Stony Creek Lake

Macomb County, T4N R12E Sec 29, 30, 31 Clinton River Watershed, last surveyed 2011

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Environment

Stony Creek Lake is a 498 acre impoundment of Stony Creek, located approximately 5 miles southwest of the Village of Romeo in west-central Macomb County (Figure 1). The lake level is maintained by a dam at the outlet on the south end of the lake (South Dam) and there is another dam on the main inlet on the north end of the lake (North Dam). Stony Creek Lake is located in the central portion of the Clinton River watershed. The primary source of water for Stony Creek is the 460 acre Lakeville Lake, located 10 miles upstream of Stony Creek Lake. In addition to Stony Creek, there are several small tributary streams to Stony Creek Lake, with the two largest being Mt. Vernon Drain and the West Branch of Stony Creek, both entering the west end of the lake. The Stony Creek watershed has 47.5 miles of stream in a discharge basin of about 56 square miles.

The lake is shallow, with forty percent being less than 10 feet in depth, including the majority of the northeast arm of the lake (Figure 2). There is only one deep hole, 23 feet, located in front of the South Dam. Because of the large expanse of shallow habitat, aquatic vegetation is abundant, including invasive species like Eurasian watermilfoil and starry stonewort. Stony Creek Lake lies in a channel made up of glacial sand and gravel, with end moraines of medium textured till on either side. The land use in the watershed is a combination of vacant land, agriculture, and parks, with light residential development.

The lake lies within Stony Creek Metropark and facilities include two major swimming beaches, a boat launch, and several picnic and shore fishing areas. Most of the shoreline is available to anglers, especially those areas improved for that specific use. A fishing pier located near the boat launch was constructed in 1995. Boaters must observe a 10 mph speed limit and boat rentals are available at the park. The recreational opportunities created by the construction of this lake are significant because there are no other inland lakes with public access in Macomb County.

History

In 1959 the Huron-Clinton Metropolitan Authority announced plans for the construction of two new dams on Stony Creek in Macomb County, as part of the new Stony Creek Metropolitan Park. The dam at the inlet (North Dam) of Stony Creek Lake was completed in 1962, creating Upper Stony Creek Lake (110 acres). The dam at the outlet, South Dam, was finished in 1963, creating Stony Creek Lake (498 acres). Stony Creek Lake lies completely within Stony Creek Metropark, which opened in 1964 and extends across almost 4,500 acres in Oakland and Macomb counties.

A fish survey was conducted on Stony Creek and its tributaries in August 1961, before the lake was constructed (Schultz 1962). Stony Creek had predominantly warm water habitat and the stream ranged from 15 to 40 feet wide and averaged 6 inches in depth. The fish community was typical of a small stream, with common shiners, creek chubs, horneyhead chubs, river chubs, stonerollers, white suckers,

and darters common. The South Dam was constructed in 1962, Stony Creek Lake was filled in 1963, and the lake was mapped in 1966.

Even before the lake was constructed, there was concern that the fish community would be dominated by undesirable fish species like carp and suckers once the impoundment was filled (Schultz 1962). An option considered at the time was the removal of all fish in the drainage and the stocking of the new lake with desirable species. This option was deemed impractical due to the large number of lakes and ponds in the drainage. It was decided to let the lake populate itself from existing fish sources. Species including largemouth bass, bluegill, pumpkinseed, and rock bass were present in Stony Creek before the lake was built. A one-time stocking of muskellunge occurred in 1964, a year after the lake was developed (Table 1).

The first fisheries survey following the filling of the impoundment was in 1968. The catch was dominated by carp, suckers, and bullheads, at 80% of the catch by number. Stony Creek Metropark documented a decline in ice fishing effort from 7,000 trips in 1965, to 14,600 trips in 1966, 7,300 trips in 1967, and 2,600 trips in 1968. Both the abundance of undesirable fishes and decline in fishing effort were a concern. Fisheries Division made several proposals from 1969 to 1977 to draw down the lake, eradicate the fish with a fish toxicant, and re-stock the lake with northern pike, largemouth bass, channel catfish, white bass, crappie, and bluegill. This project was never done because the Metroparks did not support the proposal. Fishing reports through the 1970s indicated that fishing was poor in Stony Creek Lake.

The next fisheries survey was conducted in 1978 and found improvements in the fish community. Black crappies and bluegills were abundant and all species had above-average growth rates, with the exception of northern pike. Although the number of sport fish species improved, white suckers and carp were still abundant. Netting was done in May 1980 to remove carp, suckers, and bullheads, which compete with desirable game fish species. The goal was to remove 25-50,000 pounds. However, a two week netting effort caught only 492 carp, 795 suckers, and 238 bullheads, weighing a total of 2,890 pounds - a removal of about 6 pounds per acre. Northern pike were stocked in 1980 following the fish removal (Table 1), in an attempt to provide predator control on the remaining undesirable fishes. The netting removal was done again in 1981 with similar results. Given the poor results of the removal effort, this project was abandoned.

Fisheries Division initiated a walleye stocking program in 1981 and a popular and successful fishery developed. A general netting survey in fall 1988 found very good numbers of walleye and anglers and park staff reported good to excellent walleye fishing in spring and summer 1988. Walleye growth rates were very good, but growth rates for other species declined to near the state average. Stony Creek Lake was one of the best inland walleye fishing lakes in southeast Michigan.

Several habitat improvement projects have been proposed and implemented in the lake. A permit was issued to install 4 brush bundles throughout the lake in 1985. However, there is no further documentation as to whether the project was carried out. In 1992, a project was funded by the Metroparks and a MDNR-Fisheries Division grant to create a walleye spawning reef. Gravel and stone were placed just below the spillway of the upper dam with the goal of establishing a self-sustaining walleye population. There have been no signs of naturally reproducing walleye in subsequent walleye evaluations.

Due to the successful fishery created by the walleye stocking program, walleye have been stocked regularly since the program began in 1981 and a channel catfish stocking program began in 1996 (Table 1). Channel catfish is a popular fish that anglers harvest for food. The most popular catfish opportunities in the area include Lake St. Clair and the Detroit River, which have restrictive consumption advisories for this species due to contaminants. Several inland lakes, including Stony Creek Lake, were stocked with the goal of providing catfishing opportunities where contaminants would not be an issue.

The most recent fisheries survey in 1997 found reduced number of panfish and there was a concern that predator levels (largemouth bass, northern pike, in addition to the stocked walleye and catfish) were too high. In response, walleye and catfish stockings were suspended for a few years. In addition, some walleye stockings were missed from 2006 to 2009 because walleye production had ceased or was very limited as a policy was developed to address VHS disease concerns. Walleye and channel catfish stocking was re-initiated in 2010.

Current Status

A fish community survey was conducted on Stony Creek Lake by DNR Fisheries Division during June 2011 using a standardized sampling protocol (Status and Trends Program). A variety of sampling gear was used to survey the fish community. Sampling consisted of 9 fyke net lifts, 4 small mesh fyke net lifts, 4 beach seine hauls, 3 gill net lifts, and 3 electrofishing transects during May 31-June 8, 2011. The lake was divided into 24 equal sized sections, from which net set locations were randomly selected. As time allowed, nets were re-set in randomly selected sections. The goal of the survey was to evaluate the current fish population and determine future management needs of the fishery.

A total of 3,701 fish were caught, represented by 23 species (excluding hybrid sunfish) (Table 2). Panfish such as black crappies, bluegill, green sunfish, pumpkinseed, rock bass, white crappie and yellow perch comprised 80% of the total catch by number and 50% by weight. Large sport fish including channel catfish, largemouth bass, northern pike, and walleye accounted for 4% of the total catch by number and 25% by weight. A variety of forage fish species including bluntnose minnows, brook silversides, golden shiners, sand shiners, and spotfin shiners were caught in seines and during electrofishing.

Bluegills were the most abundant fish caught (Table 2). They represented 63% of the total catch by number and 36% by weight. Bluegills ranged in size from 1 to 7 inches (Table 3) and the average size in the fyke net catch was 5.7 inches. Growth rates were near the statewide average (Table 4). The age-distribution of the catch was weighted towards younger fish, with 83% of the catch being age-4 or younger (Table 5). The quality of the bluegill population in Stony Creek Lake was evaluated using Schneider's Index. This index provides a relative measure of the quality of the bluegill size in a lake based on a scale from 1 to 7, with 7 being the best (Schneider 1990). Based on the trap net catch, the bluegill in Stony Creek Lake scored a 2.25 and ranked "poor."

Pumpkinseeds were the next most abundant fish in the survey, making up 12% of the total catch by number (Table 2). Age-1 through age-5 pumpkinseeds were represented in the catch (Table 5) and growth rates were near the statewide average (mean growth index of +0.2) (Table 4). The pumpkinseeds averaged 4.8 inches. A total of 58 rock bass were caught (Table 2) and they ranged in

size from 2 to 10 inches, with almost one-quarter of the catch measuring larger than 8 inches (Table 3). A total of 16 yellow perch were caught, averaging 4.1 inches. Only 3 age-classes were represented in the catch, with most of the catch being age-1 (Table 5). Growth rates were near the statewide average (mean growth index of +0.2) (Table 4).

Both black crappie and white crappie were present. Black crappie made up 3% of the total catch by number and white crappie 1% (Table 2). Both species ranged from 4 to 11 inches, but black crappies averaged 7.0 inches and white crappies slightly larger at 7.9 inches (Table 3). The predominant age-class for both species was age-4 (Table 5). Growth rates were well below the statewide average for black crappies (mean growth index of -1.4) (Table 4).

Largemouth bass made up 3% of total catch by number and 8% by weight (Table 2). The bass ranged from 2 to 16 inches long, but only three fish exceeded the minimum size limit of 14 inches (Table 3). All age-classes from age-1 to age-8 were represented in the catch, but 94% was age-1 to age-4 (Table 5). The catch was weighted towards younger fish, with few older fish present. The growth rates were near average (mean growth index of +0.2) (Table 4).

Northern pike and walleye were present, but were caught in low numbers. Four pike were caught in the survey, ranging from 23 to 29 inches, with half exceeding the minimum size limit of 24-inches (Table 3). Age-3 through age-7 pike were represented in the catch (Table 5). Sufficient numbers were not caught to generate a mean growth index, but the pike generally had average growth rates. Only two walleye were caught and both exceeded the minimum size limit of 15 inches (Table 3). Both fish corresponded to year-classes when stocking occurred, one from 2001 (10 year old) and one from 2003 (8 year old). Sufficient numbers were not caught to generate a mean growth index, but growth rates of the two fish were well above the statewide average.

Channel catfish made up only 1% of the total catch by number, but accounted for 13% by weight. The catfish ranged from 9 to 28 inches, averaging 22.7 inches long (Table 3). Only two year-classes were present, corresponding to 2010 and 2001 stockings (Table 5). Although carp only made up 1% of the total catch by number, they accounted for 21% by weight (Table 2). The carp were large, averaging 23 inches long and 6 pounds.

Analysis and Discussion

Although panfish were abundant, their average size was small. There was a lack of larger bluegills, pumpkinseeds, and yellow perch, in spite of all three species having average growth rates. This is due to the lack of older year-classes (Table 5). Most of the catch was made up of younger fish, with 83% of the bluegills, 97% of pumpkinseeds, and 100% of yellow perch being less than 5 years old.

Stony Creek Lake has a history of small bluegills. In 1978, 15% of the bluegill catch was 8 inches or larger, including two 10 inch bluegills. However, subsequent surveys found very low numbers of bluegills greater than 7 inches; 1.5% in 1984, 11% in 1988, 2% in 991, 17% in 1997, and 3% in 2011, with no bluegills exceeding 8 inches in any of those years with the exception of 1997. The poor size structure of bluegills is supported by the Schneider's Index, which ranked "poor" in every survey with the exception of 1997 (Table 6).

The small size of bluegills is unexpected given that growth rates have been average for most years (Table 6). The primary reason the bluegills are small is that they do not live past age-5 in this lake. With the exception of the 1978 survey when age-1 to age-7 bluegills were present, the subsequent surveys in 1984, 1988, 1997, and 2011 found bluegills up to only age-5. Given that the statewide average length-at-age for an age-5 bluegill is 6.7 inches, it is not surprising to see few bluegills exceed 7 inches. Other panfish including pumpkinseed, yellow perch, black crappies, and white crappies all had catches weighted towards younger fish (Table 5).

The catch of both largemouth bass and northern pike were relatively constant among surveys (Table 6), but low relative to both statewide and Lake Erie Management Unit catch rates (Table 7). Although growth data is not as robust as for other species due to the low catch rates, in general, both species could be characterized as having average growth rates (Table 6). Similar to panfish, the lack of larger sized bass and pike is due to a lack of older fish (Table 5).

Stony Creek Lake is a popular fishing destination because it has very good access and fishing opportunities through Stony Creek Metropark. Good access at Stony Creek Lake, coupled with limited alternatives locally, means that Stony Creek Lake is heavily fished. It appears that as the panfish reach age-5 or bass and pike reach the minimum size limit, they are harvested from the lake.

Although walleye catch rates were the lowest in the time series in the 2011 survey (Table 6), Stony Creek Lake has a reputation of being one of the better inland walleye lakes in the Lake Erie Management Unit. The catch rates from previous surveys are comparable to other area lakes that have a good walleye fishery (Table 8), with an estimated 1 to 2 adult walleye per acre. The reduced catch rate in the current survey is the result of the missed stockings from 2006 to 2009 when walleye were not available; missing multiple stocking years is expected to have a negative effect on the fishery. Stocking was re-initiated in 2010, with additional stockings in 2011 and 2012. These successive year stockings are expected to return this fishery to its former quality. Future stockings will return to an alternate year frequency. Walleye growth rates are good, consistently 1 to 2 inches above the statewide average.

The 2011 survey had the highest catch of channel catfish relative to historic surveys (Table 6). Interestingly, catfish were caught at low levels in the 1984, 1988, and 1991 surveys, yet the first channel catfish stocking did not take place until 1996. Therefore, catfish were successfully reproducing in Stony Creek Lake at low levels. Catch rates improved in 1997 and 2011, following catfish stockings in 1996, 2001, 2004, and 2010 (Table 1). Although aging data from the current survey indicates the catch was made up of only age-2 and age-11 channel catfish, which correspond to the 2010 and 2001 stocking years.

Common carp continue to be a significant part of the fish community in Stony Creek Lake. The carp were large, ranging from 16 to 26 inches. Therefore, they continue to make up a significant portion of the biomass, accounting for 21% of the total catch by weight. Common carp can be a nuisance because they disturb vegetation and increase water turbidity. Carp are abundant because they are prolific spawners, grow very rapidly, and are found to thrive in impoundments. Although the biomass of carp is high, it is not out of the ordinary relative to other area lakes. There is a small specialized group of anglers that specifically target carp who would view carp fishing a good opportunity in Stony Creek Lake.

Overall, the park staff indicates that fishing pressure is high, especially among shore anglers. Anglers report good panfish numbers, but the fish are usually small. Crappie fishing was described as very good, especially in spring. Stony Creek Lake is the home of the current state record white crappie, measuring 19.5 inches and weighing 3.39 pounds, which was caught in May 2000. Bass fishing was rated good and is popular during summer. As noted previously, the walleye fishery has a good reputation. Although some channel catfish are being caught, it does not seem to be generating the anticipated interest.

Management Direction

Managing Stony Creek Lake to provide quality panfish and bass opportunties should continue to be the priority. Fisheries surveys have documented good reproduction and growth rates and the quality of the fishery seems to be limited by the high fishing pressure the lake receives.

Water levels in Stony Creek Lake are managed; kept higher during summer months and reduced during winter to reduce damage to docks and other facilities. However, water level manipulations can have a negative effect on the fisheries, specifically northern pike. Pike are one of the earliest spawning species and require access to emergent vegetation to successfully spawn. If water levels are not brought up early enough in late winter/early spring to provide access to this type of habitat, it can result in lost year-classes. Although pike numbers were low in this and previous surveys, the fishery is supported by multiple year classes. Reptiles and amphibians are other important components of the aquatic community that can be negatively affected by winter draw downs. The timing of the water level manipulations needs to be considered to minimize effects on aquatic species.

The Metroparks has been managing aquatic plants regularly in Stony Creek Lake for at least the past decade. Management has included the application of herbicides targeting Eurasian watermilfoil, specifically to keep the beaches open and to provide navigation. Eurasian watermilfoil is an exotic species that often grows to nuisance levels. It can form dense mats that inhibits recreation and reduces beneficial native plant species. Spot treatment targeting Eurasian watermilfoil should continue to promote a diverse native aquatic plant community, which is important to maintaining a quality fishery.

The walleye stocking program has created a very popular and successful fishery. The stocking program should continue at a rate of 50 spring fingerlings per acre on an alternate year basis.

It is recommended to discontinue the channel catfish stocking program at this time. Channel catfish is a very long-lived species (up to 20 years) that grows to a large size. The stocked fish have very good survival and a large biomass of catfish has accumulated from the stockings. Large catfish prefer large prey items, which means they could be competing with anglers for preferred fish like panfish and bass. Although some catfish are being caught and it diversifies the fishery, they do not seem to be as preferred by anglers. Panfish and bass opportunties should get management preference in this lake.

With the exception of the netting surveys, other fisheries reports are anecdotal regarding fishing pressure and angler preferences. A creel survey which evaluates angler pressure, catch rates, and preferences would better assist in managing the fishery. Due to budget constraints, Fisheries Division has not been able to conduct a creel survey. There may be an opportunity to partner between Fisheries Division and the Huron Clinton Metroparks to conduct a creel survey.

Another fisheries survey should be conducted in 2018 to evaluate the fishery.

References

Schneider, J. C. 1990. Classifying bluegill populations from lake survey data. Michigan Department of Natural Resources, Technical Report 90-10, Ann Arbor.

Schultz, E. E. 1962. A fisheries survey of the Stony Creek watershed, Macomb and Oakland counties, before the filling of two impoundments. Michigan Department of Natural Resources, Report Number 1642, Ann Arbor.

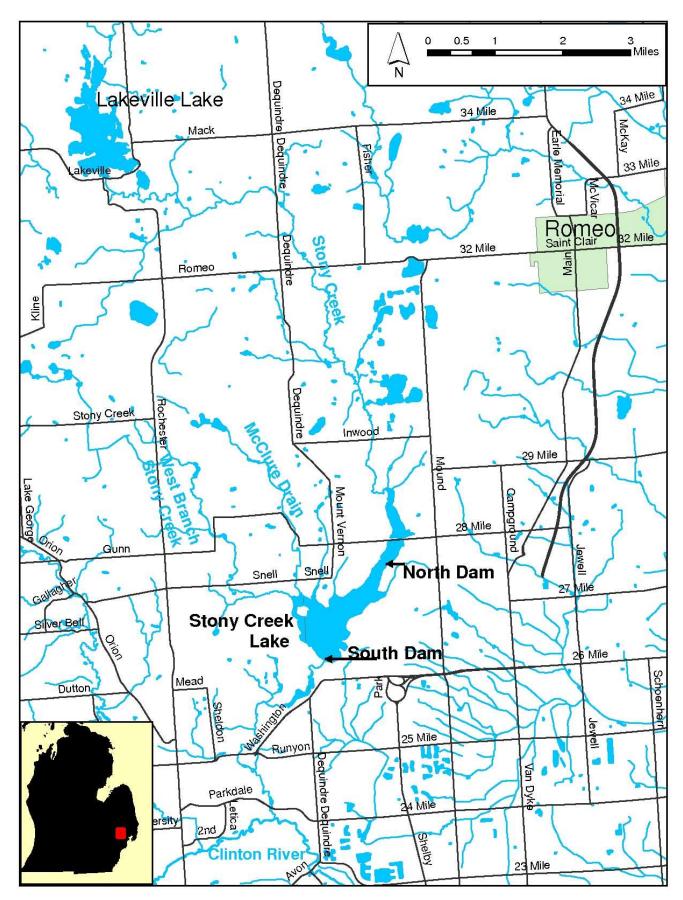


Figure 1.-Area map of Stony Creek Lake.

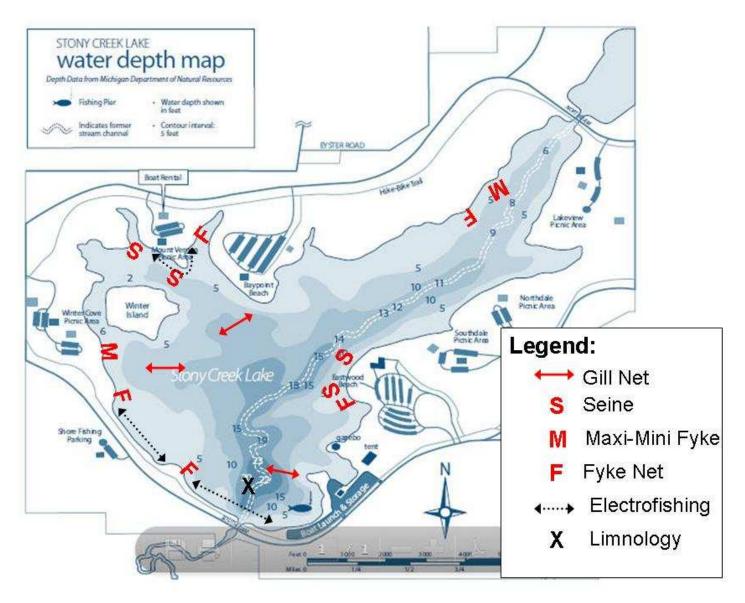


Figure 2.-Lake map of Stony Creek Lake with net set locations from spring 2011 fish community survey.

Table 1.-Summary of fish stocking into Stony Creek Lake, Macomb County.

Stocking		Number	Average
year	Species	stocked	size (in)
1964	Muskellunge	18,986	2.5
1980	Northern pike	4,000	2.8
1981	Walleye	12,000	2.4
1983	Walleye	10,098	2.5
1985	Walleye	26,135	1.6
1987	Walleye	1,500	2.8
1988	Walleye	12,410	1.7
1989	Walleye	19,475	1.8
1991	Walleye	12,525	3.1
1993	Walleye	25,073	2.5
1995	Walleye	37,997	1.8
1996	Channel catfish	5,200	9.0
1999	Bluegill	40,082	1.6
2001	Walleye	28,425	1.9
	Channel catfish	5,012	9.0
2003	Walleye	27,562	1.5
2004	Channel catfish	5,025	8.1
2005	Walleye	36,960	1.8
2010	Walleye	28,041	1.1
	Channel catfish	3,508	7.9
2011	Walleye	31,130	1.8
2012	Walleye	26,026	1.8

Table 2.-Species catch and relative abundance of fishes collected with all gear types combined during the Stony Creek Lake fish community survey spring 2011.

_		Percent	Weight	Percent	Length	Average	Percent
Species	Number	by number	(lb)	by weight	range (in)	length (in)	legal size*
Bluegill	2,332	63.0	235.7	36.3	1-7	4.8	28
Pumpkinseed	427	11.5	39.8	6.1	2-6	4.7	6
Sand shiner	380	10.3	1.0	0.2	1-2	2.1	
Largemouth bass	116	3.1	50.4	7.8	2-16	7.1	3
Black crappie	115	3.1	23.4	3.6	4-11	7.1	54
Rock bass	58	1.6	13.1	2.0	2-10	5.7	43
Banded killifish	53	1.4	0.3	<0.1	1-3	2.2	
Bluntnose minnow	52	1.4	0.2	<0.1	1-2	2.4	
White crappie	27	0.7	6.3	1.0	4-11	8.0	70
Brown bullhead	24	0.6	15.7	2.4	8-13	11.2	100
Common carp	23	0.6	135.4	20.8	16-26	23.0	100
Channel catfish	20	0.5	86.5	13.3	9-28	20.5	90
Yellow perch	16	0.4	0.5	0.1	3-6	4.6	0
Brook silverside	11	0.3	<0.1	<0.1	2-3	3.5	
Longear sunfish	9	0.2	0.2	<0.1	2-3	3.2	
White sucker	7	0.2	13.3	2.0	13-18	16.5	100
Yellow perch	6	0.2	2.2	0.3	5-11	8.7	83
Golden shiner	6	0.2	0.7	0.1	6-8	7.5	
Round goby	6	0.2	<0.1	<0.1	2-5	3.4	
Green sunfish	4	0.1	1.1	0.2	5-8	7.0	75
Northern pike	4	0.1	14.8	2.3	23-29	24.8	50
Spotfin shiner	2	0.1	<0.1	<0.1	1-2	2.0	
Walleye	2	0.1	9.2	1.4	22-25	24.0	100
Hybrid sunfish	1	<0.1	0.1	<0.1	5-5	5.5	0

^{*}Legal size refers to the minimum legal size limit where applicable or minimum size acceptable to anglers.

Table 3.-Number per inch group of important game fishes collected with all gear types combined, during the spring 2011 Stony Creek Lake fish survey.

Length (in)	Black crappie	Bluegill	Channel catfish	Largemouth bass	Northern pike	Pumpkinseed	Rock Bass	Walleye	White crappie	Yellow perch
1	• •	130			•				• •	
2		218		1		24	1			
3		345		2		47	8			11
4	12	230		2 3		181	18		1	1
5	5	765		11		148	6		3	3
6	36	606		33		27	5 7		4	1
7	45	38		13			7			
8 9	11			3 6			6		17	
9	4		1	6			5			
10			1	11			2		1	
11	2			19					1	_
12				8 3						
13				3						
14				1						
15										
16				2						
17										
18										
19										
20			3							
21 22			3							_
22								1		
23			2		2					
24			1		1					
25 26			5					1		
26			2							
27			1							
28			1							
28 29 30					1					
30										

Table 4.-Mean length-at-age (inches) for selected fish species from Stony Creek Lake 2011. Number in parenthesis represents the number of fish aged. The Mean Growth Index expresses the degree to which the growth of a species differs from the statewide average. A growth index of 0 means that the sampled population is growing at the state average rate for the given species.

Chasias	A do droup	State	Total length
Species Plant grappin	Age group	average	(inches)
Black crappie	II 	6.0	4.8 (17)
	III	7.5	6.5 (5)
	IV	8.6	7.1 (15)
	V	9.4	8.0 (9)
	VI	10.2	8.3 (7)
	VIII	11.4	11.0 (1)
	Mean Growth		-1.4
	Index		
Bluegill	1	1.8	2.0 (22)
	II	3.8	3.5 (15)
	III	5.0	5.0 (10)
	IV	5.9	5.9 (14)
	V	6.7	6.2 (14)
	VI	7.3	7.1 (2)
	Mean Growth		-0.2
	Index		
Channel catfish	II	11.2	9.50 (1)
	XI		24.0 (11)
Largemouth bass	1	4.2	3.9 (7)
	II	7.1	6.7 (33)
	III	9.4	10.4 (21)
	IV	11.6	11.9 (12)
	V	13.2	13.2 (4)
	VI	14.7	14.0 (1)
	VII	16.3	16.2 (1)
	VIII	17.4	16.4 (1)
	Mean Growth		+0.2
	Index		
Northern pike	III	20.8	23.0 (1)
	IV	23.4	23.5 (1)
	V	25.5	23.8 (2)
	VII	29.3	29.3 (1)
Pumpkinseed	1	1.8	2.5 (9)
	II	3.8	3.7 (8)
	III	4.9	4.7 (12)
	IV	5.6	5.6 (21)
	V	6.2	6.5 (8)
	Mean Growth		+0.2
	Index		
Walleye	VIII	21.6	22.3 (1)
vvalicyc			

Table 4Continued			
White crappie	II		5.3 (5)
	III		6.3 (4)
	IV		8.6 (13)
	V		9.4 (2)
Yellow perch	I	3.3	3.5 (11)
	III	6.5	5.0 (1)
	IV	7.5	5.9 (3)
	Mean Growth		+0.2
	Index		

Table 5.-Weighted age frequency (percent) of selected fish species in Stony Creek Lake, spring 2011.

						Age						_
												Number
Species	l	<u>II</u>	III	IV	V	VI	VII	VIII	IX	Х	ΧI	caught
Black crappie		15	13	46	15	10		1				115
Bluegill	14	19	15	35	17	1						2,332
Channel catfish		6									94	20
Largemouth bass	6	50	24	14	3	1	1	1				116
Northern pike			17	17	42		25					4
Pumpkinseed	6	11	45	35	3							427
Walleye								50		50		2
White crappie		15	15	62	9							27
Yellow perch	75		6	19								16

Table 6.-Comparison of catch statistics for selected species for trap net and fyke net catches among surveys.

Species	Survey	Catch/net	Average	Mean growth	Schneider's
Diversill	year	night	length (in)	index	Index
Bluegill	1978	10.3	5.5	-0.1	
	1984	11.3	6.0		2.0
	1988	10.3	5.5	-0.1	2.75
	1991	11.3	6.0		2.75
	1997	2.3	6.1	+0.8	3.75
	2011	150	5.7	-0.2	2.25
Pumpkinseed	1978	1.7	6.1		
	1984	0.2	5.5		
	1988	0.6	5.1	-0.2	
	1991	0.4	5.2		
	1997	0.1	5.5		
	2011	28.7	5.0	+0.2	
5	40-0				
Black crappie	1978	17.2	9.8	+1.1	
	1984	16.2	10.6	+1.4	
	1988	40.4	5.4	-0.1	
	1991	26.0	7.4		
	1997	1.3	9.5	+1.0	
	2011	12.2	7.0	-1.4	
Yellow perch	1978	3.1	6.7		
. с р с. с	1984	2.3	6.7	+0.8	
	1988	7.2	7.2	-0.4	
	1991	0.4	7.7		
	1997	0.1	9.5	+0.3	
	2011	0.1	5.5	+0.2	
	4070		40.0		
Largemouth bass	1978	0.6	13.3		
	1984	0.2	11.2		
	1988	0.2	9.5	-0.4	
	1991	0.1	17.2		
	1997	0.1	11.5		
	2011	0.1	6.5	+0.2	
Northern pike	1978	1.1	26.4		
i i si i i i i i i i i i i i i i i i i	1984	2.1	30.1		
	1988	0.4	21.9		
	1991	0.3	27.5		
	1997	0.3	30.8		
	2011	0.1	24.5		
	2011	0.1	27 .0		

Walleye	1984	0.5	17.9	+1.7	
•	1988	3.7	18.8	+1.8	
	1991	1.8	19.3		
	1997	3.6	19.7	+2.7	
	2011	0.1	25.5		
Channel catfish	1984	0.1	20.0		
	1988	0.3	25.7		
	1991	0.5	26.7		
	1997	1.4	15.9		
	2011	1.7	22.0		

Table 7.-Comparison of catch-per-effort (CPE) for selected species in Stony Creek Lake. The statewide and LEMU CPEs were obtained from Wehrly et al. draft.

		Ş	Statewide CF	PE	Stony Creek	LEMU CPE
Species	Gear	25 th perc.	Median	75 th perc.	2011	Mean
Bluegill	Fyke	2.5	8.5	25.9	150	23.6
-	Small fyke	1.5	6.3	19.5	93	39.8
Pumpkinseed	Fyke	0.4	1.7	4.7	28.7	0.6
	Small fyke	1.0	2.7	8.0	12.3	1.2
Largemouth bass	Fyke	0.4	1.4	2.8	0.1	1.9
	Small fyke	0.5	1.0	2.0	0	0.6
Northern pike	Fyke	0.3	0.8	1.6	0.1	0.3
	Small fyke	0.3	0.5	0.8	0	0.3

Table 8.- Catch summaries of walleye from other area lakes in southeast Michigan.

		N 1 1 / 1	N. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		Number/net	Number adults
Lake	Survey year	night	per acre
Belleville Lake	1988	1.7	
	1990	1.8	
	1992	0.9	
	1997	8.3	
	1999	2.3	
Cass Lake	1987	3.3	
	1992	2.1	0.5-0.6
	1996	1.2	1.1
	2001	1.3	
	2008	1.0	0.5
Kent Lake	1994	6.1	2.5
	1995	7.0	3.3
	1997	1.9	
	1999	4.3	
	2004	1.2	
	2006	1.6	
	2000	1.0	
Union Lake	1993	0.8	
Official Land	1997	4.2	1.4
	2003	0.4	
	2000	0.1	
White Lake	1993	0	
	1995	2.7	
	1997	2.4	
	1998	6.8	1.5
	2007	1.0	
	2001	1.0	
Stony Creek Lake	1984	0.5	1.0
2.2.1., 2.20	1988	3.7	
	1991	1.8	
	1997	3.6	
	2011	0.1	
		V	