

Beaver Lake General Biological Survey #521056
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Beaver Lake (B-P849) is a 135-acre lake in the Moose River Plains Wild Forest of Hamilton County. The last comprehensive fish survey was performed 37 years ago in 1984 by the Adirondack Lakes Survey Corporation (ALSC). The maximum depth is 16-feet, and the mean depth is 6.2 feet. Dissolved oxygen sufficient for trout was present to a depth of only 8-feet during the August 2021 survey. Beaver Lake is currently stocked with 1,400 spring yearling brown trout annually. This water was reclaimed using a helicopter for the application of rotenone in 1966. The reclamation succeeded in eliminating yellow perch but not the other target species. A water sample was drawn for chemical analysis, the pH and ANC values have notably improved from 6.35 pH, 36.1 µeq/L in the 1984 survey, (Table 1). As is currently the case in most waters with improving acid/base chemistry, the conductivity was somewhat reduced.

Table 1. Beaver Lake water chemistry variables, 2021.

Year	Depth (feet)	Air Equilibrated pH (pH units)	Acid Neutralizing Capacity (µeq/L)	Conductivity (µmhos/cm)	Silica mg L ⁻¹
2021	5	6.77	61.7	15.2	3.2
	12	6.79	57.6	13.3	3.0

In August of 2021, four 150-foot experimental gill nets, a 30-foot minnow net, and a minnow trap were set overnight. A total of only four recently stocked brown trout, all 10 inches or less, were collected during the survey, along with a single brook trout, (Table 2). The same fish species that were present in 1984 were also present in the 2021 survey with the notable addition of yellow perch. Yellow perch were the most numerous species collected during this survey and their introduction appears to have occurred fairly recently. The fish barrier here was abandoned in 1983 yet yellow perch have only managed to invade this lake in the last few years. Yellow perch are devastating competitors for trout, and they are now poised to dominate the fish community for years to come, putting an end to trout survival. Beaver Lake should now be considered a warmwater fishery and the stocking of trout here should be discontinued.

Table 2. Number and length ranges of fish collected at Beaver Lake, 2021.

Species	Number collected	Minimum length (in)	Maximum length (in)
Brown trout	4	9.3	10.0
Brook trout	1		17.8
White sucker	81	6.1	15.7
Brown bullhead	24	5.7	8.7
Yellow perch	96	4.5	11.2
Pumpkinseed	17	2.9	6
Creek chub	3	2.6	3.0
Golden shiner	1		5.9

