

Friends of the Rouge Fish Community Survey Upper Long Lake

September 21, 2017 and August 29, 2018
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Friends of the Rouge (FOTR) surveyed Upper Long Lake for fish on September 21, 2017 and August 29, 2018. These surveys are part of FOTR's work to characterize the fish community of the Rouge River Watershed. Financial assistance for this project was provided, in part, by the Michigan Areas of Concern Program, Office of the Great Lakes, Department of Natural Resources, and by the Great Lakes Restoration Initiative, through a grant from the Environmental Protection Agency. The statements, findings, conclusions, and recommendations are those of Friends of the Rouge and do not necessarily reflect the views of the MDNR and the EPA.

This report is a record of what was sampled in 2017 & 2018. It is a snapshot of the fish community, not an exhaustive inventory of every fish in the lake. All surveys were done with seine and dip nets utilizing a variety of techniques to scare fish into the nets. All fish were identified, measured and returned to the lake with the exception of fish we were unable to identify. These were taken home by Bob Muller, examined under magnification and photographed or sent to Dr. Gerald Smith at the University of Michigan if still unknown.

The 2017 survey was done at two sites on the north side of the Upper Long Lake: the beach at the small park at the end of Marie Circle and the boat launch at the end of Long Pointe Drive. The two sites had very different habitats: a sandy bottom beach at the first site and heavy beds of aquatic plants at the boat launch. The 2018 survey was only done at the boat launch because of the large beds of aquatic plants that are the necessary habitat of pugnose shiners.

In the 2017 survey, we found a single individual pugnose shiner (*Notropis anogenus*), one of the rarest fish species found in the Great Lakes Watershed and a Michigan endangered species. The fish was found in a bucket of minnows taken home for identification as the blackchin and blacknose shiners we were finding were difficult to tell apart in the field. Since it was a Michigan endangered species, we reported the finding to the DNR. The specimen was photographed and submitted as a voucher specimen to the University of Michigan. This was only the fourth voucher specimen of pugnose shiners from Oakland County. The other specimens were from Walnut and Orchard Lakes in 1906 (one each) and Maceday Lake in 1927. Our 2018 sampling was limited to the boat launch and we found 14 pugnose shiners, indicating that Upper Long Lake has a healthy population of this rare species.

Upper Long Lake has the best quality fish community of the lakes we have surveyed in the area (Hammond, Walnut, Simpson and Wing Lakes). This is based on the fifteen species we found (see attached spreadsheets) and the number of intolerant species (those that require clean water and cannot tolerate pollution or turbid water). Seven of the Upper Long Lake fishes are intolerant: smallmouth bass, pugnose shiner, blackchin shiner, blacknose shiner, rock bass, Iowa darter and least darter. Two of these are high quality gamefish: smallmouth bass and rock bass.

Intolerant species make up almost 50% of the fish we found in Upper Long Lake. This is the highest percentage of intolerant species anywhere we have sampled in the Rouge River Watershed. With the exception of the two bass species, all of these fish are no more than finger length, but are of great importance in the health of the lake.

Four species of minnows were found in Upper Long Lake, the largest number of minnow species we have found in any of the local lakes. These were bluntnose minnows, pugnose, blackchin and blacknose shiners. Minnows are a family of fish and not simply small fish and are the base of the food web for the game fish.

Like many of the other lakes in the region, Upper Long Lake is fully developed yet it retains a good quality fish community. The area around the boat launch with its beds of aquatic plants is prime habitat and breeding grounds for many of these species still found here. The extensive wetlands that are between the lakes at either end play an important role in protecting the water quality. Upper Long Lake is the jewel of Rouge watershed lakes.

The following is a combined list of the species we sampled in 2017 and 2018 by family, their common name, scientific name and the number sampled.

Minnow (Cyprinidae) Family

Pugnose Shiner, *Notropis anogenus* 15
Blackchin Shiner, *N. heterodon* 147
Blacknose Shiner, *N. heterolepis* 12
Bluntnose Minnow, *Pimephales notatus* 36

Catfish (Ictaluridae) Family

Yellow Bullhead, *Ameiurus natalis* 2

Pike (Esocidae) Family

Northern Pike, *Esox lucius* 2

Mudminnow (Umbridae) Family

Central Mudminnow, *Umbra limi* 5

Sunfish (Centrarchidae) Family

Rock Bass, *Ambloplites rupestris* 2

Pumpkinseed, *Lepomis gibbosus* 41

Bluegill, *Lepomis macrochirus* 248

Smallmouth Bass, *Micropterus dolomieu* 6

Largemouth Bass, *Micropterus salmoides* 31

Perch (Percidae) Family

Iowa Darter, *Etheostoma exile* 16

Least Darter, *Etheostoma microperca* 41

Yellow Perch, *Perca flavescens* 35

Upper Long Lake Fish





Smallmouth Bass



Not a minnow related to Pike

Central Mudminnow



Iowa Darter



Least Darter

Smallest vertebrate in Mich.
mature 3/4 on an inch

ULL - Upper Long Lake Sept. 23, 2017 Main Rouge

Temp, 25° C.	Seine Hauls - 22																				Total Number of Fish											
Species	Size Class cm																															
	<3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	~	16	17	18	19	20	
Pugnose Shiner						1																										1
Blackchin Shiner	18	27	28	18	17	5	5	2																								120
Blacknose Shiner	1		3	5	3																										12	
Bluntnose Minnow			2	2	6		2	3	1	2	2																				20	
Yellow Bullhead							1																								2	
Northern Pike																															2	
Central Mudminnow				1																											1	
Pumpkinseed										1			2	1	7	6	5	1				2	1	3	1	1				32		
Bluegill	8	11	2	3	7	6	2	3	1	3	10	11	9	12	10	3	4				1	1	1			2				112		
Hybrid Sunfish														2																	8	
Smallmouth Bass												1																			1	
Large-mouth Bass							4	2		8	3	1										1									25	
Iowa Darter		4	4	2		1																									11	
Least Darter																															33	
Yellow Perch									1	1	2	8	1				2	3													19	
	Total Fishes Sampled																										399					

ULL Aug. 29, 2018 Main Rouge - Upper Long Lake

Temp. 26° C. 17 Seine Hauls - 1 Hour

Species	Size Class cm														Total Number of Fish										
	≤3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5		10	10.5	11	11.5	12	12.5	13	13.5	14	
Pugnose Shiner		3	7	2	2																				14
Blackchin Shiner		1	2	8	12	4																			27
Bluntnose Minnow		4	3	1	4	2	2																		16
Central Mudminnow		1					1	1	1																4
Rock Bass						1																1			2
Pumpkinseed					1	1					1	1	1	2								1			9
Bluegill	5	7	45	23	18	7	2	1	8	5	10	1	2							1	1				136
Hybrid Sunfish																								1	1
Smallmouth Bass					1	2	1		1																5
Largemouth Bass						2	3	1																	6
Iowa Darter	1	1	1	2																					5
Least Darter	7	1																							8
Yellow Perch			1		1		2	2	2	6	3														16
Total Fishes Sampled																							249		