

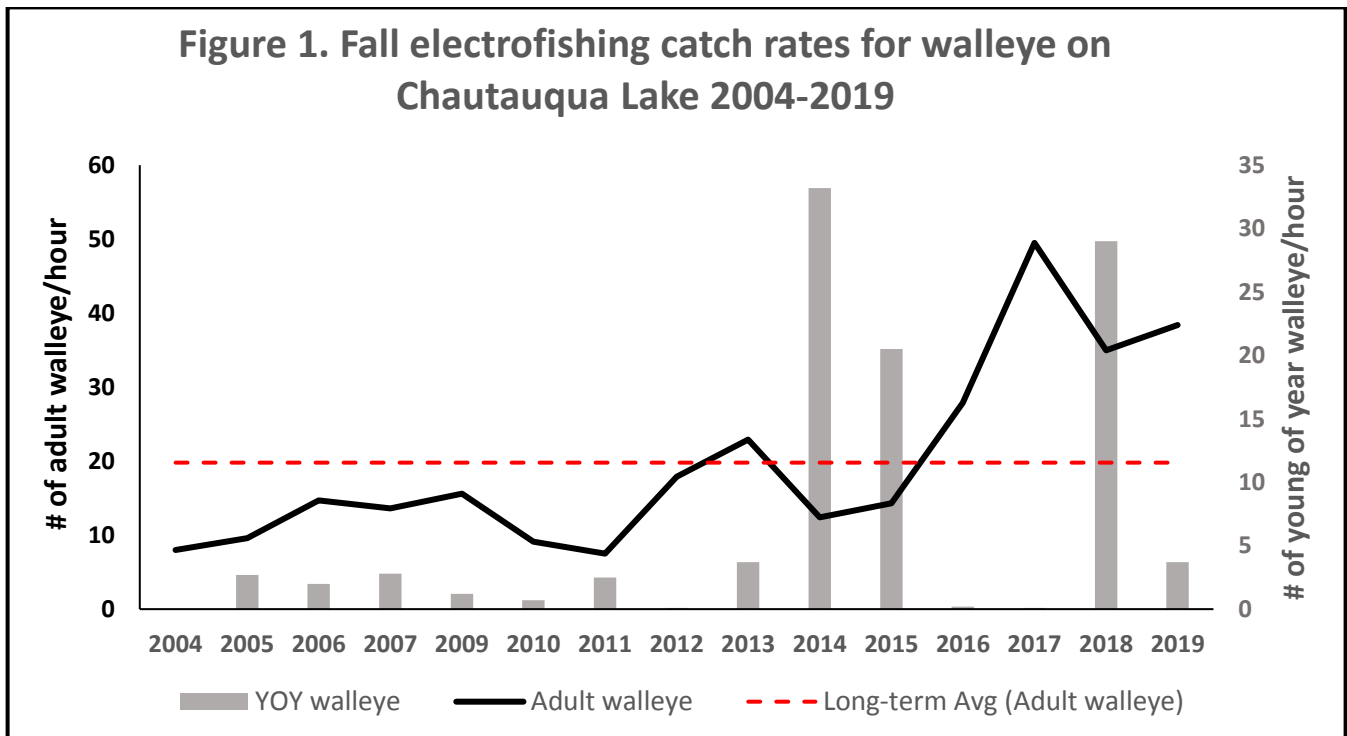
# 2019 Chautauqua Lake Annual Fall Walleye Survey (Survey 919108)

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Chautauqua Lake, located in the upper Allegheny River watershed in Chautauqua County, is the largest inland lake in Western New York with a surface area of 13,156 acres. The eutrophic lake contains two distinctly different basins and is managed as a high quality multi-species fishery with muskellunge, walleye, and black bass being the primary sportfish. Currently, the lake is stocked annually with pure-strain muskellunge fingerlings to maintain the trophy fishery. After a sharp decline in the mid-2000's, the walleye population in Chautauqua Lake has been steadily increasing since 2012 due to the implementation of a special regulation (3 fish/day, 18-inch min. size limit) and a walleye stocking program (2004-2015). The walleye stocking program and special regulation were both discontinued after two of the most abundant walleye year classes on record for Chautauqua Lake were documented in 2014 and 2015. No walleye stocking has occurred in the lake after 2015. Survey results and fishing quality since 2016 indicate that the walleye population appears to have made a remarkable recovery from a decade ago. In early October of 2019, Region 9 fisheries unit conducted its annual fall boat electrofishing survey of Chautauqua Lake to evaluate the overall walleye population and monitor recruitment of those large year classes to the fishery.

**Figure 1. Fall electrofishing catch rates for walleye on Chautauqua Lake 2004-2019**

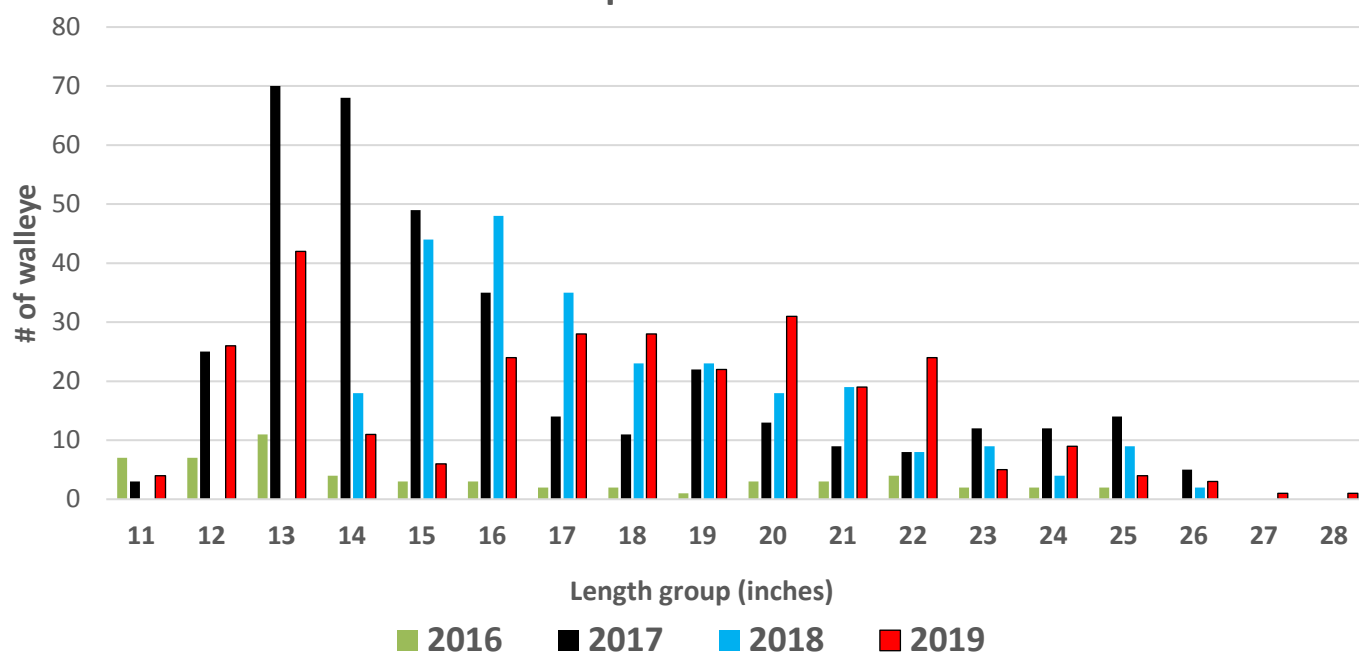


A total of 316 walleye were collected, 28 of which were young of year (YOY). Two hundred eighty-eight adult walleyes (age 1 or older) were caught resulting in a catch rate of 38 adult walleye/hour (Figure 1). Although lower than the record high 2017 catch rate (49.5 walleye/hr), this years' catch rate is still almost double the long-term average for Chautauqua Lake (19.8/hr)



and indicative of a highly abundant walleye population when compared to the statewide average for high abundance (20/hr). Adult walleye ranged in length from 11 to 28 inches with an average length of 18 inches. Over 70% of the adult walleye collected exceeded the legal length limit (15 inches), indicating that the exceptional 2014-2015 year classes experienced good survival rates and are increasing the number of quality size fish available to anglers. About 29% of the adult walleye catch was sub-legal (11-14.5 inches), suggesting that the large 2018 year class is recruiting to the fishable population (Figure 2). There are also healthy numbers of 22 to 28-inch walleyes to be caught and the opportunity to catch trophy walleyes is only expected to increase over the next decade. The catch rate for YOY walleyes (7 to 10.5 inches) in 2019 was 3.7/hour (Figure 1). Although this is substantially lower than the 2018 YOY catch, highly abundant year class production is not expected annually on Chautauqua Lake due to the complex factors involved in successful natural reproduction.

**Figure 2. Length Frequency Distribution of Adult Walleye in Chautauqua Lake 2016-2019**



As anticipated, the walleye population in Chautauqua Lake continues to improve in 2019. Although there was no increase in overall numbers this year, the average length and quantity of harvestable size walleye signify a balanced quality walleye fishery. The occurrence of large successful hatches in three of the last five years is exciting and mimics the last period of high walleye abundance in the late 1990's, which followed large year classes in 1993 and 1996. High-quality walleye fishing is expected to continue in Chautauqua Lake over the next 7 to 10 years, and angler reports during the last couple seasons have been excellent, including several anecdotal reports of walleyes up to 10 pounds. The current walleye fishery in Chautauqua Lake is rivaling "the glory days" of the late 1990's, referenced by seasoned Chautauqua walleye fishermen as a time when catching a limit seemed to be the norm. Statewide angling regulations should continue to be used for walleye in Chautauqua Lake. This survey will continue in the future to monitor the Chautauqua Lake walleye population.