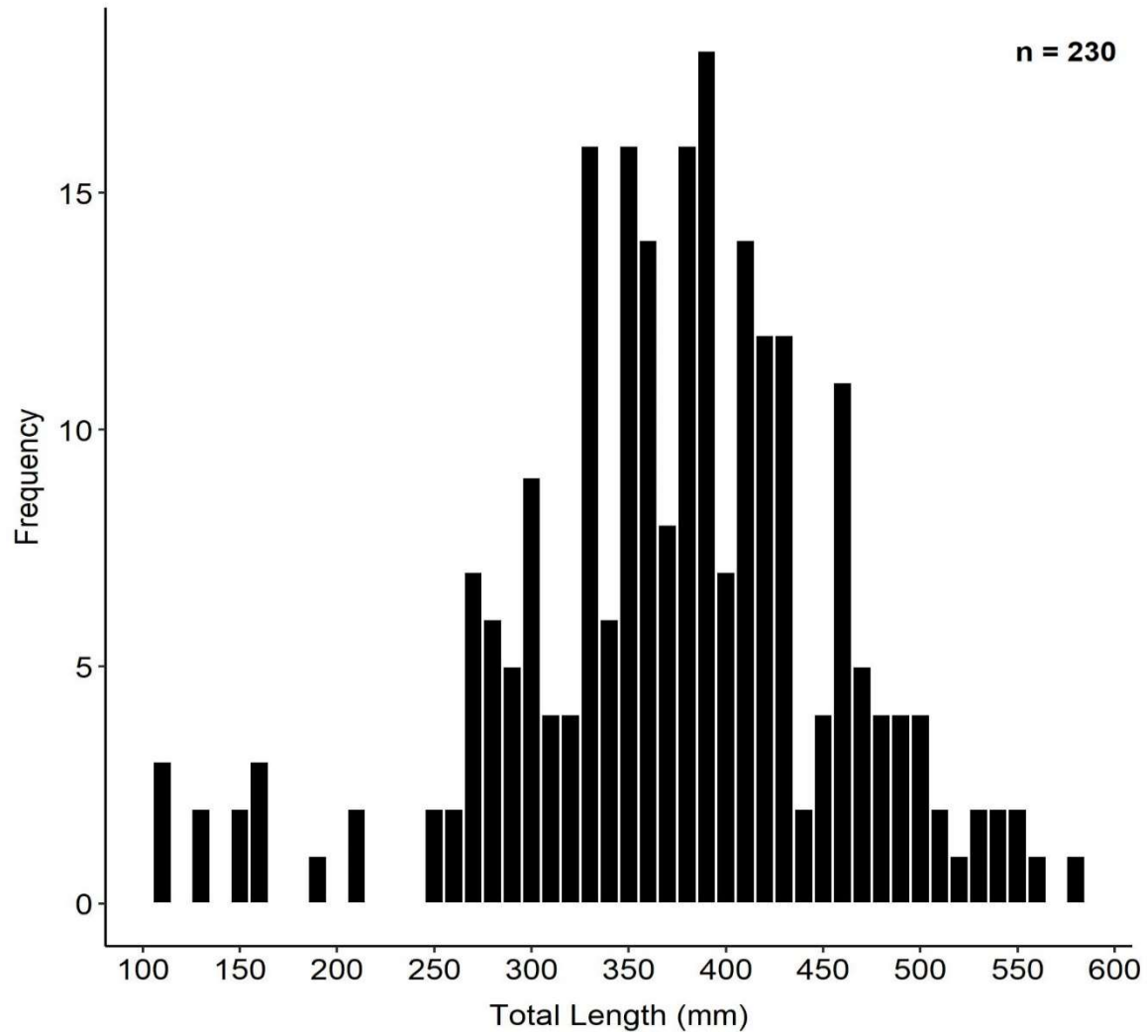


Figure 1.—Length frequency distribution of Largemouth Bass collected from Lake Michie with electrofishing, April 2023.

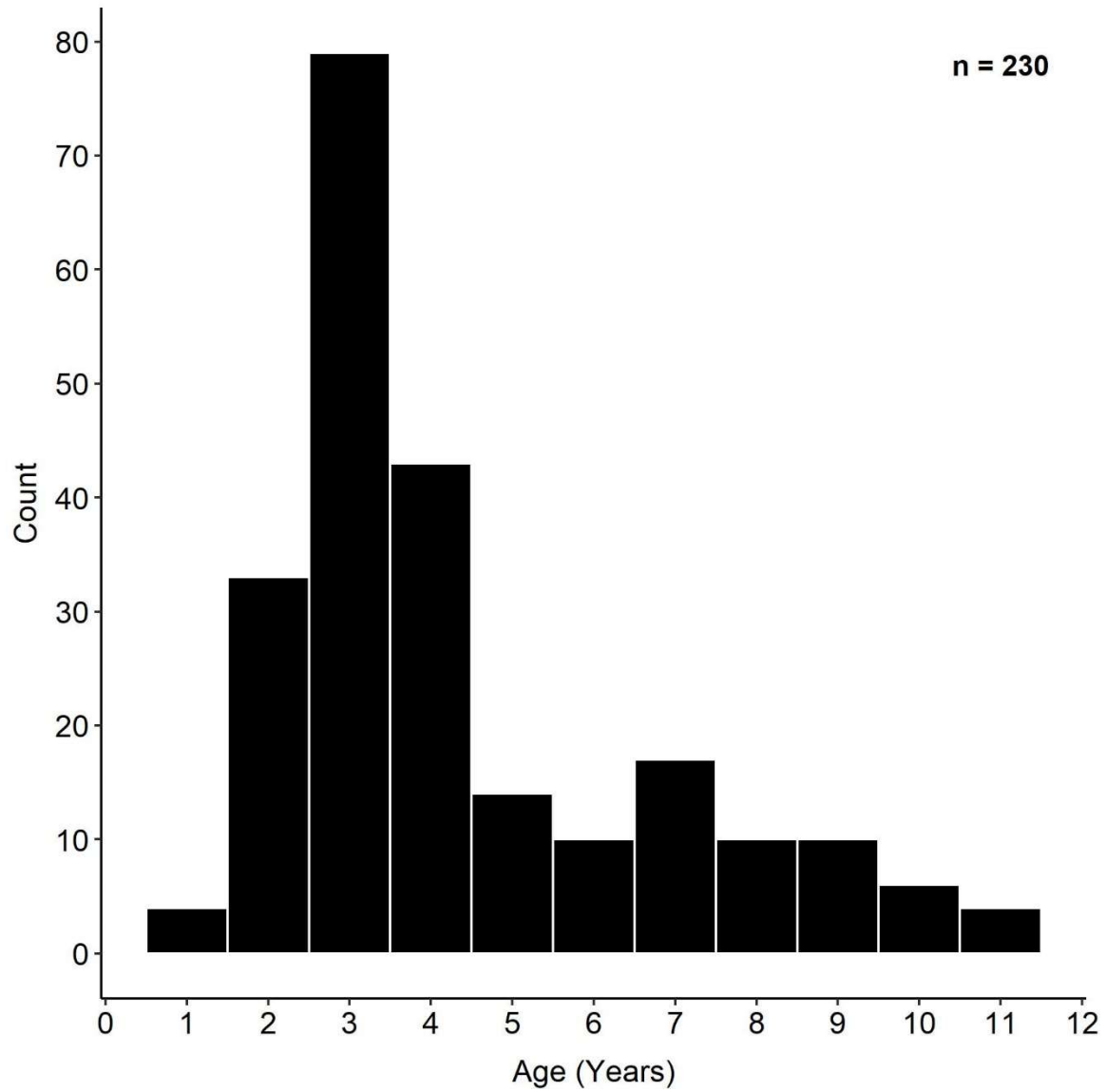


Figure 2.—Age frequency distribution of Largemouth Bass collected from Lake Michie with electrofishing, April 2023.

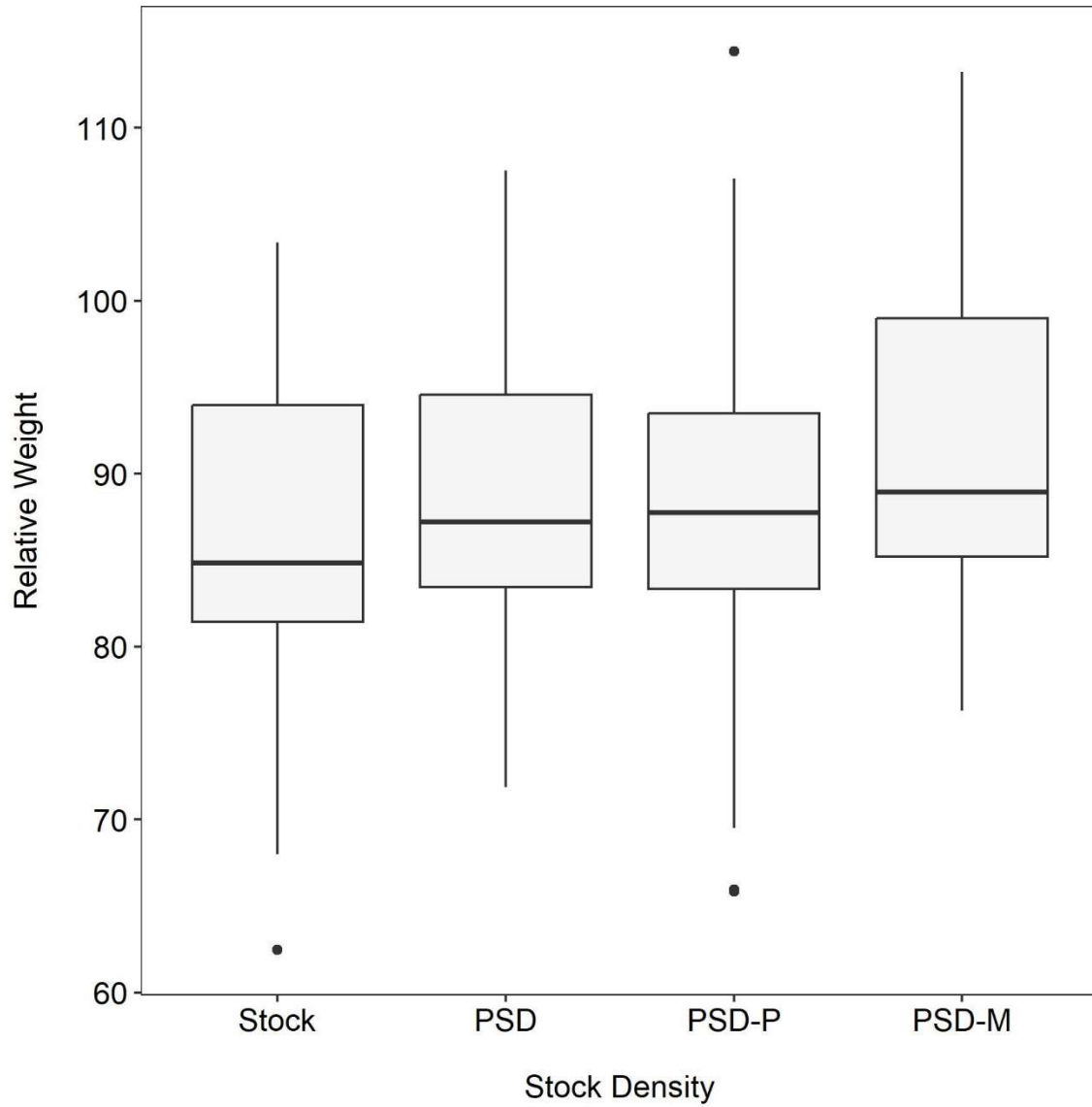


Figure 3.—Relationship between stock size and relative weight (Wr) of Largemouth Bass collected from Lake Michie with electrofishing, April 2023.

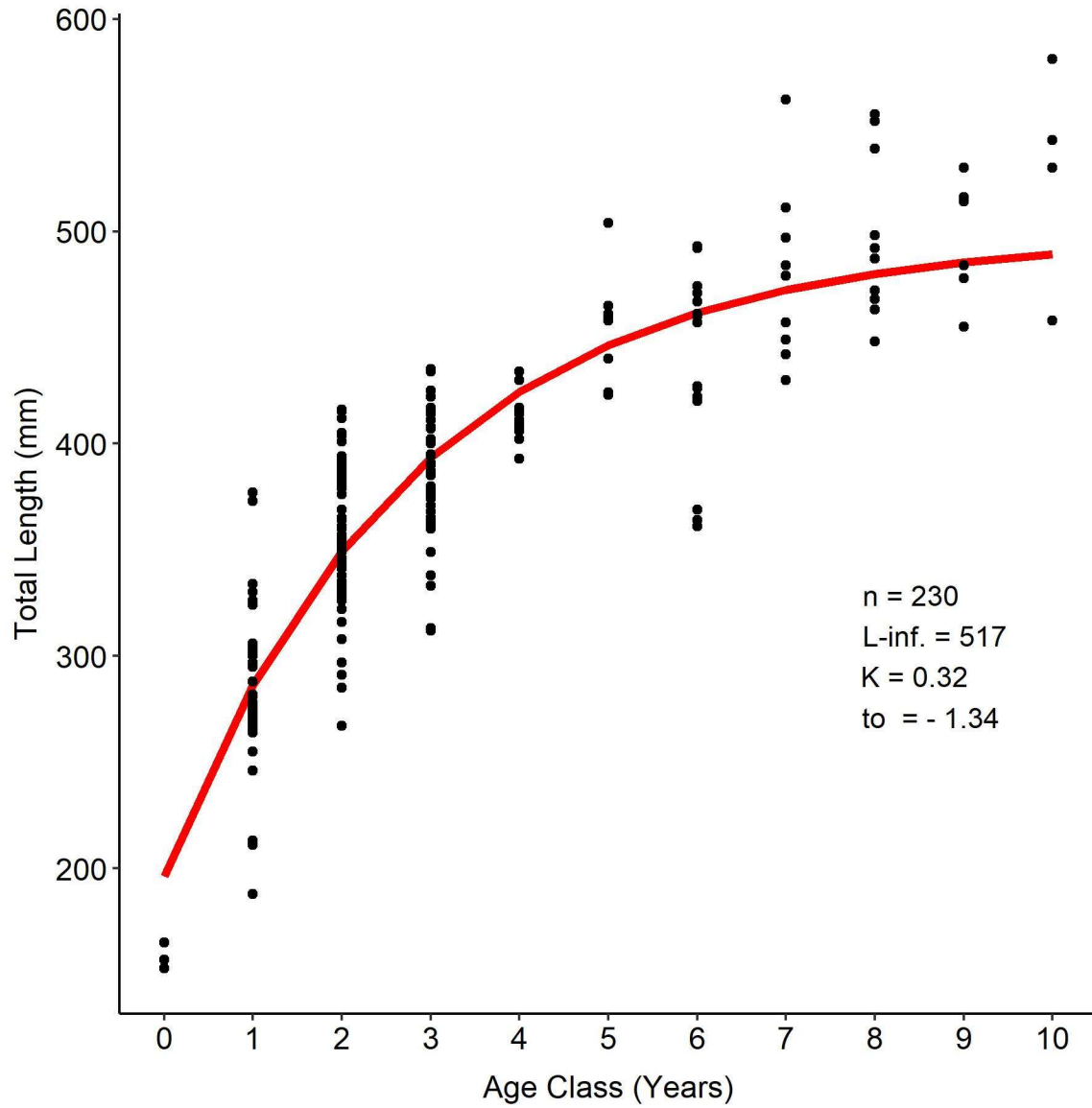


Figure 4.—von Bertalanffy growth curve for Largemouth Bass collected from Lake Michie with electrofishing, April 2014.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report

State Reporting: North Carolina

Name of Representative to Technical Committee: David Belkoski

Date Submitted: 1/26/2024

Project Name or Description: District 6 Small Impoundments Surveys

Contact Information:

Name: Casey Joubert

Co-Authors: Troy Thompson

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Phone: 910-729-0872

Objective: Evaluate fisheries and determine if management changes are necessary.

Current Status: Complete

Abbreviated abstract: In 2023, District 6 staff completed fisheries surveys on three small impoundments using boat-mounted electrofishing. These impoundments included Southern Pines Reservoir (95 acres; Moore County), Lake Minehaha (2.5 acres; Union County), and Stegall Lake (15 acres; Union County). Southern Pines Reservoir is in the Sandhills region of the state and allows recreational fishing. Largemouth Bass were in excellent condition for a lake in this region and offer anglers a great fishing opportunity. Additionally, Redear Sunfish, Bluegill Sunfish, Chubsuckers, Chain Pickerel, Black Crappie, Bluespotted Sunfish, Yellow Bullhead, Golden Shiner, and Warmouth Sunfish were present. Compared to previous surveys, the lake is in stable condition. Lake Minehaha and Stegall Lake were both surveyed for the first time in 2023. The town of Monroe recently acquired Lake Minehaha, it is currently not open to the public, and the status of the lake's fishery was unknown prior to our assessment. Our survey found a healthy Largemouth Bass population and many sunfish. Channel Catfish were stocked after our survey to allow for increased angler success at a fishing event held at the lake the following month. Overall, Lake Minehaha will allow for great angling opportunities once open to the public. Stegall Lake was acquired by the town of Marshville and is in the process of being revitalized. We found viable Largemouth Bass and Bluegill Sunfish fisheries, but improvements could be made including increasing underwater structure, adding fishing piers, repairing the water level control structures, and stocking additional sunfish and/or catfish.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report

State Reporting: North Carolina

Name of Representative to Technical Committee: David Belkoski

Date Submitted: 1/26/2024

Project Name or Description: Lumbee Tribe Cultural Center Lake Sampling

Contact Information:

Name: April Boggs Pope

Co-Authors: Kyle Rachels

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Phone: 910-309-0683; 252-548-4938

Objective: The goal of this survey was to assess the recovery of fish populations and to inform recommendations that will lead to the opening of the Lumbee Tribe Cultural Center Lake to fishing.

Current Status: Complete

Abbreviated abstract: Commission staff conducted an electrofishing survey of fish populations at the Lumbee Tribe Cultural Center Lake on May 24, 2023. This survey was conducted following re-impoundment of the lake in winter 2021 and the stocking of 10,000 Redbreast Sunfish and 1,000 White Catfish in October 2022. The goal of this survey was to assess the recovery of fish populations and to inform recommendations that will lead to the opening of the lake to fishing. A boat-mounted Smith-Root Apex electrofisher was used to collect fish from four sampling transects. Three transects utilized high-frequency (4.5 kilowatts; 120-Hz pulsed-DC current; 20% duty cycle) to target sport fish species; a fourth transect utilized low-frequency (2.5 kilowatts; 15-Hz pulsed-DC current; 20% duty cycle) to target catfish species. All fish were netted as they were encountered, placed in an oxygenated livewell to recover, enumerated and measured for length and weight, and released close to the location of capture. Water quality was measured at two locations; in the standing bald cypress along the north portion of the lake and near the dam at the southern end of the lake. A total of 164 individuals from 17 species were collected. Black Crappie were the most abundant species with 74 collected individuals, followed by Flier with 39 individuals. No other species was represented by more than 10 individuals. The average length of most of the species was between 3 and 7 inches, indicative of age-1 fish that were likely spawned in the lake in the spring of 2022 after it was impounded. Several large

Bowfin (23–25 inches), Redear Sunfish (10 inches), and Brown Bullhead (15 inches) were likely stocked by local anglers or entered the lake from its input in Gum Swamp. Largemouth Bass fingerlings were stocked in May 2023 and the lake was resampled in October 2023. October sampling consisting of five sites (four high-frequency and one low-frequency) and resulted in the collection of 104 individuals from 18 species. Eastern Creek Chubsuckers were the most abundant species collected during the fall sampling with 35 individuals, followed by Largemouth Bass with 12 individuals. Several small Largemouth Bass were captured, likely resulting from the stocking event in May.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Oklahoma

Name of Representative to Technical Committee: Keith Thomas

Date Submitted: 1/5/2024

Project Name or Description: Statewide fisheries management program

Contact Information:

Name: Dalton Norris

Co-Authors: Chas Patterson

Email: dalton.norris@odwc.ok.gov

Phone: 580-327-7029

Objective: Monitor all sportfish

Current Status: Ongoing

Abbreviated abstract: Northwest Region highlights

ELMER

HN Survey

A hoop net survey for channel catfish was conducted at Lake Elmer in July of 2023. The survey consisted of 6 stations of 3 net nights each. This is a total of 18 net nights for the survey. This survey was used to determine the status of the fishery. Sagittal otoliths were removed to be aged at a later date.

LMB EF

An electrofishing survey for largemouth bass was conducted at Lake Elmer in May of 2023. This survey was a full shoreline electrofishing survey that consisted of 4 10-minute stations. This survey was to examine the largemouth bass fishery of Lake Elmer.

Stocking Report

Lake Elmer was stocked in October of 2023 with 510 304.8mm channel catfish from James A. Manning State Fish Hatchery.

ETLING

HN Survey

A hoop net survey for channel catfish was conducted at Lake Carl Etling in August of 2023. This hoop net survey consisted of 6 stations of 3 net nights each totaling 18 net nights. The purpose of this survey

was to examine the channel catfish population of Lake Carl Etling. Sagittal Otoliths were removed to be aged at a later date.

Stocking Report

Lake Carl Etling was stocked in April of 2023 with 80,000 walleye fry from Pueblo State Fish Hatchery, and it was stocked in October of 2023 with 6,400 177.8mm channel catfish from Durant State Fish Hatchery.

AMERICAN HORSE

HN Survey

A channel catfish hoop net survey was conducted at American Horse Lake in July of 2023. This survey consisted of 6 stations of 3 net nights each. This made it a total of 18 net nights at American Horse. The purpose of this hoop net survey was to examine the channel catfish population of American Horse Lake. Sagittal otoliths were removed to be aged at a different date.

LMB EF

A largemouth bass electrofishing survey was conducted at American Horse Lake in April of 2023. This survey was a full lakeshore assessment. The survey was 17 10-minute stations. The purpose of this survey was to examine the largemouth bass population of American Horse Lake.

Stocking Report

American Horse Lake was stocking in October of 2023 with 1,445 304.8mm channel catfish from James A. Manning State Fish Hatchery.

VINCENT

Traffic Counter

A traffic counter assessment is currently being done at Lake Lloyd Vincent to determine boat ramp usage and vehicle traffic around the lake.

CHAMBERS

LMB EF

An electrofishing survey for largemouth bass was conducted at Lake Evans Chambers in May of 2023. This survey consisted of 7 10-minute stations while sampling the entire shoreline of the lake. The purpose of this survey was to examine the largemouth bass population of Lake Evans Chambers.

Stocking Report

Lake Evans Chambers was stocked in April of 2023 with 40,000 walleye fry from Pueblo State Fish Hatchery. There was another stocking at Chambers of 1,475 304.8mm channel catfish from James A Manning State Fish Hatchery.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Oklahoma

Name of Representative to Technical Committee: Keith Thomas

Date Submitted: 01/5/2024

Project Name or Description: Statewide fisheries management program

Contact Information:

Name: Clayton Porter

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Objective: Monitor all sportfish

Current Status: Ongoing

Abbreviated abstract: Southwest Region Highlights

Duncan City Lake (~ 50 acres) was sampled via spring electrofishing for largemouth bass mainly but included other sportfish species as well. Duncan City Lake had not been sampled for over 20 years and has experienced many fluctuations due to severe drought and prolonged low water levels. This lake has remained on sporadic stocking rotation for saugeye and Florida strain largemouth bass. During the samples conducted we found a small population of largemouth bass (25 bass total), A decent population of white crappie, and small abundance of white bass. The forage bass was very abundant with gizzard shad, inland silversides, and small cyprinids. The largemouth bass population was lacking in abundance, but fish health was good overall. The biggest problem that we can see present is lack of usable habitat, if habitat is improved, I believe fish numbers would increase and the lake would benefit tremendously.

Elmer Thomas (~475 acres) is a high use largemouth bass fishery in southwest Oklahoma and yearly spring electrofishing samples are conducted here. The largemouth bass population has always done very well and our annual samples help to keep data concise. Our samples were later in the spring and abundance was not as high as years past but were within means of acceptability for the lake. There has been an increase in Eurasian watermilfoil over the past 5 years making sampling difficult and starting to show a slight decrease in overall fish health.

Vanderwork Lake (~ 130 acres) was sampled via spring electrofishing for largemouth bass and crappie. This lake has been on a rotational basis of every 5 years, this sampling includes gill netting and hoop netting for channel catfish (which were conducted the previous year). Vanderwork is stocked with channel catfish on a yearly basis. The samples that were conducted showed that this lake is doing well and that the crappie and bass populations are thriving. There have been several habitat projects over the last 5 years that included cedar trees, spider blocks, and Georgia blocks that were placed in various depth to increase usable habitat.



Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Oklahoma

Name of Representative to Technical Committee: Keith Thomas

Date Submitted: 1/5/2024

Project Name or Description: Statewide fisheries management program

Contact Information:

Name: Grace Carter

Co-Authors: Brad Johnston

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Phone: 918-542-9422

Objective: Monitor all sportfish

Current Status: Ongoing

Abbreviated abstract: Northeast Region highlights

Vinita Lake

Vinita Lake is a 45-acre lake located in Vinita, Oklahoma. This small impoundment is typically stocked with bass, crappie and catfish. In 2023, 1,501 Channel Catfish were stocked on November, 7th from Holdenville State Fish Hatchery. No additional stockings occurred within 2023. Sampling was attempted during 2023, however, due to inclement weather was unable to be completed. In conjunction with the Cherokee Nation and the city of Vinita, the ODWC hosted Badges and Bobbers Fishing Derby, an outreach event for children. The event provides fishing poles to children and staff provides instruction on how to fish. Over 150 children attended this event and prizes were awarded to several children who caught the largest fishes. Providing outreach at Vinita Lake gave local kids an opportunity to learn to fish and grow their interest in the hobby.

Natural Falls

Natural Falls is a small impoundment located in Colcord, Oklahoma at Natural Falls State Park. No sampling, research, or habitat projects were conducted at Natural Falls. Channel catfish were stocked in October. A total of 400 were stocked from Holdenville State Fish Hatchery. No additional stockings were made this year.

Dale Zachary

Dale Zachary is a small impoundment located in Wagoner, Oklahoma. Sampling was attempted in 2023, however, due to inclement weather was unable to be completed. A total of 600 channel catfish were stocked in October from Holdenville State Fish Hatchery. No additional stockings were made this year.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Oklahoma

Name of Representative to Technical Committee: Keith Thomas

Date Submitted: 01/5/2024

Project Name or Description: Close to Home Fishing Program (CTHFP)

Contact Information:

Name: Keith Thomas

Co-Authors: Doug Zentner

Email: keith.thomas@odwc.ok.gov

Phone: 405-325-7288

Objective: R3 - Recruit, retain and reactivate anglers

Current Status: Third year of a five-year plan

Abbreviated abstract: Urban Fishing Program Update - Oklahoma City Region

A total of 22 urban fishing ponds are part of the CTHFP. They range in size from 1 acre to 66 acres. Aeration systems were installed at two of the ponds in 2023. Southern Hills Pond in El Reno, OK as well as Bickham-Rudkin Pond in Edmond, OK. Large algal blooms, low dissolved oxygen levels, excess sediment amounts have caused fish kills at both ponds over the years.

Fish populations at 2 program ponds were heavily sampled during 2023. Methods included baited hoop nets, trap nets, and electrofishing. Fish collected were sorted, counted, weighed, measured and hole punched. Raw data was entered into EXCEL spreadsheets and uploaded to the Oklahoma Fish Analysis Tool (OFAT) for further study. Analysis is ongoing.

A roving creel survey was conducted at Heritage Park Pond in Harrah, OK from April through August to determine angling pressure, catch and harvest amounts. Moderate fishing pressure was observed. Stocked channel catfish and hybrid sunfish were targeted by anglers and mostly depleted by the end of the summer. Trail cameras at Edwards Park Pond and Route 66 Park pond in Oklahoma City showed high numbers of anglers targeting rainbow trout from December 2022 through February 2023. Ninety percent of the trout were harvested during the three-month season.

Aquatic Education events took place at 12 CTHFP sites in 2023. Seventeen events were held which attracted 1,686 participants. Good numbers of channel catfish and hybrid bluegill were caught by anglers.

The ODWC purchased an aquatic weed harvest boat to help with the removal of nuisance aquatic plants detrimental to angling activities. Hornwort, cattails, creeping water primrose and filamentous algae were the most problematic plants this past summer. Passes along the shoreline opened lanes and pockets for

people to fish. Good control was observed. Artificial habitat was added to several ponds. 25 spider buckets, 8 floating wetlands and 30 lotus buckets were placed into CTHFP ponds to concentrate fish.



Fish stocked at CTHFP sites in OKC 2023

Species	Size	Number
Channel catfish	457 - 558 mm	1,852
Hybrid bluegill	150 - 203 mm	6,093
Rainbow trout	254 - 456 mm	4,552

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Oklahoma

Name of Representative to Technical Committee: Keith Thomas

Date Submitted: 01/5/2024

Project Name or Description: Statewide fisheries management program

Contact Information:

Name: Austin Griffin

Co-Authors: Doug Zentner

Email: Austin.griffin@odwc.ok.gov

Phone: 405-325-7288

Objective: Promote natural channel catfish spawning to reduce hatchery demand

Current Status: 2nd year of a six-year project

Abbreviated abstract: Catfish spawning container evaluation at small municipal lakes

Due to the popularity of channel catfish throughout the United States, many natural resource agencies invest substantial effort stocking and managing channel catfish populations to provide harvest and trophy opportunities (Bodine et al. 2013). In lieu of inadequate natural recruitment, it is commonplace for natural resource agencies to maintain put-grow-take channel catfish fisheries in small impoundments (< 500 acres; Michaletz and Dillard 1999, Michaletz et al. 2011) using advanced fingerling or larger fish to deter predation (Storck and Newman 1988). Management and evaluation of stocking success of these populations requires reliable estimates of population rate functions (including recruitment). Variation in annual recruitment has been documented for channel catfish in reservoirs (Hubert 1999, Holley 2006, Settineri 2015) and recruitment can vary considerably between lakes (Tyszko et al. 2021). Also, minimal research has been conducted examining the habitat effects on channel catfish population characteristics in reservoirs and further research assessing natural recruitment is needed (Tyszko et al. 2021). Griffin et al. (2022) associated higher recruitment with increased exchange rate and volume and lower recruitment with increased total water hardness. However, a follow up tank experiment revealed no significant differences in hatch rate or larval abnormalities associated with increasing total hardness for channel catfish (Griffin et al. *in press*). Most of the previously mentioned factors that potentially effect recruitment are outside the control of fisheries managers. However, a major limiting factor that is likely within our power to manipulate is a lack of high-quality spawning habitat (Porta and Smith 2013).

To aid regional managers in the evaluation of fisheries stocked with seven-inch fish (per ODWC stocking criteria) and decrease the cost of stocking/rearing these fish we propose to evaluate spawning habitat in

small impoundments and determine the feasibility of positively impacting recruitment with artificial nest boxes where needed. Twenty-four boxes total were placed in three small central Oklahoma impoundments in 2023. The first year of observation resulted in a window of active spawning activity that spanned from May 22 to July 24, 2023. On average, fish, eggs, fry, or some combination of the three were present for 28 % of the box checks. Continued installment of boxes and fish sampling will be ongoing.



Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: South Carolina

Name of Representative to Technical Committee: Preston Chrisman

Date Submitted: 1/5/2024

Project Name or Description: SCDNR State Lakes Program

Contact Information:

Name: Preston Chrisman

Co-Authors:

Email: chrismanp@dnr.sc.gov

Phone: 803-280-0922

Objective: Provide diverse angling opportunities for the public

Current Status: Ongoing

Abbreviated abstract: The South Carolina Department of Natural Resources (SCDNR) currently manages 20 lakes under the State Lakes Program. These lakes range in size from 1 to 400 acres and display an array of management intensity levels due to a host of factors. Of the 20 lakes, 9 are limed and fertilized and there have been recent nuisance vegetation issues (Cattails, Bladderwort, Primrose, Parrot Feather, and Water Hyacinth) at 6 lakes, but these were sprayed and appear to be under control. Two lakes received extensive damage from floods resulting from hurricanes in 2015 (Lake Ashwood) and 2016 (Dargans Pond) and their dams were compromised. Lake Ashwood's dam was repaired, and a new gate valve was installed; the lake was restocked in 2019-2020 and reopened to the public July 1, 2021. Dargans Pond is owned by Clemson and the decision was recently made to repair the dam but is awaiting funding from the university. A third lake, Lake Johnson, is also experiencing erosion issues and the water level has been reduced until repairs can be made and a new spillway can be installed. Sunrise Lake received a new spillway in 2017 and reopened to fishing on July 1, 2019. Lake Brown is hyper-eutrophic and had struggled with cyanobacteria blooms in summer; some were severe enough to cause SCDHEC lake advisories in recent years, but no such advisories were issued in 2023. Fish attractor sites are maintained on most State Lakes and receive periodic replenishment in the form of Christmas trees, bamboo, or artificial structures. Small trees were removed off the back of the dam on 6 lakes and repairs were made to fishing piers at 6 lakes. A large habitat improvement project was undertaken while Lake Johnson has been drained, including cutting and cabling

shoreline trees and placing root wads, gravel spawning beds, and Christmas trees on the lake bottom.

The lakes' sport fish populations receive varying levels of monitoring and management due to manpower and budgetary restrictions. Some lakes are sampled annually while others are not able to be sampled effectively at all. Of the lakes that have had their fish populations sampled in recent years, most are displaying bass-crowded conditions. There are several trophy bass lakes in the State Lakes Program as well, but very few that display balanced conditions. Finally, there are a handful of impoundments that are little more than put-and-take catfish ponds. Many of the lakes receive annual Channel Catfish stockings as well as supplemental Bluegill and Redear Sunfish stockings to improve panfish fisheries and bass forage in the lakes. Threadfin Shad have been stocked into four of the lakes and early returns look promising.

Trying to combat the crowding of Largemouth Bass in these lakes is a top priority for lake managers but most efforts have been unsuccessful so far. However, SCDNR wants to provide a wide array of angling opportunities and it is hoped that some lakes can be corrected to display balanced conditions while still maintaining some lakes in bass-crowded conditions for trophy panfish opportunities. Preliminary discussions have occurred within SCDNR to determine if we would like to try a female-only Largemouth Bass lake, following GADNR's recipe. Having clusters of State Lakes where there is at least one lake that is bass-crowded and one lake that is a trophy bass fishery should appeal to widest range of anglers and keep participation rates high.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: South Carolina

Name of Representative to Technical Committee: Preston Chrisman

Date Submitted: 1/5/2024

Project Name or Description: Outreach and inter-agency cooperation.

Contact Information:

Name: Preston Chrisman

Co-Authors:

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Phone: 803-280-0922

Objective: Provide pond management information to the public. Host youth fishing rodeos. Sample small impoundments that are not in the State Lakes Program.

Current Status: Ongoing

Abbreviated abstract: Budget reductions eliminated SCDNR's ability to conduct on-site pond management consult visits many years ago. Now, biologists can still perform nuisance vegetation identification and control sessions as well as water quality tests, but the pond owners must bring the samples to DNR offices. All regional offices perform these consulting sessions with pond owners and can provide recommendations on herbicide treatments, grass carp stocking rates, pond construction, and fish population management. Many pond owners are served every year in this fashion in-person or via email or phone conversations.

There are 15 youth fishing rodeos put on by SCDNR every year, including three that are hosted on lakes in the State Lakes Program. Nearly all these rodeos were canceled in 2020 and again in 2021 because of COVID-19. More events occurred during 2022, but some were still cancelled. All fifteen events were successfully hosted in 2023. Channel Catfish are stocked in the week leading up to each rodeo and all kids that participate receive a rod and reel and a tackle kit at no cost and lunch is served to all of the kids and their parents. Prizes are awarded for the biggest and smallest catfish caught and raffle prizes are also given away during each event.

SCDNR biologists also monitor sport fish populations and stock fish into small impoundments that are not within the State Lakes Program. These lakes can include lakes owned by SC State Parks, the US Forest Service, and/or local municipalities that provide angling opportunities for the public.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report

State Reporting: Tennessee (TWRA)

Name of Representative to Technical Committee: Mike Bramlett

Date Submitted: 1/5/2024

Project Name or Description: 2023 Small Impoundments Report

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Small impoundments in Tennessee consist of work with Agency Lakes, Community Fishing Program Lakes, along with the Winter Trout Program, Youth Fishing derbies, and Private Pond assistance.

Agency Lakes Program (ALP)

TWRA currently maintains nineteen public family fishing impoundments ranging from 20 to 560 acres, and are managed for maximum yield of bass, bream, crappie, and catfish. Three impoundments have the addition of hybrid stripe bass, and walleye. Nine lakes are under concessionaire operations.

Most of the activities were routine, such as sampling and maintenance, but much was done to improve facilities. ADA improvements on walkways, restrooms and fishing piers were made at five lakes. Fish habitat/attractors were added, or sites refurbished on ten lakes. Materials/designs consisted of commercial, corrugated PVC/concrete blocks, spider buckets, brush and stone piles, and stake beds. Hoop nets were used to help evaluate catfish reproduction after catfish spawning structures were added to five lakes. While some catfish reproduction has been recorded, there has been no noticeable increase in angler catch rates. Bathymetric maps of additional two lakes were finally completed which will be useful to anglers and for habitat improvements.

While not directly in the ALP, fisheries staff assists with the management of state park lakes, which are under the control of the Department of Environment and Conservation (TDEC). Most of these impoundments are not currently intensively managed, and much of the work on them

centers on surveys, creel/size limits, stocking, and aquatic vegetation control. Several regulation changes were made, including the removal of the creel (30) for crappie at 3 lakes, and the removal of the size and creel limit on largemouth bass to only one bass over 18 inches. These changes will go into effect March 2024. The region has also produced a draft Small Impoundments Management Plan. Habitat improvements, mapping, fish stockings, and age and growth analysis will still planned to be conducted in 2024. The agency has partnered with TDEC to manage three additional lakes to improve the fisheries as part of the Tennessee fishing trail (Bill Dance) lakes. Work continues with fish population assessments, management plans, fish stockings, fish feeders, and habitat enhancements on four additional lakes.

Fish species stocked were Bluegill, (including Coppernose), Blue catfish, Blacknose Crappie, Channel catfish, Golden Shiner, FLMB, Hybrid Stripe Bass, Redear sunfish, Threadfin shad, and Walleye.

Community Fishing Program (CFP)

The CFP continues to bring fishing opportunities to municipal/urban areas as well as suburban and rural communities by working with local/county government and community organizations. It seeks to increase the number of anglers with access to fishing “closer-to-home”. There are currently 18 impoundments in the program ranging from 2 to 45 acres. Most are managed using statewide regulations for bass and bream, with stocked species consisting of channel catfish and/or trout. Bathymetric maps were also completed on two of these lakes. Our R3 coordinators held multiple “how to and get out and fish” events at seven lakes during April through August.

Multiple lakes are scheduled to receive habitat improvements, fish feeders, stocking, age and growth analysis, and routine electrofishing in 2024. One hundred habitat structures (from Mossback, Pond King, and American Fish Tree) were installed in six lakes, along with eight solar-powered fish feeders from Texas Hunter Products that have been placed along the shoreline. A mix of floating and slow-sinking fish food pellets of various sizes were dispensed at dawn and dusk during spring and fall months. The crews still uses side-scanning sonar to create bathymetric maps for angler use and to aid managers with habitat structure placement. The 15-inch minimum length limit of Largemouth bass on Kelly Lake will be removed, and a 20 fish per day creel of bluegill and redear sunfish will be added March 2022. No regulations changes were made on Fall Creek Falls Lake. Supplemental feeding on both lakes will continue in 2022 along with additional habitat installation and monitoring of current management strategies.

Work also continues to identify small impoundments in “distressed” counties that could be enhanced for fishing. This includes investigating access, amenities, fish population structure, habitat, and economic status of the surrounding area.

Winter Trout Program

The program stocked approximately 32 small impoundments across the state with rainbow trout during the months of December through March. These lakes are generally less than 10 acres with easy access. Approximately 65,000 rainbow trout, averaging 10 inches were stocked during this four-month period, with a daily creel limit of seven, and no size limit. However, there are discussions to maybe reduce the creel, and/or have a delayed harvest at several lakes. A trout license is required in addition to a regular fishing license (except for a Sportsman's License). Angler use has been steady or increasing, with trail cameras being used on multiple lakes to estimate angler effort/use. Creel surveys are also being conducted on several impoundments.

Youth Fishing Derbies

Nearly 59,000 pounds of channel catfish (.75 – 2.0 lbs. each) were stocked into 74 waterbodies/community lakes that had organized youth fishing derby/event, along with five community fishing lakes without an organized fishing event. An estimated 12,000 youth participated in the organized fishing derbies/events with approximately 70% catching at least one fish.

Private Pond Assistance

Technical assistance is provided to private pond owners over the phone, printed materials, and website. Onsite assistance is given on a case-by-case basis depending on the issue, because of limited time and manpower. Most issues are aquatic vegetation and "pond balance". Otherwise, we give them contact information of private pond consultants. The agency does not stock fish into private waters but provides those requesting fish stockings the contact information of private pond stockers.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report

State Reporting: Texas

Name of Representative to Technical Committee: Cynthia Fox Holt

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Project Name or Description of Activities: Texas has over 1,000 public small impoundments that range in size from 0.1 – 500 acres. These are typically controlled by local governments (cities, townships, and counties), who partner with us to manage recreational fishing opportunities across the state. Many small impoundments are focal points in small communities and serve as a great attraction for residents while, others are spread throughout major metropolitan areas and serve as close-to-home opportunities for our fastest-growing demographics. These waters play an important role in our state’s R3 initiatives. The degree of management varies among sites, ranging from simply “put-and-take” seasonal fisheries to intensively managed diversified angling opportunities. Many of these receive fish stockings to sustain fishing activity. Species stocked in small impoundments were mainly Channel Catfish, Rainbow Trout, Largemouth Bass, and sunfishes, providing excellent fishing opportunities for Texas anglers.

Texas Parks and Wildlife Department (TPWD) partners with waterbody controlling authorities, local vendors and interest groups and educational institutions to plan, fund and complete management activities on small impoundments across Texas. Management activities in small impoundments in 2021 consisted of fish community and vegetation surveys, vegetation treatments, fish stockings, construction and installation of spawning structures, shoreline stabilization, aerator installation to improve water quality, and habitat enhancement with native vegetation and various types of artificial structures. These projects are often partially or wholly supported by TPWD Conservation License Plate (CLP) or Habitat and Angler Access Program (HAAP) funds. Three HAAP funded projects were completed on small impoundments in 2023 and four new projects were approved for the 2024-2025 biennium. Multiple CLP funded projects were completed in 2023. For more information about CLPs, HAAP, and the projects they fund, please visit: www.conservationplate.org and <https://tpwd.texas.gov/landwater/water/habitats/habitat-angler-access-program/>.

Objective: Small Lakes

Current Status: Small lakes are typically between 75 and 500 acres, excluding those completely enclosed within state parks. These reservoirs may have regulated access and more restrictions than our larger reservoirs to preserve water quality and wildlife populations. When necessary, TPWD will manage specific objectives in these small lakes, similar to large reservoirs, by monitoring, regulating, restoring fish habitat and improving angler access to enhance fishing opportunities. Supplemental stockings may not be required for these self-sustaining populations.

Management activities on small lakes in 2023 consisted of fish community assessments via nighttime and daytime electrofishing surveys, vegetation assessment and control projects, and habitat enhancement using native plants and various artificial structures.

Objective: Community Fishing Lakes (CFLs)

Current Status: These ponds are defined as a public impoundment ≤ 75 acres located totally within incorporated city limits, a public park, or any impoundment lying totally within the boundaries of a state park. There are approximately 850 known CFLs in the state, with numbers growing every year. Most CFLs are minimally managed for local anglers seeking a quick experience around their communities. Many CFLs receive annual stockings of Channel Catfish and Rainbow Trout, with many of these stockings tied to outreach fishing events, sponsored by partners. Fishing regulations for most CFLs align with statewide regulations, except those pertaining to catfish and fishing gear. Depending on size and popularity; some CFLs are managed more intensively to provide diverse fisheries objectives to attract a spectrum of angler preferences. Some have received supplemental Largemouth Bass and sunfish stockings, habitat and access enhancements, tailored regulations, and highlight less traditional species in smaller impoundments. This complexity has sprouted the need to revise the definition and regulatory approach for this designation of public waters. A special committee was formed to evaluate the need and strategies for this objective moving forward. The committee conducted a statewide CFL angler survey in 2021. The results listed below are a summary of the data based on angler attitudes related to catch, harvest and satisfaction and were used to develop a new harvest regulation for CFLs.

Management activities on CFLs in 2023 consisted of fish community assessments via nighttime and daytime electrofishing surveys, vegetation assessment and control projects, and habitat enhancement using native plants and various artificial structures.

Objective: Neighborhood Fishin' Program

Current Status: Neighborhood Fishin' -is our premiere urban fishing program developed to bring quality fishing close to home. It consists of 18 (1-6 acre) CFLs located in parks of 11 major metropolitan areas. Ponds are stocked on a seasonal, biweekly schedule with Channel Catfish or Rainbow Trout eleven months of the year to maintain a 'put-and-take' fishery. This program is supported by numerous local government and private partners, including Gulf States Toyota and Sport Fish Restoration. Total program operating costs are ~\$500K per year at current levels. Fishing regulations are restrictive, intended to ensure success among as many anglers as possible. Sites have been carefully selected to provide diverse amenities to attract families and recruit new anglers to fishing. The program has been running strong for 20 years.

Texas Parks and Wildlife is currently assessing the Neighborhood Fishin' Program. The objectives of the assessment are to evaluate success of the program in terms of child participation and new angler creation and to assess overall angling participation, angling success, and gauge angler expectations. Results should be reported in the 2024 report. For more information on NFPs, please visit: www.neighborhoodfishin.org.

Objective: Outreach and Research

Current Status: TPWD participates in a few hundred public outreach events each year, many of which pertain to youth and family fishing, continuing education courses for Master Naturalist groups, "How to Fish" workshops, and career and field days at elementary, middle, and high schools. In addition to these in-person outreach activities, most Inland Fisheries districts utilize social media (Facebook and/or Instagram) as a tool to reach and educate our current and future anglers about Texas' natural resources. Since management reports are not often written for small impoundments, social media is a great way to communicate with Texas anglers about management activities for CFLs and small impoundments.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Virginia

Name of Representative to Technical Committee: Steve Owens

Date Submitted: 1/7/2024

Small Impoundments Channel Catfish Management Plan

The Virginia Department of Wildlife Resources Small Impoundments Committee has implemented a Channel Catfish Management Plan for small impoundments. A lack of natural reproduction in small impoundments requires consistent channel catfish stockings to maintain a desirable fishery. Increasing costs associated with purchasing 10” plus catfish from the private sector necessitates thoughtful and intentional uses of limited resources available which will continue to be an issue going into the future. Attached is the Channel Catfish Management Plan drafted and approved for statewide implementation.

Introduction

Across the United States 8.1 million anglers fish for catfish (USFWS 2016). Channel Catfish are popular sport and food fish that can be pursued by anglers in many small impoundments (Neal and Willis 2012). Stocked at a moderate level, Channel Catfish can complement existing fisheries resources that generally include Largemouth Bass and Bluegill without impacting productivity or growth of those existing populations. Most stocked Channel Catfish have been found to be vulnerable to angling (Masser et. al 1993) and as a result have become quite popular for use in urban fishing programs and kid’s fishing events. A nationwide emphasis on R3 (recruitment, retention, reactivation) can also utilize Channel Catfish as both a recruitment tool for new anglers as well as retaining/reactivating current or former anglers.

Generally, in small ponds and lakes with limited aquatic vegetation, juvenile Channel Catfish rarely recruit to the adult population as a result of predation by Largemouth Bass and Bluegill (Neal and Willis 2012). As a result of predation, Channel Catfish must be periodically stocked to maintain fishable populations (Neal and Willis 2012). Put-grow-take fisheries are less costly than stocking catchable catfish, but predation must be considered. Studies have shown that stocked Channel Catfish should be 250mm or greater in length to avoid predation by Largemouth Bass (Howell and Betsill 1999; Jackson and Francis 1999; Odenkirk 2002; Neal and Willis 2012). Results from the most recent Virginia Statewide Angler Survey (2016) found that 54% of Virginia anglers specifically fished for catfish in the last twelve months (VDGIF 2016

Angler Survey). Virginia anglers pursued catfish in a variety of habitats including: small impoundments (23%), large impoundments (27%), warmwater streams (38%), and private lakes (12%).

The Virginia Department of Wildlife Resources (VDWR) has been managing a variety of small impoundments throughout the Commonwealth by stocking sub-catchable and catchable Channel Catfish. Channel Catfish are obtained from commercial hatcheries at considerable cost (up to \$120K/year). Many anglers pursuing Channel Catfish stated that they only fished DWR managed or owned small impoundments (27%), documenting the popularity of these intensively managed resources.

Methods

Past research has led to the development of Channel Catfish (CCF) stocking guidelines for managing DWR owned or managed small impoundments (Table 1).

Table 1. Channel Catfish stocking Guidelines for waters managed by DWR.

Waterbody	Stocking Rate
Standard non-DWR Impoundment	10/acre
DWR Impoundment	15/acre
DWR Impoundment w/high pressure	20/acre
CLIP Ponds	100/acre
Urban	250/acre

Stocking rates are tailored towards angling pressure, public access, and catchability. General CCF stockings utilize a fish that average about a half pound (~10”), while fish used in the Urban Fishing Program average about 1 pound. Standard impoundments are managed less intensively and stocked at lower rates than DWR owned lakes. Many of these waters may have a lower degree of angler use and in many cases more restrictive access. These standard impoundments are stocked in the fall at a rate of 10 CCF/acre (Table 2).

Table 2. Channel Catfish allocations for impoundments stocked at the standard rate (10/acre). The minimum allocation is 50 fish. Stocking Rate = SR.

Region	County	Waterbody	Size (acres)	SR (#/acre)	Allocation
1	Chesapeake	Oak Grove Lake	70	10	700
1	Hampton	Sandy Bottom Park Pond	12	10	120
2	Amherst	Mill Creek Lake	189	10	1890
2	Appomattox/Buckingham	Holliday Lake	145	10	1450
2	Brunswick	Great Creek Lake	212	10	2120
2	Buckingham	Slate River Reservoir	38	10	380
2	Buckingham	Bear Creek Lake	42	10	420
2	Buckingham	James River State Park Ponds (3)	3	10	150
2	Cumberland	Cumberland State Forest Lakes (4)	28	10	280
2	Fort Pickett	Beavertrail Pond	2.4	10	50
2	Fort Pickett	Wonju Pond	2.5	10	50
2	Fort Pickett	Dearing Pond	7	10	70
2	Fort Pickett	Butterwood Pond	9	10	90
2	Fort Pickett	Engineers Pond	12.8	10	128
2	Fort Pickett	Lewis Pond	12	10	120
2	Henry	Martinsville Reservoir	175	10	1750
2	Lunenburg	Victoria Reservoir/Lunenburg Lake	15	10	150
2	Lunenburg	Nottoway Falls Lake	60	10	600
2	Lunenburg	Modest Creek Lake	29	10	290
2	Nottoway	Fort Pickett Reservoir	384	10	3840
2	Prince Edward	Goodwin Lake	15	10	150
2	Prince Edward	Prince Edward Lake	36	10	360
2	Prince Edward	Wilcks Lake	30	10	300
3	Carroll	Lovill's Creek Lake	45	10	450
3	Dickenson	Laurel Lake	14	10	140
3	Pulaski	Gatewood Reservoir	162	10	1620
3	Smyth	Sugar Hollow Pond	1	10	50
3	Smyth	Glade Mountain Ponds (4)	8	10	200
3	Tazewell	Lincolnshire Lake	23	10	230
3	Tazewell	Witten Lake	52	10	520
3	Wise	Wise Reservoir	46	10	460
3	Wise	Big Cherry Reservoir	132	10	1320
3	Wise	North Fork Pound Reservoir	154	10	1540
3	Wise (City of Norton)	Norton Reservoir (upper)	9	10	90
3	Wythe	Wytheville C.C. Pond	3	10	50
4	Albemarle	Beaver Creek	104	10	1040
4	Albemarle	Chris Green Lake	62	10	620
4	Albemarle	Mint Springs Lake	8	10	80

4	Albemarle	Totier Creek Lake	66	10	660
4	Albemarle	Walnut Creek Lake	60	10	600
4	Alleghany	Clifton Forge Reservoir	9	10	90
4	Augusta	Elkhorn Lake	50	10	500
4	Augusta	Hearthstone Lake	14	10	140
4	Augusta	Sherando Lake (lower)	20	10	200
4	Augusta	Sherando Lake (upper)	8	10	80
4	Bath	Douthat Lake	52	10	520
4	Bath	Rec Pond Lower	32	10	320
4	Bath	Rec Pond Upper	40	10	400
4	Fairfax	Fairfax Lake	28	10	280
4	Fairfax	Huntsman Lake	27	10	270
4	Fairfax	Royal Lake	35	10	350
4	Fauquier	Germantown Lake	109	10	1090
4	Frederick	Clearbrook Lake	3	10	50
4	Louisa	Gordansville Lake	81	10	810
4	Louisa	Northeast Reservoir	187	10	1870
4	Loudon	Sleeter Lake	101	10	1010
4	Page	Arrowhead Lake	34	10	340
4	Page	Bealer's Ferry Pond	7	10	70
4	Page (Town of Shenandoah)	Big Gem Pond	1	10	50
4	Prince William	Silver Lake	23	10	230
4	Rockingham	Briery Branch Lake	9	10	90
4	Rockingham	Hone Quarry Lake	6	10	60
4	Rockingham	Silver Lake	10	10	100
4	Rockingham	Slate Lick Lake	10	10	100
4	Shenandoah	Tomahawk Pond	2	10	50
4	Shenandoah	Lake Laura	44	10	440
4	Spotsylvania	Motts Run Reservoir	160	10	1600
4	Stafford	Abel Lake	185	10	1850

DWR owned and managed impoundments are intensively managed for multiple species of fish and receive higher stocking rates than non-DWR impoundments. Most DWR impoundments offer boat access, adequate parking, night-time fishing, shoreline access, and at many locations a handicapped accessible fishing pier. DWR owned small impoundments are stocked in the fall at a rate of 15 CCF/acre (Table 3).

Table 3. Channel Catfish allocations for impoundments stocked at the DWR rate (15 fish/acre). The minimum allocation is 50 fish. Stocking Rate = SR.

Region	County	Waterbody	Size (acres)	SR (#/acre)	Allocation
2	Amelia	Amelia Lake	100	15	1500
2	Brunswick	Brunswick Lake	150	15	2250
2	Buckingham	Horsepen Lake	19	15	285
2	Halifax	Connor Lake	110	15	1650
2	Mecklenburg	Gordon Lake	157	15	2355
2	Nelson	Lake Nelson	40	15	600
2	Nottoway	Nottoway Lake	188	15	2820
3	Lee	Keokee Lake	92	15	1380
3	Washington	Hidden Valley Lake	61	15	915
3	Wythe	Rural Retreat Lake	90	15	1350
4	Albemarle	Lake Albemarle	35	15	525
4	Fairfax	Burke Lake	218	15	3270
4	Fluvanna	Fluvanna Ruritan Lake	50	15	750
4	Frederick	Frederick Lake	117	15	1755
4	Powhatan	Powhatan Lake (lower)	36	15	540
4	Powhatan	Powhatan Lake (upper)	35	15	525
4	Powhatan	Powhatan Ponds	20	15	300
4	Stafford	Curtis Lake	91	15	1365

DWR owned impoundments that receive high angling pressure are stocked in the fall at a higher rate (20 CCF/acre) than normal to provide better catch rates (Table 4). Some of the heaviest fished DWR impoundments are also fertilized to increase fish production and may offer concessions that include boat rentals, bait, and snacks.

Table 4. Channel Catfish allocations for impoundments stocked at the DWR-High Pressure rate (20 fish/acre). The minimum allocation is 50 fish. Stocking Rate = SR.

Region	County	Waterbody	Size (acres)	SR (#/acre)	Allocation
1	James City	Woodstock Pond	7.5	20	150
3	Smyth	Hungry Mother Lake	108	20	2160
4	Augusta	Braley Pond	5	20	100
4	Fauquier	Lake Brittle	77	20	1540
4	Fauquier	Phelps Pond	3	20	60
4	Orange	Lake Orange	124	20	2480
4	Rockbridge	Lake Robertson	26	20	520
4	Rockingham	Shenandoah Lake	36	20	720

Small ponds that are intensively managed that receive heavy fishing pressure in developed areas are managed under CLIP (Community Lake Improvement Program). These small ponds receive 100 CCF/acre and are stocked in the fall (Table 5).

Table 5. Channel Catfish allocations for impoundments stocked at the CLIP rate (100 fish/acre). The minimum allocation is 50 fish. Stocking Rate = SR.

Region	County	Waterbody	Size (acres)	SR (#/acre)	Allocation
1	Ashland	DeJarnette Park Lake	1	50(1/2 CLIP)	50
1	City of Petersburg	Willcox Lake	22	50(1/2 CLIP)	220
1	Hanover	Courthouse Pond	3	50(1/2 CLIP)	150
1	Henrico	Crump Park Lake	2	100	200
1	Henrico	Deep Run Park Pond - lower	2	100	200
1	Henrico	Deep Run Park Pond - upper	2	100	200
1	Henrico	Echo Lake Park	12	50(1/2 CLIP)	600
1	Henrico	Three Lake Park (Lake #1)	7	50(1/2 CLIP)	300
1	Richmond (City)	Bryan Park Lake (Youngs Pond)	6	50(1/2 CLIP)	300
1	Richmond (City)	Forest Hill Park Lake	5	3/10 CLIP	150
1	Richmond (City)	Swan Lake	23	1/4 CLIP	300
2	Bedford (Town)	Town Ponds (3)	4	75	300
2	Franklin	Gilly's Pond	2.5	100	250
2	Franklin	Woody's Pond	2.5	100	250
4	Albemarle	Scottsville Lake	2	100	200
4	Fairfax	EC Lawrence Pond (Walney)	1	100	100
4	Fairfax	Mason Neck Pond	2	100	200
4	Fairfax	Woodglen Lake	3	100	300
4	Fauquier	Sky Meadows SP Pond	1	100	100
4	Fauquier	WARF (Warrenton)	1.5	100	150
4	Loudon	Banshee Reeks Pond	1	100	100
4	Loudon	Claude Moore Lower Pond	1	100	100
4	Loudon	Claude Moore Upper Pond	1.5	100	150
4	Loudon	Franklin Park Pond	1	100	100
4	Prince William	Merrimac Farm Pond	1	100	100
4	Spotsylvania	Anna State Park Pond	1	100	100

Virginia's Urban Fishing Program began in the 1990's and includes both a winter trout stocking program in addition to a late spring CCF stocking program. This program has functioned with a goal of providing anglers a catch rate of 1 fish/hour. These urban waters were developed with the hope of recruiting new anglers in the more developed areas of Virginia. Most of the urban sites are located in county or municipal parks that offer ample parking,

restroom facilities, and other amenities that are family friendly. Urban waters are stocked in the spring with CCF averaging one pound at a rate of 250/acre (Table 6).

Table 6. Channel Catfish allocations for impoundments stocked at the Urban rate (250 fish/acre). The minimum allocation is 50 fish. Channel Catfish are stocked during the spring. Stocking Rate = SR.

Region	County	Waterbody	Size (acres)	SR (#/acre)	Allocation
1	Chesapeake	Northwest River Park	3	250	425
1	City of Hampton	Lake Armisted	3	250	1000
1	Henrico	Dorey Park Pond	5	250	1750
1	Richmond (City)	Shields Lake	7	250	1750
2	City of Lynchburg	Clemmons Lake	1.4	250	350
4	Alexandria	Cook Lake	4	250	1000
4	Prince William	Locust Shade	8	250	2000
4	City of Fredericksburg	Old Cossey Pond	3	250	750

Regulations

Channel Catfish regulations for small impoundments fall under three categories that vary from the standard statewide regulation of 20 per day with no length limit. Costs associated with purchasing and stocking catchable size catfish have necessitated a more restrictive set of regulations that creates more of a put-grow-take program versus put and take with the exception of the urban sites. Urban sites are managed with a 4 fish/day regulation with no minimum length that allows for immediate harvest. Biologists may opt to manage the other stocked waters under either a 5 fish/day 15 inch minimum length or 5 fish/day 18 inch minimum length. These regulations are in place to allow for at least a year's growth prior to legal harvest after stocking.

Program Effectiveness

Any program should be evaluated for effectiveness, particularly a program that is a large budget item. Channel Catfish stockings have been periodically evaluated at sites around the Commonwealth to look at fishing pressure, catch rates, harvest, and angler satisfaction. Angler surveys are the easiest and most cost effective means to evaluate success of a Channel Catfish stocking program in terms of angler success, angler recruitment/retention, and program popularity. Past surveys have evaluated the Channel Catfish stockings at our Urban Fishing Sites as well as many of our DWR impoundments (ie. Lake Orange). Channel Catfish tend to rank as the second to third most popular fish species at many of our public fishing lakes. Channel Catfish also tend to provide for the highest harvests by anglers at many of our sites. Lake Orange has had an annual creel survey for over 20 years offering the best small impoundment data set in Virginia. In 2020, Channel Catfish were the second most abundant species harvested by anglers (N = 1009; WT = 1073 kg; Mean WT = 1.1 kg). It is important to

note that Lake Orange only receives an annual stocking of 2,480 Channel Catfish, while anglers are harvesting over 1,000 fish per year out of this put-grow-take fishery. This resource is highly utilized by anglers and the cost effectiveness of the program is clearly evident. Additional waters around the Virginia need to be evaluated as funding and staff time allows.

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DWR Catchable Trout Program

Small impoundments play an important role in providing anglers trout fishing opportunities around the Commonwealth of Virginia. DWR's catchable trout program is broken down into five stocking regimes referred to as category A, B, C, Urban, and Youth waters. Stocking frequency for each category is as follows during the stocking season that runs from October 1st through May 31st:

Category A: 8 stockings at 22 locations (October – May)

Category B: 5 stockings at 9 locations (October – May)

Category C: 3 stockings (October – April)

Urban: 5 stockings at 8 locations (November – April)

Youth: 3 stockings at 5 locations (April – May)

Trout stockings provide seasonal fishing opportunities at many locations that otherwise offer limited fishing opportunities and offer novice anglers higher than average catch rates. Trout fishing is an important recreational activity in western Virginia where other opportunities for high quality sport fisheries may be limited. Additionally, in urban areas or youth waters the catchable trout stocking program often provides anglers with catch rates more than 1 fish/hour. Trout anglers (16 and older) are required to purchase a trout license in addition to the general freshwater fishing license. The standard creel limit is 6 trout/day (Category A, B, C waters), with exceptions at urban sites (4 trout/day) and youth sites (3 trout/day).