

Commonwealth of Kentucky

Date: June 30, 2023

D-J Grant No. F-40, Segment 45

Period: 01 April 2022
through
31 March 2023

ANNUAL PERFORMANCE REPORT

for

Statewide Fisheries Investigation Project

Part II of IV

Subsection II: Urban Fisheries Branch



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Department of Fish and Wildlife Resources
Fisheries Division



STATE: Kentucky

PROJECT NO: F-40-45

GRANT TYPE: Research and Survey

GRANT TITLE: Statewide Fisheries Investigations

SUBSECTION I TITLE: Urban Fishing Program in Kentucky

PERIOD COVERED: 1 April 2022 - 31 March 2023

RESEARCH AND SURVEY SECTION

Subsection II

Project I Urban Fishing Program in Kentucky

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

A. ACTIVITY

During 1 April 2022 – 31 March 2023, 120,500 catfish (channel catfish and channel catfish x blue catfish hybrids) and 120,750 rainbow trout and 11,740 bluegill were stocked in the Fishing in Neighborhoods (FINs) lakes. 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. An agency policy for adding new lakes to the FINs program was drafted and approved in January 2015 and updated in 2022.

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 and the state fair. A one-page advertisement for the FINs program appeared in the 2023-24 Kentucky Fishing and Boating Guide. Additionally, a one-page stocking table appeared in the 2022 and 2023 Kentucky Afield calendars. Newspaper, magazine and tv 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 sampling was conducted at 18 FINs lakes in May 2022. Samples were conducted to gather information on species composition, catch rates, and size structure. Furthermore, tandem hoop nets were used to sample catfish populations at 15 FINs lakes in October 2022.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2023

Work accomplished- 31 March 2023

C. SIGNIFICANT DEVIATIONS

None.

D. REMARKS

None.

E. RECOMMENDATIONS

Continue project as planned on the next grant segment.

Project II Evaluation of Angling Effort Using Remote Cameras

Project Objective: To assess angling effort at the FINs program lakes. This will aid in determining whether FINs lakes around the state are having similar angling pressure to FINs lakes in Central Kentucky where recent creel surveys have been conducted. This data will also aid in assessing if current stocking strategies are adequate for the amount and timing of angling effort. If certain FINs lakes are not receiving the perceived pressure, then stocking rates could be reduced or other lake(s) substituted in the FINs program.

A. ACTIVITY

Cameras were installed at 15 FINs lakes in September 2017, with counts beginning 1 October 2017 and running through 30 September 2018. Additionally, cameras were set up at Jacobson Lake in October 2018 with counts beginning 1 November 2018 and running through 31 October 2019. The final group of eight FINs lakes had cameras set up in 2019 with counts beginning 1 October 2019 and running through 30 September 2020. Cameras were checked every 6-8 weeks to exchange memory cards and batteries. Both primary and secondary FINs lakes were surveyed to get a range of fishing pressure.

Cameras were set up to take a picture every half-hour from daylight to dusk. Only images at the top of the hour were used for analysis; however, the half hour pictures helped postulate if someone was fishing as well as aided in the number of in-person visual counts that could be collected for the correction factor. Timelapse Image Analyzer was used to assist KDFWR personnel with image analysis. This free software designed by the University of Calgary speeds up image analysis and reduces errors, by automatically populating many of the fields needed for analysis and reduces data entry errors by placing the image and data entry on the same form. In a previous study, this software was found to cut image analysis time in half versus viewing images and entering data in separate spreadsheet. Images analysis by KDFWR technician staff was completed in April 2021, with final analysis of data still ongoing. Cameras were collected after the 12-month period. The first instance of vandalism occurred in June 2018 when a camera at Logan Hubble Park Lake went missing along with the security box.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date- 31 March 2023

Work accomplished, cameras collected - Analysis of images and data ongoing

C. SIGNIFICANT DEVIATIONS

None

D. REMARKS

None.

E. RECOMMENDATIONS

The analysis is being completed for 24 additional FINs lakes surveyed in 2017-18, 2018-19 and 2019-20 that will appear in Segment 46.

Table of Contents

Project I: Urban Fishing Program in Kentucky

Section I	Stocking Initiative	1
Section II	Advertisement for the FINs Program	6
Section III	Fish Sampling	10

Project II: Evaluation of Angling Effort Using Remote Cameras.....	70
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Section I: Stocking Initiative

FINDINGS

The Fishing in Neighborhoods (FINs) program underwent an expansion from 6 pilot lakes in 2009 to 29 lakes in the spring of 2010. Additional lakes were added and subtracted in subsequent years, bringing the current total to 45 lakes in 28 counties statewide. Total surface acreage for lakes enrolled in the FINs program is 298 acres. Fishing in Neighborhoods lakes are continuously scrutinized to ensure they are meeting program goals.

Catfish (channel catfish and channel catfish x blue catfish hybrids), rainbow trout and bluegill were the species stocked in the FINs lakes from April 2022 – March 2023. 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 FINs lakes are designated as either primary or secondary lakes (Table 1), which determines stocking rates and months (Table 2).

In 2022-23, primary lakes received four stockings of catfish (12.0 – 20.0 in) occurring in April, May, June 2022, and March 2023; secondary FINs lakes received two annual stockings of catfish in April and June (Tables 2-3). Pfeiffer Fish Hatchery supplies all the catfish for the FINs program, with a total of 120,500 catfish stocked from 1 April 2022 – 31 March 2023 (Table 4).

Trout stocking numbers were reduced by roughly 25% in 2017 to produce larger trout for the FINs program. Overall weight of stocked trout remained the same for the FINs program; however, average size increased from roughly 9.0 in and 0.3 lbs to 10.3 in and 0.4 lbs. All rainbow trout for the FINs program are produced at Wolf Creek National Fish Hatchery. In total, 120,750 rainbow trout were stocked from 1 April 2022 – 31 March 2023 (Table 4). Rainbow trout are stocked at a standardized rate in the FINs lakes (Table 2), with most lakes receiving three trout stockings annually: October or November, February, and March. Carlson Lake at Ft. Knox does not get stocked with rainbow trout because concerns were raised of trout swimming up into Grahampton Cave, which feeds Carlson Lake, and feeding upon northern cavefish (*Amblyopsis spelaea*) which are listed as threatened and ghost crayfish (*Orconectes inermis inermis*). Both species are ill-adapted to avoiding trout predation. Waymond Morris Park Lake, Kentucky Horse Park Rolex Lake, Flemingsburg Old Reservoir, Brickyard Pond, and Maysville-Mason County Rec Park Lake do not receive the March trout stocking. These lakes had lower utilization of trout and high numbers of trout were seen while sampling in May of previous years.

In total, 11,740 bluegill (5.0 – 10.0 in) were stocked in June 2022 (Tables 3-4) in lakes that had poor sunfish populations, heavy fishing pressure, or free fishing weekend events. In previous years, hybrid sunfish were stocked at FINs lakes. However, these hybrid sunfish stockings were replaced with bluegill starting in 2022. While the hybrid sunfish stockings worked well for improving short-term angling success, the stockings did not improve sunfish angling opportunities over an extended period as most fish were quickly harvested. By stocking high densities of larger bluegill, we hope to improve short-term angling success in addition to potentially shifting the size structure of bluegill in impoundments where stocked. A total of 20,000 bluegill annually will be in the production plan to cover the needs of the FINs program.

Fish stocking rates at the FINs lakes are much higher than at larger reservoirs or streams around the state. Utilization of these stocked fish is being assessed through routine electrofishing and tandem hoop net samples. 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.

Table 1. Lakes enrolled in the Fishing in Neighborhoods program for 2022-23.

Lake	County	Lake designation
Anderson County Community Park Lake	Anderson	Primary
Camp Ernst Lake	Boone	Primary
Millennium Park Pond	Boyle	Primary
Alexandria Community Park Lake	Campbell	Primary
Robert J. Barth Park Lake	Campbell	Primary
Panther Creek Park Lake	Daviess	Primary
Waymond Morris Park Lake	Daviess	Primary
Yellow Creek Park Lake	Daviess	Primary
Jacobson Park Lake	Fayette	Primary
Lower Sportsman's Lake	Franklin	Primary
Upper Sportsman's Lake	Franklin	Primary
Kess Creek Park Lake	Graves	Primary
James D. Beville Park Lake	Grayson	Primary
Rotary Park Lake	Hickman	Primary
Tom Wallace Park Lake	Jefferson	Primary
Waverly Park Lake	Jefferson	Primary
William F. Miles Angler Lake	Jefferson	Primary
William F. Miles Green Heron Lake	Jefferson	Primary
Lake Mingo	Jessamine	Primary
Southland Church Lake	Jessamine	Primary
Middleton Mills Long Pond	Kenton	Primary
Middleton Mills Shelterhouse Pond	Kenton	Primary
Brickyard Pond	Knox	Primary
Whitehall Park Lake	Madison	Primary
Lake Montgomery	McCracken	Primary
Carlson Lake (Ft. Knox)	Meade	Primary
Easy Walker Park Pond	Montgomery	Primary
Lusby Lake	Scott	Primary
Scott County Park Lake	Scott	Primary
Three Springs Lake	Warren	Primary
Southgate Lake	Campbell	Secondary
Kentucky Horse Park Rolex Lake	Fayette	Secondary
Flemingsburg Old Reservoir	Fleming	Secondary
Lake Pollywog	Grant	Secondary
Leary Lake	Grant	Secondary
Kingdom Come State Park Lake	Harlan	Secondary
Madisonville City Park Lake South	Hopkins	Secondary
Cherokee Park Lake	Jefferson	Secondary
Fisherman's Park Lake # 3	Jefferson	Secondary
Fisherman's Park Lake # 4	Jefferson	Secondary
Prisoners Lake	Kenton	Secondary
Logan Hubble Park Lake	Lincoln	Secondary
Mike Miller Park Lake	Marshall	Secondary
Maysville-Mason County Recreation Park Lake	Mason	Secondary
Bloomfield Park Lake	Nelson	Secondary

Table 2. Fishing in Neighborhoods lakes fish stocking rates and schedule for 2022-23.

Lake designation	Fish species	Stocking rate (fish/acre)	Months stocked
Primary	Catfish	1-10 acres 200/acre 10-20 acres 100/acre > 20 acres 50/acre	Apr, May, Jun, Mar 23
Secondary	Catfish	1-10 acres 200/acre 10-20 acres 100/acre > 20 acres 50/acre	Apr, Jun
Primary/Secondary	Rainbow trout	1-2.9 acres 500 fish 3.0-4.4 acres 750 fish 4.5-30 acres 1,500 fish > 30 acres 3,000 fish	Oct or Nov, Feb, Mar 23
Primary/Secondary	Bluegill	1-3.4 acres 500 fish/acre 3.5-10 acres 300 fish/acre > 10 acres 3,000 fish	Jun

Table 3. Number of fish stocked in Fishing in Neighborhood lakes from 1 April 2022 – 31 March 2023. Asterisk (*) denotes deviation from stocking plan.

Lake	County	Acreage	Rainbow trout				Catfish (channel/hybrid)				Bluegill
			Oct 22	Nov 22	Feb 23	Mar 23	Apr 22	May 22	Jun 22	Mar 23	Jun 22
Anderson County Community Park Lake	Anderson	1.0		500	500	500	200	200	200	200	
Camp Ernst Lake	Boone	25.0		1,500	1,500	1,500	1,250	1,250	1,250	1,250	
Millennium Park Pond	Boyle	2.2		500	500	500	400	400	400	400	
Southgate Lake	Campbell	1.8		500	500	500	400		400		
Alexandria Community Park Lake	Campbell	7.0		1,500	1,500	1,500	1,400	1,400	1,400	1,400	1,400
Robert J. Barth Park Lake	Campbell	3.7		750	750	750	700	700	700	700	1,200
Panther Creek Park Lake	Daviess	3.8	750		750	750	800	800	800	800	
Waymond Morris Park Lake	Daviess	4.8	1,500		1,500		1,000	1,000	1,000	1,000	
Yellow Creek Park Lake	Daviess	3.1	750		750	750	600	600	600	600	
Jacobson Park Lake	Fayette	46.3	3,000		3,000	3,000	2,300	2,300	2,300	2,300	
Kentucky Horse Park Rolex Lake	Fayette	5.6		1,500	1,500		1,100		500*		
Flemingsburg Old Reservoir	Fleming	10.8		1,500	1,500		1,100		1,100		
Lower Sportsman's Lake	Franklin	2.7	500		500	500	600	600	600	600	
Upper Sportsman's Lake	Franklin	6.2	1,500		1,500	1,500	1,200	1,200	1,200	1,200	2,600
Lake Pollywog	Grant	3.5		750	750	750	700		700		800
Leary Lake	Grant	4.6		1,500	1,500	1,500	900		900		
Kess Creek Park Lake	Graves	2.1	500		500	500	400	400	400	400	
James D. Beville Park Lake	Grayson	3.1	750		750	750	600	600	600	600	
Kingdom Come State Park Lake	Harlan	2.5	500		500	500	500		500		
Rotary Park Lake	Hickman	1.0	500		500	500	200	200	200	200	
Madisonville City Park Lake South	Hopkins	25.9	1,500		1,500	1,500	1,250		1,250		
Cherokee Park Lake	Jefferson	4.2	750		750	750	800		*		
Fisherman's Park Lake # 3	Jefferson	1.8	500		500	500	400		400		
Fisherman's Park Lake # 4	Jefferson	2.4	500		500	500	400		400		
Tom Wallace Park Lake	Jefferson	4.8	1,500		1,500	1,500	1,000	1,000	1,000	1,000	
Waverly Park Lake	Jefferson	4.5	1,500		1,500	1,500	900	900	900	900	
William F. Miles Angler Lake	Jefferson	3.6	750		750	750	700	700	700	700	
William F. Miles Green Heron Lake	Jefferson	1.1	500		500	500	200	200	200	200	
Lake Mingo	Jessamine	2.5	500		500	500	500	500	500	500	
Southland Church Lake	Jessamine	2.6	500		500	500	500	500	500	500	
Middleton Mills Long Pond	Kenton	1.2	500		500	500	300	300	300	300	
Middleton Mills Shelterhouse Pond	Kenton	1.2	500		500	500	300	300	300	300	500
Prisoners Lake	Kenton	3.8	750		750	750	800		800		620
Brickyard Pond	Knox	9.5		1,500	1,500		2,000	2,000	2,000	2,000	
Logan Hubble Park Lake	Lincoln	9.2		1,500	1,500	1,500	1,800		1,800		
Whitehall Park Lake	Madison	6.0	1,500		1,500	1,500	1,200	1,200	1,200	1,200	1,800
Mike Miller Park Lake	Marshall	3.9	750		750	750	800		800		620
Maysville-Mason County Rec Park Lake	Mason	11.6		1,500	1,500		1,150		1,150		
Lake Montgomery	McCracken	5.5	1,500		1,500	1,500	1,100	1,100	1,100	1,100	1,500
Carlson Lake (Ft. Knox)	Meade	14.0					1,400		1,400		
Easy Walker Park Pond	Montgomery	1.6		500	500	500	400	400	400	400	700
Bloomfield Park Lake	Nelson	2.4		500	500	500	500		500		
Lusby Lake	Scott	2.3		500	500	500	500	500	500	500	
Scott County Park Lake	Scott	2.5		500	500	500	500	500	500	500	
Three Springs Lake	Warren	28.9		1,500	1,500	1,500	1,450	1,450	1,450	1,450	

Table 4. Total number and weight of fish stocked in the FINs lakes in 2022-23.

	Fish species	Number of fish stocked	Number of pounds
45 FINs lakes	Catfish	120,500	101,733
	Rainbow trout	120,750	51,923
	Bluegill	11,740	2,935

Section II: Advertisement for the FINs Program

FINDINGS

Advertising and marketing efforts were employed in a continuing attempt to raise awareness of the Fishing in Neighborhoods (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. Several local newspapers and news stations reached out when fish were stocked, so they could help promote and make the public aware of our efforts. All lake owners were notified prior to fish being stocked so they could contact their followers via social media.

An 8.5x11 in flyer was updated by Kentucky Department of Fish and Wildlife Resources' (KDFWR) graphic arts team (Figure 1). The flyer was distributed at boat shows and the state fair. Additionally, a FINs banner was displayed at the KDFWR booth at these shows (Figure 2). A one-page advertisement for the FINs program appeared in the 2023-24 Kentucky Fishing and Boating Guide. Additionally, a one-page stocking table appeared in the 2022 and 2023 Kentucky Afield calendars (Figure 3). Care was taken to keep the FINs graphics and message consistent across various media outlets.

The FINs website was routinely updated to convey the latest stocking information and list of lakes enrolled in the program. The website also features detailed maps of lakes enrolled in the program, fish stocking dates and quantities, regulations, basics of how-to fish, and a link to purchase a license.

All lakes enrolled in the FINs program have a memorandum of agreement (MOA) giving KDFWR the authority to manage fish populations and set standardized regulations. The standard set of regulations at the lakes is four catfish, five rainbow trout, 15 bluegill or other sunfish, and one largemouth bass over 15.0 in. Metal 4 ft x 4 ft regulation signs and smaller yellow plastic regulation signs are posted around the lakes. A QR code sticker was affixed to all the signs in 2021 that directed anglers to the online Fishing and Boating Guide in English or Spanish. Stocking dates and fish quantities were emailed to the conservation officers in advance of the stockings for enforcement purposes. All lake owners enrolled in the FINs program agree to assist through maintaining access to the fishing areas including trash pick-up, mowing, cleaning restrooms, and assisting with fishing events.

Information kiosks are installed at 25 of the 45 lakes to inform the public of the FINs program and make anglers and park-goers aware of KDFWR's role in fish management and stocking. The kiosk posters are specific to each lake and updated annually. Information in the kiosk 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. Some of the kiosk posters are laminated to help prevent water damage from leaking kiosks and prolong the life of the posters.



GOOD FISHING. CLOSE TO HOME.



STOCKED LAKES

COUNTY	LAKE
Anderson	Anderson County Community Park Lake
Boone	Camp Ernst Lake
Boyle	Millennium Park Pond
Campbell	Alexandria Community Park Lake
	Robert J. Barth Lake
	Southgate Lake
Daviess	Panther Creek Park Lake
	Waymond Morris Park Lake
	Yellow Creek Park Lake
Fayette	Kentucky Horse Park Rolex Lake
	Jacobson Park Lake
Fleming	Flemingsburg Old Reservoir
Franklin	Lower Sportsman's Lake
	Upper Sportsman's Lake
Grant	Lake Pollywog
	Leary Lake
Graves	Kess Creek Park Lake
Grayson	James D. Beville Park Lake
Harlan	Kingdom Come State Park Lake
Hickman	Rotary Park Lake
Hopkins	Madisonville City Park Lake South
Jefferson	Cherokee Park Lake
	Fisherman's Park Lake #3
	Fisherman's Park Lake #4
	Tom Wallace Park Lake
	Waverly Park Lake
	William F. Miles Angler Lake
	William F. Miles Green Heron Lake
Jessamine	Lake Mingo
	Southland Church Lake
Kenton	Middleton Mills Long Pond
	Middleton Mills Shelterhouse Pond
	Prisoners Lake
Knox	Brickyard Pond
Lincoln	Logan Hubble Park Lake
Madison	Whitehall Park Lake
Marshall	Mike Miller Park Lake
Mason	Maysville-Mason County Recreation Park Lake
McCracken	Lake Montgomery
Meade	Carlson Lake (Fort Knox)
Montgomery	Easy Walker Park Pond
Nelson	Bloomfield Park Lake
Scott	Lusby Lake
	Scott County Park Lake
Warren	Three Springs Lake

STOCKED FISH

FISH	TIME
Trout	October - March
Catfish	March - June

Buy a Fishing License today to support the FINs program!

Check our website fw.ky.gov for stocking dates and regulations or call 1-800-858-1549 for updates.





Figure 1. Flyer used to advertise the Fishing in Neighborhoods program in 2022-23.



Figure 2. Banner used to advertise the Fishing in Neighborhoods program in 2022-23.

FINs LAKES 2023 STOCKINGS

Fishing in Neighborhoods (FINs)

DO YOU LIVE in Jefferson, Fayette or Campbell County? How about Harlan, Anderson or Mason County? Then good fishing is just down the road from you.

More than a decade ago, the Kentucky Department of Fish and Wildlife Resources launched its urban fishing program. The thought was to bring good fishing closer to major population centers.

Much has changed since then. The program morphed into the Fishing in Neighborhoods program – or FINs as it's known around here – to reflect its expansion into more rural communities. The program has grown from a handful of lakes at the beginning to 45 lakes spread across 28 counties today.

What does it take to be a FINs lake? Accessibility is a key. It must have public access. You'll find FINs lakes in parks or park-like settings. They're great places to take the family, spread out a blanket and enjoy a picnic.

As for fish, FINs lakes receive trout stockings in fall and late winter. Lakes receive catfish stockings in spring as well. Use the handy chart on this page for stocking months and amounts.

Want to know more? Go online to fw.ky.gov – and find a place to fish closer to your home. ■

LAKE	COUNTY	TROUT				CATFISH			
		Feb.	Mar.	Oct.	Nov.	Mar.	Apr.	May	June
Anderson County Community Park Lake	Anderson	500	500		500	200	200	200	200
Camp Ernst Lake	Boone	1,500	1,500		1,500	1,250	1,250	1,250	1,250
Millennium Park Pond	Boyle	500	500		500	400	400	400	400
Alexandria Community Park Lake	Campbell	1,500	1,500		1,500	1,400	1,400	1,400	1,400
Robert J. Barth Park Lake	Campbell	750	750		750	700	700	700	700
Southgate Lake	Campbell	500	500		500		400		400
Panther Creek Park Lake	Daviess	750	750	750		800	800	800	800
Waymond Morris Park Lake	Daviess	1,500		1,500		1,000	1,000	1,000	1,000
Yellow Creek Park Lake	Daviess	750	750	750		600	600	600	600
Jacobson Park Lake	Fayette	3,000	3,000	3,000		2,300	2,300	2,300	2,300
Kentucky Horse Park Rolex Lake	Fayette	1,500			1,500		1,100		1,100
Flemingsburg Old Reservoir	Fleming	1,500			1,500		1,100		1,100
Lower Sportsman's Lake	Franklin	500	500	500		600	600	600	600
Upper Sportsman's Lake	Franklin	1,500	1,500	1,500		1,200	1,200	1,200	1,200
Lake Pollywog	Grant	750	750		750		700		700
Leary Lake	Grant	1,500	1,500		1,500		900		900
Kess Creek Park Lake	Graves	500	500	500		400	400	400	400
James D. Beville Park Lake	Grayson	750	750	750		600	600	600	600
Kingdom Come State Park Lake	Harlan	500	500	500			500		500
Rotary Park Lake	Hickman	500	500	500		200	200	200	200
Madisonville City Park Lake South	Hopkins	1,500	1,500	1,500			1,250		1,250
Cherokee Park Lake	Jefferson	750	750	750			800		800
Fisherman's Park Lake #3	Jefferson	500	500	500			400		400
Fisherman's Park Lake #4	Jefferson	500	500	500			400		400
Tom Wallace Park Lake	Jefferson	1,500	1,500	1,500		1,000	1,000	1,000	1,000
Waverly Park Lake	Jefferson	1,500	1,500	1,500		900	900	900	900
William F. Miles Angler Lake	Jefferson	750	750	750		700	700	700	700
William F. Miles Green Heron Lake	Jefferson	500	500	500		200	200	200	200
Lake Mingo	Jessamine	500	500	500		500	500	500	500
Southland Church Lake	Jessamine	500	500	500		500	500	500	500
Middleton Mills Long Pond	Kenton	500	500	500		300	300	300	300
Middleton Mills Shelterhouse Pond	Kenton	500	500	500		300	300	300	300
Prisoners Lake	Kenton	750	750	750			800		800
Brickyard Pond	Knox	1,500			1,500	2,000	2,000	2,000	2,000
Logan Hubble Park Lake	Lincoln	1,500	1,500		1,500		1,800		1,800
Whitehall Park Lake	Madison	1,500	1,500	1,500		1,200	1,200	1,200	1,200
Mike Miller Park Lake	Marshall	750	750	750			800		800
Maysville-Mason County Rec. Park Lake	Mason	1,500			1,500		1,150		1,150
Lake Montgomery	McCracken	1,500	1,500	1,500		1,100	1,100	1,100	1,100
Carlson Lake (Ft. Knox)	Meade						1,400		1,400
Easy Walker Park Pond	Montgomery	500	500		500	400		400	400
Bloomfield Park Lake	Nelson	500	500		500		500		500
Lusby Lake	Scott	500	500		500	500	500	500	500
Scott County Park Lake	Scott	500	500		500	500	500	500	500
Three Springs Lake	Warren	1,500	1,500		1,500	1,450	1,450	1,450	1,450

Figure 3. Stocking table advertising Fishing in Neighborhoods program that appeared in 2023 Kentucky Afield calendar.

Section III: Fish Sampling

FINDINGS

Fish sampling was completed at 18 Fishing in Neighborhoods (FINs) lakes in May 2022. Samples were conducted with 10-min electrofishing runs using 60-pps direct current. All species that surfaced during the runs were netted and measured to the nearest 0.1 in except for gizzard shad, common carp, grass carp and rainbow trout. Multiple runs were conducted at most FINs lakes to allow measures of variability but was not possible at some smaller lakes. Sampling conditions by waterbody and date are noted in Table 1. A proportional stock density (PSD) index (Figure 1) was used to determine balance or lack thereof of sunfish and largemouth bass populations. The PSD index is calculated as the percentage of fish of a quality size (total length) that is longer than a minimum stock size. Minimum stock and quality sizes (20 – 26% and 36 – 41% of world record length, respectively) are defined for: largemouth bass (8 and 12 in); bluegill (3 and 6 in); and redear sunfish (4 and 7 in). Where bluegill and redear sunfish populations were both present within a lake the sunfish PSD value was weighted according to relative abundance of each species. Sequential sampling methods were used to determine when a reliable PSD value (90% confidence) was within a defined interval (Weithman et al. 1980). If the sample size was inadequate to classify the fish population, the deficiency was noted with a superscript.

Alexandria Community Park Lake (Campbell County)

Bluegill up to the 7 in class and redear sunfish up to the 9 in class were present in the 2022 sample at Alexandria Community Park Lake (7.0 acres; Table 2). The catch rates were moderate for both bluegill and redear sunfish in 2022. The bluegill catch rate (419.2 fish/hr) was above the long-term average (305.3 fish/hr), with fish in the 3.0 – 5.9 in length group (302.4 fish/hr) making up the majority of the catch (Table 3). The redear sunfish catch rate (227.5 fish/hr) was well above the long-term average (84.3 fish/hr), with most fish in the 3.0 – 5.9 in length group as well. The 2022 overall largemouth bass catch rate (170.7 fish/hr) was below the long-term average (299.6 fish/hr; Table 4). The catch rate of bass in the 8.0 – 11.9 in length group (62.9 fish/hr) in 2022 was well below the long-term mean (167.9 fish/hr), while the catch rate for all other length groups was similar to the long-term average. A total of 327 bass ranging in size from 4 – 13 in were removed from the lake and relocated in 2021. This appears to have helped the crowded bass population slightly as the bass PSD value increased in 2022 due to reduced numbers of stock size fish (Figure 2). The sunfish shifted away from plentiful large sunfish with low recruitment in 2018-20, to more stock size fish in 2022.

Robert J. Barth Park Lake (Campbell County)

The catch rate and size structure of bluegill was poor at Robert J. Barth Park Lake (3.7 acres) with bluegill up to the 6 in class sampled in 2022 (Table 5). Bluegill in the 3.0 – 5.9 in length group made up the majority of the catch (Table 6). Fingerling redear sunfish were stocked in fall 2021 to bolster the sunfish population and add additional forage to the lake. The largemouth bass sample consisted primarily of fish in the 8.0 – 11.9 in length group, with 12 in class fish the maximum size observed (Table 7). The PSD index indicated an overfished pond with few adult fish available (Figure 3). The bass appeared skinny and stunted, with lack of forage likely limiting growth. A total of 71 largemouth bass in the 5 – 12 in range were removed in 2021, along with 17 common carp, to improve the size structure of the remaining bass by reducing competition and removing non-native common carp. It appeared pond dye was used, likely hindering lake productivity. A recommendation was made to the lake owner to stop using pond dye to improve fish growth and lake productivity. The standard FINs creel and length limits went into effect in fall 2021, with fish stockings beginning at that time.

Panther Creek Park Lake (Daviess County)

Catch rates for bluegill and redear sunfish were high at Panther Creek Park Lake (3.8 acres), while the catch rate for largemouth bass was low in 2022 (Table 8). A gizzard shad eradication was conducted with a light dose of rotenone during March 2014, to improve the fishery. No gizzard shad were observed in the 2014-16 samples. However, the lake was inundated by a nearby creek in early 2018 and gizzard

shad reappeared in the 2018 sample and were observed again in 2020. Another gizzard shad eradication was conducted in January 2022 with a light dose of rotenone, with no shad observed in the spring 2022 sample. The bluegill catch rate in 2022 (598.8 fish/hr) was nearly identical to the 2020 sample (589.9 fish/hr), and well above the long-term mean (361.6 fish/hr; Table 9). The vast majority of bluegill sampled in 2022 were in the 6.0 – 7.9 in length group which was a shift in size structure from the 2020 sample where most fish were in the 3.0 – 5.9 in length group. The catch rate of redear sunfish in 2022 (982.0 fish/hr) increased dramatically from the long-term mean (319.2 fish/hr) and was nearly double the already abnormally high 2020 catch rate (509.0 fish/hr). The vast majority of redear sunfish sampled in 2022 were in the 6.0 – 7.9 in length group which was a shift in size structure from the 2020 sample where most fish were in the 3.0 – 5.9 in length group. There was also an abundance of redear sunfish in the ≥ 8.0 in length group in the 2022 sample (182.6 fish/hr), nearly three times the long-term mean (59.9 fish/hr). The largemouth bass catch rate continued to decline in 2022 (86.8 fish/hr), to the lowest observed since sampling began in 2010 (Table 10). The largemouth catch rates were down considerably for each length group except for the ≥ 15.0 in length group which was near the long-term mean. The PSD index shifted from a bass crowded population and abundant large sunfish in 2016-18 closer to a balanced fishery in 2020, with abundant large sunfish again in the 2022 sample (Figure 4). The shift in the sunfish PSD can be attributed to a drastic increase in catch rates of sunfish in the 3.0 – 5.9 in length group in 2020, which moved into the 6.0 – 7.9 in length group in 2022. The largemouth bass PSD shift can be attributed to the dramatic decline in the number of stock size fish in the 8.0 – 11.9 in length group sampled in 2020-22.

Kentucky Horse Park Rolex Lake (Fayette County)

Kentucky Horse Park Rolex Lake (5.6 acres) had bluegill up to the 7 in class, redear sunfish up to the 9 in class and largemouth up to the 20 in class present in the 2022 sample (Table 11). The catch rate for bluegill continues to increase, with the 2022 catch rates of fish in the 3.0 – 5.9 and 6.0 – 7.9 in length group over double the previous high for any year sampled (Table 12). Redear sunfish were stocked in 2018 and 2019 to establish a population, with low numbers of fish sampled in 2022. The largemouth bass catch rate in 2022 (173.7 fish/hr) was higher than the 2020 sample (86.8 fish/hr), but similar to the 2018 catch rate (167.7 fish/hr; Table 13). Bass were present in all length groups, with fish in the 8.0 – 11.9 in length group making up the majority of the catch. A total of 275 largemouth bass (7 – 15 in) were stocked into Rolex Lake in 2016 and 2017 from nearby lakes with crowded bass populations after the spring 2016 sample revealed Rolex Lake had multiple year classes of largemouth bass missing. An additional 71 bass (5 – 12 in) were stocked in May 2021. The 2017 fall catfish sample revealed an extremely high abundance of small channel catfish < 12 in. It was unclear whether the high catfish abundance was due to overstocking by local Horse Park staff (no stocking records available and changes in staff) prior to becoming a FINs lake in 2016 or due to natural reproduction. With the additional information from catfish sampling, we hypothesized the overabundance of small catfish were likely hindering bass spawning and recruitment. Nearly 1,700 small channel catfish (< 12 in) were moved to nearby FINs lakes in 2017, 2018 and 2021 to improve condition and growth of remaining catfish and improve bass recruitment. The fishery at Rolex Lake was out of balance prior to enrollment in the FINs program in 2016. Through fish stockings and removals, we are actively managing to get the fishery back into balance to improve angling opportunities. The PSD index lacks a sufficient sample size for assessing bass in all years sampled, but the last three surveys have indicated a bass balanced population with the PSD for sunfish being high 2016-20, indicating good numbers of large sunfish with the sunfish population moving closer to a balanced population in 2022 (Figure 5).

Lower Sportsman's Lake (Franklin County)

Lower Sportsman's Lake (2.7 acres) had an abundance of yellow bass in the 2022 sample (329.3 fish/hr; Table 14). The bluegill catch rate rebounded in 2022 (503.0 fish/hr) and was near the long-term mean (645.0 fish/hr) after a couple years of low catch rates in 2018 and 2020 (Table 15). The majority of bluegill were in the 6.0 – 7.9 in length group. Redear sunfish were stocked in 2018 and 2019 to establish a population, with 6 – 9 in class fish sampled in 2022 in low abundance. Largemouth bass in the 8.0 – 11.9 in length group made up the majority of the catch, while the 2022 overall bass catch rate (113.8 fish/hr) was less than half the long-term mean (238.7 fish/hr; Table 16). The PSD value has increased in

recent samples for sunfish, while decreasing for largemouth bass (2016-22; Figure 6). Currently the lake appears to be bass stunted with large sunfish with low recruitment. However, the sample size is lacking in several years to precisely estimate PSD values for bass or sunfish.

Upper Sportsman's Lake (Franklin County)

Upper Sportsman's Lake (6.2 acres) had an abundance of yellow bass in the 2022 sample (727.5 fish/hr; Table 17). The bluegill catch rate was low in 2022 (137.7 fish/hr), similar to the 2020 catch rate (107.8 fish/hr) and less than half the long-term mean (349.7 fish/hr; Table 18). The vast majority of bluegill sampled in 2022 were in the 6.0 – 7.9 in length group which was a shift in size structure from the 2020 sample where most fish were in the 3.0 – 5.9 in length group. Redear sunfish were stocked in 2018 and 2019 to establish a population, with only a couple 8 in class fish sampled in 2022. The largemouth bass total catch rate (185.6 fish/hr) was lower than the long-term mean (300.4 fish/hr), with bass in the 8.0 – 11.9 in length group making up the majority of the sample (Table 19). Catch rates were below the long-term means for all length groups of bass. The PSD index hovered around a balanced fishery in most years, with the largemouth bass PSD slightly lower than desired in the 2018-22 samples (Figure 7). The bluegill PSD was elevated in 2022 due to low numbers of stock size fish.

Kess Creek Park Lake (Graves County)

The catch rates were low for all species of fish sampled at Kess Creek Park Lake (2.1 acres) in 2022 (Table 20). The lake was newly constructed and stocked in fall 2015. Stocking of catfish and trout for the FINs program began in 2017. White crappie were the most abundant fish (143.7 fish/hr) with most fish in the 5 – 7 in classes. Bluegill in the 3.0 – 5.9 in length group made up the majority of the catch, with a continued low overall catch rate in 2022 (77.8 fish/hr; Table 21). Redear sunfish were stocked in 2018 to establish a population, with 5 – 9 in class fish sampled in 2022. Redear sunfish in the 6.0 – 7.9 in length group made up the majority of the catch. The bass catch rate continued to be low in 2022 (65.9 fish/hr), with no fish sampled in the 12.0 – 14.9 in length group (Table 22). The water was very turbid during sampling and several larger bass jumped the electrofishing field. A total of 75 bass (4 – 10 in) were stocked after the 2022 sample to bolster the population. The PSD index indicates few large sunfish are present, while bass have a high PSD value with low recruitment (Figure 8)

James D. Beville Park Lake (Grayson County)

The catch rate was moderate for bluegill in 2022 at James D. Beville Park Lake (3.1 acres, with fish up to the 8 in class sampled (Table 23). Bluegill catch rates were split evenly between fish in the 3.0 – 5.9 and 6.0 – 7.9 in length groups in 2022 with low catch rates in the < 3.0 and ≥ 8.0 in length groups (Table 24). Redear sunfish were stocked in 2019 to bolster the population, with 4 – 9 in class fish sampled in 2022. Redear sunfish in the ≥ 8.0 in length group made up the majority of the catch. The largemouth bass catch rate was moderate with fish up to the 21 in class sampled. Largemouth bass in the 8.0 – 11.9 in length group made up the highest proportion of the catch in 2022, with the catch rate of fish in the 12.0 – 14.9 in length group above the long-term mean (Table 25). The overall catch rate for bass in 2022 (215.6 fish/hr), was similar to the long-term average (213.2 fish/hr). The PSD index in 2022 indicated a sunfish population with lots of large fish, with a stunted bass population. The PSD index indicated similar high PSD values for sunfish and low PSD values for bass since sampling began in 2013, indicating the fish population balance and size structure has remained stable.

Rotary Park Lake (Hickman County)

Bluegill and redear sunfish up to the 8 in class and largemouth bass up to the 17 in class were sampled in 2022 at Rotary Park Lake (1.0 acre; Table 26). The overall bluegill catch rate in 2022 (251.5 fish/hr) was similar to the long-term mean (256.0 fish/hr; Table 27). Bluegill in the 3.0 – 5.9 in length group made up the vast majority of the catch. The catch rate of bluegill in the 6.0 – 7.9 in length group in 2022 (47.9 fish/hr), was less than half the long-term average (101.8 fish/hr). Redear sunfish were stocked in 2018 to establish a population, with 3 – 8 in class fish sampled in 2022. The majority of redear sunfish sampled in 2022 were in the 6.0 – 7.9 in length group. Largemouth bass in the 8.0 – 11.9 in length group made up

the majority of the catch, similar to the 2016, 2018 and 2020 samples (Table 28). The lake was added to the FINs program in January 2017. The bass population has consistently had a low PSD and appears stunted or overfished, with the sunfish PSD decreasing in 2022 due to an abundance of stock size bluegill and redear sunfish (Figure 10).

Madisonville City Park Lake South (Hopkins County)

The catch rates were moderate in 2022 for bluegill, redear sunfish and largemouth bass at Madisonville City Park Lake South (25.0 acres; Table 29). Bluegill up to the 7 in class and redear sunfish up to the 9 in class were sampled; however, the largest bass sampled were only in the 11 in class. The overall bluegill catch rate in 2022 (263.5 fish/hr) was nearly identical to the long-term mean (265.1 fish/hr) with catch rates similar to the long-term mean for all length groups (Table 30). The redear sunfish catch rate in 2022 (333.3 fish/hr) was above the long-term mean (218.2 fish/hr) with abundant fish in the 6.0 – 7.9 and ≥ 8.0 in length groups. The 2022 catch rate of redear sunfish in the ≥ 8.0 in length group (141.7 fish/hr) was over double the long-term mean (68.2 fish/hr). The largemouth bass catch rate in 2022 (189.6 fish/hr) was nearly identical to the long-term mean (185.0 fish/hr), with the vast majority of bass in the 8.0 – 11.9 in length group (Table 31). It appears there is bass crowding occurring as catch rates of bass in the 12.0 – 14.9 in length group have continued to decline and no fish in the ≥ 15.0 in length group have ever been sampled. The PSD index confirms a bass crowded lake, with large sunfish present with low recruitment (Figure 11). The PSD index has been very stable since 2014. Grass carp were stocked in 2011, 2014, 2016 and 2020 to reduce macrophyte vegetation.

Lake Mingo (Jessamine County)

The catch rate of bluegill at Lake Mingo (2.5 acres) was high with fish up to the 7 in class sampled in 2022 (Table 32). The redear sunfish catch rate was moderate in 2022, with fish up to the 9 in class sampled. Redear sunfish were stocked in 2019 to bolster the population. Similar to past samples, bluegill in the 3.0 – 5.9 in length group made up the majority of the catch; however, the catch rate of fish in the 6.0 – 7.9 in length group (305.4 fish/hr) was well above the long-term mean (93.2 fish/hr; Table 33). The majority of largemouth bass were in the 8.0 – 11.9 in length group, with the 2022 overall catch rate (137.7 fish/hr) slightly below the long-term mean (177.1 fish/hr; Table 34). The PSD index has shifted in recent years with the largemouth bass PSD decreasing, while the sunfish PSD was the highest observed since sampling began in 2010 (Figure 12). The 2022 PSD index was near a balanced fishery. Three hundred largemouth bass (3 – 11 in) were stocked in September 2020, with another 216 largemouth bass (3 – 13 in) stocked in 2022 after the spring sample to bolster the bass population, reduce sunfish numbers and balance the fishery.

Southland Church Lake (Jessamine County)

The catch rates were moderate for bluegill and redear sunfish at Southland Church Lake (2.6 acres) with bluegill sampled up to the 6 in class and redear sunfish up to the 8 in class (Table 35). Redear sunfish were stocked in 2018 and 2019 to establish a population. The bluegill catch rate was predominantly fish in the 3.0 – 5.9 in length group with the overall catch rate near the long-term mean (Table 36). The redear sunfish catch split nearly evenly between fish in the 3.0 – 5.9 and 6.0 – 7.9 in length groups. The catch rate for largemouth bass increased in 2022 but was still low (Table 37). Two hundred and fifty bass (5 – 11 in) were stocked in October 2020 to reduce crowded sunfish numbers and bolster the bass population. Southland Church Lake was added to the FINs program in 2018. An abundance of gizzard shad was observed in the 2020 sample that were not seen in 2018. A gizzard shad eradication was conducted with a light dose of rotenone during January 2022 to improve the fishery with no gizzard shad observed in the 2022 sample. The PSD index lacks a sufficient sample size for assessing bass in the 2018-22 samples due to low abundance, with the PSD for sunfish being very low in each sample, indicating a poor size structure (Figure 13).

Mike Miller Park Lake (Marshall County)

Bluegill up to the 7 in class and redear sunfish up to the 9 in class were sampled in 2022; however, the largest bass sampled was only in the 11 in class at Mike Miller Park Lake (3.9 acres; Table 38). The 2022 overall bluegill catch rate (293.4 fish/hr) was near the long-term mean (266.5 fish/hr) with fish in the 3.0 – 5.9 in length group accounting for the majority of the catch (Table 39). The redear sunfish overall catch rate in 2022 (188.6 fish/hr), was similar to the long-term mean (173.7 fish/hr). The majority of the redear sunfish catch in 2022 consisted of fish in the ≥ 8.0 in length group (122.8 fish/hr), which was well above the long-term mean (28.4 fish/hr). The largemouth bass size structure continued to indicate a crowded bass population with no fish sampled ≥ 12 in (Table 40). The overall catch rate of 413.2 fish/hr was slightly above the long-term mean of 361.0 fish/hr, with the highest catch rate of < 8.0 in length group bass observed since sampling began in 2010. The PSD index has consistently indicated a stunted bass population with some larger sunfish available with low recruitment (Figure 14). Seventy-five largemouth bass (4 – 10 in) were removed after the 2022 sample and relocated to a nearby FINs lake.

Lake Montgomery (McCracken County)

Bluegill up to the 7 in class, redear sunfish up to the 9 in class and largemouth bass up to 21 in class were all sampled in 2022 at Lake Montgomery (5.5 acres; Table 41). A successful gizzard shad eradication was conducted with a light dose of rotenone during February 2017. The majority of bluegill sampled in 2022 were in the 6.0 – 7.9 in length group, which was a shift in the size structure from past years when fish in the 3.0 – 5.9 in length group made up the majority of the catch (Table 42). The 2022 catch rate of 6.0 – 7.9 in length group fish (326.4 fish/hr) was well above the long-term mean (123.2 fish/hr). Redear sunfish were stocked in 2018 to establish a population, with 6 – 9 in class fish sampled in 2022. The redear sunfish catch was split evenly between fish in the 6.0 – 7.9 and ≥ 8.0 in length groups. The 2022 largemouth bass overall catch rate (125.8 fish/hr) continues to be low, with fish well distributed through all length groups (Table 43). The PSD index has been highly variable between years, with the bass sample size lacking in several years to make a precise estimate (Figure 15). In 2022, the sunfish PSD was the highest observed, with plenty of large fish present, while the largemouth bass PSD value indicated a bass balanced population.

Bloomfield Park Lake (Nelson County)

Bluegill up to the 7 in class and redear sunfish up to the 10 in class were present in the 2022 sample at Bloomfield Park Lake (2.4 acres; Table 44). The overall bluegill catch rate (161.7 fish/hr) was below the long-term mean (309.9 fish/hr), with fish in the 6.0 – 7.9 in length group making up the majority of the catch (Table 45). Redear sunfish were stocked in 2018 and 2019 to establish a population, with all fish sampled in 2022 in the ≥ 8.0 in length group. The largemouth bass catch rate was moderate in 2022 (449.1 fish/hr), and near the long-term mean (398.2 fish/hr), with bass in the 8.0 – 11.9 in length group making up half the catch (Table 46). The PSD index has consistently indicated a stunted bass population (2012-22) with plentiful large sunfish available to anglers (2014-22; Figure 16). A total of 116 largemouth bass ranging from the 3 – 13 in classes were removed and relocated to nearby FINs lake in November 2022.

Lusby Lake (Scott County)

Bluegill up to the 7 in class, redear sunfish up to the 9 in class and largemouth bass up to the 19 in class were sampled in 2022 at Lusby Lake (2.3 acres; Table 47). A gizzard shad eradication was conducted with a light dose of rotenone during February 2017. No gizzard shad were observed in the 2018-20 samples. However, gizzard shad reappeared in the 2022 sample. Another gizzard shad eradication was conducted in January 2023 with a light dose of rotenone. The majority of bluegill sampled in 2022 were in the 3.0 – 5.9 in length group; however, the catch rate of fish in the 6.0 – 7.9 in length group (287.4 fish/hr) was well above the long-term mean (107.8 fish/hr; Table 48). Redear sunfish were stocked in 2018 and 2019 to establish a population, with 5 – 9 in class fish sampled in 2022. The majority of redear sunfish sampled in 2022 were in the ≥ 8.0 in length group. The 2022 largemouth bass catch rate (287.4 fish/hr) was well above the long-term mean (130.9 fish/hr), with a catch rate above the long-term mean in all

length groups except the ≥ 15.0 in length group (Table 49). A total of 300 largemouth bass (4 – 13 in) were stocked from nearby FINs lakes in 2020-21 to bolster the bass population at Lusby Lake. The PSD index has been highly variable between years, with the sample size lacking sufficient sample size for sunfish and bass in several years to make a reliable prediction (Figure 17). This variability in PSD values is likely due to the introduction and reintroduction of gizzard shad in addition to supplemental largemouth bass stockings. The PSD value for sunfish in 2022 was the highest observed, while the bass PSD index was near a bass balanced population.

Scott County Park Lake (Scott County)

Bluegill up to the 8 in class, redear sunfish up to the 10 in class and largemouth bass up to the 20 in class were all sampled in 2022 at Scott County Park Lake (2.5 acres; Table 50). The 2022 catch rate for bluegill (311.4 fish/hr) was much improved from the 2016, 2018 and 2020 samples (107.8, 59.9, and 6.0 fish/hr respectively; Table 51). Bluegill were nearly evenly distributed in the 3.0 – 5.9 and 6.0 – 7.9 in length groups, with some fish also present in the ≥ 8.0 in length group. Redear sunfish were stocked in 2018 and 2019 to establish a population, with 7 – 10 in class fish sampled in 2022 in low abundance. The largemouth bass size structure shifted drastically in 2022 with fewer fish in the 8.0 – 11.9 in length group and a much higher catch rate for bass in the 12.0 – 14.9 in length group compared to the long-term means (Table 52). A total of 243 largemouth bass (3 – 12 in) were removed in 2020-21 and relocated to nearby FINs lakes. Conversely, 86 largemouth bass (4 – 16 in) and 396 bluegill (3 – 7 in) were stocked in October 2021 from a nearby lake being drained. The PSD index consistently indicated a stunted bass population (2010-20) with some larger sunfish available to anglers with low recruitment (2012-22; Figure 18). However, the bass PSD value changed considerably in 2022 due to a drastic reduction in stock size fish and drastic increase in quality size largemouth bass.

Three Springs Lake (Warren County)

Three Springs Lake (28.9 acres) has had gizzard shad present since the first sample was conducted in 2010. Typical of a lake with shad, bluegill numbers are high, with moderately low numbers of bass (Table 53). Bluegill catch rates have increased dramatically in the 2016-22 samples, compared to 2010-14 samples, with bluegill in the 3.0 – 5.9 in length group being the driving factor (Table 54). There was an increase in the catch rate for bluegill in the 6.0 – 7.9 in length group in 2022, which was nearly double the long-term average. The redear sunfish catch rate in 2022 was nearly double the long-term mean, with fish in the 6.0 – 7.9 in length group making up the majority of the catch. The 2022 catch rate for largemouth bass (158.1 fish/hr) was near the long-term average (174.6 fish/hr), with the size structure shifting to larger fish in recent samples, with a higher proportion of bass in the 12.0 – 14.9 and ≥ 15.0 in length groups, which were both above the long-term means (Table 55). The PSD index shifted dramatically from a low PSD for bass in 2010-14, to a high PSD for bass in 2018-22 (Figure 19). The lake currently has a high bass PSD with large fish and low recruitment, with a lower than desired PSD for sunfish. The sunfish PSD has been relatively stable from 2016-22 near a sunfish balanced population.

TANDEM HOOP NET SAMPLING

Tandem hoop net sampling for channel catfish and channel/blue hybrid catfish was conducted at 15 FINs lakes in October 2022. Tandem hoop net sets consisted of three nets per set, each 11 ft long with one-inch bar mesh and seven fiberglass hoops with the throats constricted. Three tandem sets per lake were soaked for 72-hr before checking. Each net was baited with 1/3 of a commercially prepared cheese log (about 2-lbs per net) from The Fish Net Company. Care was taken not to set nets below the thermocline. Catfish were measured to the nearest 0.1 in and weighed to the nearest 0.01 pound. Relative weight (W_r) was used to determine condition of catfish at each lake. However, differentiating between channel catfish and channel/blue hybrid catfish was difficult and time consuming in the field. Therefore, channel catfish and the hybrid catfish were grouped together for analysis and the channel catfish relative weight equation was used.

Anderson County Community Park Lake (Anderson County)

No channel/hybrid catfish were sampled in 2022 in three tandem hoop nets sets at Anderson County Community Park Lake (1.0 acre; Table 56). The catch rate has been low in all four samples, since surveying began in 2013 (≤ 5 fish/set). There were no relative weights to report in 2022 as no fish were sampled (Table 57). Due to the small lake size, catfish are likely harvested quickly after stocking. Anderson County Community Park Lake is stocked with 800 catfish annually as a primary FINs lake. The lake was stocked with an additional 364 catfish in 2021 due to a surplus at the hatchery; however, these additional catfish did not increase the 2022 catch rate. There was some turtle and fish bycatch with quality bluegill, redear sunfish and black crappie sampled.

Camp Ernst Lake (Boone County)

The catch rate for channel/hybrid catfish at Camp Ernst Lake (25.0 acres) was considerably higher in 2022 (81.7 fish/set) compared to the 2020 sample (6.3 fish/set), which appears to be an outlier (Table 58). The 2022 catch rate was comparable to samples in 2013 (83.3 fish/set) and 2017 (112.7 fish/set) and below the 234.0 fish/set sampled in 2014. Relative weights were consistent for all length groups from 2013-2020; however, the relative weights were considerably lower in 2022 for all length groups (Table 59). The overall relative weight was only 78 in 2022 compared to 84-85 from 2013-20. The relative weight was not above 80 for any of the length groups of catfish. Catfish appear to be abundant in the lake and may have limited forage as indicated by their poor condition. Catfish were sampled up to 22 in class; however, a significant proportion of the population is small with 39% of fish sampled < 13 in. These catfish likely have slow growth due to high catfish abundance and low relative weights. Camp Ernst Lake is one of the larger FINs lakes, fish likely have a place to disperse, delaying harvest by anglers. Camp Ernst Lake is a primary FINs lake which receives 5,000 catfish annually. However, the lake was stocked with an additional 2,782 catfish in 2021 due to a surplus at the hatchery. The number of stocked catfish could be reduced until relative weights improve.

Alexandria Community Park Lake (Campbell County)

A total of 261 channel/hybrid catfish were caught in three tandem hoop net sets (87.0 fish/set) in 2022 at Alexandria Community Park Lake (7.0 acres; Table 60). The 2022 sample had a higher catch rate compared to 2018 (36.7 fish/set) and 2020 samples (19.0 fish/set), but was lower than the 2011, 2012, and 2015 catch rates (310.3, 177.0 and 109.0 fish/set respectively). The catfish population size structure has shifted in recent years. In the past, a large proportion of the population consisted of small catfish < 13 in (88% in 2011, 60% in 2012 and 72% in 2015); however, the population shifted to larger catfish with only 16% of the catch < 13 in 2018, 26% in 2020, and 21% in 2022 respectively. The overall relative weight of 79 was the lowest since sampling began (Table 61). Catfish in the 7.0 – 10.9 in length group had the lowest relative weight of 77, with catfish in the 11.0 – 15.9 length group similar at 78 and 16.0 – 23.9 in length group catfish having a relative weight of 81. While the size structure indicates a healthy population with plenty of larger fish available to anglers, the condition of catfish is poor, possibly indicating a high abundance of catfish with limited available forage. Alexandria Community Park Lake is a primary FINs lake which receives 5,600 catfish annually. The number of stocked catfish could be reduced until relative weights improve.

Lower Sportsman's Lake (Franklin County)

The catch rate of channel/hybrid catfish was high at Lower Sportsman's Lake (2.7 acres) with 114.0 fish/set sampled in 2022, which was considerably higher than the 2016 (20.0 fish/set) and 2019 catch rates (25.0 fish/set; Table 62). The size structure of catfish shifted dramatically towards smaller fish in 2022 with 56% of catfish sampled < 13 in, compared to only 17% in 2016 and 3% in 2019. In the 2011 and 2013 samples 80% and 77% of catfish sampled were < 13 in respectively. Grading of catfish at the hatchery and stocking larger catfish in likely contributed to fewer smaller catfish being sampled in 2016-19. The relative weight for catfish in the 7.0 – 10.9 in length group was 91, while catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups had relative weights of 85 (Table 63). The overall relative weight of 86 was identical to the 2013 and 2016 samples and slightly below the 2011 and 2019 samples (91). The

relative weight of larger catfish 16.0 – 23.9 in length group (85) was the lowest observed since sampling began in 2011. Lower Sportsman's receives 2,400 catfish annually as a primary FINs lake. However, the lake was stocked with an additional 1,150 catfish in 2021 due to a surplus at the hatchery. No surplus catfish should be stocked here based on the high number of catfish sampled in 2022. Additionally, the catfish size structure could be improved by grading off smaller catfish in future stockings.

Upper Sportsman's Lake (Franklin County)

The catch rate of channel/hybrid catfish was moderate (61.0 fish/set) at Upper Sportsman's Lake (6.2 acres) in 2022 with fish ranging in size from the 9 – 22 in classes (Table 64). This catch rate was the highest since sampling began in 2007 and well above the 2013 (17.3 fish/set), 2016 (7.3 fish/set), and 2019 samples (9.7 fish/set). In 2011 and 2013 predominantly smaller catfish were sampled with 68% and 58% of catfish sampled < 13 in. However, the size structure shifted towards larger fish with only 23% and 14% of catfish < 13 in the 2016 and 2019 respectively. However, the size structure of catfish shifted back to smaller catfish in 2022 with 40% of the fish sampled < 13 in. The relative weight was highest for small catfish in the 7.0 – 10.9 in length group at 90, followed closely by catfish in the 16.0 – 23.9 in length group with 88 (Table 65). Catfish in the 11.0 – 15.9 in length group had a relative weight of 80, which was considerably lower than observed in previous years. The relative weights for each length group were the lowest observed since sampling began in 2011. Upper Sportsman's receives 4,800 catfish annually as a primary FINs lake. However, the lake was stocked with an additional 2,930 catfish in 2021 due to a surplus at the hatchery. No surplus catfish should be stocked here based on the low relative weights in 2022. Additionally, the catfish size structure could be improved by grading off smaller catfish in future stockings.

Kess Creek Park Lake (Graves County)

The catch rate of channel/hybrid catfish was moderate (36.3 fish/set) at Kess Creek Park Lake (2.1 acres) in 2022 with fish ranging in size from the 9 – 21 in classes (Table 66). Half of the catfish surveyed in 2022 were < 13 in. Relative weights for catfish ranged from the low to mid 80's for each length group with fish in the 11.0 – 15.9 length group having the lowest relative weight of 81 (Table 67). The overall relative weight of 82 in 2022 was considerably lower than the 91 observed in 2019 when sampling first began at this lake. Kess Creek Park Lake was added to the FINs program in 2017 and receives 1,600 catfish annually as a primary FINs lake.

Rotary Park Lake (Hickman County)

The catch rate of channel/hybrid catfish was moderate in 2022 at Rotary Park Lake (2.1 acres) with a total of 86 fish sampled (28.7 fish/set; Table 68). Catfish ranged in size from the 8 – 20 in classes with 42% of catfish sampled < 13 in which was nearly identical to the 41% of catfish sampled in 2019 of the same size. Most catfish were in the 11.0 – 15.9 in length group, which had a relative weight of 83 (Table 69). The relative weight was similar for catfish in the 16.0 – 23.9 in length group at 82, while the small catfish in the 7.0 – 10.9 in length group had the highest relative weight of 97. The relative weights for each length group were lower in 2022 compared to 2019 when sampling first began at this lake. Rotary Park Lake was added to the FINs program in 2017 and receives 800 catfish annually as a primary FINs lake.

Madisonville City Park Lake South (Hopkins County)

The catch rate for channel/hybrid catfish was high in 2022 at Madisonville City Park Lake South (25.9 acres) with 283 catfish netted (94.3 fish/set; Table 70). This catch rate in 2022 was nearly identical to the 2019 sample of 96.0 fish/set. The lake was first sampled in 2015 (0.7 fish/set), before the lake was added to the FINs program. The 2015 sample was to ensure FINs catfish were being stocked in the correct lake within the park as the North Lake was a FINs lake from 2012-16. Relative weights ranged from a low of 84 for the 16.0 – 23.9 in length group to a high of 107 for catfish in the ≥ 24.0 in length group, with an overall relative weight of 86 (Table 71). Relative weights were similar for all length groups

in 2022 compared to the 2019 sample. Madisonville City Park Lake South is a secondary FINs lake and receives two stockings annually totaling 2,500 catfish.

Lake Mingo (Jessamine County)

The catch rate of hybrid/channel catfish continued to be low at Lake Mingo (2.5 acres), with 11 catfish sampled in 2022 (3.7 fish/set; Table 72). This catch rate was comparable to the 2013, 2017 and 2020 samples (3.0, 4.3, and 9.0 fish/set respectively), but lower than the 28.0 fish/set sampled in 2014. Catfish sampled in 2022 ranged in size from the 12 – 16 in classes. Relative weights were high for catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups (103 and 100 respectively), but due to the low sample size standard errors were large (Table 73). Lake Mingo is a primary FINs lake which receives 2,000 catfish annually. The lake was stocked with an additional 1,080 catfish in 2021 due to a surplus at the hatchery; however, these additional catfish did not increase the 2022 catch rate.

Southland Church Lake

The catch rate of hybrid/channel catfish was low at Southland Church Lake (2.6 acres) in 2022 with 23 catfish sampled (7.7 fish/set; Table 74). The 2022 catch rate was similar to the 2019 sample of 8.7 fish/set. Catfish ranged in size from the 9 – 19 in classes with 43% of catfish sampled < 13 in. The overall relative weight was 87, which was down slightly from the 92 reported in 2019 (Table 75). The lake is a primary FINs lake and receives 2,000 catfish annually. There doesn't appear to be an overabundance of catfish present, with stocked fish likely harvested soon after stocking.

Middleton Mills Long Pond (Kenton County)

The catch rate of hybrid/channel catfish was low at Middleton Mills Long Pond (1.2 acres), with 15 catfish sampled in 2022 (5.0 fish/set; Table 76). The 2022 catch rate was considerably lower than the 2012, 2016 and 2019 samples (103.7, 40.0 and 62.0 fish/set respectively). The catfish size structure continues to skew towards smaller fish with 73% of catfish sampled in 2022 < 13 in. The catfish size structure had improved in recent samples with 89%, 55% and 43% of catfish sampled < 13 in in the 2012, 2016 and 2019 samples respectively. Relative weights were lowest for catfish in the 7.0 – 11.9 in length group (82) with an overall relative weight of 85 which was slightly decreased from the 2016 and 2019 samples of 88 and 86 respectively (Table 77). Middleton Mills Long Pond is a primary FINs lake and receives 800 catfish annually. The lake was stocked with an additional 733 catfish in 2021 due to a surplus at the hatchery; however, these additional catfish did not increase the 2022 catch rate.

Middleton Mills Shelterhouse Pond (Kenton County)

The catch rate of channel/hybrid catfish was low at Middleton Mills Shelterhouse Pond (1.2 acres) in 2022 with 8.3 fish/set sampled (Table 78). A substantial proportion of catfish sampled in 2022 were small, with 52% being < 13 in, similar to the 41% and 40% of fish sampled in 2016 and 2019. However, the 2022 sample was a slight improvement from the 2011 and 2012 samples where 75% and 61% of catfish sampled were < 13 in respectively. The overall relative weight for catfish was low at 82 (Table 79). The relative weights for each length group in 2022 were the lowest observed since sampling began in 2011. Middleton Mills Shelterhouse Pond is a primary FINs lake and receives 800 catfish annually. The lake was stocked with an additional 733 catfish in 2021 due to a surplus at the hatchery; however, these additional catfish did not increase the 2022 catch rate. Despite low numbers of catfish sampled in 2022, catfish condition was also poor and should be closely monitored in subsequent years.

Whitehall Park Lake (Madison County)

A total of 162 channel/hybrid catfish were caught in three tandem hoop net sets (54.0 fish/set) in 2022 at Whitehall Park Lake (6.0 acres; Table 80). Catfish ranged in size from the 9 – 22 in classes in the 2022 sample, with only 17% of catfish < 13 in. The catch rate in 2022 was nearly identical to the 2017 sample of 54.3 fish/set and considerably higher than the 1.0 fish/set sampled in 2020. The overall relative weight for catfish was low at 82, with catfish in the 11.0 – 15.9 in length group having the lowest relative weight

of 81 (Table 81). Whitehall Park Lake is a primary FINs lake which normally receives 4,800 catfish annually. However, the lake was stocked with an additional 1,285 catfish in 2021 due to a surplus at the hatchery. These surplus catfish stocked in 2021 may account for the increased catch rate and lower relative weights in 2022.

Mike Miller Park Lake (Marshall County)

The catch rate of channel/hybrid catfish at Mike Miller Park Lake (3.9 acres) continues to be high with a total of 275 catfish sampled in 2022 (91.7 fish/set; Table 82). The catch rate in 2022 was similar to the 2016 and 2019 samples (100.0 and 100.5 fish/set respectively), but less than half the catch rate in 2013 (223.0 fish/set). The catfish size structure had a higher proportion of smaller fish in 2022 after improving in recent years with 48% of catfish sampled in 2022 < 13 in compared to 71%, 37% and 23% in the 2013, 2016, and 2019 samples respectively. Relative weights continue to be low, with catfish in the 11.0 – 15.9 and 16.0 – 23.9 in length groups having relative weights of 78 and 81 respectively (Table 83). Mike Miller Park Lake was a primary FINs lake and received 3,200 catfish annually from 2010-16. However, due to the high catch rate in 2013 and 2016, in conjunction with low relative weights observed in 2016, the lake was dropped to a secondary FINs lake and catfish stocking numbers cut to 1,600 annually beginning in 2017. Unlike many FINs lakes of similar size, stockpiling of catfish seems to be occurring and stocking rates should be reduced further. These catfish likely have slow growth due to high catfish abundance and low relative weights. The catfish size structure could be improved by grading off smaller catfish in future stockings.

Lake Montgomery (McCracken County)

The catch rate for channel/hybrid catfish at Lake Montgomery (5.5 acres; formerly Bob Noble Park Lake) was high (134.0 fish/set) in 2022, with catfish ranging in size from the 7 – 23 in classes (Table 84). The 2022 catch rate was similar to the 2013 catch rate (154.7 fish/set), but considerably higher than catch rates in 2016 and 2019 (13.3 and 44.0 fish/set respectively). The catfish size structure had a higher proportion of smaller fish in 2022 after improving in recent years with 58% of catfish sampled in 2022 < 13 in compared to 78%, 18% and 6% in the 2013, 2016, and 2019 samples respectively. The overall relative weight for catfish in 2022 was 84, with catfish in the 11.0 – 15.9 in length group having the lowest relative weight of 82 and catfish in the 7.0 – 10.9 in length group having the highest relative weight at 90 (Table 85). Grading of catfish at the hatchery and stocking larger catfish likely contributed to fewer smaller catfish being sampled in 2016 and 2019. Lake Montgomery is a primary FINs lake which normally receives 4,400 catfish annually. However, the lake was stocked with an additional 1,440 catfish in 2021 due to a surplus at the hatchery. These surplus catfish stocked in 2021 may account for the increased catch rate and lower relative weights in 2022. The catfish size structure could be improved by grading off smaller catfish in future stockings.

Table 1. 2022 yearly summary of sampling conditions by waterbody and date.

Waterbody	Date	Time (24-hr)	Weather	Water temp (F)	Water level	Secchi (in)	Lake conditions/pertinent sampling information
Upper Sportsman's Lake	5/3/2022	900	Cloudy	69	Full	72	Lots of filamentous algae and very clear water
Lower Sportsman's Lake	5/3/2022	1000	Cloudy	70	Full	42	Lots of filamentous algae, bluegill starting to bed
Lusby Lake	5/3/2022	1200	Sunny	71	Full	34	Little filamentous algae, sparse curlyleaf pondweed, very windy, shad observed and removal planned
Scott County Park Lake	5/3/2022	1300	Sunny	70	Full	60	No vegetation, very windy, bluegill starting to bed
Kentucky Horse Park Rolex Lake	5/3/2022	1400	Cloudy	74	Full	42	Little filamentous algae, sparse nialad
Southland Church Lake	5/6/2022	900	Cloudy	68	Full	48	Aquashade was used, 1 common carp observed, no grass carp or shad observed after rotenone treatment
Lake Mingo	5/6/2022	1000	Cloudy	69	Full	34	No vegetation, 1 common carp and 1 grass carp observed
Bloomfield Park Lake	5/9/2022	800	Sunny	67	Full	108	Little filamentous algae, very clear, fertilized after sampling, bass fry observed
James D. Beville Park Lake	5/9/2022	1000	Sunny	67	Full	24	No vegetation, very turbid, beaver lodge had lots of fish
Three Springs Lake	5/9/2022	1200	Sunny	71	Full	24	No vegetation, lots of gizzard shad, plentiful big bass with many more jumping field
Panther Creek Park Lake	5/10/2022	700	Sunny	70	Full	15	Turbid, no vegetation, parks was adding riprap to pond edge, no shad observed after rotenone treatment, sunfish bedding
Madisonville Park Lake South	5/10/2022	1000	Sunny	72	Full	60	Clear water, no vegetation, lots of grass carp observed, sunfish on beds and beaver lodges
Lake Montgomery	5/11/2022	600	Cloudy	76	Full	30	No vegetation, tannic color, kol and buffalo observed
Mike Miller Park Lake	5/11/2022	800	Cloudy	76	Full	63	No vegetation, sunfish bedding, 1 kol and 2 grass carp observed, removed 75 bass (4-10 in)
Kess Creek Park Lake	5/11/2022	1000	Cloudy	78	Full	10	No vegetation, very turbid, several bass jumped field, stocked 75 bass (4-10 in)
Rotary Park Lake	5/11/2022	1100	Sunny	80	Full	24	No vegetation, turbid
Robert J. Barth Park Lake	5/23/2022	900	Cloudy	71	Full	18	No vegetation, aquashade was used, common carp observed but not dipped
Alexandria Community Park Lake	5/23/2022	1000	Cloudy	69	Full	36	Water willow, no other vegetation, one bluegill bed, removed 47 bass (4-14 in)
Whitehall Park Lake	10/5/2022	1000	Sunny	64	1' Low	42	Some water primrose, lots of small sunfish in vegetation, small bluegill and lots of 9-10" redear sunfish, 20-30 turtles
Lake Mingo	10/5/2022	1200	Sunny	65	1' Low	24	Some water primrose, black crappie 7-8", decent redear sunfish, small bluegill, stock additional bass, 5 turtles
Southland Church Lake	10/5/2022	1300	Sunny	66	1' Low	18	No vegetation, plankton bloom, lots of small bluegill, black crappie 8-9", decent redear sunfish 7-8", 5 turtles
Upper Sportsman's Lake	10/6/2022	800	Sunny	63	Full	24	No vegetation, small bluegill and redear sunfish, 9-10" black crappie, not much bycatch
Lower Sportsman's Lake	10/6/2022	900	Sunny	62	Full	18	No vegetation, 9-10" black crappie, not much bycatch
Anderson County Community Park Lake	10/6/2022	1100	Cloudy	63	1' Low	24	No vegetation, 8-10" black crappie, 7-8" redear sunfish, 6-7" bluegill, 10 turtles
Middleton Mills Shelterhouse Pond	10/14/2022	1000	Sunny	60	1' Low	12	No vegetation, plankton bloom, lots of small bluegill and white crappie, no turtles
Middleton Mills Long Pond	10/14/2022	1000	Sunny	58	1' Low	18	No vegetation, decent bluegill and redear sunfish, no turtles
Alexandria Community Park Lake	10/14/2022	1200	Sunny	61	1' Low	30	Some water willow, no other vegetation, decent bluegill, nice redear sunfish and white crappie, 5 turtles
Camp Ernst Lake	10/14/2022	1400	Sunny	63	1' Low	30	No vegetation, very little bycatch
Madisonville Park Lake South	10/20/2022	1000	Sunny	56	2' Low	66	No vegetation, lake low and clear, lots of nice black crappie 9-12", massive map turtles
Mike Miller Park Lake	10/20/2022	1200	Sunny	58	3' Low	18	Some water primrose, little bycatch, 2 turtles
Lake Montgomery	10/21/2022	700	Sunny	55	Full	24	No vegetation, small bluegill and black crappie, no turtles
Rotary Park Lake	10/21/2022	1000	Sunny	57	2' Low	36	No vegetation, small sunfish, 3 turtles
Kess Creek Park Lake	10/21/2022	1100	Sunny	55	3' Low	18	Some water primrose, no other vegetation, decent bluegill, black and white crappie both small

Table 2. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Alexandria Community Park Lake on 23 May 2022.

Species	Inch class																				Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
Bluegill	11	46	41	14	23	5															140	419.2	173.7
Largemouth bass		1	10	7	3	3	9	5	6	1	3	3	4	1						1	57	170.7	32.9
Channel catfish										1		2	2	2	4						11	32.9	9.0
Green sunfish		1	1	3																	5	15.0	3.0
Redear sunfish	3	24	40	7	1					1											76	227.5	89.8
White crappie							4	1													5	15.0	3.0
Flathead catfish																	1				1	3.0	3.0

uftg05sl.d22

Table 3. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2005-22) and redear sunfish (2010-22) collected at Alexandria Community Park Lake. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2005	32.0 (8.0)	264.0 (56.0)	38.0 (6.0)		334.0 (58.0)
2006	75.3 (33.5)	69.3 (29.3)	33.1 (5.8)		177.7 (58.5)
2007	2.4 (2.4)	221.7 (87.5)	57.8 (8.9)		281.9 (97.4)
2010	3.0 (3.0)	56.9 (3.0)	15.0 (3.0)		74.9 (9.0)
2012	394.1 (123.5)	408.8 (61.8)	20.6 (8.8)		823.5 (176.5)
2014	15.0 (3.0)	59.9 (18.0)	29.9 (29.9)		104.8 (83.8)
2016	143.7 (24.0)	104.8 (9.0)	38.9 (38.9)		287.4 (71.9)
2018		113.8 (12.0)	149.7 (35.9)	3.0 (3.0)	266.5 (27.0)
2020	21.0 (9.0)	191.6 (131.7)	215.6 (6.0)	3.0 (3.0)	431.1 (149.7)
2022	32.9 (3.0)	302.4 (104.8)	83.8 (65.9)		419.2 (173.7)
Mean	64.4 (23.6)	176.2 (29.7)	64.2 (12.7)	0.5 (0.3)	305.3 (46.7)
Redear					
2010	9.0 (3.0)				9.0 (3.0)
2012	11.8 (11.8)	23.5 (0.0)	105.9 (29.4)		141.2 (17.7)
2014		21.0 (15.0)	6.0 (6.0)	29.9 (6.0)	56.9 (27.0)
2016	3.0 (3.0)	9.0 (3.0)	12.0 (6.0)	9.0 (3.0)	32.9 (3.0)
2018			15.0 (9.0)	35.9 (18.0)	50.9 (27.0)
2020			59.9 (12.0)	9.0 (3.0)	68.9 (9.0)
2022	9.0 (9.0)	212.6 (92.8)	3.0 (3.0)	3.0 (3.0)	227.5 (89.8)
Mean	3.4 (2.1)	38.1 (22.2)	29.1 (10.9)	13.7 (4.1)	84.3 (22.1)

ufrpsalx.d05, ufr05alx.d06-d07, uftg05sl.d10-d22

Table 4. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Alexandria Community Park Lake from 2005-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2005	48.0 (20.0)	76.0 (12.0)	20.0 (0)	10.0 (10.0)	154.0 (18.0)
2006	105.4 (18.7)	102.4 (20.0)	48.2 (7.0)	15.1 (7.6)	271.1 (35.6)
2007	33.7 (8.0)	202.4 (30.3)	26.5 (4.5)	7.2 (4.8)	269.9 (40.1)
2010	137.7 (12.0)	170.7 (15.0)	59.9 (12.0)	9.0 (3.0)	377.3 (18.0)
2012	167.7 (32.4)	279.4 (20.6)	38.2 (2.9)		485.3 (50.0)
2014	143.7 (29.9)	227.5 (24.0)	21.0 (9.0)	12.0 (6.0)	404.2 (68.9)
2016	116.8 (9.0)	140.7 (15.0)	6.0 (6.0)	6.0 (6.0)	269.5 (24.0)
2018	113.8 (6.0)	155.7 (29.9)	47.9 (6.0)	6.0 (0.0)	323.4 (29.9)
2020	47.9 (12.0)	269.5 (24.0)	18.0 (0.0)		335.3 (35.9)
2022	71.9 (18.0)	62.9 (3.0)	29.9 (12.0)	6.0 (0.0)	170.7 (32.9)
Mean	91.7 (10.2)	167.9 (15.7)	32.3 (3.5)	7.8 (1.8)	299.6 (21.2)

ufrpsalx.d05, ufr05alx.d06-d07, uftg05sl.d10-d22

Table 5. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Robert J. Barth Park Lake on 23 May 2022.

	Inch class														Std.
Species	2	3	4	5	6	7	8	9	10	11	12	Total	CPUE	error	
Bluegill	3	5	15	10	4							37	110.8	9.0	
Largemouth bass				2	1		1	14	16	8	2	44	131.7	24.0	
Longear sunfish			1	1								2	6.0	0.0	
Green sunfish			1									1	3.0	3.0	
White crappie					1	2						3	9.0	9.0	

uftg05rb.d22

Table 6. Electrofishing CPUE data (fish/hr) for each length group of bluegill collected at Robert J. Barth Park Lake from 2021-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
2021	3.0 (3.0)	80.8 (56.9)	21.0 (3.0)		104.8 (62.9)
2022	9.0 (9.0)	89.8 (6.0)	12.0 (6.0)		110.8 (9.0)
Mean	6.0 (4.2)	85.3 (23.5)	16.5 (3.8)		107.8 (26.0)

uftg05rb.d21-d22

Table 7. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Robert J. Barth Park Lake from 2021-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2021	21.0 (3.0)	185.6 (18.0)	6.0 (0.0)		212.6 (15.0)
2022	9.0 (9.0)	116.8 (21.0)	6.0 (6.0)		131.7 (24.0)
Mean	15.0 (5.2)	151.2 (22.9)	6.0 (2.4)		172.2 (26.0)

uftg05rb.d21-d22

Table 8. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Panther Creek Park Lake on 10 May 2022.

	Inch class																				Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	error	
Bluegill	2	16	15	32	103	32												200	598.8	0.0	
Largemouth bass			4	6		1		1		4	1	4		2	2		4	29	86.8	27.0	
Channel catfish													1					1	3.0	3.0	
Green sunfish				3	1													4	12.0	12.0	
Redear sunfish		1			46	220	53	8										328	982.0	221.6	

uftg05pc.d22

Table 9. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2014-22) collected at Panther Creek Park Lake. Redear sunfish were not observed in the 2010-12 samples. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	227.7 (167.5)	417.5 (16.3)	27.0 (2.9)		672.2 (154.1)
2012	5.9 (0.0)	211.8 (64.7)	150.0 (26.5)		367.7 (91.2)
2014	29.9 (18.0)	24.0 (12.0)	27.0 (3.0)	6.0 (6.0)	86.8 (21.0)
2016	9.0 (9.0)	44.9 (3.0)	83.8 (24.0)		137.7 (29.9)
2018		15.0 (3.0)	53.9 (29.9)	3.0 (3.0)	71.9 (29.9)
2020	53.9 (18.0)	497.0 (215.6)	38.9 (15.0)		589.9 (29.9)
2022	6.0 (6.0)	188.6 (9.0)	404.2 (3.0)		598.8 (0.0)
Mean	47.5 (27.5)	200.4 (55.1)	112.5 (35.3)	1.3 (0.9)	361.6 (74.9)
Redear					
2014		3.0 (3.0)	21.0 (15.0)	21.0 (15.0)	44.9 (32.9)
2016				29.9 (12.0)	29.9 (12.0)
2018			9.0 (3.0)	21.0 (9.0)	29.9 (6.0)
2020	15.0 (3.0)	350.3 (3.0)	98.8 (32.9)	44.9 (3.0)	509.0 (29.9)
2022		3.0 (3.0)	796.4 (191.6)	182.6 (27.0)	982.0 (221.6)
Mean	3.0 (2.1)	71.3 (46.5)	185.0 (106.6)	59.9 (21.3)	319.2 (130.7)

uftg04pc.d10-d12, uftg05pc.d14-d22

Table 10. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Panther Creek Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	51.1 (9.2)	165.3 (39.5)	216.4 (60.7)	30.0 (5.9)	462.8 (103.5)
2012	47.1 (23.5)	120.6 (14.7)	64.7 (5.9)	41.2 (11.8)	273.5 (26.5)
2014	71.9 (24.0)	95.8 (24.0)	53.9 (18.0)	21.0 (15.0)	242.5 (44.9)
2016	65.9 (6.0)	236.5 (3.0)	24.0 (6.0)	18.0 (0.0)	344.3 (15.0)
2018	122.8 (68.9)	374.3 (9.0)	68.9 (9.0)	3.0 (3.0)	568.9 (89.8)
2020	24.0 (12.0)	38.9 (15.0)	56.9 (3.0)		119.8 (29.9)
2022	32.9 (9.0)	15.0 (9.0)	15.0 (3.0)	24.0 (6.0)	86.8 (27.0)
Mean	59.5 (11.8)	149.8 (32.3)	71.6 (18.5)	19.7 (4.4)	300.5 (47.6)

uftg04pc.d10-d12, uftg05pc.d14-d22

Table 11. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Kentucky Horse Park Rolex Lake on 3 May 2022.

	Inch class																								Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	error	
Bluegill	1	7	58	70	58	9																203	607.8	158.7	
Largemouth bass			2	2		1	10	9	5	8	8	3	4	1	1	2	1		1			58	173.7	6.0	
Channel catfish									1												1	2	6.0	0.0	
Redear sunfish			1		1	3	2	2														9	27.0	9.0	
White crappie					17	12	2	1														32	95.8	47.9	

uftg05rl.d22

Table 12. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2016-22) and redear sunfish (2020-22) collected at Kentucky Horse Park Rolex Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2016		6.0 (0.0)	74.9 (44.9)		80.8 (44.9)
2018	9.0 (3.0)	53.9 (6.0)	89.8 (59.9)		152.7 (68.9)
2020	29.9 (12.0)	125.8 (24.0)	92.8 (9.0)		248.5 (21.0)
2022	3.0 (3.0)	404.2 (15.0)	200.6 (140.7)		607.8 (158.7)
Mean	10.5 (5.0)	147.59 (58.6)	114.5 (35.6)		272.5 (83.8)
Redear					
2020		21.0 (15.0)	18.0 (0.0)	32.9 (3.0)	71.9 (18.0)
2022		3.0 (3.0)	12.0 (6.0)	12.0 (6.0)	27.0 (9.0)
Mean		12.0 (8.1)	15.0 (3.0)	22.5 (6.6)	49.4 (15.3)

uftg05rl.d16-d22

Table 13. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Kentucky Horse Park Rolex Lake from 2016-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2016				12.0 (6.0)	12.0 (6.0)
2018	89.9 (6.0)	35.9 (12.0)	38.9 (3.0)	3.0 (3.0)	167.7 (12.0)
2020	32.9 (21.0)	24.0 (6.0)	18.0 (6.0)	12.0 (0.0)	86.8 (9.0)
2022	15.0 (3.0)	95.8 (0.0)	44.9 (9.0)	18.0 (6.0)	173.7 (6.0)
Mean	34.4 (13.5)	38.9 (13.6)	25.5 (7.0)	11.2 (2.6)	110.0 (25.2)

uftg05rl.d16-d22

Table 14. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Lower Sportsman's Lake on 3 May 2022. Standard errors were not calculated because only one sampling run could be completed.

Species	Inch class																					Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				
Bluegill	8	17	9	46	4																84	503.0	
Largemouth bass		1	1			3	6	3	2	1		1		1							19	113.8	
Channel catfish															1					1	2	12.0	
Redear sunfish				4	2	3	2														11	65.9	
Longear sunfish				1																	1	6.0	
Black crappie						8	1														9	53.9	
Yellow bass			1	3	39	10	2														55	329.3	

uftg05ls.d22

Table 15. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2020-22) collected at Lower Sportsman's Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	185.6	1,652.7	509.0	6.0	2,353.3
2012	82.4	194.1	76.5		352.9
2014	35.9	437.1	101.8		574.9
2016	24.0	137.7	293.4		455.1
2018		47.9	113.8		161.7
2020	6.0	41.9	59.9		107.8
2022		203.6	299.4		503.0
Mean	47.9 (25.5)	388.4 (216.6)	207.9 (62.7)	0.9 (0.9)	645.0 (292.1)
Redear					
2020		24.0	47.9	12.0	83.8
2022			35.9	29.9	65.9
Mean		12.0 (12.0)	41.9 (6.0)	21.0 (9.0)	74.9 (9.0)
uftg05ls.d10, uftg04ls.d12-d16, uftg05ls.d18-d22					

Table 16. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Lower Sportsman's Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	24.0	59.9	41.9	24.0	149.7
2012	100.0	47.1	58.8	82.4	288.2
2014	29.9	155.7	107.8	77.8	371.3
2016	65.9	197.6	113.8	41.9	419.2
2018	6.0	71.9	18.0	6.0	101.8
2020	83.8	95.8	41.9		221.6
2022	12.0	83.8	12.0	6.0	113.8
Mean	46.2 (14.2)	101.8 (20.7)	56.5 (15.3)	34.2 (13.2)	238.7 (47.7)

uftg05ls.d10, uftg04ls.d12-d16, uftg05ls.d18-d22

Table 17. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Upper Sportsman's Lake on 3 May 2022.

Species	Inch class																Total	CPUE	Std. error
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Bluegill	8	22	16														46	137.7	65.9
Largemouth bass	4	3		1	5	18	12	9	6	2					1	1	62	185.6	53.9
Channel catfish							1	4	1	2	1		2	1			12	35.9	18.0
Green sunfish		1	1														2	6.0	0.0
Redear sunfish				2													2	6.0	0.0
Black crappie					2	1											3	9.0	9.0
Yellow bass	2	7	163	69	2												243	727.5	284.4

uftg05us.d22

Table 18. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2005-22) and redear sunfish (2020-22) collected at Upper Sportsman's Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

first stocked in 2010. Standard errors are in parentheses.					
	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2005	13.4 (0.5)	209.5 (66.0)	177.8 (22.2)	2.2 (2.2)	402.9 (67.0)
2006	12.1 (4.9)	60.2 (48.4)	72.3 (25.6)		144.6 (65.1)
2007	20.1 (4.0)	281.1 (62.7)	132.5 (102.9)		433.7 (152.6)
2010	44.9 (9.0)	371.3 (65.9)	131.7 (6.0)		547.9 (68.9)
2012	35.3 (5.9)	320.6 (44.1)	50.0 (2.9)		405.9 (41.2)
2014	18.0 (12.0)	323.4 (131.7)	185.6 (41.9)		527.0 (185.6)
2016		374.3 (110.8)	263.5 (83.8)		637.7 (194.6)
2018		104.8 (80.8)	176.7 (32.9)		281.4 (113.8)
2020	3.0 (3.0)	80.8 (32.9)	24.0 (0.0)		107.8 (29.9)
2022		24.0 (0.0)	113.8 (65.9)		137.7 (65.9)
Mean	14.7 (3.1)	205.1 (31.7)	129.7 (19.3)	0.3 (0.3)	349.7 (45.5)
Redear					
2020		12.0 (12.0)	18.0 (6.0)	18.0 (12.0)	47.9 (18.0)
2022				6.0 (0.0)	6.0 (0.0)
Mean		6.0 (6.0)	9.0 (5.7)	12.0 (6.0)	27.0 (14.2)

ufrpsugf.d05, ufr05ugf.d06-d07, uftg05us.d10, uftg04us.d12-d16, uftg05us.d18-d22

Table 19. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Upper Sportsman's Lake from 2005-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2005	165.6 (76.2)	100.0 (47.0)	51.8 (24.1)	30.0 (16.2)	347.3 (80.8)
2006	108.4 (44.3)	108.4 (19.1)	57.2 (25.3)	12.1 (7.0)	286.1 (68.8)
2007	24.1 (18.4)	120.5 (45.6)	60.2 (31.9)	12.1 (7.0)	216.9 (100.3)
2010	21.0 (3.0)	77.8 (53.9)	107.8 (53.9)	35.9 (24.0)	242.5 (128.7)
2012	76.5 (29.4)	82.4 (47.1)	44.1 (38.2)	50.0 (32.4)	252.9 (147.1)
2014	24.0 (0.0)	218.6 (32.9)	128.7 (38.9)	35.9 (0.0)	407.2 (71.9)
2016	218.6 (21.0)	80.8 (32.9)	83.8 (24.0)	41.9 (18.0)	425.2 (53.9)
2018	38.9 (15.0)	239.5 (89.8)	74.9 (50.9)	15.0 (9.0)	368.3 (164.7)
2020	71.9 (35.9)	143.7 (59.9)	74.9 (15.0)	9.0 (3.0)	299.4 (113.8)
2022	21.0 (3.0)	107.8 (29.9)	50.9 (21.0)	6.0 (6.0)	185.6 (53.9)
Mean	81.2 (17.2)	125.0 (15.3)	70.7 (9.6)	23.5 (4.6)	300.4 (29.0)

ufrpsugf.d05, ufr05ugf.d06-d07, uftg05us.d10, uftg04us.d12-d16, uftg05us.d18-d22

Table 20. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Kess Creek Park Lake on 11 May 2022. Standard errors were not calculated because only one sampling run could be completed.

Species	Inch class															Total	CPUE
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Bluegill	4	6	3													13	77.8
Largemouth bass	1		2	2	1	1							2	1	1	11	65.9
Channel catfish								2			2	1				5	29.9
Green sunfish	1															1	6.0
Redear sunfish		7	11	2		1										21	125.8
White crappie		5	10	8		1										24	143.7

uftg05ks.d22

Table 21. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2018-22) and redear sunfish (2020-22) collected at Kess Creek Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2018	119.8	455.1	12.0		586.8
2020		35.9			35.9
2022		59.9	18.0		77.8
Mean	39.9 (39.9)	183.6 (135.9)	10.0 (5.3)		233.5 (177.1)
Redear					
2020		95.8	12.0		107.8
2022		41.9	77.8	6.0	125.8
Mean		68.9 (27.0)	44.9 (32.9)	3.0 (3.0)	116.8 (9.0)

uftg05ks.d18-d22

Table 22. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Kess Creek Park Lake from 2018-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2018	18.0	12.0		24.0	53.9
2020	12.0	12.0	29.9	53.9	107.8
2022	29.9	12.0		24.0	65.9
Mean	20.0 (5.3)	12.0 (0.0)	10.0 (10.0)	33.9 (10.0)	75.9 (16.3)

uftg05ks.d18-d22

Table 23. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at James D. Beville Park Lake on 9 May 2022.

On 5 May 2022:

Species	Inch class																					Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				
Bluegill	7	17	43	7	39	27	1														141	422.2	15.0	
Largemouth bass		1	7	7	5	2		4	7	23	14							1		1	72	215.6	6.0	
Channel catfish								2	2	6	2	2	2	1	2	1					20	59.9	35.9	
Redear sunfish			1	5		2	15	6													29	86.8	27.0	
White crappie					1		1	4													4	18.0	6.0	
Black crappie					1			1	1												3	9.0	3.0	

uftg05jb.d22

Table 24. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at James D. Beville Park Lake from 2013-22. Standard errors are in parentheses.

parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2013		404.2 (134.7)	389.2 (95.8)	12.0 (6.0)	805.4 (236.5)
2015	3.0 (3.0)	146.7 (32.9)	200.6 (38.9)		350.3 (74.9)
2018		347.3 (113.8)	179.6 (101.8)		527.0 (12.0)
2020	3.0 (3.0)	161.7 (131.7)	197.6 (95.8)		362.3 (230.5)
2022	21.0 (15.0)	200.6 (38.9)	197.6 (65.9)	3.0 (3.0)	422.2 (15.0)
Mean	5.4 (3.5)	252.1 (48.4)	232.9 (38.1)	3.0 (1.8)	493.4 (75.5)
Redear					
2013		12.0 (12.0)			12.0 (12.0)
2015					0.0 (0.0)
2018			21.0 (9.0)	6.0 (0.0)	27.0 (9.0)
2020		47.9 (29.9)	18.0 (6.0)	3.0 (3.0)	68.9 (38.9)
2022		18.0 (18.0)	6.0 (6.0)	62.9 (3.0)	86.8 (27.0)
Mean		15.6 (8.0)	9.0 (3.5)	14.4 (8.1)	38.9 (13.4)

uftg04jb.d13, uftg05jb.d15-d22

Table 25. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at James D. Beville Park Lake from 2013-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2013	95.8 (0.0)	128.7 (15.0)	9.0 (3.0)	6.0 (6.0)	239.5 (12.0)
2015	56.9 (9.0)	107.8 (47.9)	3.0 (3.0)	9.0 (3.0)	176.7 (50.9)
2018	155.7 (47.9)	71.9 (29.9)	15.0 (9.0)	12.0 (12.0)	254.5 (3.0)
2020	98.8 (32.9)	74.9 (9.0)		6.0 (0.0)	179.6 (41.9)
2022	65.9 (35.9)	101.8 (18.0)	41.9 (18.0)	6.0 (6.0)	215.6 (6.0)
Mean	94.6 (15.5)	97.0 (11.6)	13.8 (5.9)	7.8 (2.4)	213.2 (14.5)

uftg04jb.d13, uftg05jb.d15-d22

Table 26. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Rotary Park Lake on 11 May 2022. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE	
Bluegill		5	28	8		1										42	251.5	
Largemouth bass					4	17	3	1			1	1		1	2	30	179.6	
Channel catfish						1	1	1	2	1						6	35.9	
Green sunfish				1	1											2	12.0	
Redear sunfish	2		3	28		1										34	203.6	
White crappie											1					1	6.0	

uftg05rp.d22

Table 27. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2016-22) and redear sunfish (2020-22) collected at Rotary Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2016	24.0	149.7	131.7		305.4
2018	77.8	47.9	197.6		323.4
2020		113.8	29.9		143.7
2022		197.6	47.9	6.0	251.5
Mean	25.5 (18.4)	127.3 (31.5)	101.8 (38.9)	1.5 (1.5)	256.0 (40.4)
Redear					
2020		6.0	47.9	18.0	71.9
2022		29.9	167.7	6.0	203.6
Mean		18.0 (12.0)	107.8 (59.9)	12.0 (6.0)	137.7 (65.9)

uftg05rp.d16-d22

Table 28. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Rotary Park Lake from 2016-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2016	35.9	107.8			143.7
2018	12.0	179.6	18.0	6.0	215.6
2020	35.9	65.9	24.0		125.8
2022	24.0	125.8	12.0	18.0	179.6
Mean	27.0 (5.7)	119.8 (23.6)	13.5 (5.1)	6.0 (4.2)	166.2 (19.9)

uftg05rp.d16-d22

Table 29. Length frequency and CPUE (fish/hr) of fish collected in three, 10-min electrofishing runs at Madisonville City Park Lake South on 10 May 2022.

	Inch class																						Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error	
Bluegill	2	7	52	32	24	15														132	263.5	78.3	
Largemouth bass				4	4	3	5	23	36	20										95	189.6	31.4	
Channel catfish													1		1		1		2	5	10.0	7.2	
Redear sunfish			2	5	16	73	68	3												167	333.3	56.3	
Warmouth				2	1															3	6.0	3.5	
Black crappie								1												1	2.0	2.0	
uftg05mv.d22																							

Table 30. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Madisonville City Park Lake South from 2012-2022. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2012	53.9 (19.3)	331.3 (38.6)	27.9 (22.0)		413.2 (55.6)
2014	2.0 (2.0)	193.6 (127.7)	209.6 (57.1)	6.0 (3.5)	411.2 (189.7)
2016		35.9 (15.1)	57.9 (8.7)	31.9 (12.1)	125.8 (12.5)
2018	4.0 (2.0)	119.8 (45.2)	85.8 (46.0)	10.0 (7.2)	219.6 (91.1)
2020	63.9 (28.8)	59.9 (6.9)	33.9 (14.0)		157.7 (46.7)
2022	4.0 (4.0)	181.6 (86.1)	77.8 (24.0)		263.5 (78.3)
Mean	21.3 (8.1)	153.7 (33.3)	82.2 (18.7)	8.0 (3.4)	265.1 (42.9)
Redear					
2012	6.0 (6.0)	41.9 (13.8)	59.9 (12.5)	49.9 (14.0)	157.7 (13.1)
2014		27.9 (10.6)	57.9 (20.8)	41.9 (9.2)	127.7 (33.2)
2016		29.9 (6.9)	271.5 (25.5)	71.9 (50.9)	373.3 (26.0)
2018		47.9 (0.0)	39.9 (15.6)	73.9 (28.2)	161.7 (42.1)
2020	14.0 (7.2)	51.9 (2.0)	59.9 (24.9)	29.9 (24.2)	155.7 (52.3)
2022		14.0 (8.7)	177.6 (33.2)	141.7 (32.1)	333.3 (56.3)
Mean	3.3 (1.8)	35.6 (4.3)	111.1 (22.1)	68.2 (13.5)	218.2 (27.2)
uftg04mv.d12, uftg05mv.d14-d22					

Table 31. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Madisonville City Park Lake South from 2012-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2012	97.8 (26.2)	63.9 (2.0)	57.9 (16.3)		219.6 (27.9)
2014	101.8 (27.0)	191.6 (6.0)	22.0 (8.0)		315.4 (29.4)
2016	43.9 (10.0)	65.9 (6.0)	18.0 (6.0)		127.7 (14.4)
2018	16.0 (4.0)	93.8 (14.0)	6.0 (0.0)		115.8 (14.0)
2020	51.9 (10.6)	83.8 (9.2)	6.0 (3.5)		141.7 (22.5)
2022	22.0 (7.2)	167.7 (27.4)			189.6 (31.4)
Mean	55.6 (10.0)	111.1 (13.0)	18.3 (5.4)		185.0 (18.6)

uftg04mv.d12, uftg05mv.d14-d22

Table 32. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Lake Mingo on 6 May 2022. Standard errors were not calculated because only one sampling run could be completed.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	
Bluegill	2	12	25	44	47	4												134	802.4	
Largemouth bass			1	1			1	2	2	8	2	1			3	1	1	23	137.7	
Redear sunfish		4	5	4	6	2	17	1										39	233.5	

uftg05lm.d22

Table 33. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2018-22) collected at Lake Mingo. Redear sunfish were stocked in 2019 on top of a low-density population. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010		83.8	47.9	6.0	137.7
2012	35.3	1,023.5	29.4		1,088.2
2014	6.0	1,197.6	35.9		1,239.5
2016		862.3	191.6		1,053.9
2018	173.7	497.0	12.0		682.6
2020	12.0	568.9	29.9		610.8
2022	12.0	485.0	305.4		802.4
Mean	34.2 (23.7)	676.7 (144.0)	93.2 (42.2)	0.9 (0.9)	805.0 (141.5)
Redear					
2018			29.9	12.0	41.9
2020		179.6	18.0	6.0	203.6
2022		77.8	47.9	107.8	233.5
Mean		85.8 (52.0)	31.9 (8.7)	41.9 (33.0)	159.7 (59.5)
uftg05lm.d10-d12, uftg04lm.d14-d16, uftg05lm.d18-d22					

Table 34. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Lake Mingo from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	24.0	101.8	6.0		131.7
2012	17.7	5.9	135.5	11.8	170.6
2014		12.0	24.0	77.8	113.8
2016	77.8	59.9	29.9	65.9	233.5
2018	161.7	35.9	95.8	6.0	299.4
2020	35.9	59.9	41.9	12.0	149.7
2022	12.0	77.8	18.0	29.9	137.7
Mean	47.1 (21.3)	50.5 (13.1)	50.5 (18.2)	29.1 (11.7)	177.1 (25.1)

uftg05lm.d10-d12, uftg04lm.d14-d16, uftg05lm.d18-d22

Table 35. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Southland Church Lake on 6 May 2022. Standard errors were not calculated because only one sampling run could be completed.

Species	Inch class																		Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Bluegill	2	3	27	31	10														73	437.1
Largemouth bass		1	7	3			3	1	4	2				1	1				23	137.7
Channel catfish												1			1			1	3	18.0
Redear sunfish		4	5	22	21	13	1												66	395.2
Warmouth					1														1	6.0
Black crappie						1													1	6.0

uftg05so.d22

Table 36. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Southland Church Lake from 2018-22. Standard errors are in parentheses.

parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2018	71.9	341.3	6.0		419.2
2020	53.9	485.0			538.9
2022	12.0	365.3	59.9		437.1
Mean	45.9 (17.7)	397.2 (44.5)	22.0 (19.0)		465.1 (37.3)
Redear					
2018			12.0	6.0	18.0
2020		221.6	29.9		251.5
2022		185.6	203.6	6.0	395.2
Mean	4.0 (2.2)	39.9 (4.1)	97.8 (24.6)	53.5 (11.9)	221.6 (109.9)

uftg05so.d18-d22

Table 37. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Southland Church Lake from 2018-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2018				35.9	35.9
2020		18.0	18.0	12.0	47.9
2022	65.9	59.9	12.0		137.7
Mean	22.0 (22.0)	26.0 (17.7)	6.0 (6.0)	20.0 (8.0)	73.9 (32.1)

uftg05so.d18-d22

Table 38. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Mike Miller Park Lake on 11 May 2022.

Species	Inch class														Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15				
Bluegill	2	25	38	24	9										98	293.4	131.7
Largemouth bass		14	46	14		22	25	15	2						138	413.2	59.9
Channel catfish													1		1	3.0	3.0
Green sunfish				1											1	3.0	3.0
Redear sunfish			8	8	6	35	6								63	188.6	3.0
Longear sunfish			1												1	3.0	3.0
White crappie							1								1	3.0	3.0

uftg05mm.d22

Table 39. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Mike Miller Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2010		68.9 (50.9)	44.9 (32.9)		113.8 (18.0)
2012	52.9 (29.4)	32.4 (2.9)	29.4 (11.8)		114.7 (20.6)
2014	3.0 (3.0)	104.8 (15.0)	32.9 (15.0)		140.7 (3.0)
2016	27.0 (15.0)	323.4 (137.7)	170.7 (122.8)		521.0 (275.5)
2018	3.0 (3.0)	317.4 (83.8)	170.7 (44.9)		491.0 (131.7)
2020	3.0 (3.0)	86.8 (32.9)	98.8 (27.0)		188.6 (62.9)
2022		194.6 (56.9)	98.8 (74.9)		293.4 (131.7)
Mean	15.0 (7.2)	155.7 (41.6)	91.3 (25.0)		266.5 (57.3)
Redear					
2010		3.0 (3.0)	24.0 (12.0)	9.0 (3.0)	35.9 (12.0)
2012			11.8 (0.0)	14.7 (8.8)	26.5 (8.8)
2014		15.0 (9.0)	9.0 (3.0)	21.0 (9.0)	44.9 (15.0)
2016		200.6 (21.0)	107.8 (12.0)	56.9 (15.0)	365.3 (18.0)
2018		56.9 (3.0)	272.5 (62.9)	62.9 (9.0)	392.2 (74.9)
2020		21.0 (9.0)	134.7 (27.0)	6.0 (0.0)	161.7 (35.9)
2022		24.0 (18.0)	41.9 (12.0)	122.8 (3.0)	188.6 (3.0)
Mean		49.4 (21.4)	93.3 (29.5)	28.4 (7.4)	173.7 (40.5)

uftg04mm.d10-d14, uftg05mm.d16-d22

Table 40. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Mike Miller Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	110.8 (3.0)	296.4 (32.9)	12.0 (6.0)	3.0 (3.0)	422.2 (32.9)
2012	132.4 (44.1)	311.8 (29.4)	2.9 (2.9)	2.9 (2.9)	450.0 (73.5)
2014	140.7 (32.9)	194.6 (50.9)	6.0 (0.0)		341.3 (83.8)
2016	182.6 (44.9)	215.6 (6.0)		3.0 (3.0)	401.2 (41.9)
2018	119.8 (29.9)	167.7 (59.9)	9.0 (3.0)	6.0 (0.0)	302.4 (92.8)
2020	98.8 (3.0)	89.8 (6.0)			188.6 (3.0)
2022	221.6 (41.9)	191.6 (18.0)			413.2 (59.9)
Mean	131.2 (12.5)	213.6 (25.7)	5.0 (1.6)	2.5 (0.9)	361.0 (29.4)

uftg04mm.d10-d14, uftg05mm.d16-d22

Table 41. Length frequency and CPUE (fish/hr) of fish collected in two, 10-min electrofishing runs at Lake Montgomery on 11 May 2022.

	Inch class																					Std.		
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	error	
Bluegill	1		10	57	90	19															177	529.9	62.9	
Largemouth bass			1	1	1	4	3	2	1	9	8	3	2		3			1	2	1	42	125.8	18.0	
Channel catfish								1		5	3	4		1	2						16	47.9	6.0	
Redear sunfish					5	16	20	2													43	128.8	21.0	
Longear sunfish				1																	1	3.0	3.0	
Warmouth					1																1	3.0	3.0	
White crappie					4	6					1										11	32.9	3.0	

uftg05bn.d22

Table 42. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2020-22) collected at Lake Montgomery. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2010	15.0 (9.0)	203.6 (71.9)	9.0 (9.0)		227.5 (89.8)
2012	41.2 (29.4)	558.8 (100.0)	73.5 (50.0)		673.5 (179.4)
2014	24.0 (6.0)	242.5 (21.0)	161.7 (83.8)		428.1 (98.8)
2016		515.0 (65.9)	245.5 (71.9)		760.5 (137.7)
2018	3.0 (3.0)	134.7 (27.0)	35.9 (29.9)		173.7 (59.9)
2020		221.6 (24.0)	9.0 (3.0)		230.5 (27.0)
2022	3.0 (3.0)	200.6 (74.9)	326.4 (15.0)		529.9 (62.9)
Mean	12.4 (5.3)	298.1 (47.1)	123.2 (34.7)		433.7 (67.1)
Redear					
2020		6.0 (0.0)	56.9 (9.0)		62.9 (9.0)
2022			62.9 (15.0)	65.9 (35.9)	128.7 (21.0)
Mean		3.0 (1.7)	59.9 (7.3)	32.9 (24.0)	95.8 (21.2)
uftg04bn.d10-d14 uftg05bn.d16-d22					

Table 43. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Lake Montgomery from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	47.9 (41.9)	6.0 (0.0)	6.0 (6.0)	35.9 (6.0)	95.8 (53.9)
2012	67.7 (2.9)	32.4 (2.9)	29.4 (5.9)	58.8 (11.8)	188.2 (11.8)
2014	62.9 (15.0)	62.9 (9.0)	24.0 (0.0)	44.9 (3.0)	194.6 (21.0)
2016	6.0 (6.0)	41.9 (18.0)	12.0 (6.0)	18.0 (12.0)	77.8 (41.9)
2018	203.6 (12.0)	3.0 (3.0)	18.0 (6.0)	24.0 (0.0)	248.5 (9.0)
2020	18.0 (12.0)	38.9 (3.0)	3.0 (3.0)	15.0 (3.0)	74.9 (15.0)
2022	21.0 (3.0)	44.9 (9.0)	38.9 (3.0)	21.0 (3.0)	125.8 (18.0)
Mean	61.2 (18.0)	32.9 (6.0)	18.8 (3.6)	31.2 (4.7)	144.1 (19.2)

uftg04bn.d10-d14 uftg05bn.d16-d22

Table 44. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Bloomfield Park Lake on 9 May 2022. Standard errors were not calculated because only one sampling run could be completed.

Species	Inch class																	Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Bluegill			5	16	6													27	161.7
Largemouth bass	1		1	2	11	5	7	8	18	9	6	4	1				2	75	449.1
Channel catfish									3	5	4	3	1					16	95.8
Redear sunfish						4	1	1										6	35.9

uftg05bl.d22

Table 45. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2020-22) collected at Bloomfield Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

stocked in 2010. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2010	53.9 (12.0)	224.6 (3.0)	227.5 (149.7)	18.0 (18.0)	524.0 (152.7)
2012	6.0	281.4	113.8		401.2
2014		143.7	179.6		323.4
2016		35.9	323.4		359.3
2018	18.0	29.9	47.9		95.8
2020		35.9	53.9		89.8
2022		29.9	131.7		161.7
Mean	16.5 (8.8)	125.8 (37.5)	163.2 (43.9)	4.5 (4.5)	309.9 (68.9)
Redear					
2020		24.0	47.9	35.9	107.8
2022				35.9	35.9
Mean		12.0 (12.0)	24.0 (24.0)	35.9 (0.0)	71.9 (35.9)

uftg05bl.d10, uftg04bl.d12-d14, uftg05bl.d16-d22

Table 46. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Bloomfield Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	62.9 (3.0)	98.8 (32.9)	104.8 (15.0)	15.0 (9.0)	281.4 (53.9)
2012	77.8	113.8	35.9	29.9	257.5
2014	53.9	221.6	77.8	18.0	371.3
2016	65.9	521.0	65.9	12.0	664.7
2018	95.8	281.4	77.8	12.0	467.1
2020	71.9	281.4	59.9		413.2
2022	89.8	227.5	113.8	18.0	449.1
Mean	72.6 (5.1)	230.5 (50.0)	80.1 (9.8)	15.0 (3.4)	398.2 (48.6)

uftg05bl.d10, uftg04bl.d12-d14, uftg05bl.d16-d22

Table 47. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Lusby Lake on 3 May 2022. Standard errors were not calculated because only one sampling run could be completed.

Species	Inch class																	Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Bluegill	4	6	55	45	3													113	676.7
Largemouth bass		2	9	7	6	10	3		2	2	1	2	1	1		1	1	48	287.4
Redear sunfish			1	2	7	13	1											24	143.7
Longear sunfish		1																1	6.0

uftg05ll.d22

Table 48. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2020-22) collected at Lusby Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

2010. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2010	29.9	467.1	149.7		646.7
2012	77.8	119.8	53.9		251.5
2014		2,065.9	101.8		2,167.7
2016	95.8	1,018.0	53.9		1167.7
2018	6.0	143.7	95.8		245.5
2020		143.7	12.0		155.7
2022		389.2	287.4		676.7
Mean	29.9 (15.4)	621.0 (268.6)	107.8 (34.2)		758.8 (269.7)
Redear					
2020		179.6	47.9	6.0	233.5
2022		6.0	53.9	83.8	143.7
Mean		92.8 (86.8)	50.9 (3.0)	44.9 (38.9)	188.6 (44.9)
uftg05II.d10, uftg04II.d12-d16, uftg05II.d18-d22					

Table 49. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Lusby Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	29.9	47.9	6.0	35.9	119.8
2012		71.9			71.9
2014	29.9	12.0	18.0	77.8	137.7
2016	71.9	12.0	18.0	35.9	137.7
2018	18.0	41.9	12.0	6.0	77.8
2020		12.0	6.0	65.9	83.8
2022	143.7	89.8	29.9	24.0	287.4
Mean	41.9 (19.3)	41.1 (11.9)	12.8 (3.8)	35.1 (10.9)	130.9 (28.1)

uftg05II.d10, uftg04II.d12-d16, uftg05II.d18-d22

Table 50. Length frequency and CPUE (fish/hr) of fish collected in one, 10-min electrofishing run at Scott County Park Lake on 3 May 2022. Standard errors were not calculated because only one sampling run could be completed.

Species	Inch class																	Total	CPUE
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Bluegill	2	20	15	11	4													52	311.4
Largemouth bass	2	20	10	2		2	2	3	10	18	9	3	1				2	84	503.0
Channel catfish												1	1	3				5	29.9
Redear sunfish				2	3		4											9	53.9

uftg05sc.d22

Table 51. Electrofishing CPUE data (fish/hr) for each length group of bluegill (2010-22) and redear sunfish (2020-22) collected at Scott County Park Lake. Redear sunfish were first stocked in 2018. Standard errors are in parentheses.

	Length group (in)				
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	Total
Bluegill					
2010	77.8	257.5	89.8		425.2
2012	35.3	223.5	223.5		482.4
2014	6.0	263.5	251.5		521.0
2016		12.0	65.9	29.9	107.8
2018		18.0	41.9		59.9
2020		6.0			6.0
2022		131.7	155.7	24.0	311.4
Mean	17.1 (11.3)	130.9 (45.1)	118.9 (36.0)	7.7 (5.0)	274.6 (81.3)
Redear					
2020		71.9	35.9	71.9	179.6
2022			12.0	41.9	53.9
Mean		35.9 (35.9)	24.0 (12.0)	56.9 (15.0)	116.8 (62.9)

uftg05sc.d10-d12, uftg04sc.d14-d16, uftg05sc.d18-d22

Table 52. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Scott County Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	≥ 15.0	
2010	293.4	71.9			365.3
2012		141.2	11.8		152.9
2014	209.6	245.5	53.9	59.9	568.9
2016	143.7	149.7	12.0	12.0	317.4
2018	107.8	233.5	6.0		347.3
2020	29.9	323.4	18.0	24.0	395.2
2022	203.6	41.9	221.6	35.9	503.0
Mean	141.2 (39.4)	172.8 (37.9)	46.2 (30.0)	18.8 (8.6)	379.0 (50.4)

uftg05sc.d10-d12, uftg04sc.d14-d16, uftg05sc.d18-d22

Table 53. Length frequency and CPUE (fish/hr) of fish collected in five, 10-min electrofishing runs at Three Springs Park Lake on 9 May 2022.

	Inch class																						Total	CPUE	Std. error
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				
Bluegill	21	87	284	236	123	17																768	919.8	81.5	
Largemouth bass			7	6	1	3	5	11	4	3	7	9	6	10	6	23	11	5	11	3	1	132	158.1	11.5	
Channel catfish											2		2	2	1		1	1	1			10	12.0	5.0	
Green sunfish							2															2	2.4	1.5	
Redear sunfish		10	12	40	90	49	16	27	1	1												246	294.6	20.5	
Black crappie				1	8	3		1	1													14	16.8	6.9	

uftg05ts.d22

Table 54. Electrofishing CPUE data (fish/hr) for each length group of bluegill and redear sunfish collected at Three Springs Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	≥ 8.0	
Bluegill					
2010		25.0 (7.2)	82.8 (38.3)	3.0 (3.0)	110.8 (44.9)
2012	18.6 (10.1)	53.9 (11.4)	21.6 (6.0)	1.0 (1.0)	95.1 (17.1)
2014	3.0 (3.0)	60.9 (12.1)	31.9 (6.7)		95.8 (18.0)
2016	27.9 (6.3)	394.2 (84.8)	64.9 (15.4)	1.0 (1.0)	488.0 (96.4)
2018	12.0 (2.4)	612.3 (20.7)	214.1 (35.7)		838.3 (46.8)
2020	20.0 (9.2)	851.3 (138.2)	76.9 (23.2)		948.1 (158.3)
2022	25.2 (6.9)	727.0 (70.0)	167.7 (45.3)		919.8 (81.5)
Mean	15.2 (2.9)	369.3 (58.4)	86.3 (13.5)	0.8 (0.5)	471.5 (67.0)
Redear					
2010		1.0 (1.0)	2.0 (1.3)	16.0 (5.1)	19.0 (7.0)
2012		54.9 (18.6)	4.9 (2.4)	6.9 (3.2)	66.7 (17.7)
2014		23.0 (8.4)	31.9 (8.4)	49.9 (7.4)	104.8 (15.5)
2016		85.8 (9.5)	70.9 (6.1)	88.8 (7.5)	244.5 (15.3)
2018		27.0 (5.2)	130.2 (12.6)	136.2 (38.0)	293.4 (42.4)
2020	2.0 (2.0)	15.0 (4.6)	98.8 (15.7)	44.9 (7.9)	160.7 (24.9)
2022		74.3 (24.4)	166.5 (23.5)	53.9 (11.7)	294.6 (20.5)
Mean	0.3 (0.3)	40.1 (6.6)	66.6 (10.1)	52.7 (7.5)	159.7 (17.8)

uftg04ts.d10-d12, uftg05ts.d14-d22

Table 55. Electrofishing CPUE data (fish/hr) for each length group of largemouth bass collected at Three Springs Park Lake from 2010-22. Standard errors are in parentheses.

Year	Length group (in)				Total
	< 8.0	8.0 - 11.9	12.0 - 14.9	> 15.0	
2010	133.7 (32.8)	96.8 (16.0)	1.0 (1.0)	3.0 (2.1)	234.5 (47.5)
2012	82.4 (17.1)	192.2 (39.5)	14.7 (4.5)	3.9 (2.0)	293.1 (43.7)
2014	54.9 (12.7)	90.8 (13.5)	7.0 (2.9)		152.7 (17.6)
2016	40.9 (10.8)	45.9 (10.0)	27.9 (4.3)	6.0 (2.2)	120.8 (13.9)
2018	24.0 (6.5)	28.4 (5.1)	34.4 (6.2)	56.9 (16.3)	143.7 (20.0)
2020	28.9 (3.3)	9.0 (2.6)	18.0 (5.4)	44.9 (7.7)	100.8 (10.2)
2022	20.4 (6.2)	27.5 (4.9)	26.4 (4.9)	83.8 (12.0)	158.1 (11.5)
Mean	57.7 (8.6)	73.9 (11.9)	17.5 (2.3)	25.5 (5.4)	174.6 (14.8)

uftg04ts.d10-d12, uftg05ts.d14-d22

Table 56. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Anderson County Community Park Lake on 6 October 2022. Additional samples were collected in 2013, 2016 and 2019.

Year	Inch class							Total	CPUE
	10	11	12	13	14	15	16		
2013	1	1	4	4				10	5.0
2016							1	1	0.3
2019							2	2	0.7
2022							0	0	0.0

ufcf09ac.d13-d16, ufcf10ac.d19-d22

Table 57. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Anderson County Community Park Lake from 2013-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		> 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	1	90	9	85 (3)					10	86 (3)
2016			1	90					1	90
2019					2	94 (1)			2	94 (1)
2022									0	

ufcf09ac.d13-d16, ufcf10ac.d19-d22

Table 58. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Camp Ernst Lake on 14 October 2022. Additional samples were collected in 2013, 2014, 2017 and 2020.

Year	Inch class																			Total	CPUE
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
2013	3	11	30	27	39	33	22	26	17	17	10	5	4	2		1	2		1	250	83.3
2014		2	25	120	173	175	100	47	22	10	9	9	5	3	1		1			702	234.0
2017		2	16	19	30	46	67	44	33	16	18	15	13	5	7	3	3		1	338	112.7
2020				1	3		4	6	3	1		1								19	6.3
2022	1	4	25	26	39	31	28	21	22	15	19	5	4	1	4					245	81.7

ufcf10ce.d13-d22

Table 59. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Camp Ernst Lake from 2013-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		> 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	44	89 (1)	147	83 (1)	56	85 (1)	3	97 (6)	250	85 (1)
2014	16	92 (3)	282	83 (1)	46	83 (2)			344	84 (1)
2017	12	92 (3)	155	83 (1)	93	85 (1)	3	85 (2)	263	84 (1)
2020			14	84 (1)	5	82 (3)			19	84 (1)
2022	30	75 (3)	145	79 (2)	70	78 (1)			145	78 (1)

ufcf10ce.d13-d22

Table 60. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Alexandria Community Park Lake on 14 October 2022. Additional samples were collected in 2007, 2011, 2012, 2015, 2018 and 2020.

Year	Inch class																												Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29							
2007			1	2	5	5	15	16	5	12	8	7	2		2		3	1								84	28.0			
2011	2	28	133	231	250	177	73	18	4	1	1	4				4	2	1				1	1		931	310.3				
2012		2	44	96	114	60	39	35	23	24	28	27	23	8	2	2	3	1							531	177.0				
2015			7	38	123	69	32	24	8	8	6	3	1	2	2	3		1							327	109.0				
2018			1		4	13	33	20	10	11	3	5	3	3	1		2	1							110	36.7				
2020				3	4	8	14	12	7	5	1	1		1	1										57	19.0				
2022		2	5	16	11	21	28	42	53	32	22	12	8		6	1	2								261	87.0				

ufcf09sl.d07-d11, ufcf11sl.d12, ufcf10sl.d15-d22

Table 61. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Alexandria Community Park Lake from 2011-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2011	28	94 (2)	102	84 (1)	12	99 (3)	3	87 (11)	145	88 (1)
2012	25	107 (3)	109	93 (1)	72	96 (1)	1	103	207	96 (1)
2015	45	94 (2)	256	88 (1)	25	87 (2)	1	58	327	88 (1)
2018			78	89 (1)	28	83 (1)	1	104	107	88 (1)
2020	3	91 (3)	45	85 (1)	9	86 (3)			57	85 (1)
2022	23	77 (2)	155	78 (1)	83	81 (1)			261	79 (1)

ufcf09sl.d11, ufcf11sl.d12, ufcf10sl.d15-d22

Table 62. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lower Sportsman's Lake on 6 October 2022. Additional samples were collected in 2011, 2013, 2016 and 2019.

Year	Inch class																				Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
2011	1	8	15	22	62	40	19	8	2	3	3	2		1							186	93.0
2013		1	7	25	49	88	29	12	4	2		1		1							219	73.0
2016				2	2	6	10	18	15	3	1	1				1			1		60	20.0
2019					2		8	30	16	11	2		1	1	1	3					75	25.0
2022		1	8	29	70	82	67	40	13	13	10	7				1				1	342	114.0

ufcf10ls.d11, ufcf09ls.d13-d16, ufcf10ls.d19-d22

Table 63. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lower Sportsman's Lake from 2011-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2011	18	95 (3)	72	90 (1)	9	90 (2)			99	91 (1)
2013	14	92 (3)	105	85 (1)	4	89 (5)			123	86 (1)
2016	2	80 (13)	51	85 (2)	6	90 (3)	1	95	60	86 (1)
2019			56	90 (2)	19	95 (3)			75	91 (1)
2022	10	91 (6)	77	85 (1)	28	85 (1)	1	101	116	86 (1)

ufcf10ls.d11, ufcf09ls.d13-d16, ufcf10ls.d19-d22

Table 64. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Upper Sportsman's Lake on 6 October 2022. Additional samples were collected in 2007, 2011, 2013, 2016 and 2019.

Year	Inch class																														Total	CPUE
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
2007				2	2	6	4	2	6	8	2	3	3	1		1		2											42	14.0		
2011	3	5	6	26	27	20	5	1	2				2		1								1						99	49.5		
2013		1	4	7	18	12	4	5		1																			52	17.3		
2016					5	3	2	3	7	1	1																		22	7.3		
2019				3	1	7	8	7	1		1	1																	29	9.7		
2022		6	8	19	41	49	30	11	9	2	4	2	1		1														183	61.0		

ufcf09us.d07, ufcf10us.d11, ufcf09us.d13-d16, ufcf10us.d19-d22

Table 65. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Upper Sportsman's Lake from 2011-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2011	14	96 (4)	79	91 (1)	5	97 (2)	1	91	99	92 (1)
2013	5	96 (5)	46	92 (1)	1	93			52	93 (1)
2016			13	91 (2)	9	91 (3)			22	91 (2)
2019			26	91 (2)	3	95 (7)			29	92 (2)
2022	14	90 (3)	150	80 (1)	19	88 (3)			183	82 (1)

ufcf09us.d07, ufcf10us.d11, ufcf09us.d13-d16, ufcf10us.d19-d22

Table 66. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Kess Creek Park Lake on 21 October 2022. An additional sample was collected in 2019.

Year	Inch class													Total	CPUE
	9	10	11	12	13	14	15	16	17	18	19	20	21		
2019	1	1	3	6	8	8	4	2	2		3			38	12.7
2022	12	9	12	21	23	13	5	6	2	3	2		1	109	36.3

ufcf10ks.d19-d22

Table 67. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Kess Creek Park Lake from 2019-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2019	2	85 (10)	28	91 (2)	7	93 (4)			37	91 (2)
2022	21	85 (2)	74	81 (1)	14	86 (4)			109	82 (1)

ufcf10ks.d19-d22

Table 68. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets three sets; 72-hr soak time) that were set at Rotary Park Lake on 21 October 2022. An additional sample was collected in 2019.

Year	Inch class															Total	CPUE
	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
2019	1		5	14	18	13	12	11	7	6	3	1		1	92	46.0	
2022	4	3	8	13	8	19	14	10	5		1		1		86	28.7	

ufcf10rp.d19-d22

Table 69. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Rotary Park Lake from 2019-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2019	6	103 (3)	66	92 (2)	18	87 (2)			90	92 (1)
2022	15	97 (3)	64	83 (1)	7	82 (3)			86	86 (1)

ufcf10rp.d19-d22

Table 70. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Madisonville City Park Lake South on 20 October 2022. Additional samples were collected in 2015 and 2019.

Year	Inch class																														Total	CPUE
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
2015										1		1															2	0.7				
2019	1	3		5	14	29	48	58	39	32	24	15	10	6	1		3										288	96.0				
2022		1	11	33	47	44	28	23	25	22	22	10	5	5	3		2		1					1			283	94.3				

ufcf10mv.d15-d22

Table 71. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Madisonville City Park Lake South from 2015-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2015					2	93 (5)			2	93 (5)
2019	2	97 (13)	48	89 (2)	40	85 (1)			92	88 (1)
2022	12	95 (5)	175	87 (2)	92	84 (1)	4	107 (8)	283	86 (1)

ufcf10mv.d15-d22

Table 72. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Mingo on 5 October 2022. Additional samples were collected in 2013, 2014, 2017 and 2020.

Year	Inch class												Total	CPUE
	11	12	13	14	15	16	17	18	19	20	21	22		
2013			3	2	1			1	2				9	3.0
2014		1	5	16	15	11	15	13	4	2	1	1	84	28.0
2017			1	3	5	1	1		2				13	4.3
2020	1	5	4	5	5	4	1		1		1		27	9.0
2022		3	1	2	2	3							11	3.7

ufcf09lm.d13, ufcf10lm.d14, ufcf09lm.d17, ufcf10lm.d20-d22

Table 73. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Mingo from 2013-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013			6	89 (2)	3	94 (4)			9	91 (2)
2014			36	99 (2)	47	98 (1)			83	98 (1)
2017			9	92 (4)	4	101 (4)			13	95 (3)
2020			20	87 (1)	7	94 (7)			27	88 (2)
2022			6	103 (10)	5	100 (5)			11	102 (6)

ufcf09lm.d13, ufcf10lm.d14, ufcf09lm.d17, ufcf10lm.d20-d22

Table 74. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Southland Church Lake on 5 October 2022. An additional sample was collected in 2020.

Year	Inch class											Total	CPUE
	9	10	11	12	13	14	15	16	17	18	19		
2019				4	9	4	7	2				26	8.7
2022	1		6	3	5	3	2	2			1	23	7.7

ufcf10so.d20-d22

Table 75. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Southland Church Lake from 2020-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2020			24	92 (2)	2	92 (16)			26	92 (2)
2022	1	96	19	87 (2)	3	88 (4)			23	87 (2)

ufcf10so.d20-d22

Table 76. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Long Pond on 14 October 2022. Additional samples were collected in 2012, 2016 and 2019.

Year	Inch class															Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
2012		37	85	80	55	19	16	6	5	2	2	3	1		311	103.7	
2016			8	12	22	24	25	12	7	2	4	3	1		120	40.0	
2019	1	2	6	9	23	39	48	29	14	6	2	1	4	2	186	62.0	
2022				3	3	5	1	1		1		1			15	5.0	

ufcf11ml.d12, ufcf10ml.d16-d22

Table 77. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Long Pond from 2012-22. Standard errors are in parentheses.

parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2012	109	116 (3)	83	96 (1)	8	94 (2)			200	107 (2)
2016	20	93 (3)	86	87 (1)	10	84 (6)			116	88 (1)
2019	18	93 (3)	153	84 (1)	15	91 (3)			186	86 (1)
2022	3	82 (3)	10	86 (2)	2	85 (9)			15	85 (2)

ufcf11ml.d12, ufcf10ml.d16-d22

Table 78. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Shelterhouse Pond on 14 October 2022. Additional samples were collected in 2011, 2012, 2016 and 2019.

Year	Inch class																	Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				
2011	3	12	10	18	21	22	22	3	1				1		1	114	38.0		
2012			4	6	6	3	5	2		2	2	1				31	10.3		
2016			2	5	7	12	10	11	10	1	2	3				63	21.0		
2019			1		4	3	5	3	1	1				1	1	20	6.7		
2022			1	1	6	5	5	2	4	1						25	8.3		

ufcf09ms.d11, ufcf11ms.d12, ufcf10ms.d16-d22

Table 79. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Middleton Mills Shelterhouse Pond from 2011-22. Standard errors are in parentheses.

parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2011	43	96 (2)	69	88 (1)	2	113 (5)			114	91 (1)
2012	10	103 (3)	16	90 (2)	5	97 (2)			31	95 (2)
2016	7	99 (6)	50	85 (3)	6	85 (4)			63	87 (2)
2019	1	110	16	85 (2)	3	99 (4)			20	88 (2)
2022	2	90 (6)	22	82 (2)	1	80			25	82 (2)

ufcf09ms.d11, ufcf11ms.d12, ufcf10ms.d16-d22

Table 80. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Whitehall Park Lake on 5 October 2022. Additional samples were collected in 2013, 2017 and 2020.

Year	Inch class																Total	CPUE
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
2013	3	3	6	10	8	9	2			2							43	14.3
2017	1	2	3	4	4	11	26	36	24	14	20	12	4		1	1	163	54.3
2020							2	1									3	1.0
2022		1	2	10	15	33	35	37	7	7	7	4	2		2		162	54.0

ufcf09wh.d13-d17, ufcf10wh.d20-d22

Table 81. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Whitehall Park Lake from 2013-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	12	96 (4)	29	93 (2)	2	97 (7)			43	94 (2)
2017	6	86 (4)	81	87 (1)	76	87 (1)			163	87 (1)
2020			3	86 (11)					3	86 (11)
2022	3	84 (4)	130	81 (1)	29	86 (2)			162	82 (1)

ufcf09wh.d13-d17, ufcf10wh.d20-d22

Table 82. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (two sets; 72-hr soak time) that were set at Mike Miller Park Lake on 20 October 2022. Additional samples were collected in 2013, 2016 and 2019.

Year	Inch class																	Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
2013	2	17	125	138	96	99	73	54	30	15	13	2	3		2			669	223.0
2016		5	12	25	33	35	42	52	45	19	16	9	3	1	1	2		300	100.0
2019		1	3	4	12	26	46	35	32	11	8	14	4	3	1		1	201	100.5
2022		5	17	31	42	38	48	23	28	8	18	9	5	3	1	1		275	91.7

ufcf10mm.d13-d22

Table 83. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (two sets; 72-hr soak time) that were set at Mike Miller Park Lake from 2013-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	60	93 (2)	103	86 (1)	35	86 (2)	1	85	198	88 (1)
2016	32	83 (1)	140	79 (1)	51	79 (1)			223	80 (1)
2019	1	108	61	77 (1)	31	82 (2)			94	79 (1)
2022	53	84 (1)	177	78 (1)	45	81 (1)			275	80 (1)

ufcf10mm.d13-d22

Table 84. Length frequency and CPUE (fish/net set) of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Montgomery on 21 October 2022. Additional samples were collected in 2013, 2016 and 2019.

Year	Inch class																		Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
2013		9	49	140	95	69	41	30	14	7	2	4		3	1				464	154.7
2016				1	1	5	3	7	8	4	6	2	2			1			40	13.3
2019					3	5	22	34	36	9	10	5	2	2	2	2			132	44.0
2022	1	5	39	61	61	67	67	51	28	9	7	3	2				1		402	134.0

ufcf10bn.d13-d22

Table 85. Number of fish and the relative weight (Wr) for each length group of channel/hybrid catfish collected by baited-tandem hoop nets (three sets; 72-hr soak time) that were set at Lake Montgomery from 2013-22. Standard errors are in parentheses.

Year	Length group (in)								Total	
	7.0 - 10.9		11.0 - 15.9		16.0 - 23.9		≥ 24.0			
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
2013	68	93 (1)	88	87 (1)	17	81 (5)			173	89 (1)
2016	1	105	24	88 (3)	15	84 (6)			40	87 (3)
2019			97	88 (1)	30	88 (2)			127	88 (1)
2022	27	90 (1)	113	82 (1)	22	84 (3)			162	84 (1)

ufcf10bn.d13-d22

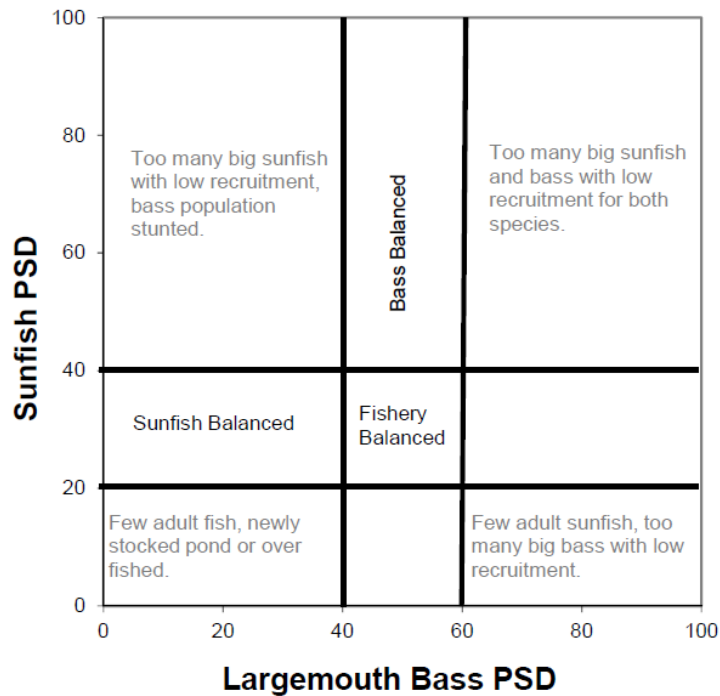


Figure 1. Generally accepted proportional stock density (PSD) index ranges for sunfish (bluegill and redear sunfish, weighted) and largemouth bass populations in small impoundments.

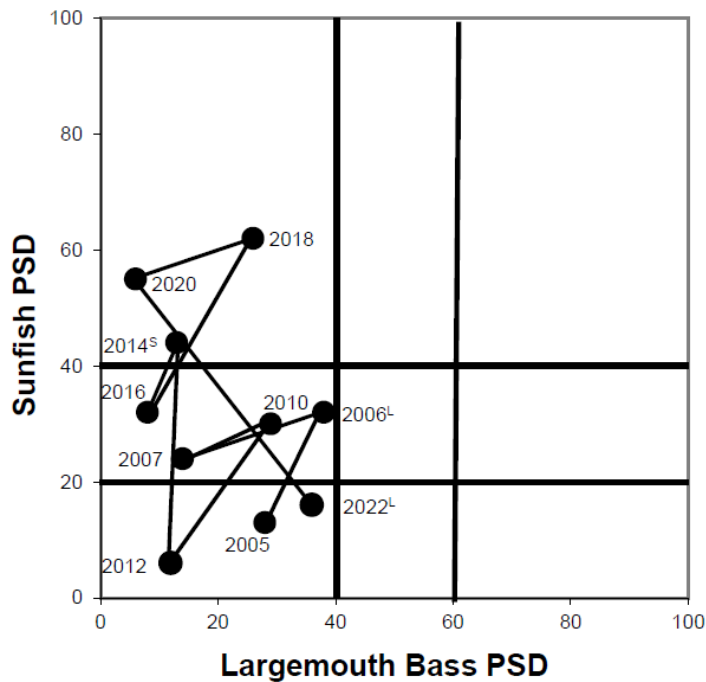


Figure 2. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Alexandria Community Park Lake from 2005-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

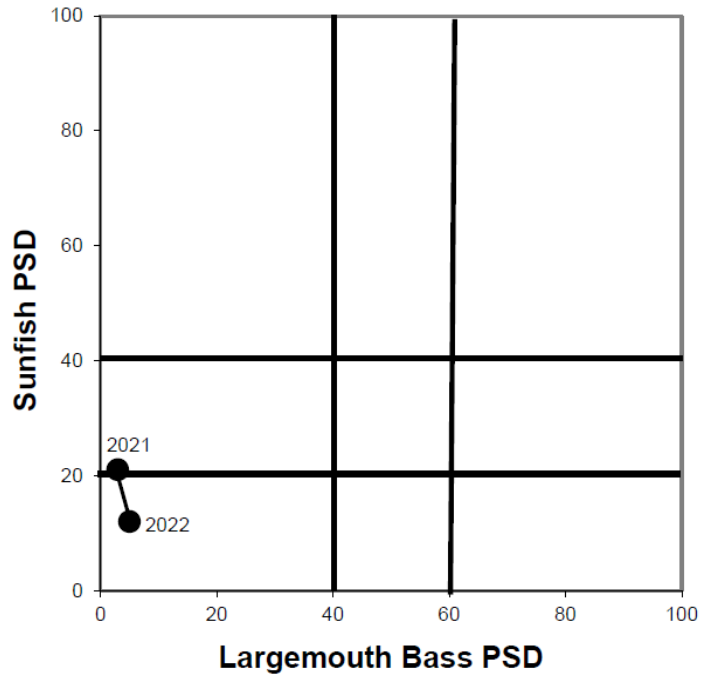


Figure 3. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Robert J. Barth Park Lake from 2021-22.

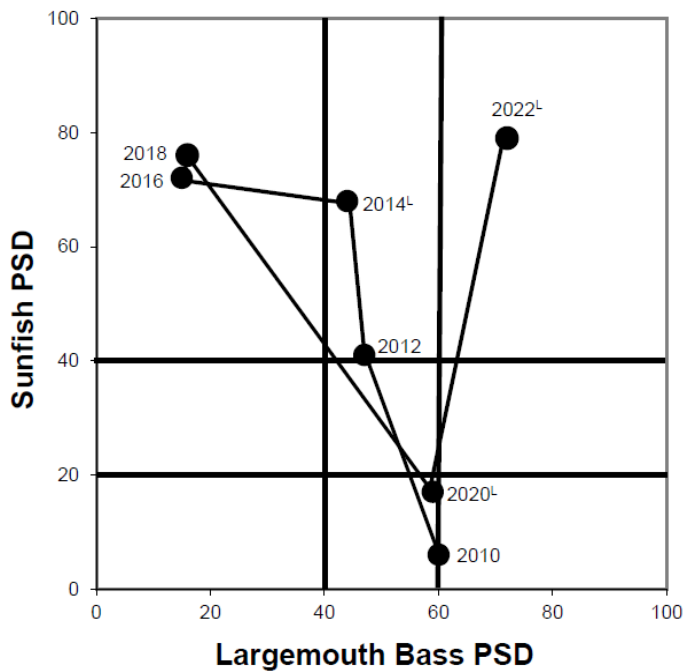


Figure 4. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Panther Creek Park Lake from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

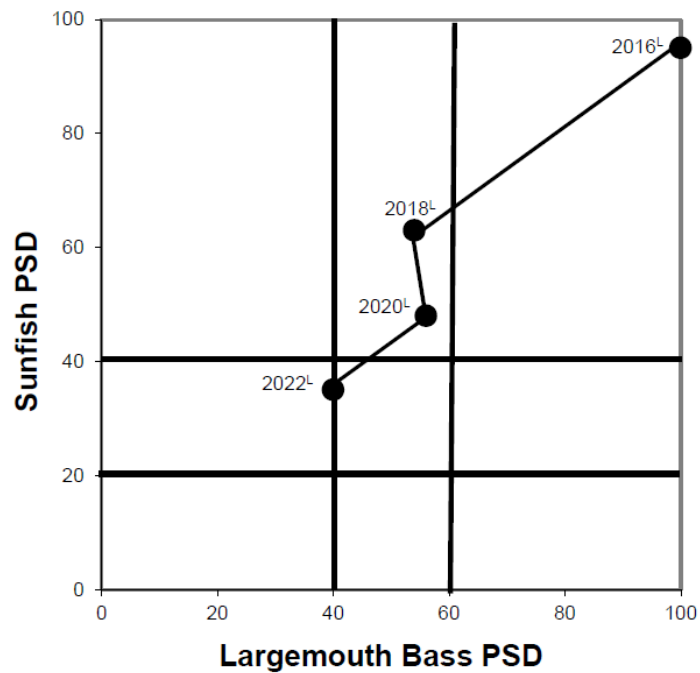


Figure 5. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Kentucky Horse Park Rolex Lake from 2016-22. Superscripts denote occasions where sample size of either sunfish (^s) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

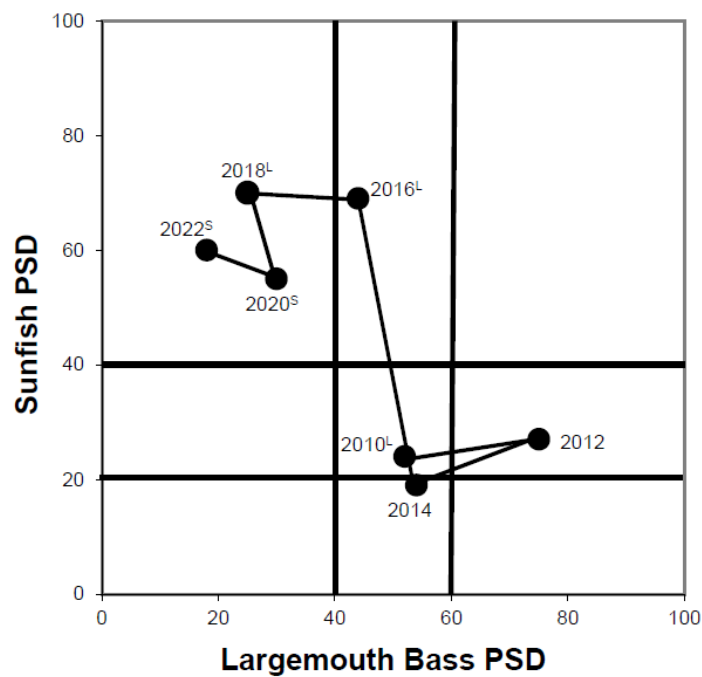


Figure 6. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Lower Sportsman's Lake from 2010-22. Superscripts denote occasions where sample size of either sunfish (^s) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

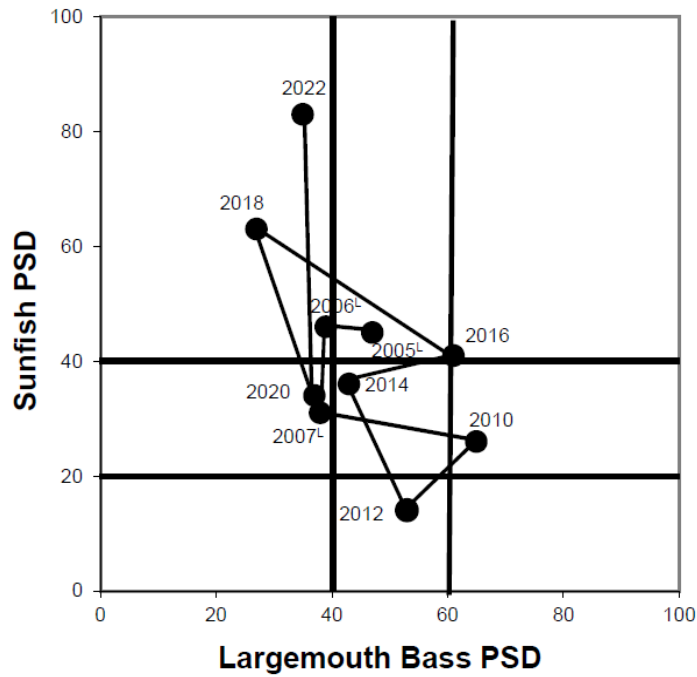


Figure 7. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Upper Sportsman's Lake from 2005-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

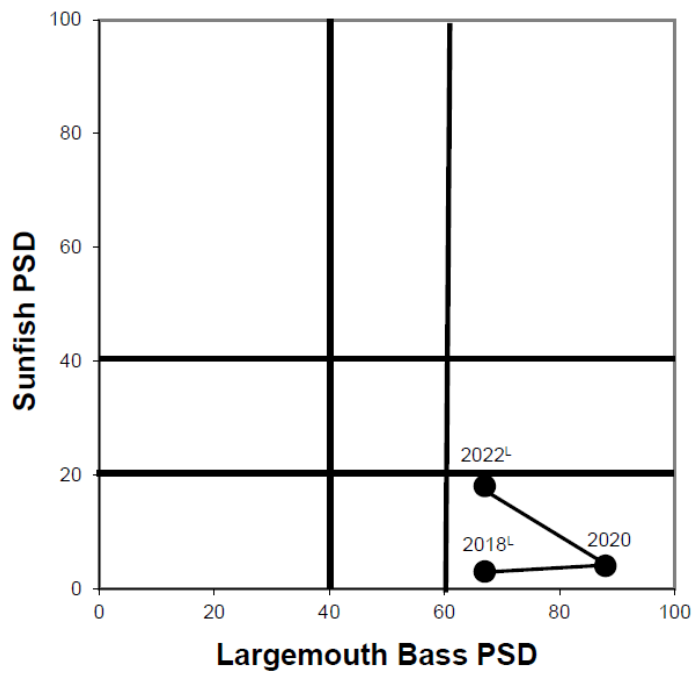


Figure 8. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Kess Creek Park Lake from 2018-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

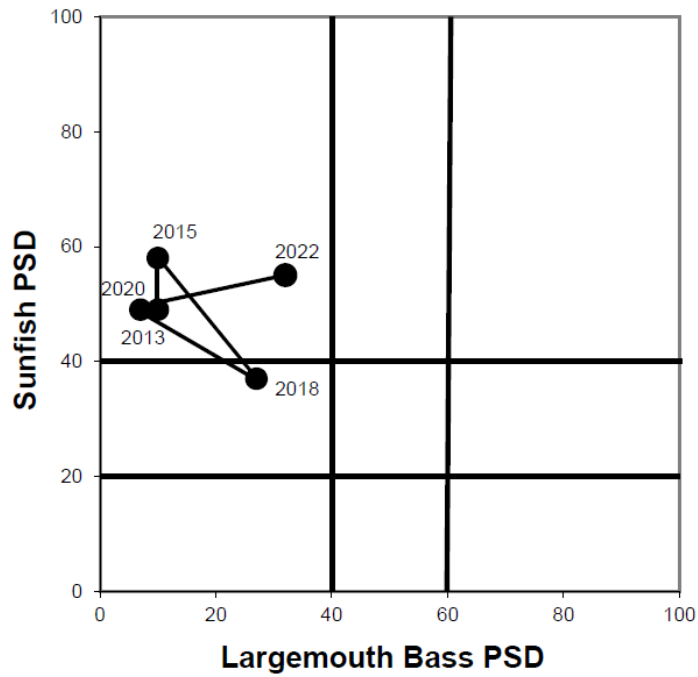


Figure 9. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at James D. Beville Park Lake from 2013-22.

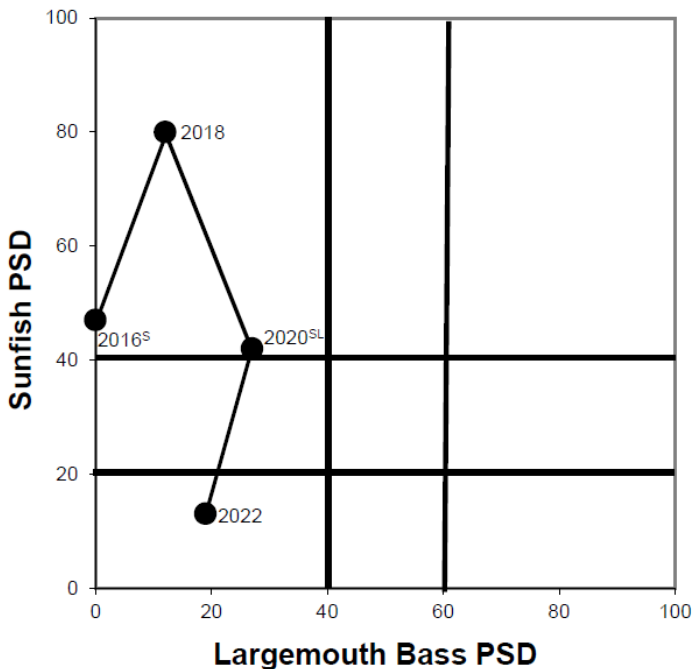


Figure 10. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Rotary Park Lake from 2016-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

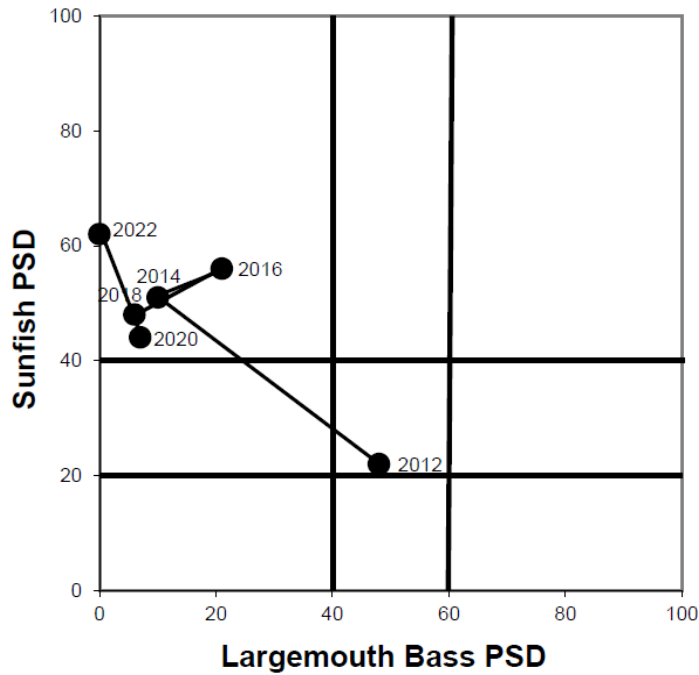


Figure 11. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Madisonville City Park Lake South from 2012-22.

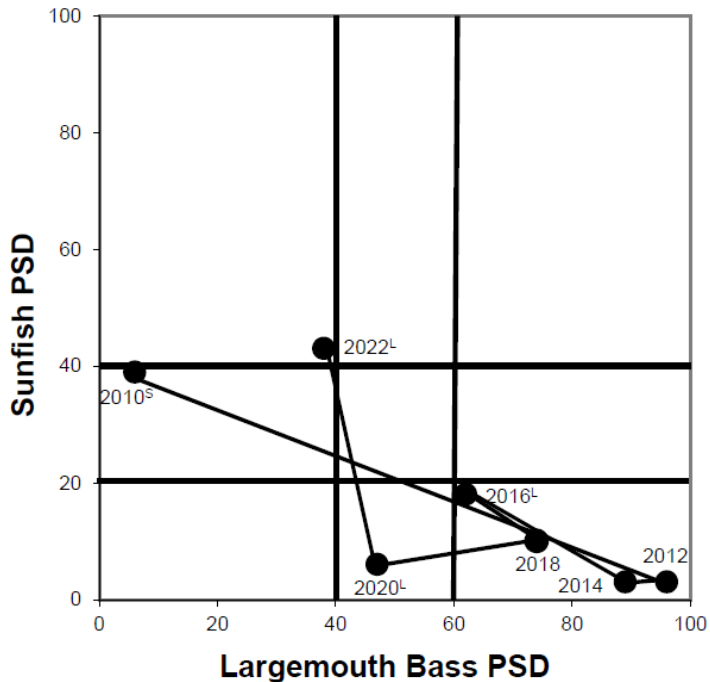


Figure 12. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Lake Mingo from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

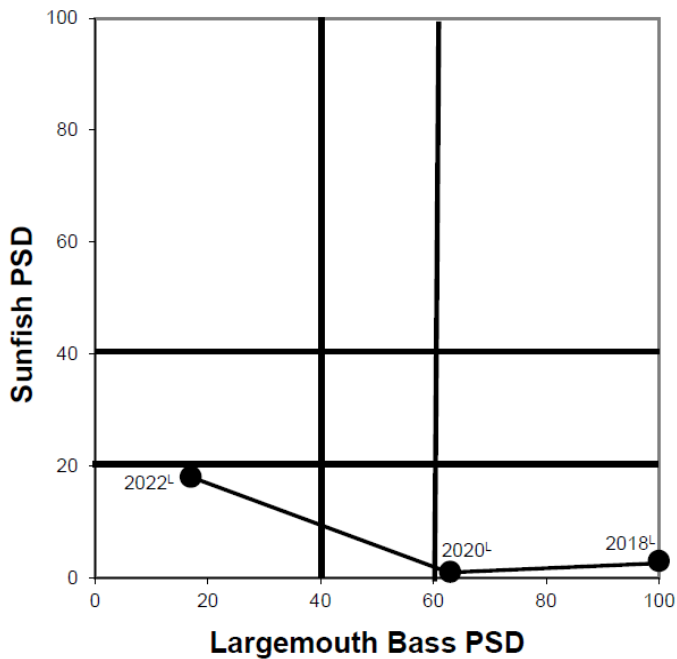


Figure 13. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Southland Church Lake from 2018-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

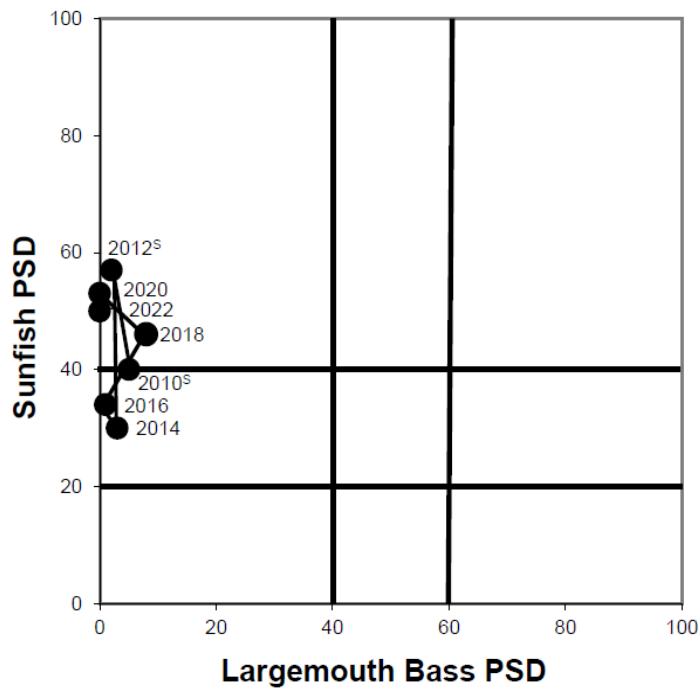


Figure 14. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Mike Miller Park Lake from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

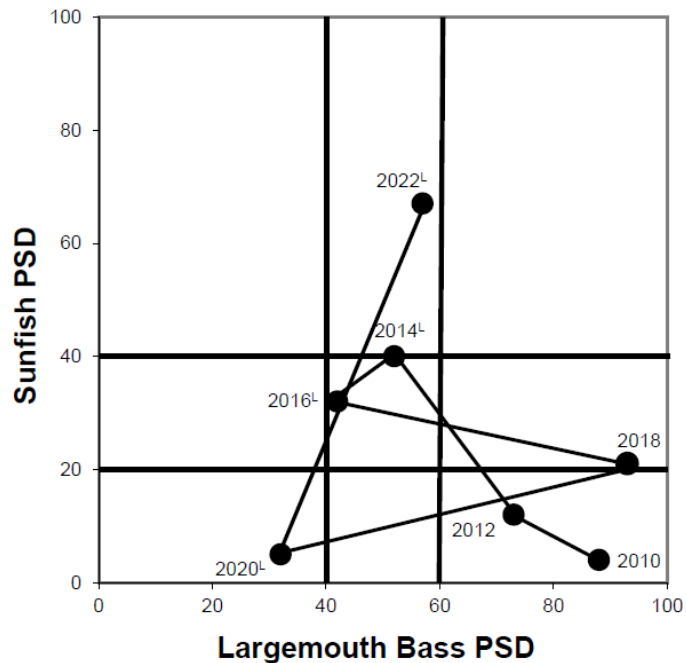


Figure 15. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Lake Montgomery from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

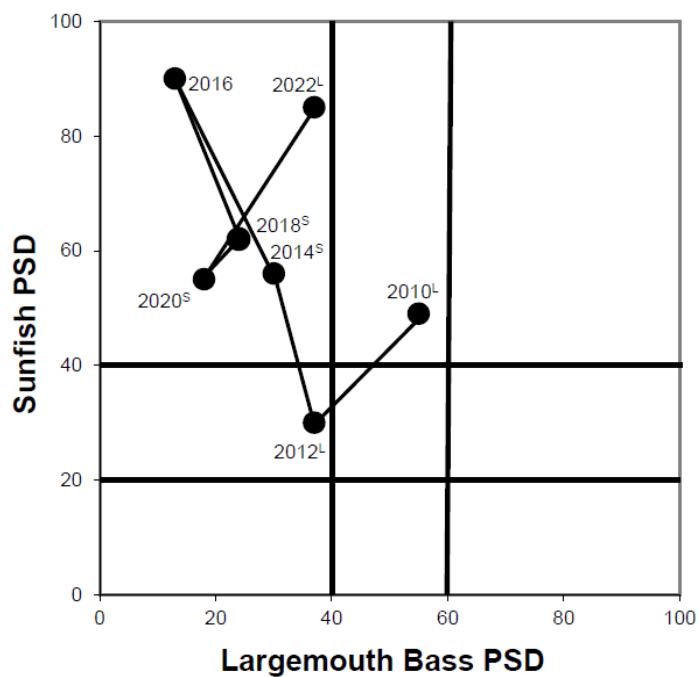


Figure 16. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Bloomfield Park Lake from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

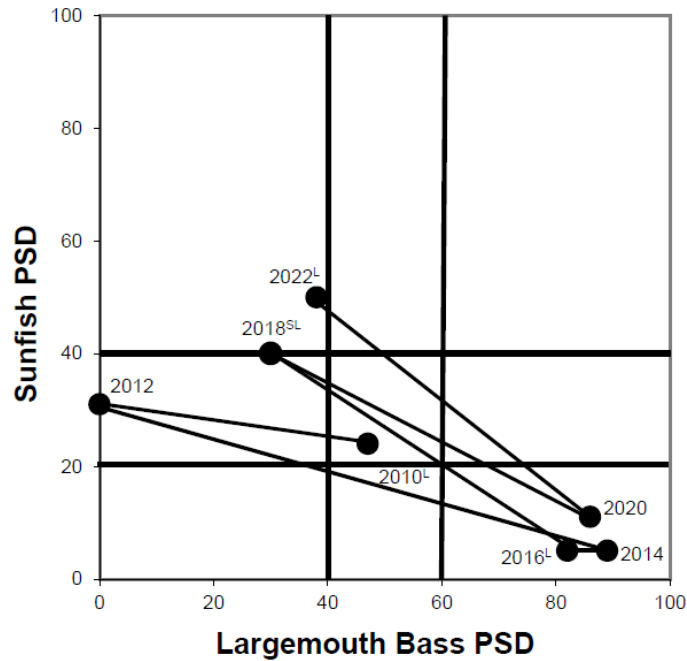


Figure 17. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Lusby Lake from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

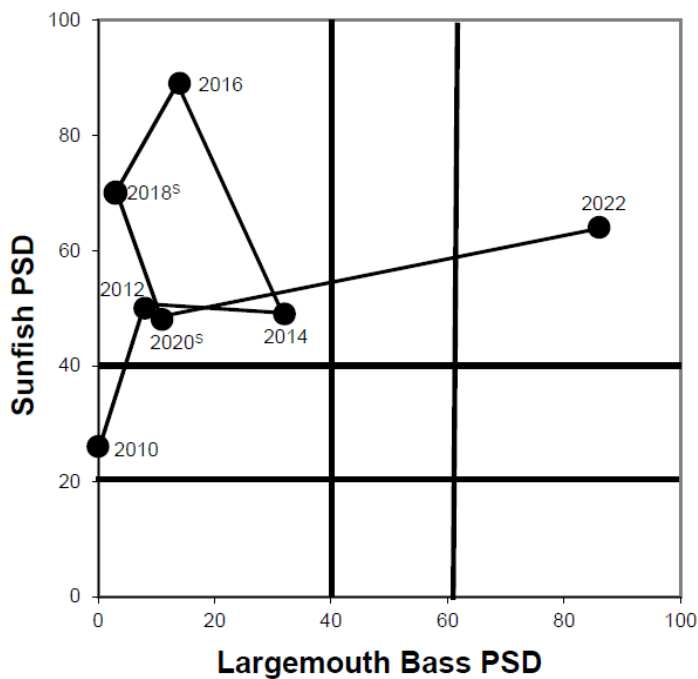


Figure 18. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Scott Coutny Park Lake from 2010-22. Superscripts denote occasions where sample size of either sunfish (^S) or largemouth bass (^L) was insufficient to estimate PSD with 90% confidence of being in one of three intervals (0-39, 40-60, 61-100).

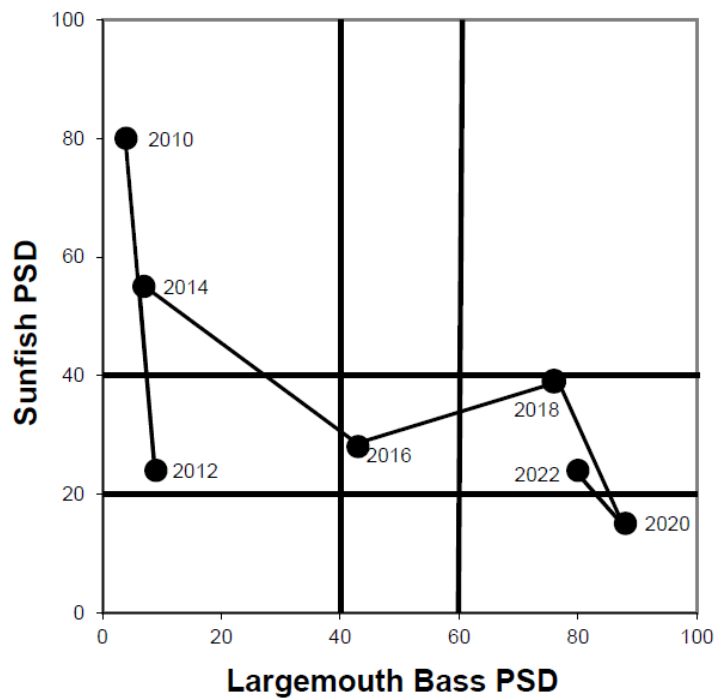


Figure 19. Proportional stock density (PSD) index for sunfish (weighted) and largemouth bass populations at Three Springs Lake from 2010-22.

Project II: Evaluation of Angling Effort Using Remote Cameras

FINDINGS

The Fishing in Neighborhoods (FINs) program began in 2006 as a cooperative endeavor between Kentucky Department of Fish and Wildlife Resources (KDFWR) and local municipalities to provide access to quality fishing opportunities close to large populations of people. The FINs program currently includes 44 lakes in 28 counties across Kentucky. An angler attitude survey was conducted at 27 of the lakes in 2012. In addition, five creel surveys have been conducted at central Kentucky FINs lakes since 2010. However, little is known regarding angling effort at lakes where creel surveys have not been previously conducted. Fishing pressure was extremely high at creel surveyed lakes with total angler-hrs ranging from 11,000 – 66,000 hours per lake or 1,400 – 9,500 angler-hrs/acre. Angling effort is perceived to be high at most FINs lakes; however, quantifying effort using creel surveys is expensive and would be cost prohibitive to conduct at all FINs lakes. However, a new tool is available in the form of remote time-lapse cameras, which offer a cost-effective way to estimate angling effort. Using these remote, fixed position cameras it is possible to effectively monitor multiple lakes, capturing effort for a full 12-month period, while capturing daily and seasonal trends.

The FINs lakes are intensively stocked with large “keeper-sized” fish as a put-and-take fishery to sustain quality-fishing opportunities to a diverse group of anglers. To ensure anglers are utilizing these fish stockings, monitoring of angling effort is needed on a lake-by-lake basis as well as at a program scale. The additional knowledge of angling effort, in conjunction with exploitation studies and electrofishing and hoop net sampling, will assist in adaptively managing these fisheries. The angling effort data will aid in determining whether FINs lakes in other parts of the state are having similar angling pressure to previously surveyed FINs lakes in Central Kentucky. This data will also aid in assessing if current stocking strategies are adequate for the amount and timing of angling effort. If certain FINs lakes are not receiving the perceived pressure, then stocking rates could be reduced or other lake(s) substituted in the FINs program.

A total of 31 Reconyx Hyperfire HC500 cameras were purchased along with metal lock boxes. Cameras were purchased in January 2015 on price contract for \$435 each and lock boxes for \$45 each. Additionally, 62 4-GB SDHC cards were purchased for \$4 each for image storage and 540 rechargeable AA-batteries and 2 charging ports were purchased for \$823. Cameras require 12 AA-batteries to operate, and rechargeable batteries should be much more cost efficient over the long term.

Prior to installing cameras, a letter was sent to lake owners explaining the purpose of the study and seeking the owner's permission to use cameras within their park. Most of the lakes in the FINs program are not owned by KDFWR, but all have a memorandum of understanding in place. An additional waiver, consent and release form was drafted by the KDFWR attorney and signed by lake owners prior to implementation. Cameras were installed in September 2017, with counts beginning 1 October 2017 and running through 30 September 2018 in most instances. Jacobson Park Lake was surveyed 1 November 2018 through 31 October 2019 due to a delay in getting permission from the City Council to install cameras. Cameras were checked every 6-8 weeks to exchange memory cards and batteries. Both primary and secondary FINs lakes were surveyed to get a range of angling effort (primary lakes are stocked four times annually with catfish, whereas secondary lakes are only stocked twice annually with catfish). The second round of the study included 16 lakes that range in size from 1-46 acres. Data collection for this second round of lakes is complete with analysis still ongoing. Cameras were installed in September 2019, with counts beginning 1 October 2019 and running through 30 September 2020 at the final eight lakes to be surveyed.

Camera lock boxes were mounted to a tree or utility pole with lag bolts about 10-20 ft above the ground. The camera sits inside the lock box and is secured with a lock on the outside. This lock box and height of the cameras should deter vandals. All cameras were mounted to cover maximum bank access, especially anticipated high use areas. Many lakes required multiple cameras to get adequate coverage of the bank access areas. Care was taken during placement that there was no overlap of camera images on lakes that required multiple cameras. This prevented anglers from being counted twice during

analysis. In one instance at Leary Lake, no trees or utility poles were available to get the optimal view of the lake. In this case, the camera was placed inside the lock box, welded to a metal signpost, and placed out in the water. A wooden box was built around the camera and lock box to disguise it as a wood duck nesting box. There is no boating activity on this lake, so the cameras were only susceptible to vandalism during instances when the lake has ice cover. However, the metal poles were set at sufficient depths in the sediment that prevent someone from removing by hand.

The cameras did not cover 100% of the bank access at most lakes so a correction factor was employed to account for missed anglers and estimate total angler effort. Each survey lake was visited multiple times over the course of the study to do a visual count in-person at the same time as the remote cameras took a picture. A linear regression equation, $VC = a + b(CC)$, where the y-intercept was set to 0, was used to generate a correction factor. The dependent variable, Visual Count (VC), is the visual count taken in person at the same time the photo was recorded and the independent variable, Camera Count (CC), is the number of anglers observed on camera(s). Since the y-intercept (a) is equal to 0, the slope of the regression equation (b) is the correction factor. All correction factor linear regression equations were significant at $p < 0.001$ and had excellent coefficients of determination (r^2) in most cases (Table 1). Several lakes had insufficient visual counts to derive a correction factor. Collecting the in-person visual counts was especially challenging at lakes located out of the way and not near travel routes or workstations. Local park staff were contacted to assist with the visual counts in several instances. Even with ample explanation and follow up, the counts obtained by non-KDFWR staff were either lacking or suspect in some cases and thus excluded. Additional visual angler counts are needed in future camera surveys with the goal of a minimum of 30 counts and across the higher usage times to provide a more accurate correction factor.

Cameras were set up to take a picture every half-hour from daylight to dusk. Only images at the top of the hour were used for analysis; however, the half hour pictures helped postulate if someone was fishing as well as aided in the number of in-person visual counts that could be collected for the correction factor. Timelapse Image Analyzer was used to assist KDFWR personnel with image analysis. This free software designed by the University of Calgary speeds up image analysis and reduces errors, by automatically populating many of the fields needed for analysis and reduces data entry errors by placing the image and data entry on the same form. In a previous study, this software was found to cut image analysis time in half versus viewing images and entering data in separate spreadsheet. Cameras were collected after the 12-month period with one instance of vandalism at Logan Hubble Park Lake. The cameras and security box were missing upon retrieval in June 2018.