

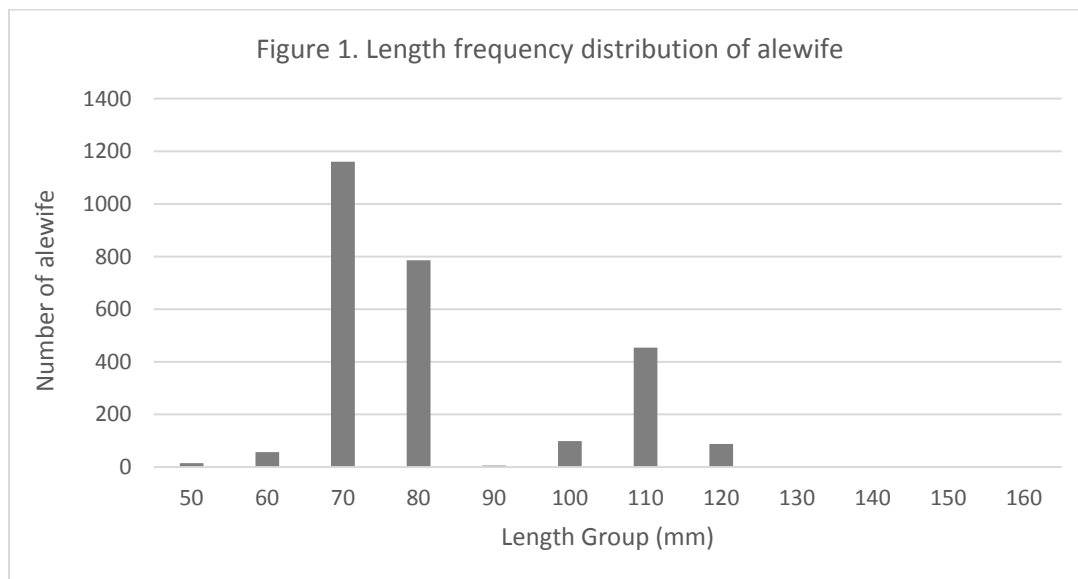
Hemlock Lake Forage Assessment (Survey #: 818023)

Pete Austerman, Region 8 Fisheries

05/17/2019

Hemlock Lake is an 1,800 acre lake in Livingston County with a maximum depth of 91 feet. The lake's cold, highly oxygenated water provides excellent habitat for coldwater species including lake trout and rainbow trout. Forage species that support these predators include alewives, smelt, sculpin, and various minnow and shiner species. Monitoring these forage fish populations is important when determining fish stocking rates and for overall fishery management of the lake. Recently developed gill netting protocols were used to sample forage fish in Hemlock Lake during the week of August 27th (Sethi 2017).

A total of 12 species were collected from Hemlock Lake. Alewives and rainbow smelt were the most abundant fish species, making up 97 and 2 percent of the catch, respectively. Alewife appear to be the main forage species supporting the trout populations in Hemlock Lake at this time. Two age classes of alewife were collected, with age-0 (2018 year class) comprising 76% of alewife sampled (Figure 1).



Results from this new gill netting protocol will be compared across the Finger Lakes and within each lake over time. Results will eventually be used to help make trout stocking decisions on Hemlock Lake.

Sethi, S.A. 2017. Finger Lakes forage fish gillnet survey: power analysis to assess net designs. New York Cooperative Fish and Wildlife Research Unit, Cornell University. Unpublished – NYSDEC Region 8 file.