

Wiscoy Creek Trout Habitat Enhancement Survey

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On August 21 and 22, 2023, Wiscoy Creek, located near the Town of Pike in southern Wyoming County, was sampled at two locations by NYSDEC Region 9 Fisheries staff and angler volunteers. The purpose was to evaluate the effectiveness of three types of in-stream structures for supporting a high adult wild trout abundance in sections of stream where cooperative projects (NYSDEC, Trout Unlimited, Wyoming County SWCD, USFWS) occurred in 2000, 2005 and 2022. The projects stabilized stream banks and provided in-stream adult trout habitat. The type of structures that we sampled in the 2000 and 2005 work section, located at the Wyoming County Fairgrounds, included log cribbing and tree revetments combined with extensive riparian tree and shrub planting. The structures evaluated from the 2022 project were LUNKERS (artificial undercut banks). Both sampling sites in this high-quality wild trout stream are managed with Wild-Premier fishing regulations and were in sections with Public Fishing Rights easements.

This survey utilized two-pass electrofishing to assess the trout populations. At the 2022 project site, a 115-foot section utilizing LUNKER structures produced 20 adult (yearling-and-older) wild brown trout. At the Fairgrounds projects built in 2000 and 2005, a 600-foot section yielded 136 adult wild brown trout. Sampling conditions were good and first run capture efficiencies were excellent at both sites (82% and 90%). Large wild brown trout exceeding 15-inches were captured in both sites during our survey, including 20-inch fish in the LUNKER structures (Figure 1) and at the Fairgrounds cribbing structures (Figure 2).

Based on our electrofishing catch, the estimated adult wild trout abundances in this survey were 952 wild brown trout/mile at the 2022 project site and 1,193 wild brown trout/mile at the Fairgrounds site. Brown trout abundance at the 2022 site was higher than we found in both 2021 (593 fish/mile) and 2022 (645 fish/mile) prior to the project being completed. The Fairgrounds site has been sampled 12 times since the 2005 project was completed and although there has been considerable variation in trout abundance, it has been consistent with trends at other sites on the stream and continues to produce a high abundance of wild trout (Table 1). It appears that the habitat enhancement techniques used in these projects have all been successful in supporting high wild trout abundances.

Figure 1. 20-inch wild brown trout captured in the 2022 LUNKER project on Wiscoy Creek.



Figure 2. 20-inch wild brown trout captured in the 2000/2005 Wiscoy Creek projects at the Fairgrounds. This same fish had also been captured in the same pool in 2021 and 2022.



Table 1. Adult wild brown trout population abundance estimates (number of fish per mile) in NYSDEC surveys at the Wyoming County Fairgrounds sampling site on Wiscoy Creek, 2006-2023.

<u>2006</u>	<u>2009</u>	<u>2012</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
1,596	1,105	1,404	289	500	649	465	807	1,035	772	956	1,193