

**Lost Lake General Biological Survey #519027:
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12/20/2019

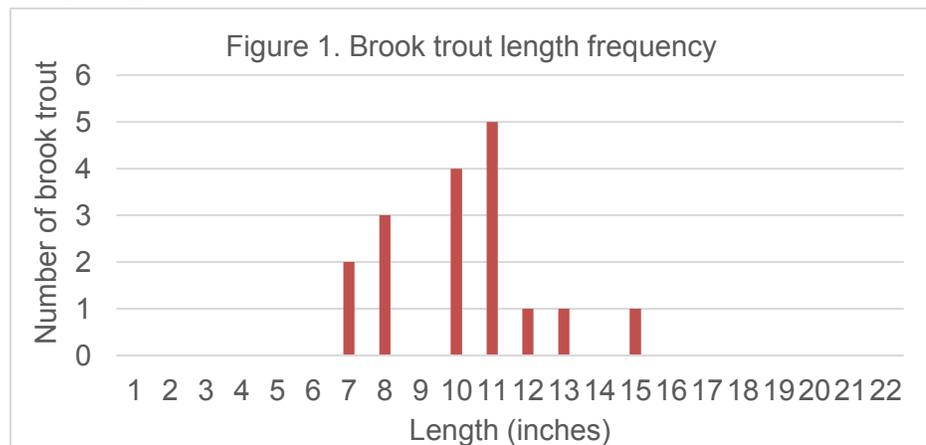
Lost Lake (UH-P233), also sometimes referred to as Cooney Lake, is a remote four-acre water located in the Silver Lake Wilderness in Hamilton County. The maximum depth is 29 feet and there was sufficient dissolved oxygen for trout to a depth of about 17 feet, where the temperature was 42 °F. This water was last surveyed 41 years ago when the surface water sample was a pH of 5.80. During the 1978 survey (#578016767), 39 brown bullhead averaging 4.8 inches in length, and a single 15-inch brook trout were caught. Lost lake has been stocked since 1947.

During the 2019 survey a water sample was drawn for analysis at five feet. The pH has improved substantially since 1978 and was above 6.6 with a correspondingly high ANC value, and the silica and sodium values also appear rather high (Table 1.). There may be some natural reproduction of brook trout here.

Table 1. Lost Lake water chemistry variables 2019.

Year	Depth (feet)	Air	Acid	Conductivity (µmhos/cm)	Silica mg/L	Sodium mg/L
		Equilibrated pH (pH units)	Neutralizing Capacity (µeq/L)			
2019	5	6.63	42.4	12.8	4.2	0.61
	19	7.12	97.3	18.5	5.8	0.72

In 2019, a single 150-ft Swedish experimental gill net, a 30-ft minnow net, and a minnow trap were set overnight. A total of 17 brook trout, ranging from 7 to 15 inches in length, were collected during the 2019 survey (Figure 1.). Brown bullhead were also present, with 21 individuals collected ranging from 3.1 to 5.8 inches. The bullhead population has apparently changed very little, still limited in both total number and in the size of the individual bullheads present. This population structure for brown bullhead is fairly uncommon in Adirondack waters. A similar bullhead population (limited in both size and number) was also recently noted in DeBraine Lake (#517040).



Brook trout numbers have increased dramatically since the 1978 survey, when only a single brook trout was caught, despite the continued presence of brown bullhead.

Table 2. Average size at age of brook trout from Lost Lake 2019.

Age	Average length (inches)	Average weight (pounds)	Sample Size
1	8.0	0.19	4
2	11.5	0.54	3
3	13.7	0.93	3

Brook trout numbers are relatively high in this water, with 17 brook trout taken in a single experimental gill net. Three age classes of brook trout were collected (Table 2.). To reduce these numbers slightly and to promote increased growth, the current stocking policy for 200 Temiscamie x Domestic hybrid brook trout fingerlings will be reduced to 150 Temiscamie x Domestic hybrid brook trout fingerlings. As stated above, it is also possible that some natural reproduction occurs here.