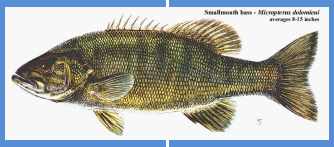
Environmental Committee



Upper Saranac Lake Association

Upper Saranac Lake

Angler Diary Report

April 30, 2017

By Larry Nashett, Member, Environmental Committee, USLA

Photo by Ari Harris

Introduction

Upper Saranac Lake is a 5,250 acre water body located in southern Franklin County, New York. It is described as a "two story" fishery by the New York State Department of Environmental Conservation (NYSDEC), meaning it is managed for both coldwater and warm water game fish populations. Important warm water fish targeted by anglers in Upper Saranac Lake include smallmouth bass, largemouth bass and northern pike. These species are maintained by natural reproduction. The primary coldwater game fish species found in Upper Saranac Lake is the lake trout. Its population is maintained by annual, or nearly annual, stockings. Lake trout natural spawning may still occur, but no evidence of its contribution into the adult population has been documented in recent decades. Past efforts to produce rainbow trout, brown trout and landlocked salmon fisheries by stocking programs were only marginally successful. Other fish important in the lake's fishery include brown bullhead, yellow perch and rainbow smelt. Recently, the presence of white perch has been reported in the lake. If so, this would be a new introduction to the ecosystem and may change the dynamics of the fish populations.

The NYSDEC Region 5 Fisheries Management Unit has monitored Upper Saranac Lake's coldwater fishery over time with occasional netting surveys and a long-standing angler diary program. However, the state's diary program was terminated as staffing was reduced, and remaining resources were focused on more critical management needs.

The Upper Saranac Lake Association (USLA) Environmental Committee decided that it could manage an angler diary program on a voluntary basis to keep tabs on the lake's fishery. The overall goal of the program would be to monitor trends by annually calculating catch rates and establishing length-frequency distributions for important fish species caught and recorded by angler cooperators.

The diary program is intended to monitor the lake's coldwater, warm water and ice fisheries, on a calendar year basis. NYSDEC's Region 5 Fisheries Management Unit agreed to provide several dozen coldwater angler diaries for our use (no warm water diaries were available), and the Environmental Committee offered to share its data summaries with the NYSDEC.

The Committee made a modest effort to recruit angler diary cooperators during spring and summer 2016 to initiate the program. Eight cooperators volunteered up to keep records of their fishing trips, and an Environmental Committee member conducted a training session during mid-summer 2016. The program was launched. Angler diary cooperators have been assigned numbers so that if individual catch and fishing effort statistics are reported, the cooperators can remain anonymous.

If you were an angler diary cooperator in 2016 and returned a diary, your number is located on the left hand side of the address label on the envelope containing this report. To allow comparison of data in future years, angler diary cooperator numbers will remain the same, so be sure to keep a record of your angler number. Also, if you maintained a diary, it is possible that some data which you submitted was not used because an essential ingredient was lacking or the diary arrived too late to be included in the summaries. As you read through the report, please note that the "Number of Hours Fished" and the "Number of Angler Hours" refers to the cooperator and any accompanying guests who have data recorded in the cooperator's diary. Should you have any questions, please contact Larry Nashett at 518-359-2198 or lnashett@roadrunner.com.

Results

Three of the eight cooperators, who agreed to keep a diary in 2016, returned useable records. We extend our sincere thanks to each of them. Most anglers seemed to be targeting smallmouth bass on most of their trips, but often no target species was recorded. Keeping track of the target species in the future is important because it will allow a more meaningful comparison of the Upper Saranac Lake fishery to those in other waters.

Sample sizes reported in length frequency plots in this report may not be equal in size to those in the catch tables. This is because the length frequency distributions are based on all fish caught that had recorded lengths. Alternatively, sample sizes reported in the catch summary tables are based on the number of fish caught that could be associated with an angler's effort (catch per hour), regardless of whether fish length was recorded. On some trips, angler diary cooperators recorded a length range rather than individual fish lengths, so that only the smallest and largest lengths in the range could be utilized in the length frequency tables. Also, there were cases when an average length for several fish was entered in the diary keeper's records, and those fish were all counted as individual entries of the same length in the data analysis, which may affect the precision of the length frequency distributions.

Smallmouth Bass

Smallmouth Bass Catch and Creel Rates

Assuming that cooperators were targeting smallmouth bass when they caught warm water species, the three diary keepers who returned useable data in 2016 (including any guest anglers who may have recorded data in their diaries) reported a total of 44 angler trips and 117.5 angler hours over 34 days of fishing (Table 1). Two cooperators, who always fished together, returned separate data records. They went fishing 13 times, accounting for 26 angler days and 89 angler hours.

Cooperators caught 107 smallmouth bass in 2016 resulting in a catch rate of 0.91 fish/ hour, and all were released.

Table 1. 2016 Upper Saranac Lake Smallmouth bass catch rates by angler diary cooperators.

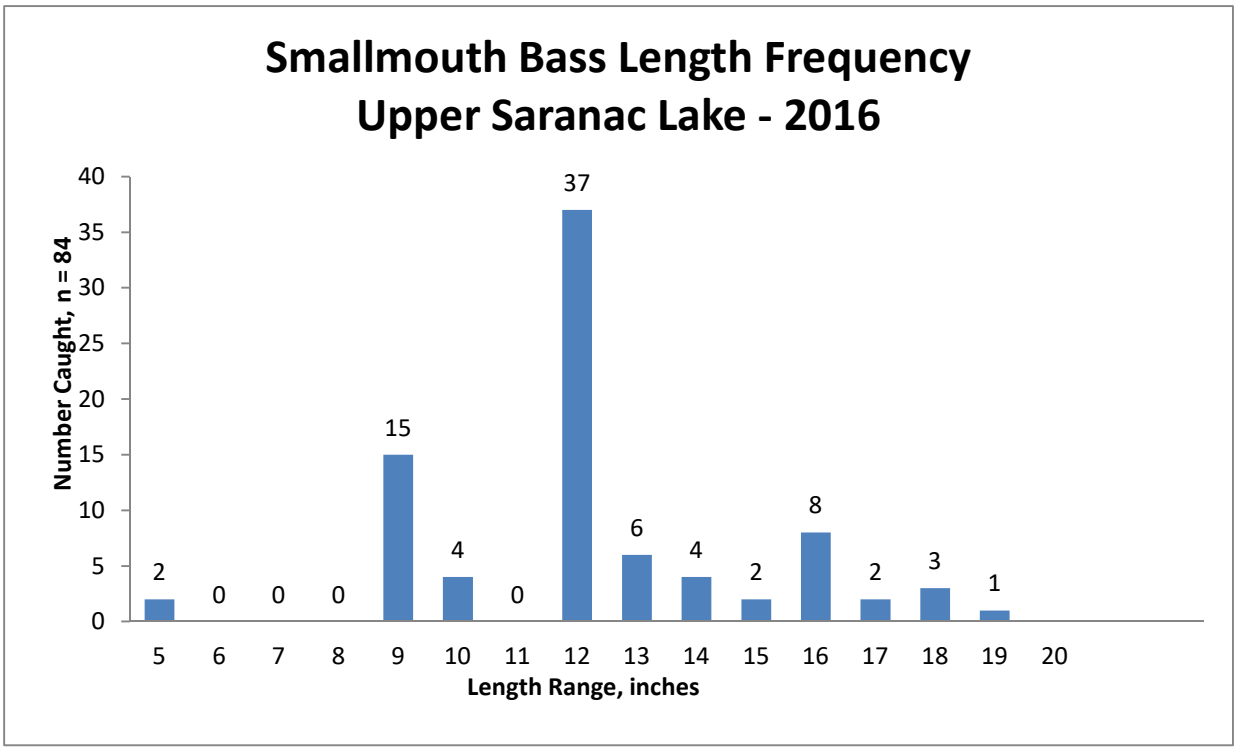
Angler	Number Days Fished	Number Angler Trips	Number Hours Fished	Mean Trip Length	Number Caught	Catch Per Hour
1	13	13	44.5	3.42	41	0.92
2	13	13	44.5	3.42	49	1.1
3	8	18	28.5	1.5	17	0.6
Total	34	44	117.5	2.97	107	0.91

Smallmouth Bass Length Frequency Distribution

A length frequency distribution provided by angler diary cooperators often closely mimics those produced by biologists using sampling gear such as electrofishing or netting techniques. Therefore, they are valuable parameters to generate. Patterns in length frequency distributions may sometimes be used to describe the age classes in a fish population, or the proportion of fish in a particular size range. In this

report, the length ranges listed in the length frequency figures are abbreviated. That is, only the lower number in the 1.0-inch interval range is displayed. For instance, in the figure below, the 12.0-12.9 inch length range is simply depicted by the number 12.

Figure 1. 2016 Upper Saranac Lake smallmouth bass length frequency distribution resulting from angler diary cooperator data.



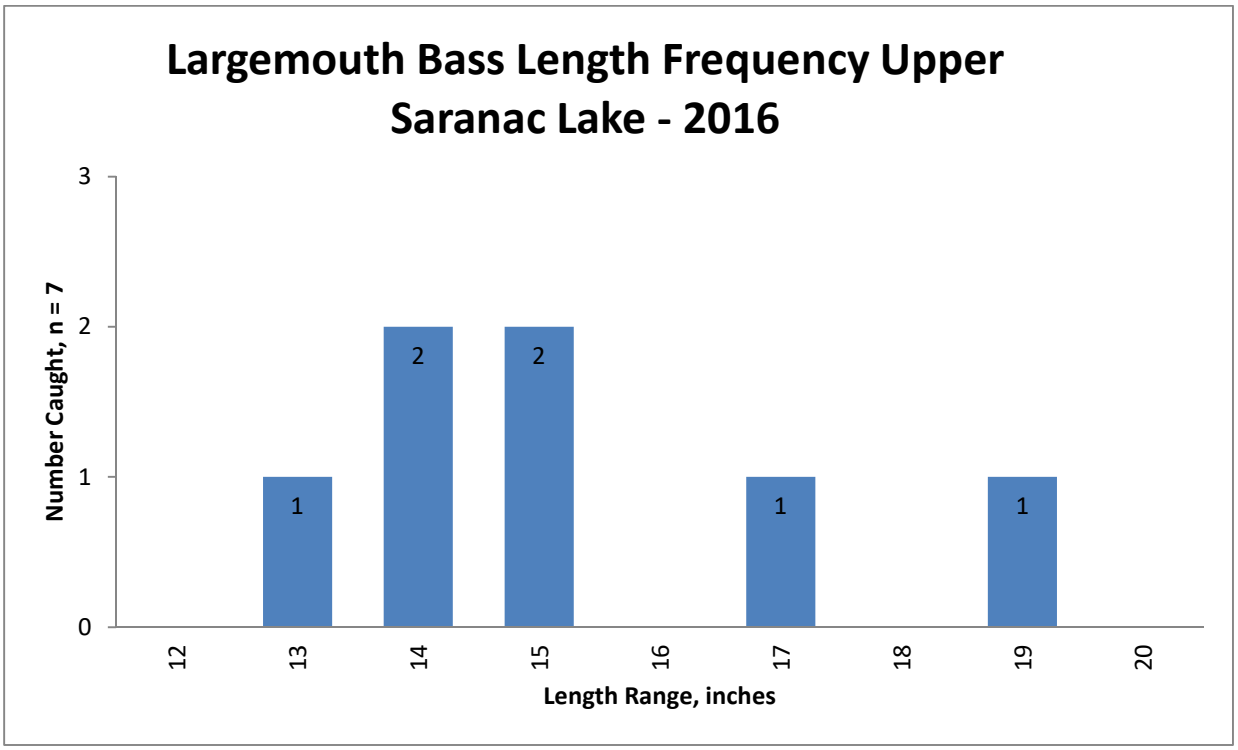
Largemouth Bass

Largemouth Bass Catch and Creel Rates

Two of three cooperators reported catching largemouth bass. Inspection of the data reveals that these were caught on trips which yielded mostly smallmouth bass. Therefore, it appeared that largemouths were not the primary target of these trips and no catch or creel rates were calculated. Cooperators reported catching eight largemouth bass in 2016.

Largemouth Bass Length Frequency Distribution

Figure 2. 2016 Upper Saranac Lake largemouth bass length frequency distribution resulting from angler diary cooperator data.



Lake Trout

Lake Trout Catch and Creel Rates

One angler diary cooperator targeted lake trout on three trips. A lake trout was caught during each of these trips. These fish measured 20, 30 and 25 inches respectively. Lake trout must be 23 inches or longer to be kept (creeled) in Upper Saranac Lake. The 20-inch fish was released, and the others were creeled. Nine angler hours were expended to catch these three lake trout, resulting in a catch rate of 0.33 lake trout/hour, and a creel rate of 0.22 fish/hour.

Conclusion

Smallmouth Bass

The overall catch rate of smallmouth bass in Upper Saranac Lake is consistent with that of a robust population. Sixty-three of the 84 fish used to produce the length frequency distribution depicted above were 12 inches (the minimum legal length) or longer. The largest number of smallmouth bass in any 1-

inch length interval was the 37 fish that fell into the 12.0-12.9 inch length interval. This peak in the distribution represents a strong year class, and given the generally slow growth of Adirondack smallmouth bass, these fish were probably at least age 4 or age 5. Other peaks in the length frequency distribution occur at 9, 16 and 18 inches.

Largemouth Bass

Only seven largemouth bass were reported caught by the angler cooperators, and all were longer than the legal size limit of 12 inches. Despite the small number of largemouth bass reported in the angler diary catch, one cooperator offered the following statement: “Since 1998, thru 2016, the ratio of LMB [largemouth bass] to SMB [smallmouth bass] caught has increased. (i.e. 1:20 in 1998; 1:10 in 2016)”.

Lake Trout

The 2016 catch rate of lake trout (0.33 fish/hour) in Upper Saranac Lake fell within the lower end of the range recorded for Lake George between 1987 and 2015. However this is based on a very small sample size, so any comparisons should be viewed with caution. Lake George is considered one of the premier lake trout waters in the Adirondacks, and its North Basin lake trout catch rate in 2015 was 0.58 lake trout/hour.

Recommendations

1. Recruit new angler diary cooperators to increase the number of participants in the program. Seek additional cooperators at Upper Saranac Lake Association meetings, and possibly through social media, local sportsman organizations and guide services.

2. Encourage cooperators to indicate which species they are targeting, so that more reliable catch rate data can be collected and analyzed.

3. Encourage angler cooperators to report measurements to the nearest fish for each individual fish caught and avoid listing an average length or a length range.

Our thanks go out to all of the angler cooperators who contributed to this effort. Please keep up the good work. We hope to see you on the water during the 2017 season.