

Environmental  
Committee

Upper Saranac Lake  
Association

## Upper Saranac Lake

2020 Angler Diary Report

February 25, 2021

By Larry Nashett, Chair, Environmental Committee



USLA Virtual Derby Youth Winner, 7/13/20

Smallmouth bass - Upper Saranac Lake, 5/20/20

Photos provided by Will Main

## Introduction

The Upper Saranac Lake Association (USLA) Environmental Committee manages a voluntary angler diary program to monitor the lake's fishery. The program documents trends by calculating annual catch rates and establishing length-frequency distributions for important fish species. The diary program tracks the lake's coldwater, warmwater and ice fisheries.

New diaries, funded by the USLA and printed specifically for its Angler Diary Program, were distributed in 2019 and 2020. A paperless method of recording data via mobile devices may be implemented in the future. The recently updated USLA website at <https://uppersaranac.com/> could provide an easy way to get newly recruited cooperators linked to a separate Google website where data can be recorded. This would allow a lake steward or an experienced angler cooperator to provide the information to any cell phone-toting angler at the boat launch site or on the water, and she or he could begin recording data immediately on their phone.

Four cooperators returned records of their fishing trips in 2020. Angler diary cooperators have been assigned numbers so that if individual catch and fishing effort statistics are reported, the cooperators can remain anonymous. The number is located on the cover of the diary provided annually to each cooperator.

To allow comparison of data in future years, angler diary cooperator numbers will remain the same, year after year. If you maintained a diary, it is possible that some data which you submitted was not used because an essential ingredient was lacking (such as the amount of time you fished on a particular day), or the diary arrived too late to be included in the data summary. As you read through this report, please keep in mind that the "Number of Angler-Hours" refers to the combined effort of 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 518-637-2885 or [lnashett@roadrunner.com](mailto:lnashett@roadrunner.com).

## Results

Again, most Upper Saranac Lake angler cooperators focused their efforts on bass fishing. One recorded a few hours spent fishing for yellow perch and another logged 4¼ hours in pursuit of lake trout. Recording the target species is important to allow a meaningful comparison of the Upper Saranac Lake fishery to those in other waters.

Please note that the number of bass reported in length frequency plots (Figures 2 and 3) may not be equal to those listed in Table 1. This is because the length frequency distributions are based on all bass caught that had recorded lengths. Alternatively, bass numbers reported in Table 1 are based only on the number caught that could be associated with an angler's effort (catch per hour).

### Smallmouth Bass

#### Smallmouth Bass Catch Rates

Diary keepers reported a total of 134 angler-trips and 214 angler-hours over 63 "days" (two separate outings in the same day were counted as two days) of fishing for this species (Table 1). Cooperators

caught 160 smallmouth bass in 2020 while specifically targeting them, resulting in a catch rate of 0.75 fish/hour. This catch rate was slightly higher than the 0.70 fish/hour calculated for 2019.

Table 1. Targeted bass fishing effort and catch rates of smallmouth and largemouth bass by Upper Saranac Lake angler diary cooperators in 2020.

Angler	Overall Number Days Fished	Overall Number Angler-Trips	Overall Mean Trip Length	Angler-Hours Targeting Bass	Number Smallmouth Bass Caught	Smallmouth Bass Catch Per Hour	Number Largemouth Bass Caught	Largemouth Bass Catch Per Hour
1 <sup>a</sup>								
2 <sup>a</sup>								
3	33	86	1.60	133.5	143	1.07	32	0.24
6	18 <sup>b</sup>	36	1.64	59.0	2	0.03	3	0.05
7	11	11	2.15	20.5	15	0.73	2	0.10
8 <sup>c</sup>								
9	1	1	1.00	1.0	0	0	0	0
Total	63	134	1.64	214.0	160	0.75	37	0.17

<sup>a</sup> Did not fish due to COVID 19 pandemic.

<sup>b</sup> Some cooperators went out twice in the same day; this would have been counted as two days.

<sup>c</sup> Did not return a 2020 diary.

Figure 1. 2016-2020 Trend Comparison in Upper Saranac Lake smallmouth bass catch rates.

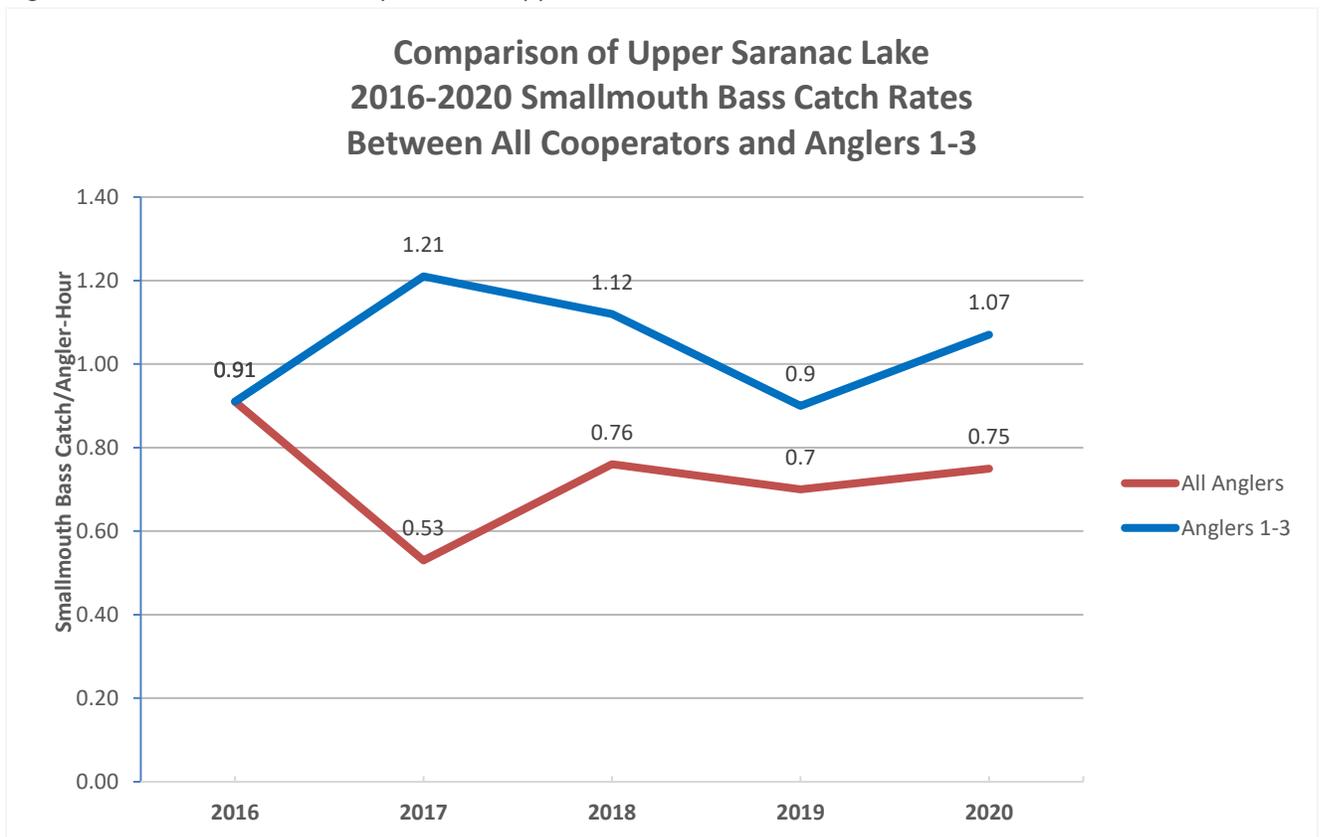


Table 2. 2016-2020 Comparison of Upper Saranac Lake targeted bass fishing effort and smallmouth catch rates by angler diary cooperators, numbers 1-3<sup>a</sup>, over the program's five years.

	Year	Angler 1	Angler 2	Angler 3	Total
Overall Number Days Fished	2016	13	13	8	34
	2017	16	16	18	50
	2018	18	18	19	55
	2019	17	17	31	65
	2020	0	0	33	33
Overall Number Angler Trips	2016	13	13	18	44
	2017	16	16	34	66
	2018	18	18	37	73
	2019	21	17	71	109
	2020	0	0	86	86
Angler-Hours Targeting Bass	2016	44.50	44.50	28.50	117.50
	2017	46.50	46.50	66.50	159.50
	2018	40.50	40.50	66.75	147.75
	2019	72.00	59.00	135.50	266.50
	2020	0	0	133.50	133.50
Overall Mean Trip Length	2016	3.42	3.42	1.50	2.67
	2017	3.10	3.10	2.00	2.42
	2018	2.25	2.25	1.80	2.02
	2019	3.47	3.47	1.86	2.70
	2020	0	0	1.60	1.60
Number Caught	2016	41	49	17	107
	2017	47	49	97	193
	2018	34	37	95	166
	2019	57	41	143	241
	2020	0	0	143	143
Catch Per Hour	2016	0.92	1.10	0.60	0.91
	2017	1.01	1.05	1.46	1.21
	2018	0.84	0.91	1.42	1.12
	2019	0.79	0.69	1.06	0.90
	2020	0	0	1.07	1.07

<sup>a</sup> Although Anglers 1 and 2 did not fish during 2020, they were included in this table, and the table was placed in this report to maintain comparison continuity in future years.

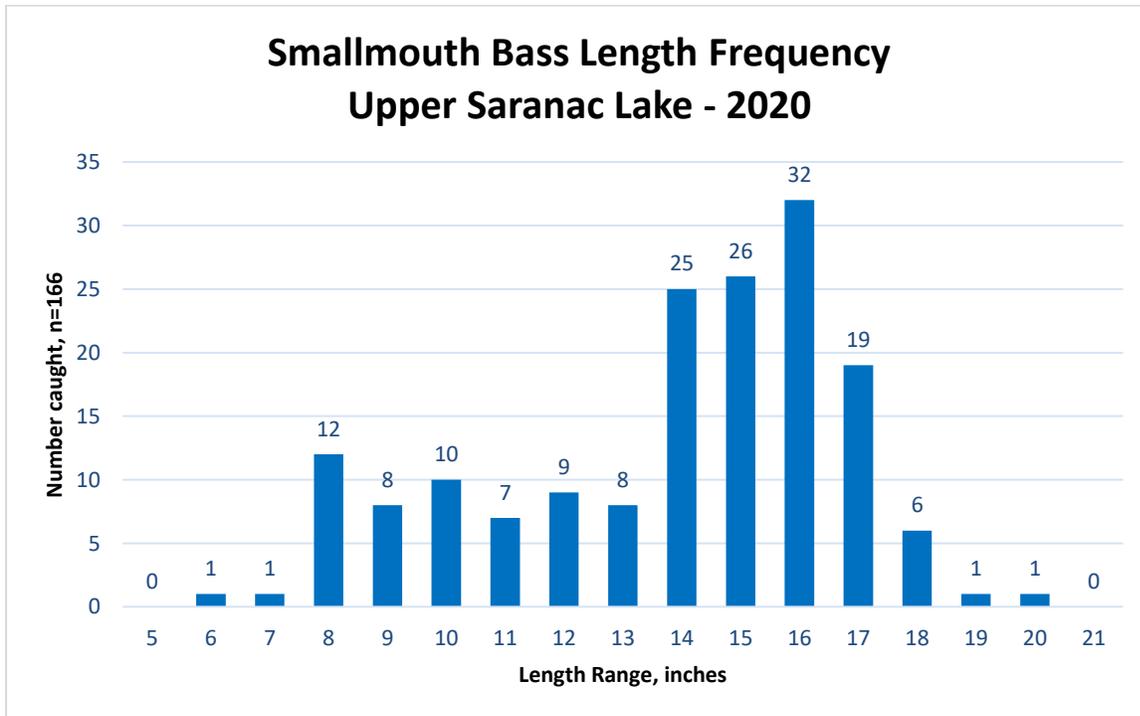


2020 Upper Saranac Lake smallmouth bass photos (provided by Will Main).

Smallmouth Bass Length Frequency Distribution

Figure 2 illustrates the smallmouth bass length frequency distribution based on 2020 angler cooperater data. Length ranges listed in the figure are abbreviated. Only the lower number in the 1.0-inch interval range is displayed. For instance, in the figure below, the 16.0-16.9-inch length range, which contains the highest number (32) of smallmouth bass in the overall catch, is depicted by the number 16.

Figure 2. 2020 Upper Saranac Lake smallmouth bass length frequency distribution resulting from angler diary cooperater data.



## Largemouth Bass

### Largemouth Bass Catch Rates

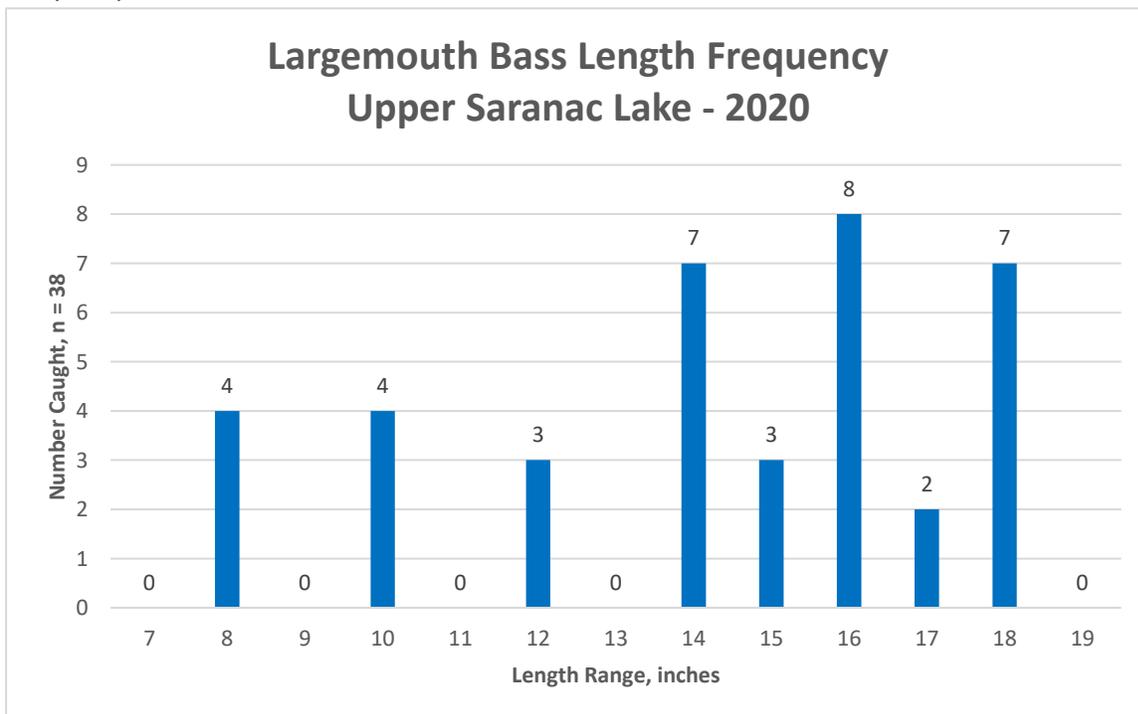
Although smallmouth bass dominated, 37 largemouth bass were boated in the targeted catch. Angler-hours spent targeting bass were used in the rate calculations for both species. Slightly more than 0.17 largemouth bass were caught per hour in 2020. The largemouth catch rate was identical to that of 2019.



Anglers with Upper Saranac Lake largemouth bass caught in 2020 (provided by Will Main).

### Largemouth Bass Length Frequency Distribution

Figure 3. 2020 Upper Saranac Lake largemouth bass length frequency distribution resulting from angler diary cooperator data.



## Lake Trout

### Lake Trout Catch Rates

Only one angler cooperator targeted lake trout in 2020 during two brief efforts. Alone, and with guests, the cooperator expended a total of 4¼ angler hours in their pursuit. No lake trout were caught.

## Northern Pike

### Northern Pike Catch Rates

One cooperator and a guest reported fishing specifically for northern pike in 2020. They logged 1 angler-trip comprising 3 angler-hours, and they caught and released one 29.5-inch northern pike. Their catch rate was 0.33 pike per angler-hour.

## Yellow Perch

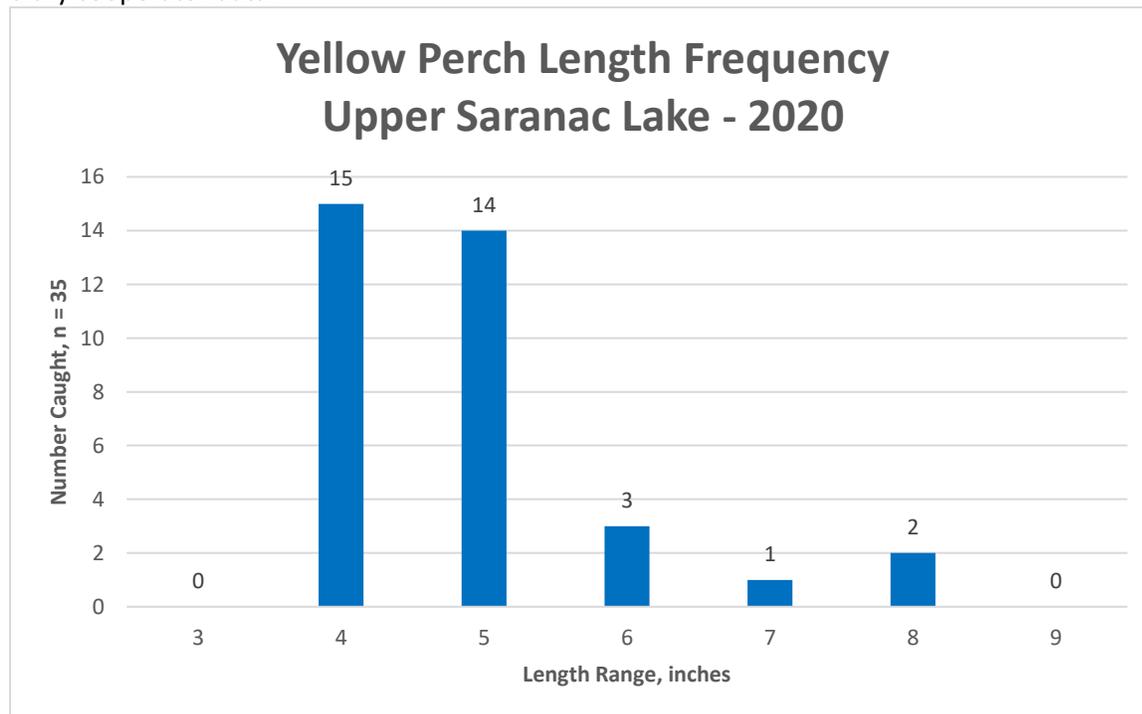
### Yellow Perch Catch Rates

Angler cooperators reported catching a total of 35 yellow perch in 2020, and 32 of these were caught while specifically fishing for them. Their catch rate was 2.42 yellow perch per angler-hour.

### Yellow Perch Length Frequency Distribution

To help detect changes and trends, the yellow perch length-frequency distribution is being tracked. Although small in sample size, the 2020 distribution is presented in Figure 4.

Figure 4. 2020 Upper Saranac Lake yellow perch length frequency distribution resulting from angler diary cooperator data.



## White Perch

In 2020, one angler cooperator reported catching a 6-inch white perch in Fish Creek, which has direct access to Upper Saranac Lake. The result of an unauthorized introduction, white perch length frequency distributions, and possibly catch rates, may be monitored in future summaries as their numbers

increase. There is concern that this species may have adverse effects on the yellow perch and smelt fisheries.

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## Discussion and Conclusions

### Smallmouth Bass

The overall 2020 catch rate of 0.75 smallmouth bass per hour in Upper Saranac Lake is slightly higher than the 2019 catch rate of 0.70 fish per hour and nearly identical to the 0.76 rate calculated for 2018. Catch rates over the last three seasons are higher than 2017's 0.53 smallmouth bass per hour. These are good catch rates, yet they are lower than the excellent, 0.91 fish-per-hour rate reported for 2016. The lower rates appear to be associated with different cooperators participating over the years. Comparing the average catch rates of the identical set of anglers who contributed useful data in 2016 through 2020, removes this variable. Unfortunately, the COVID-19 pandemic prevented two of these three anglers from traveling to Upper Saranac Lake and participating during 2020. Both Figure 1 and Table 2 show their average catch rate increased from 0.91 fish per hour in 2016 to 1.21 in 2017, dropped slightly to 1.12 fish per hour in 2018 and returned to 0.90 in 2019. The catch rate, based on only one of the original cooperators, bounced back up to 1.07 smallmouths per hour in 2020. These are outstanding catch rates, indicative of a strong, healthy smallmouth bass population.

Length frequency distributions generated with angler diary data are similar to those constructed by biologists using scientific sampling gear. They can be used to describe age classes in a fish population, or the proportion of fish in a particular size range.

One hundred twenty-seven, or 77 per cent of the 166 smallmouth bass in this year's length frequency distribution were 12-inches (the minimum length limit) or greater in length. Inspection of the distribution reveals fairly prominent peaks at 8, 10, 12 and 16-inches. It is likely that these peaks signify smallmouth bass of ages 3, 4, 5, and a combined group of 6- and 7-year-olds, respectively. The highest peak, representing 32 fish, is at 16-inches. These smallmouths are probably 6 and 7 years old, and represent very strong year-classes. This group of fish is expected to produce a very good fishery for quality-sized smallmouth bass for at least a few more years. An abundance of fish in the 14- and 15-inch length intervals is also good indicator that the smallmouth bass fishery will remain strong into the foreseeable future.

### Largemouth Bass

Thirty-eight largemouth bass were caught by angler cooperators in 2020 (Figure 3). Eight were below the legal size limit of 12-inches; 30 were 12-inches or longer. The greatest number (8) of largemouth bass in the catch fell into the 16-inch length interval. Based on past age determinations of many largemouth bass, and taking into consideration their short Adirondack growing seasons, my guess is that these 16.0-16.9-inch largemouths are 7-year-olds.

The ratio of largemouth bass to smallmouth bass in the 2020 targeted catch was about 1 in 4. To be precise it was 1:4.32 in 2020 and 1:4.06 in 2019. That is, about four smallmouth bass were caught for every largemouth brought to hand. In 2018, the catch ratio was 1:9 compared to 1:7 in 2017. The increasing trend was first noted by an angler cooperator who has maintained long-term, personal records showing the ratio was 1:20 in 1998 and 1:10 in 2016. The fact that the ratio has held nearly steady, and even decreased slightly, from 2019 to 2020, may indicate that the proportion of largemouth bass to smallmouth bass is stabilizing.

## Lake Trout

As described earlier, two outings directed at lake trout were recorded by one of the cooperators and his guests in 2020. They caught no lake trout. More anglers who fish for lake trout are needed as diary cooperators.

Table 3. Recent stocking history of lake trout in Upper Saranac Lake, 2013-2019 (records for 2020 are expected to be available in May, 2021).

Source: <http://www.dec.ny.gov/outdoor/30467.html>

Species	Year	Month	Number	Size (inches)
lake trout	2019	April	9,840	8.0
lake trout	2018	May	10,500	6.4
lake trout	2017	April	10,500	6.5
lake trout	2016	May	2,000	6.9
lake trout	2016	April	5,900	7.0
lake trout	2015	May	10,500	6.3
lake trout	2014	April	10,500	6.5
lake trout	2014	June	4,000	6.7
lake trout	2013	May	7,590	7.1

## Northern Pike

One cooperator and a guest took a single fishing trip in which they targeted northern pike in 2020. They caught a near 30-inch specimen. Other northern pike are known to have been caught by anglers not participating in the diary program. Although the lake seems to support a low-density, high size-quality northern pike population, there is very little data available on this species in Upper Saranac Lake.

## Yellow Perch

The yellow perch length frequency distribution in Figure 4 shows that the majority of yellow perch caught were in the 4- and 5-inch length ranges. One cooperator specifically targeted yellow perch, and in three outings, he and his guests caught 32 fish.

Over the course of the last five years, most yellow perch reported are part of the by-catch taken while fishing for other species. That catch has been trending downward. Only 16 were caught in 2019, compared to 29 in 2018, and 59 in 2017. Except for the targeted effort made by one cooperator, only 3 additional yellow perch were reported in 2020.

The two largest yellow perch recorded by cooperators were only 8 inches long. Based on anecdotal information and very limited data, the yellow perch population structure appears to be changing, but not for the better. Perhaps the presence of white perch in the lake's fish community is producing these changes.

## White Perch

The earliest report of white perch being caught in Upper Saranac Lake occurred in 2016. As you may recall, in 2019, an angler diary cooperator provided an 11-inch-long white perch that was transmitted through the USLA Environmental Committee to the New York State Department of Environmental Conservation. In turn, this fish has been registered as a voucher specimen with the New York State Museum's collection, officially documenting the species' presence in Upper Saranac Lake.

The presence of white perch is of concern because this species may have adverse effects on existing fisheries resources. During 2020, an angler cooperator reported catching only one white perch in the watershed (Fish Creek). However, others were caught directly in Upper Saranac Lake by anglers who are not part of the diary program.

## Other Species

One 13.5-inch bullhead was reported in the cooperator catch

## Recommendations

**(The following recommendations are identical to those made last year.)**

1. Utilize the USLA Angler Diary program to monitor catch rates and length frequency distributions for the lake's smallmouth bass and largemouth bass fisheries. These exceptional fisheries deserve conservation and care. Encourage responsible fish handling techniques, including catch and release angling, and the reporting of any observed habitat destruction, such as unmitigated disturbance of near-shore spawning areas.
2. Continue to investigate use of a cell-phone-accessible, virtual "diary", that will allow cooperators to record fishing trip and catch information in real time.
3. Focus additional effort on working with lake stewards at the Upper Saranac Lake and Fish Creek Campground Boat Launch Sites to recruit new angler diary cooperators. Provide business-type cards and angler diaries for them to distribute to anglers who plan to fish in Upper Saranac Lake.
4. Monitor the catch of yellow and white perch in the fishery and note obvious trends.
5. Hold an angler diary cooperator meeting annually to respond to questions, recruit new cooperators and encourage proper completion of diary pages.
6. Share these Angler Diary Reports with NYSDEC and the Upper Saranac Foundation.

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### \*\*Special Note\*\*

One of the young guests aboard a cooperator's boat landed a 17.5" largemouth bass during the USLA virtual Fishing Derby. He captured first place in the Youth Black Bass division with it. The angler and the bass appear on the left side of the cover page for this report. The bass being measured appears below:



A hearty thank you is extended to all angler cooperators who contributed to this effort. Your efforts are greatly appreciated. Good luck on the water during the 2021 season!