## **Bureau of Fisheries Technical Brief #tb923007**



## Wiscoy Creek Romiskiny Strain Stocked Trout Survey Scott Cornett, Region Nine Fisheries

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On June 20, 2023, Region 9 Fisheries staff, assisted by angler volunteers, conducted an electrofishing survey at one site on Wiscoy Creek in Allegany County for the purpose of looking for trout that had been stocked upstream in its major tributary, East Koy Creek. In 2012 and 2013, during routine electrofishing surveys on Wiscoy Creek at a site located below large waterfalls in the Village of Wiscoy, we encountered substantial numbers of marked trout that had been stocked several miles upstream in East Koy Creek. This indicated these stocked trout (almost all from the March stocking increment) had a propensity to migrate downstream out of the stocked reach of East Koy Creek. In 2022 and 2023, East Koy Creek was used as one of several streams statewide for evaluating whether a hybrid strain of brown trout (wild x domestic strain cross, hereafter Romiskiny strain) would survive through the first three months of the trout harvest season in greater numbers than the straight domestic strain of brown trout. As part of that evaluation, we sampled a substantial length of East Koy Creek (2.2 miles) at five sites throughout the stocked reach (Survey 923006). Since all the yearling trout of both strains stocked in East Koy Creek in 2023 were marked with a fin clip, we decided to again sample the site in Wiscoy Creek to determine if stocked trout of either strain were moving downstream into Wiscoy Creek, and if so, whether there was a difference in movement by strain.

The sampling site on Wiscoy Creek was 810 feet in length, beginning 400 feet below the Wiscoy Road bridge and extending upstream to the base of a 6-foot waterfall. A single electrofishing pass was completed, collecting a total of 98 brown trout. Of the total, 63 were wild brown trout ranging from 6.3 - 21.1 inches. Twenty of the wild brown trout captured were greater than 16 inches (Figure 1). Thirty-five yearling hatchery brown trout with a fin clip - all but one domestic strain - from East Koy Creek were captured at this site.

The fact that only one of the stocked yearling trout captured was Romiskiny strain indicates that straight domestic strain brown trout stocked in East Koy Creek were much more likely to migrate downstream out of the stocked reach. Interestingly, on a per mile basis (to account for vastly different lengths of stream sampled), we captured a much higher density of stocked domestic strain brown trout at our site on Wiscoy Creek (222 fish/mile) than we found where they had been stocked in East Koy Creek (40 fish/mile). One explanation for this may be that as water temperatures began to increase toward stressful levels for trout in lower Wiscoy Creek, fish that had been spread out downstream of the falls towards its junction with the Genesee River moved upstream to find cooler, more oxygenated water below the falls and thus were more concentrated. In any case, it appears that substantial numbers of domestic strain yearling trout stocked into East Koy Creek are moving out of the stocked reach while Romiskiny strain fish may not be. Our results in 2023 mirror the results we found at this site in 2022 (Survey 922003).



Figure 1. Large wild brown trout captured in 2023 sampling on Wiscoy Creek below Wiscoy Falls.

