

Waneta Lake Muskellunge and Crappie BPI Survey, 2021 (Survey # 821005)

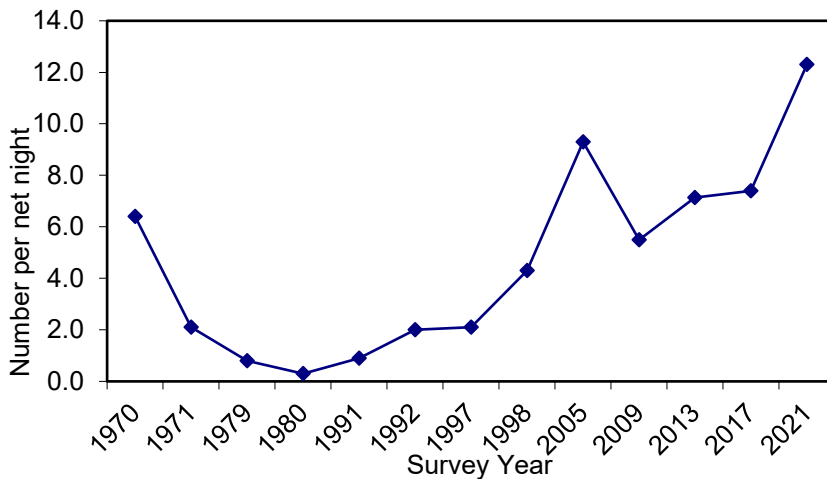
Brad Hammers, Region 8 Fisheries

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Waneta Lake is relatively shallow (maximum depth 29 feet), 778-acre lake located in northwest Schuyler County. Public access is provided by a DEC Boating Access Site at the channel located along CR 23 which also connects to Lamoka Lake. The lake is highly productive and home to a variety of sport fish including largemouth bass, smallmouth bass and chain pickerel, however muskellunge are one the lakes most sought species. The muskellunge fishery is supported by stocking of 4,100 fall fingerlings annually. All stocked fish receive a fin clip to differentiate year class and allow for an assessment of the contribution of stocked fish to the sampled population. The status of the Waneta Lake muskellunge population was last assessed in 2017 (Hammers 2018). Additionally, Waneta Lake black crappie metrics were evaluated as part of the statewide BPI initiative (Loukmas 2020).

Oneida style trap nets were set 12-21 April 2021 to assess the adult muskellunge and black crappie population. All muskellunge and black crappie were measured, weighed, and scales removed for aging. Sex was determined for muskellunge. Age analyses has not been determined to date and is not included in this brief.

Figure 1. Number of muskellunge caught per net night from three trap net sites set in Waneta Lake in April 1970 - 2021.

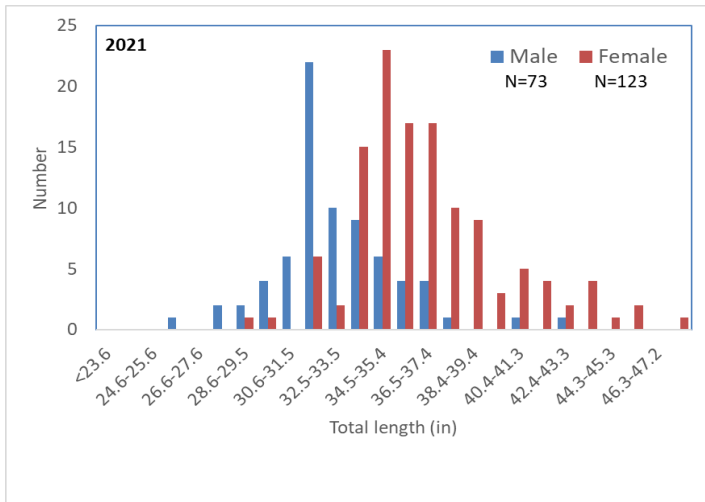


A total of 221 muskellunge were collected in Waneta Lake in 2021 for a CPUE of 12.3 muskellunge/net night (Figure 1). These were the highest catch rates experienced since netting began in 1970. Ninety-seven percent of muskellunge collected were >30 in with 12% >40 in (Figure 2). These percentages were very similar to 2017. The largest muskellunge was 48 in and weighed 40 lbs.

The statewide minimum size limit for muskellunge was increased from 30 to 40 inches beginning April 1, 2015. PSD, RSD-preferred, and RSD-memorable size groups were 96.8, 19.9, and 7.2, respectively. Naturally recruited muskellunge accounted for 9.3% of the sampled population, similar to results from recent surveys. Relative weights for stock, quality, preferred and memorable size groups were 87.7, 94.8, 98.5, and 101.6, respectively.



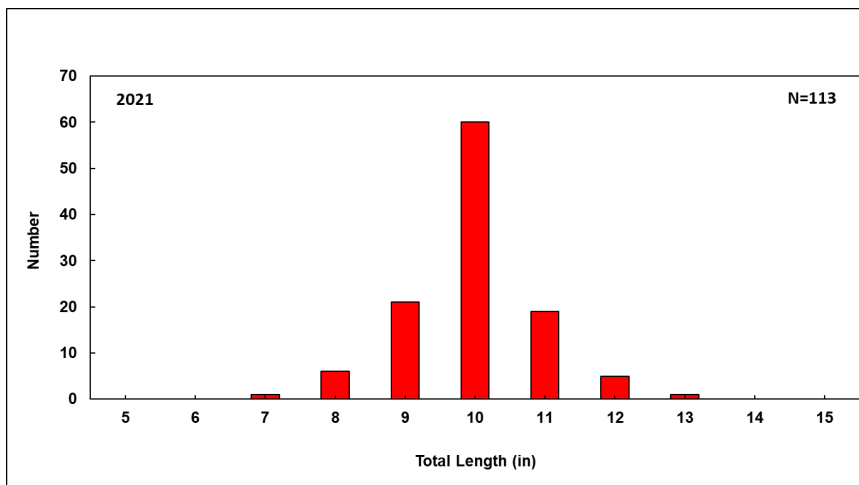
Figure 2. Length frequency of male and female muskellunge caught in trap nets set in Waneta Lake in April 2021.



The muskellunge population in Waneta Lake continues to provide anglers good opportunities to catch 30+ in muskellunge with a chance at a memorable sized fish. Relative condition indicates available forage is adequate. Population characteristics continue to remain stable.

A total of 113 black crappie were collected all of which were stock size. Catch rate was estimated at 6.3 crappie/net night. Water temperatures ranged from 50 to 54 F, the lower end of the preferred sampling protocol. PSD, RSD-preferred, and RSD-memorable were 99.1, 79.7, and 9.7, respectively. Seventy-five percent of the black crappie collected were > 10 in, the size limit enacted in 2022 (Figure 3). Overall

Wr was 98.0, with relative weights for stock, quality, preferred and memorable size groups at 87.7, 94.8, 98.5, and 101.6, respectively.



Data from this survey will assist in the evaluation of an increased minimum size limit for black crappie statewide. Waneta Lake appears to be able to grow crappies > 10 in. Population characteristics of black crappie can be compared to other waters being surveyed with similar protocol to determine if Waneta Lake should be considered for future management options to create a high-quality crappie fishery.

Figure 3. Length frequency of black crappie caught in trap nets set in Waneta Lake in April 2021.

Literature Cited

Hammers, B.E. 1018. Waneta and Lamoka Lakes muskellunge survey 2013 and 2017. Technical Brief #2018113. NYSDEC Bureau of Fisheries. 2 pp.

Loukmas, J. 2020. New York sunfish and crappie trap netting protocol. NYSDEC BOF Report #: 9pp.