

Rio Reservoir Percid Survey (Survey #:322033)

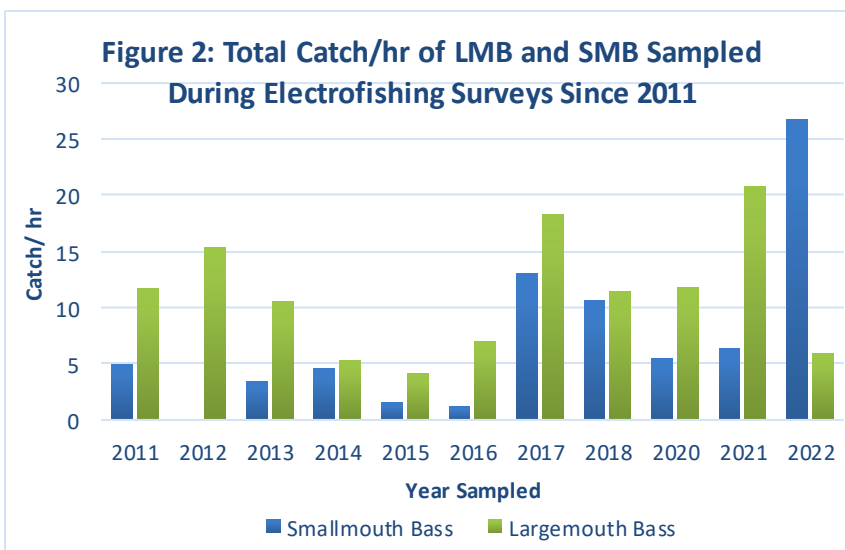
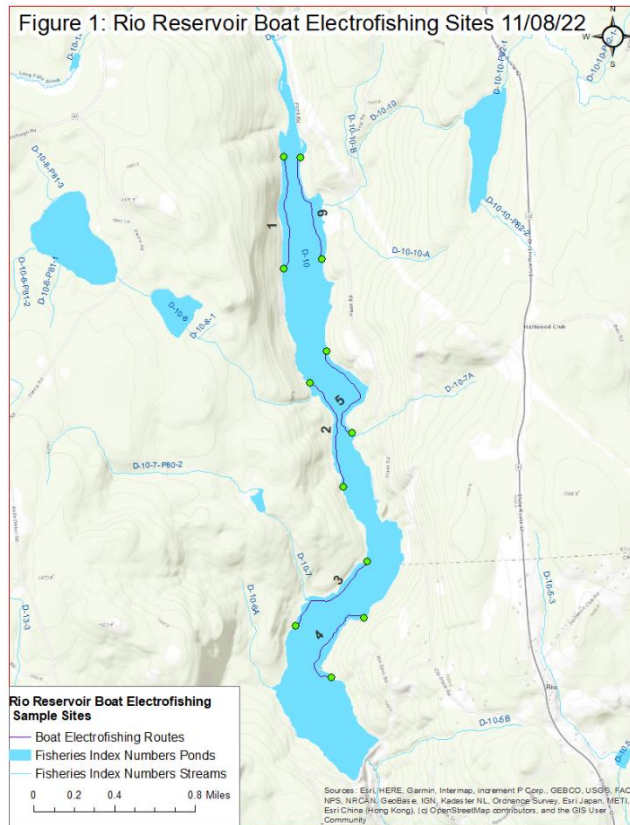
Edward Rolle, Region 3 Fisheries

1/20/22

Rio Reservoir is a 442-acre reservoir located in the towns of Forestburgh, Lumberland and Deerpark. The dam is owned by Eagle Creek Renewable Energy LLC, a hydroelectric facility operating on the Mongaup River. There are two boat launches on the lake with a DEC owned ramp on the northeastern corner of the reservoir and a hand launch on the southeastern corner by the dam. Additionally, Rio Reservoir is subject to special regulations: no gas-powered motors, no ice fishing, and fishing is prohibited from December 1st to March 31st to protect the population of overwintering bald eagles. A special fishing regulation exists on Rio Reservoir, anglers can harvest three walleye a day, minimum size of 18 inches. Walleye were first documented in the reservoir during April of 2010, likely from Mongaup Falls Reservoir and Swinging Bridge Reservoirs upstream.

In order to supplement the discovered walleye population, Rio Reservoir was first stocked in August of 2012 with 4.4-inch advanced pond fingerlings. An experimental stocking policy was then implemented from 2014 to 2018 with 8,700 1.5-inch advanced pond fingerling walleye. Annual fall boat electrofishing surveys have been conducted most years since 2011 following methods in the Percid Sampling Manual (Forney 1994). Due to poor returns seen during the fall boat electrofishing surveys a gill net survey was conducted in 2019 which found a low walleye abundance. This prompted a new five-year experimental stocking policy in 2020 of 8,700 1.3-inch pond fingerling walleye (DiSarno 2021). The 2022 boat electrofishing survey was conducted on 11/18/2022 with 3.06 hours collecting gamefish only (Figure 1).

A total of five gamefish species were collected including: walleye, largemouth bass, smallmouth bass, chain pickerel, and brown trout (Table 1). A total of 25 walleye were collected at a catch rate of 8.2/ hr, which was the third highest catch/hour observed since fall surveys started in 2011. Walleye lengths ranged from 8.3 to 20.7 inches, with 23 out of 25 (92%) of the walleye being age-0 young of year (YOY) walleye less than 10 inches. These fish were the result of the



Spring 2022 stocking or the Spring of 2022 spawning class. The two larger walleyes collected were 12.4 and 20.7 inches.

The catch/hr of smallmouth bass of all sizes was 26.8/h and 11.4/h for fish over 11 inches. This was higher than the NYS average for fall electrofishing which is 23/hr and 5/hr, respectively. Largemouth bass catch/hr was 5.9/h for all sizes and 1.0/hr for fish over 12 inches. This is drastically lower than the statewide average which is 49/hr and 8/hr over 12 inches (Brooking et.al 2018). The catch/hr of smallmouth bass was the highest recorded since 2011. It was also the first year that the catch/hr of smallmouth bass was higher than largemouth bass (Figure 2). The differences in black bass catch rates could be due to sampling later in the fall in 2022 compared to previous years.

It is still recommended that the current stocking policy continue through 2024, at which time the policy can be evaluated. Fall boat electrofishing should continue when the reservoir is stocked. No changes in management are proposed at this time.

Table 1: Total and catch/hr of each size group of sportfish during 3.06 hours of electrofishing on 11/08/2022

Species	Total	<6"	≥6"	≥8"	≥10"	≥12"	≥15"	≥18"	≥21"
Brown Trout	4	0.00	0.00	0.00	0.00	0.33	0.65	0.33	0.00
Chain Pickerel	20	0.00	0.33	0.33	0.98	1.63	1.63	1.31	0.33
Largemouth Bass	18	2.61	0.65	1.31	0.33	0.98	0.00	0.00	0.00
Smallmouth Bass	82	0.33	7.52	5.56	6.86	3.92	1.63	0.98	0.00
Walleye	25	0.00	0.00	7.52	0.00	0.33	0.00	0.33	0.00

Table 2: Historical catches of walleye during fall boat electrofishing

Date	Total Caught	Number Caught per Size Group							Total Catch/H
		0 - 6	6 to 9	9 to 12	12 to 15	15 to 18	18 to 21	≥21	
11/8/2022	25		8	15	1		1		8.2
10/27/2021	32		28	2	1		1		12.8
10/15/2020	3		1				1	1	1
10/24/2018	3			2			1		1.1
10/19/2017	4						1	3	1.2
10/19/2016	2					1	1		0.6
10/27/2015	2					2			0.8
10/9/2014	3				1		2		1.1
10/16/2013	29		8	10	6		3	2	10.9
10/10/2012	8	2	6						4.9
10/20/2011	2							2	0.8

Literature Cited:

Brooking, T., Loukmas, J., Jackson, R., VanDevalk, T. 2018. Black bass and sunfish sampling manual for lakes and ponds. New York State Department of Environmental Conservation, Federal Aid in Sportfish Restoration, F-63-R, Study 2, Job 2-2.3, Albany, New York.

DiSamo, M. 202. New York State Department of Environmental Conservation Technical Brief #321033. New York State Department of Environmental Conservation. New Paltz, New York.

Forney, J. L. L. G. Rudstam, D. M. Green, and D. L. Stang. 1994. Percid sampling manual. Chapter 3 in Fish Sampling Manual. Bureau of Fisheries, New York State Department of Environmental Conservation, Albany, New York.