

# Catharine Creek and Tributaries Spring Rainbow Trout 2022 (Survey #'s: 822002, 822003, and 822004)

Brad Hammers, Region 8 Fisheries

12/30/22

Catharine Creek is known for its annual spring rainbow trout spawning migrations. Catharine Creek originates in northern Chemung County and flows in a northerly direction until it joins Seneca Lake at Watkins Glen. Numerous tributaries, including Sleeper Creek and Havana Glen, join Catharine on its course to Seneca Lake. The stream and its tributaries provide excellent spawning and nursery habitat for rainbow trout. Although rainbow trout spawning occurs in other tributaries, Catharine Creek and its tributaries support the majority of rainbow trout production for Seneca Lake. Fishing for these large Finger Lakes strain rainbow trout draws anglers from outside of the local area. Public access is provided at several DEC Angler Parking Areas and nearly 8 equivalent miles of Public Fishing Rights. Due to angler concerns and reduced numbers sampled, beginning in 2012, 10,000 Finger Lakes strain rainbow trout yearlings have been stocked annually.

The spring rainbow trout run in Catharine Creek and tributaries Sleeper Creek and Havana Glen Creek (McClure Creek) were sampled using backpack electrofishing gear on March 21 and 22, 2022. High stream flows (i.e., >150 cfs) prevented surveys earlier in the month. Similar surveys have occurred on Catharine Creek since the 1950's, although effort and location may have changed over the years. The survey was conducted to assess the rainbow trout spawning run, evaluate sea lamprey wounding and scarring, and inform the public of prospects for the upcoming trout season.

A total of 68 adult rainbow trout were collected with average size at 19.4 inches and ranging in size from 11.1 – 27.2 inches (Figure 1). Average weight of fish collected was 2.9 pounds and ranged from 0.4 to 7.2 pounds. Fish ranged from ages 2-8, with 64% of the fish age 4 or from the 2018 year class. Rainbow trout appear to be growing fast with fish reaching the 15-inch minimum size limit between ages 2 and 3.

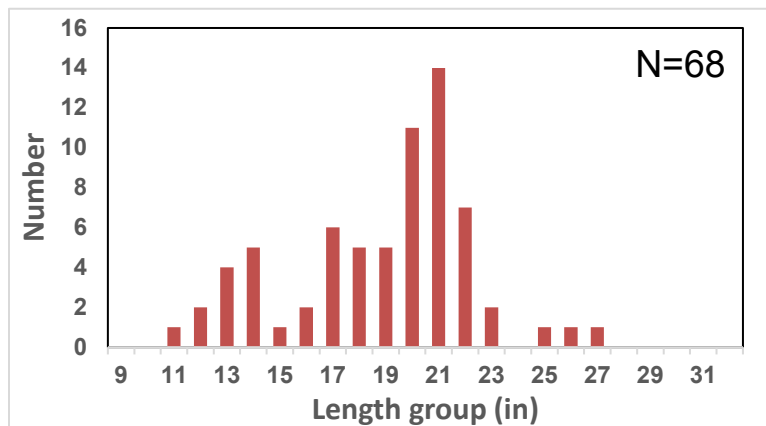


Figure 1. Size distribution of rainbow trout collected from Catharine Creek and its tributaries March 21-22, 2022.

Sea lamprey wounding/scarring rates for rainbow trout 500-599 mm in length was 1.40 wounds/scars/fish, slightly lower than last year. This attack rate is still above the 1.0 wounds/fish (Type I-IV) threshold objective for Seneca Lake (Figure 2). However, rates are dropping and are likely a result of successful treatments on Catharine Creek, Catharine Canal, and Keuka Lake



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Outlet conducted in 2021. Adult lamprey present in the lake in 2021 are not susceptible to the treatments would account for reported wounding/scarring rates observed in 2022 rainbow trout. The lamprey likely spawned and died in spring 2022. Rainbow trout wounding/scarring results should continue to decrease in 2023. Results from extensive sea lamprey larvae surveys conducted in 2021 and 2022 should increase the efficiency and effectiveness of the next treatments scheduled in 2024. These efforts should minimize lamprey populations impacts on the rainbow trout, as well as other fishes, in Seneca Lake soon.

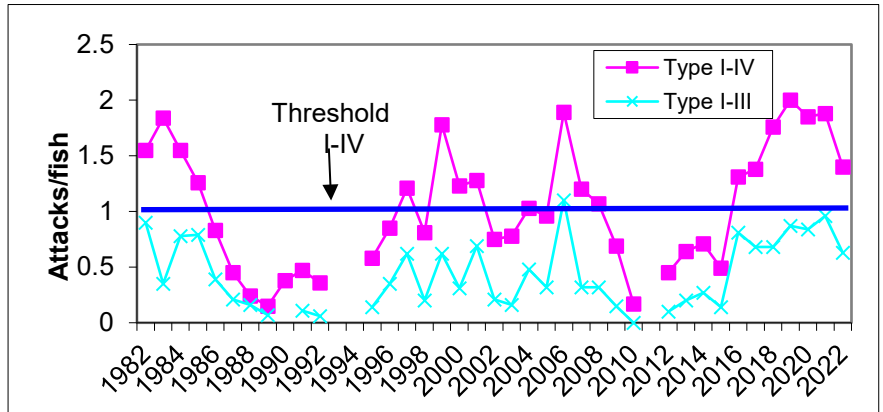


Figure 2. Sea lamprey wounding rates of rainbow trout 500-599 mm collected from Catharine Creek using backpack electrofishing gear during the spring spawning run, 1982-2022.

Most rainbow trout were collected in the upstream reaches of Catharine Creek. High stream flows delayed proposed sampling and likely allowed fish to move further upstream prior to sampling. Nearly 20% of all fish were collected at a new site which was located upstream of the historically most upstream site. Fish were actively spawning in this area. Based on stream flows encountered during this survey, future sampling should not be conducted if flows exceed 130 cfs at Genesee Street bridge as measured by the USGS gaging station.

