

**Middle Sargent Pond General Biological Survey #519060:
Jonathan Fieroh, Region 5 Fisheries**

12/27/2019

Middle Sargent Pond (R-P295) is a remote 11-acre water located in the Sargent Ponds Wild Forest in Hamilton County. Middle Sargent Pond is less than .5 miles from the recently reclaimed and extremely popular Lower Sargent Pond. The maximum depth is 10 feet, the mean depth is 5.8 feet and there was sufficient dissolved oxygen for trout to a depth of 8 feet in the 2019 survey. This seepage water was reclaimed in 1956 and has been limed 7 times (annually from 1978 to 1984). The last fisheries survey was conducted in 2000 when 24 brook trout were collected despite the analysis of a water sample which showed that the pH and ANC were extremely low. The pH was only 4.61 with a correspondingly low ANC of -26.9. An Adirondack Lakes Survey Corporation (ALSC) survey was conducted during the period of the annual application of lime, 1984, and the pH at that time was 6.69. The 2019 survey was undertaken to check the current chemical conditions, the survival of the stocked brook trout and explain the apparent paradox of the 2000 survey.

The pH and ANC have improved dramatically compared to the values in the 2000 survey (Table 1.). Not surprisingly, this seepage water has very low values for silica and sodium.

Table 1. Middle Sargent Pond water chemistry variables 2019.

Year	Depth (feet)	Air Equilibrated pH (pH units)	Acid Neutralizing Capacity (µeq/L)	Conductivity (µmhos/cm)	Silica mg/L	Sodium mg/L
2019	5	5.52	7.0	4.4	0.1	0.10
	9	5.67	5.5	4.5	0.2	0.11

In 2019, one 150-ft Swedish experimental gill net, a 30-ft minnow net, and a minnow trap were set overnight. Only 5 brook trout were collected during the 2019 survey, but Middle Sargent Pond remains a brook trout monoculture (Figure 1.). While only 5 yearling brook trout were collected, their condition was reasonably good, and signs of angler use were present. It seems that chemical conditions have improved to the point where liming is not necessary at this time to support a brook trout population. However, even though brook trout are present, the temperature profile showed that this is a relatively warm and shallow brook trout pond. This water is providing a fishery and the stocking policy of 700 Temiscamie x Domestic hybrid brook trout should continue, but a follow up survey should be scheduled after 5 years to reassess the brook trout population.

