

# Waneta and Lamoka Lakes Muskellunge Survey, 2013 and 2017 (Survey #'s 817010 and 817011)

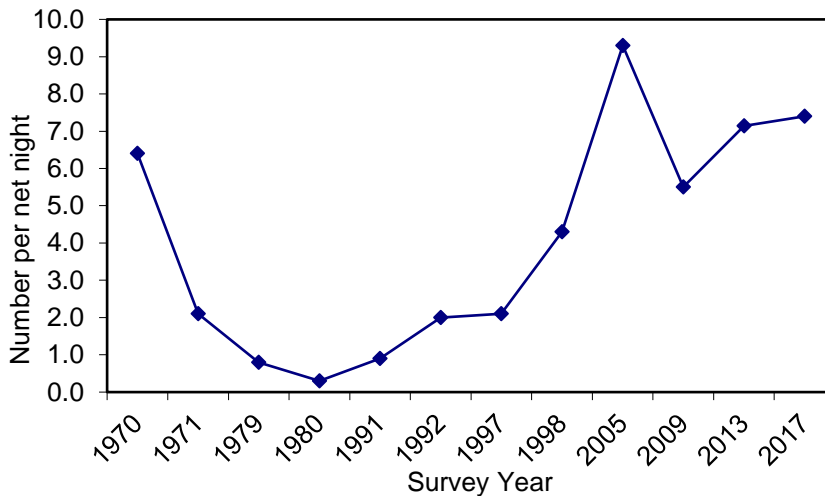
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Waneta Lake (778-acre) and Lamoka Lake (580 acres) are located in northwest Schuyler County. The lakes are connected by an approximately 0.7 mile relatively shallow canal that flows through the Waneta-Lamoka Wildlife Management Area. Public access to both lakes is provided by a DEC Boating Access Site located along CR 23 which crosses the canal. Waneta and Lamoka Lakes are relatively shallow having a maximum depth of 29 and 40 feet, respectively. These highly productive lakes are home to a variety of sport fish including largemouth bass, smallmouth bass and chain pickerel. Additionally, muskellunge are stocked and can be caught in Waneta Lake. The status of the Waneta Lake muskellunge population was last assessed in 2009 (Sanderson and Hammers 2012). Lamoka Lake was stocked with muskellunge from 1954 to 1980 however a fishery did not develop and stocking was discontinued.

Anglers have recently expressed interest in developing a muskellunge fishery in Lamoka Lake by re-implementing the stocking program.

Figure 1. Number of muskellunge caught per net night from three trap net sites set in Waneta Lake in April from 1970 to 2017.



Trapnetting for spawning muskellunge was conducted on Waneta Lake during the month of April in 2013 and 2017 to assess the status of the adult muskellunge population. Fyke nets were set in Lamoka Lake during April 2017 to determine if muskellunge were moving there from Waneta Lake. Additionally, an angler diary program was initiated in 2014, with total number

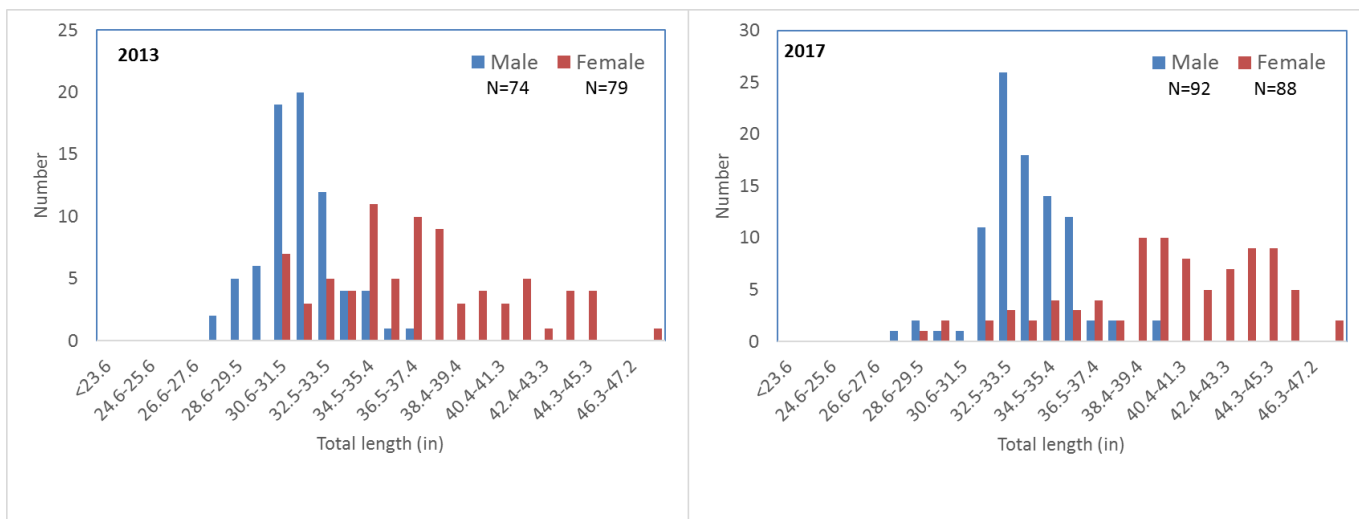
of participants ranging from five to seven anglers annually through 2016.

A total of 157 and 182 muskellunge were collected in Waneta Lake in 2013 and 2017 for a CPUE of 7.1 and 7.4 muskellunge/net night, respectively (Figure 1). Excluding 2005, when catch rates may have been inflated due to the absence of aquatic vegetation as a result of a whole lake herbicide treatment, these were the highest catch rates experienced since netting began in 1970. Ninety-four percent of muskellunge collected were >30 in with 12% >40 in in 2013 while 99% >30 in with 27% >40 in in 2017 (Figure 2). The statewide minimum size limit for muskellunge was increased from 30 to 40 inches beginning April 1, 2015, and included Waneta and Lamoka Lakes. One of the main goals of this regulation was to allow muskellunge to grow to more desirable sizes and give them additional years to spawn. A total of nine year classes



were collected in 2013, with the 2006 year class comprising 33% of the sample. This year class was the second most abundant age class sampled in 2017, preceded only by the 2008-year class. Naturally recruited muskellunge accounted for <10% of the sampled population in both 2013 and 2017. Relative weights for various size groups were >100 in 2013 and <100 in 2017. No muskellunge were collected in Lamoka Lake, even though there is no barrier to migration from Waneta Lake. Unfortunately, no angler trips were reported in Lamoka Lake during this time frame.

Figure 2. Length frequency of male and female muskellunge caught in trap nets set in Waneta Lake in April 2013 and 2017



There does not appear to be any long-term impacts to the muskellunge population in Waneta Lake as a result of the 2005 aquatic vegetation control program. The increase in the muskellunge minimum size limit in April 2015 may have resulted in an increase in the abundance of adult muskellunge and a shift in the size structure toward larger fish. This should benefit anglers looking to catch larger muskellunge in future years. Continued monitoring of both angler catch and periodic trapnetting will help determine if larger fish continue to increase in abundance. An experimental stocking is not recommended for Lamoka Lake due to limited statewide production and no indication that the lake is suitable for muskellunge.

### Literature Cited

Sanderson, M.J., and B.E. Hammers. 2012. Status of the muskellunge population in Waneta Lake. NYS Department of Environmental Conservation, Bureau of Fisheries, Region 8, Avon, New York. 19 pp.