

Loch Sheldrake Gill Net Survey (Survey #: 319008) Michael DiSarno, Region 3 Fisheries

10/29/19

Loch Sheldrake is a 64-acre lake located in the Town of Fallsburg in Sullivan County, NY. The lake has a drainage area of 1.12 square miles with public access located off Hasbrouck A Rd provided by NYS Department of Environmental Conservation. A small dock is located here and allows access for shore fishing or launching of car top boats. The lake has an annual stocking policy of 800 yearling brown trout. Walleye have also been stocked several times in years past by a private entity under DEC permit. A special fishing regulation is present here for trout with an all year open season, any size and a daily limit of five. Ice fishing is permitted here. Loch Sheldrake was last sampled in 2007 during a summer gill net survey assessing trout abundance. The purpose of this 2019 survey was to evaluate the brown trout stocking policy, and to determine if stocked trout survive summer conditions here. Three gill nets were set on 7/29/19 and were retrieved the following day. Nets were set overnight and had soak times of 20 hours, 20.75 hours and 21 hours. The gill nets used were 90 ft by 10 ft, with three panels of two-inch, three-inch and four-inch monofilament mesh. Nets were set in 10 to 20 feet of water to coincide with the thermocline which was found at 14 feet deep. Temperature and dissolved oxygen (DO) measurements were taken every two feet from the surface to the bottom of the lake.

A total of four fish species were caught during this survey including 14 alewife, 28 brown trout, three chain pickerel, and one white sucker. Catch/net night for brown trout was 9.3. Brown trout lengths ranged from 8.8 to 18.6 inches (Figure 1) and weights ranged from 0.2 to 3.2 lbs. Most brown trout were aged at one or two years old while the largest brown trout was age three. The temperature and DO was suitable for trout (DO: >5 ppm, temperature: <70 degrees) between 10 and 26 feet deep (Table 1). DO was supersaturated around 12 and 14 feet of water and was 17 – 18.3 ppm. This was consistent with the 2007 gill net survey which had supersaturated DO between 14 and 18 feet of water (Angyal 2007). Additionally, the 2007 survey, which had the primary purpose to assess trout abundance, collected no trout.

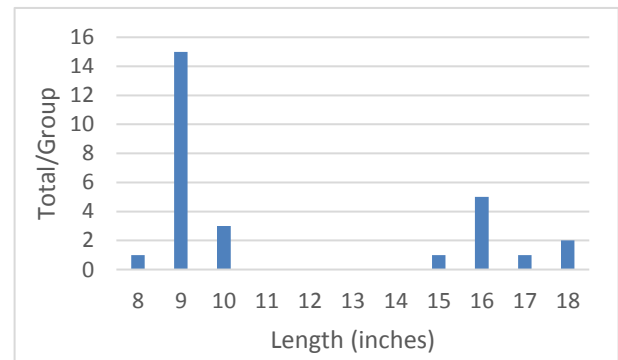


Figure 1. Length distribution of brown trout.

Results from the temperature and DO profile indicate sufficient habitat at the time of this survey for trout survival. Additionally, catch/net night of brown trout and the presence of multiple year classes of brown trout indicate they are surviving well and should be providing a year-round opportunity for anglers targeting them. No change in management is recommended at this time, and the continued stocking of brown trout is recommended.

Table 1: Depth, temperature and dissolved oxygen readings recorded prior to setting gill nets. Depths and readings where nets were set are highlighted in blue.

Depth (feet)	Temp (f)	DO (ppm)		Depth (Continued)	Temp	DO
0	78.6	8.2		26	41.9	5.2
2	79.7	7.7		28	41.4	4.5
4	79	8		30	41.1	3.4
6	78.8	7.9		32	40.7	2.8
8	77.5	7.9		34	40.6	2.4
10	69.2	12		36	40.5	2.1
12	62.2	17		38	40.5	1.8
14	54.4	18.3		40	40.5	1.6
16	49	11		42	40.4	1.3
18	46.2	8.4		44	40.3	1.1
20	44.4	7.8		46	40.4	0.9
22	43.5	7		48	40.4	0.8
24	42.4	6.6				

Literature Cited:

Angyal, R. K. 2007. Survey Abstract #307008. New York State Department of Environmental Conservation, Bureau of Fisheries, New Paltz, NY.