

Mitchell Ponds (Lower) General Biological Survey (Survey #:521025)

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Mitchell Ponds (Lower) (B-P847) is a 25-acre lake in the Moose River Plains Wild Forest of Hamilton County. It was last surveyed in 1994. It is connected to Upper-Mitchell Pond by a short channel which divided by a well-established beaver dam about 1.5-feet high. However, the character of the two waters is quite different. The maximum depth of Lower-Mitchell Ponds is 73-feet, and the mean depth is 16 feet. Dissolved oxygen sufficient for trout was present to a depth of 45-feet. Lower-Mitchell Pond is currently stocked with 300 spring yearling brown trout annually. This water was reclaimed in 1966 but the reclamation was not successful in killing all fish. The pH of this water was circumneutral in 1984 and chemical conditions appear to have changed slightly in that time.

Table 1. Lower Mitchell Pond water chemistry variables, 2021.

Year	Depth (feet)	Air Equilibrated pH (pH units)	Acid Neutralizing Capacity ($\mu\text{eq/L}$)	Conductivity ($\mu\text{mhos/cm}$)	Silica mg L^{-1}
2021	5	7.39	118.7	21.0	3.7
	35	7.48	146.8	25.4	4.8

In June of 2021, two 150-foot Swedish experimental gill nets, a 30-foot minnow net, and a minnow trap were set overnight. No brown trout were collected during the survey, but four lake trout were collected even though no lake trout are currently stocked. Lake trout may be present due to a single stocking that occurred in 1976, but no lake trout were collected in a 1994 DEC survey (#594075). The self-sustaining lake trout were aged using scale analysis and they ranged from a 3-year-old 13-inch trout up to a 10-year-old trout coming in just under 30 inches. Brown bullhead have been added to the fish community since the 1994 survey, and two species stocked previously, sockeye salmon and splake, were absent from the 2021 survey. White sucker, creek chub, are also present.

Table 1. Number and length ranges of fish collected at Lower Mitchell Pond, 2021.

Species	Number collected	Minimum length (in)	Maximum length (in)
Lake trout	4	13.4	29.9
White sucker	10	7.5	9.6
Common shiner	97	3.3	5.8
Brown bullhead	10	5.3	6.6
Creek chub	25	3.3	5.5

Since brown trout are not surviving here the stocking policy for brown trout will be deleted. The self-sustaining lake trout population is producing some large specimens and should be allowed to flourish without competition from other salmonids. The water should be resurveyed in five to 10 years.