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Fisheries Division

Michigan Department of Natural Resources

Staff:

Brian Gunderman Unit Manager

Scott Hanshue Fisheries Biologist

Matt Diana Fisheries Biologist

Ed Pearce Technician Supervisor

Matt Smith Fisheries Technician

Mike Wilson Fisheries Technician

Brian Armijo Fisheries Assistant

Joseph Maka Fisheries Assistant

Sarah Carlson Administrative Assistant

Southern Lake Michigan

Management Unit



The Southern Lake Michigan Management Unit (SLMMU) encompasses all of the lakes and streams that make up the watersheds that drain into the southern portion of Lake Michigan. Our work area includes all or portions of the following counties: Allegan, Barry, Berrien, Branch, Calhoun, Cass, Clinton, Eaton, Gratiot, Hillsdale, Ingham, Ionia, Jackson, Kalamazoo, Kent,

Livingston, Mecosta, Montcalm, Muskegon, Newaygo, Ottawa, Saint Joseph, Shiawassee, Van Buren, and Washtenaw. Most fisheries staff within this unit work out of the Plainwell Customer Service Center and include a Unit Manager, two Fisheries Biologists, a Technician Supervisor, two Technicians, and an Administrative Assistant. Our two creel clerks work the ports of Grand Haven, Holland, Port Sheldon, South Haven, and St. Joseph.







Portage Creek

Portage Creek is a unique coldwater stream located in an urban area. The stream originates in Gourdneck State Game Area and the Cities of Kalamazoo and Portage own extensive park property along the river corridor. Historically Portage Creek has been impacted by the urban surroundings and the lower section of the creek was designated as a Superfund site due to PCB contamination caused by disposal of waste from multiple paper producing plants along the stream. Much of the impacted area has been cleaned up through lining of landfills and dredging and capping of contaminated sediments from the stream and floodplain. Part of the remediation efforts resulted in removal of a dam at Alcott Street in 2018 and rerouting the stream to include improved fish habitat such as bends, pools, and riffles. DNR habitat grants also awarded funds to the City of Kalamazoo to remove a dam in Milham Park (removal planned for 2020) and has been working with the City of Portage to remove a dam in Bicentennial Park. DNR has been managing the upper portion of Portage Creek as a trout stream. A total of 2,500 fish are stocked annually spread across three sites. Milham Road, Garden Lane, and Centre Ave.

SLMMU surveyed 4 sites in Portage Creek in August of 2019, upstream (upstream of Alcott Road) and downstream (Stockbridge Road to Reed Road) of the former Alcott Dam, upstream of Kilgore Road, and upstream of Westnedge Road (Central Park). Surveys above and below Alcott Street indicated that the fish population was recovering strongly. A total of 22 species were captured in 2019 compared to 14 in pre dam removal surveys in 2014. The species composition was similar to the downstream site. Less tolerant species such as darters were observed in good numbers as well as Mottled Sculpin and one Brown Trout which are coldwater dependent. Suckers and redhorse were caught in undercut banks and other constructed habitat.







Portage Creek

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Two sites were surveyed in the upstream trout waters of Portage Creek:

<u>Centre</u>- We caught a total of 595 fish of 15 species. There were a mix of cold and warmwater species. We caught 32 Brown Trout ranging from 2 to 15 inches. Average length was just under 10 inches. Warmwater species observed include White Sucker, Largemouth Bass, Pumpkinseed, Yellow Perch, and Bluegill. Growth rates for Brown Trout were well above state average with a growth index score of 1.4 inches higher. This is often found in streams with abundant minnow prey. We observed one young-of-year Brown Trout that was 2.9 inches long. 40% of the fish were age-1 and averaged 7.5 inches compared to the state average of 6.2 inches. Age-2 fish were caught in the highest numbers (53% of total catch) and averaged 10.7 inches compared to the state average of 9.2. One age-3 fish that was 13.1 inches was captured.

<u>Kilgore</u>- A total of 1,095 fish were collected from 15 species. It was evident that the water temperatures are warmer at this survey location and Blacknose Dace (n=287), White Sucker (n=264), Creek Chub (n=215) were the most abundant species although coldwater species (e.g. Mottled Sculpin) were also present. A total of 18 Brown Trout were captured. Two age-0 fish were observed averaging 3.2 inches. Age-1 represented a majority of the fish at 59% of total catch. These fish ranged from 6.3 to 8.8 inches and were larger than the state average of 6.2 inches for age-1 fish. Larger fish were captured at Kilgore Road compared to Centre Ave. Two age-2 fish averaging 12.4 inches and three age-3 fish averaging 17.4 inches were captured with the largest being 18.6 inches in length. Habitat is more limiting

at this site as it is shallow and wide and depositional substrates are common. Smaller gravel is available and there are some deeper pools especially near the several railroad crossings. Bridges and a power line corridor disrupt the watercourse in several spots resulting in erosion and there is plenty of garbage in the stream.

Some level of natural reproduction was documented in Portage Creek, but numbers were low. Streams with natural reproduction usually have much higher catch rates of age-0 fish and they are often the most abundant as they tend to be easier to sample than larger trout Age 1 fish were caught in much higher numbers than age-0 fish indicating natural reproduction is likely not sustaining the fishery. Temperature loggers near Romence Parkway (downstream) often exceeded 76.5 degrees. Temperature is one of the biggest factors that could be limiting natural recruitment. Surface water runoff/stormwater and damming due to road crossings and dams are the primary sources of warming in this watershed. Forested cover is also limiting in some locations. Temperature refuges upstream are important areas requiring protection and restoring connectivity should allow fish to access refuge areas at the hottest time of year.

DNR Fisheries will continue to monitor these sites as dam removals and habitat improvement occur. The goal is to extend trout water to additional sections of Portage Creek and improve opportunities for trout fishing in the Cities of Kalamazoo and Portage. Many partners have contributed to improving trout habitat and improving trout fishing in Portage Creek.





Employee Spotlight

Scott Hanshue is the SLMMU senior fisheries biologist that covers the Grand, Macatawa, and Black (Mona Lake) River watersheds. Scott received his Bachelor of Science Degree in Fisheries and Wildlife from Michigan State University in 1985. After college, he worked as an observer on Japanese, Korean, and Soviet fishing trawlers in the Bering Sea reporting to the National Marine Fisheries Service. He also worked for the United States Fish and Wildlife Service in the Sea Lamprey Control Program and at Jones Hole National Fish Hatchery in Utah before moving back to Michigan. Scott started his career with the Michigan Department of Natural Resources (DNR) in 1989 working for Surface Water Quality Division in Plainwell. He transferred to Lansing in 1991 and became the Aquatic Biologist covering the Grand River watershed. While in this role, Scott helped revise the Qualitative Biological and Habitat Survey Protocols for Wadeable Streams and Rivers (Procedure 51) that are used for water quality monitoring throughout the state. He also assisted with environmental rehabilitation projects on the Pine River (Gratiot County) associated with pollution from the Velsicol Chemical Company and Total Petroleum.

In 2002, Scott transferred back to Plainwell to work as a Fisheries Biologist in the SLMMU. Since transferring to SLMMU, Scott has worked on many projects of regional and statewide importance. He wrote the <u>Grand River Assessment</u>, which is a comprehensive overview of the physical and biological characteristics of the Grand River watershed. He was the Fisheries Division – Field Section lead in the development of <u>Michigan's 2015-2025</u> Wildlife Action Plan to conserve wildlife and their habitats. Scott has already been able to implement portions of the Wildlife Action Plan by conducting surveys for Ciscoes (state threatened whitefish species) and co-authoring the Michigan Freshwater Mussel Survey Protocols and Relocation Procedures. He has assisted with dam removal and fish habitat rehabilitation projects, including the Lyons Dam removal on the Grand River and the Nashville Dam removal on the Thornapple River. One of the critical roles of Fisheries Biologists is review of Michigan Department of Environment, Great Lakes, and Energy (EGLE) permit applications for in-water construction projects for potential impacts on fish and other aquatic life and to propose measures to reduce or eliminate potential adverse effects. Scott has reviewed thousands of such projects over the course of his career and is currently one of the DNR representatives reviewing materials related to the Grand Rapids Whitewater Project.

Scott's experience and breadth of understanding of fish and aquatic ecology make him an invaluable asset to the SLMMU team. When not working, Scott enjoys recreating in the natural resources he helps to conserve, and you will often find him in a boat fishing for Walleye or upland game bird hunting with his English Setters.





Stearns Bayou -

Stearns Bayou is in northwestern Robinson Township in Ottawa County. The bayou is approximately 92 acres in size and has a maximum depth of approximately 20 feet. The bayou receives flow from Stearns Creek and is connected to the Grand River along its south bank.

Staff of the SLMMU conducted a general fisheries survey of the Stearns Bayou in the spring of 2019. Sampling methods included large mesh fyke nets, trap nets, multi-mesh gill nets and electrofishing with a boomshocking vessel. These efforts represent the first MDNR sampling effort of the Grand River bayous and provides baseline information of the current fish community.



A total of 2,512 fish were collected and included 24 species plus hybrid sunfish representing a diverse fish assemblage. Bluegill dominated the catch with 1,900 collected and ranged in size from 1-8 inches. Black Crappie ranged from 5-13 inches and accounted for 4.7% of the catch. The catch also included 110 Largemouth Bass ranging up to 19 inches and Northern Pike up to 35 inches. Below is a summary of the total catch.

Species	Number	Percent of Catch	Size Range (inches)
Black Crappie	119	4.7	5-13
Bluegill	1,900	75.6	1-8
Blacknose Shiner	1	-	2
Bowfin	46	1.8	12-29
Brown Bullhead	22	0.9	8-13
Brook Silverside	4	0.2	2-3
Common Carp	2	0.1	28-30
Channel Catfish	9	0.4	15-22
Freshwater Drum	3	0.1	12-17
Golden Shiner	26	1.0	4-8
Grass Pickerel	3	0.1	6-11
Gizzard Shad	5	0.2	15-19
Hybrid Sunfish	9	0.4	4-8
Largemouth Bass	110	4.4	3-19
Northern Pike	20	0.8	19-35
Pumpkinseed	50	2.0	3-7
Quillback	13	0.5	14-19
Smallmouth Bass	1	-	11
Spotted Gar	9	0.4	12-22
Spotted Sucker	11	0.4	7-18
Warmouth	72	2.9	1-9
White Crappie	1	-	13
White Perch	5	0.2	8-11
Yellow Perch	11	0.4	3-8
Yellow Bullhead	60	2.4	7-12
Map turtle	1		3
Painted turtle	71		4-6
Snapping turtle	1		3

This survey documented a healthy and diverse fish community. Future management will be directed toward habitat protection and self-sustaining fish populations.

Lake and Stream Surveys 2019

During the spring, summer, and fall of 2019, the SLMMU staff completed surveys on 8 lakes and 10 streams (some streams had multiple sampling locations). These surveys included Walleye, Muskellunge, Brown and Rainbow Trout stocking evaluations, status and trends surveys, fish community surveys, habitat improvement evaluations, and a limnological profile. Most stream surveys use electrofishing gear while lake surveys use a combination of netting and electrofishing gear to sample fish.

Stocking Evaluations -

Lake Lavine (Branch County) Lake Ovid (Clinton County) Pine Creek (Allegan and Van Buren Counties) Rice Creek (Calhoun County) Wabasis Lake (Kent County)

Status and Trends Surveys -

Bear Creek (Kent County) Flat River (Kent County) Sand Creek (Kalamazoo County) Spring Brook (Kent County) Winnewana Impoundment (Washtenaw County)

Fish Community Surveys -

Goguac Lake (Calhoun County) Grand River (Kent County) Stearns Bayou (Ottawa County) Webber Impoundment (Ionia County)

Habitat Improvement Evaluations -

Portage Creek (Kalamazoo County) 25th Street Ditch (Van Buren County) N. Br. Paw Paw River (Van Buren County)

Limnological Profiles -

Driskels Lake (Cass County)





Proposed Regulation Change

Lime Lake - Kent County:

Lime Lake is located in north-central Kent county. The lake has been stocked with Rainbow Trout since 1951 and historically supported a popular fishery. A DNR survey conducted in 2015 yielded zero trout and two Northern Pike. Recent reports on social media also indicate that stocked trout are likely being consumed by Northern Pike. One angler reported that he fishes Lime Lake just to catch large Northern Pike. No anglers reported catching trout therefore SLMMU recently completed a management prescription to discontinue stocking and to remove the lake from the Type C trout lakes list. The normal regulation change review process has been altered due to the current disease situation and associated Executive Orders. Public comments regarding the proposed regulation change should be sent to Brian Gunderman

(gundermanb@michigan.gov; 269-204-7009). After reviewing public comments, the DNR and the Natural Resources Commission will make a final decision regarding the regulation change in 2021. The earliest any regulation change would be implemented is April 1, 2022. Future management of Lime Lake will be focused on habitat protection to maintain the existing fish community.

Planned Lake and Stream Surveys for 2020

Throughout the spring and early summer, our unit conducts fish community surveys on lakes. Early spring work often includes population assessments of Northern Pike, Walleye, or Muskellunge during the spawning seasons for these species. General lake surveys are completed in May-early June when water temperatures are between 55 and 75 degrees Fahrenheit. Our stream surveys primarily are conducted during July-early September. A variety of gear types are used on lakes including nets and nighttime electrofishing gear, whereas daytime, electrofishing is the main gear used on rivers and streams.

Survey plans for 2020 have been altered due to Executive Order 2020-21, and we had to cancel stocking evaluations planned for Thornapple Lake (Barry County) and Half Moon Lake (Muskegon County) in early April. Barring additional restrictions that would prevent fieldwork, SLMMU intends to conduct surveys on the following waters in 2020:

Diamond Lake (Cass County) Union Lake (Branch County) North Scott Lake (Van Buren County) South Scott Lake (Van Buren County) Cedar Creek (Barry County) Pokagon Creek (Cass County) Kalamazoo River (Calhoun County) Spring Brook (Kalamazoo County) Silver Creek (Allegan County) Looking Glass River (Clinton County) Muskegon Lake (Muskegon County)











Visit our website at www.michigan.gov/fishing for links to our most recent Status of the Fishery Reports!

Beaver Update

Beavers have been rebounding in the Great Lakes region due to low fur prices and declining number of trappers. Because beaver numbers are up, there has been an increase in beaver damming activities on streams and rivers. While beaver dams create wetlands and waterfowl habitat, they can have a negative impact on cold water trout streams. The effects of beaver dams on trout species can be complex. Beaver damming of coldwater streams can warm water temperatures resulting in reduced



suitability for trout. Changes to stream temperature regimes are most detrimental in the southern Midwest and in low gradient streams where water temperatures are already marginal for coldwater fish.



Beaver dams trap sediment creating mucky bottomed ponds where good spawning gravel may have been. Dams also create barriers and prevent Brown Trout from migrating to spawn and/or feed. Combined this often reduces natural reproduction and can impact population sustainability.

Because of the potential impacts, DNR policy has been

developed to allow for aggressive beaver control in high priority trout streams (MDNR 2005). When beavers dam trout streams, the first step is to locate the source population and trap the beavers. Trapping is encouraged during the legal season, but nuisance permits are available from DNR Wildlife

at other times of year when damage is occurring. Once enough beavers are removed, the dam can be disassembled. Drawing down the impounded water slowly over a few days can reduce damage from rushing water or sediment from the impoundment washing downstream. Wood should be removed from the vicinity to prevent the dam from being rebuilt. Continued trapping will prevent beavers from recolonizing the area. If beavers continue to recolonize, equalization pipes have been used to



allow flow through beaver dams that are difficult to remove. SLMMU has worked with partners to remove or modify beaver dams on the Kalamazoo River(South Branch), Portage Creek, Curtis Creek, Augusta Creek, and Dowagiac Creek in recent years. DNR relies on partners to both identify beaver dam locations and aid in trapping and removal. Partners have included Kalamazoo Valley Chapter of Trout Unlimited, Michigan Chapter of Backcountry Hunter and Anglers, Michigan State University Kellogg Forest, and numerous private property owners. Continued beaver management will help ensure the quality of trout streams in Southwest Michigan where coldwater fishing opportunities are limited.

Walleye Stocking

Each spring the staff from SLMMU coordinate the Walleye egg-take on the Muskegon River. The fertilized eggs collected from the Muskegon River are hatched at Wolf Lake State Fish Hatchery in Mattawan and the Platte River State Fish Hatchery in Honor. Newly hatched Walleye fry are transported from the hatcheries to rearing ponds or directly stocked into lakes and rivers throughout the state. In 2019, the Kalamazoo River received over 2 million fry downstream from Marshall in Calhoun County and 2 million fry below Calkins Dam in Allegan County. Additionally, the Grand River received 900,000 fry in Ionia County. Fry were also transferred to Muskegon, Gun Lake, Jackson, Holland, and Wolf Lake rearing ponds to grow to a larger size before release. Walleye were collected from these ponds as spring fingerlings (1.1-1.4 inches in length) in early to mid-June and stocked in public waters. In 2019, nearly 1.1 million spring fingerling Walleye were raised in SLMMU from our DNR and cooperative rearing ponds. An additional 10,127 fish were collected from ponds at Wolf Lake and Belmont in October as fall fingerlings (6.1 inch avg).



Below are the waters that were stocked with spring and fall fingerling Walleye within the SLMMU in 2019

Spring Fingerling:		Fall Fingerling:	
Spring Fingerling: Grand River (Jackson) Gun Lake (Barry) Lake Macatawa (Ottawa) Diamond Lake (Cass) Thornapple Lake (Barry) St Joseph River (Berrien) Black River (Van Buren)	51,343 72,617 87,316 52,374 22,876 103,554 10 234	Fall Fingerling: Paw Paw Lake (Berrien) Lake Macatawa (Ottawa) Lincoln Lake (Kent) Sessions Lake (Ionia) Matteson Lake (Branch) Palmer Lake (St Joseph) Cedar Lake (Van Buren)	1,061 551 1,644 560 1,251 1,995 945
Mona Lake (Muskegon)	41,021	Magician Lake (Cass)	2,000

*An additional 484,448 spring fingerlings from SLMMU ponds were stocked in 13 Central Lake Michigan Management Unit waters in 2019. White Lake (130,062), Muskegon River (109,884), Lake Missaukee (101,900), Lake Margarethe (61,954), Silver Lake (41,678), Lake Charlevoix (30,570), Big Blue Lake (25,284) and Pickerel Lake (15,953) comprised the majority of these stockings.

For other species stocked in SLMMU, including Chinook Salmon, Coho Salmon, Rainbow Trout, Brown Trout, Lake Trout, Muskellunge, Channel Catfish and Lake Sturgeon, visit <u>http://michigandnr.com/fishstock.</u>

Catch Report Request

Catch Report Requests

Anglers play a vital role in fisheries management in Michigan. Here are two ways you can help us evaluate our current stocking programs.

- 1. <u>Provide fishing reports</u> While we enjoy getting fishing reports for all waters and species, we are especially interested in getting reports for lakes where we stock Walleye, Rainbow Trout, or Muskellunge. Reports are most useful when they include the date the fish was captured, species, and length. Some Walleye have clipped fins to indicate the year of stocking, so the location(right pelvic or left pelvic) of any missing fins also is important information. Receiving fishing reports from stocked waters helps us justify continued stocking of those waters.
- 2. <u>Tag returns</u> Since fall 2017, all steelhead stocked into Lake Michigan tributaries have been marked with an adipose fin clip. Many of these fish have been marked with a small coded-wire tag, which is implanted in the head of the fish, but invisible to the naked eye. If you catch a fish that is missing only the adipose fin, it is possible that it has had a coded-wire tag implanted into its snout. Please record the following information: date caught, location caught, species, length, weight, sex (if possible), and fin clip. The data obtained can be recorded on the <u>Coded</u> <u>Wire Tag Recovery Form</u>. Remove and freeze the fish's snout (part of head from behind the eyes forward), and drop off the snout along with data sheet at a <u>drop site</u>, or call 517-284-5830 for a list of local sites. Please do not mail! If a tag is extracted, anglers will be notified of the age and stocking location of their catch.

Tag returns and angler reports provided to SLMMU will not be used to generate the weekly fishing reports that the DNR releases to the public. The information you provide will only be used to assist with DNR decisions regarding future stocking strategies.

Please keep an eye out for signs like this and Contact Sarah @269-685-6853 with catch information!!



Thank you for your assistance and support of our stocking efforts!!

Interested in Learning More about Fisheries Division? Check out our online apps or visit our webpage at www.michigan.gov/fishing



In addition to the Walleye reports, we would like to hear about trout you catch in our stocked lakes. Please keep an eye out for signs like the one below and contact us with your catch information! Thanks!!



stocking Rainbow Trout in this lake. Please help us track the success of these stockings by reporting your catch information.

Email reports to: Sarah - carlsons4@michigan.gov Telephone reports to: Sarah - 269-685-6853



Thank you for your assistance. f you have any questions please call 269-685-6851 MDNR Fisheries Division Southern Lake Michigan Management Unit



Plainwell Customer Service Center 269-685-6851 Sarah Carlson, Administrative Assistant 269-685-6853 carlsons4@michigan.gov

