## **Bureau of Fisheries Technical Brief #tb922009**

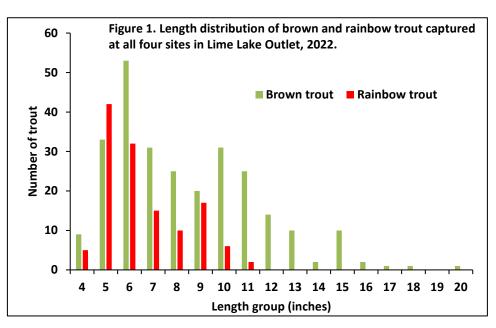


## Lime Lake Outlet Trout Population Estimate Scott Cornett, Region Nine Fisheries

12/14/2022

Lime Lake Outlet, a tributary of Elton Creek and eventually Cattaraugus Creek in northeastern Cattaraugus County, provides a high-quality fishery for wild brown and rainbow trout. This stream has abundant fishing access with public fishing rights easements totaling 4.4 miles. Lime Lake Outlet has been managed solely as a wild trout fishery since 1993, when stocking was ended. The entire stream from its mouth to Lime Lake is managed with a "Wild-Premier" designation, having a year-round open season, including catch and release – artificial lures only from October 16 through March 31. From April 1 through October 15, one fish/day of any size may be harvested. In 2022, as part of New York State's trout stream management plan, the stream was sampled by electrofishing at four sites to estimate the adult wild trout population abundance and biomass. Two sites have been sampled nine times and two have been sampled 14 times between 1992 and 2022 (Table 1). In all sampling years, trout population abundance was estimated from two electrofishing passes.

In 2022, at our four sites (totaling 1,965 feet of stream), we captured 268 yearling and older (adult) brown trout along with 129 adult rainbow trout. Adult brown trout ranged in length from 4 to 20 inches (Figure 1), with an average length of 8.9 inches. Adult rainbow trout averaged 6.9 inches and ranged in length from 4 to 11 inches. Table 1 below presents the number of brown and rainbow trout found on a per mile basis at each of



our four sampling sites in all sampling years. At the Mill Street site, adult brown trout abundance in 2022 was 560 fish/mile ( $\pm 10$ ) and 220 fish/mile ( $\pm 0$ ) for adult rainbow trout and at our site below Worden Road, the abundance was 820 fish/mile ( $\pm 38$ ) and 292 fish/mile ( $\pm 19$ ) for brown trout and rainbow trout, respectively. In 2022, we found 836 adult brown trout/mile ( $\pm 13$ ) and 918 adult rainbow trout/mile ( $\pm 14$ ) at our site below McKinstry Creek, while at the site upstream of the Fisherman Parking Area on Route 16, abundance was 720 fish/mile ( $\pm 11$ ) and 97 fish/mile ( $\pm 11$ ) for brown trout and rainbow trout, respectively. For all sites in 2022, the average abundance of adult brown and rainbow trout combined was 1,070 fish/mile and the average biomass was 137 lbs/acre.



The average abundance and biomass of adult brown and rainbow trout in Lime Lake Outlet in 2022 was more than double the minimum values needed for its inclusion in the "Wild-Premier" management category. Following the removal of stocking trout in Lime Lake Outlet, we observed a general increase in wild rainbow trout abundance at most of our sites after 1992 (Table 1). At all our sites, we observed no significant long-term trends in wild trout abundance, with considerable year to year variation observed (Table 1). Relatively high numbers of young-of-year brown trout were captured at all sites in 2022, while the numbers of young-of-year rainbow trout were considerably lower. Based on this year's sampling, it appears Lime Lake Outlet will continue to provide very good fishing for anglers wishing to pursue wild brown and rainbow trout, with the more catchable rainbow trout providing high catch rates and the relatively abundant number of larger brown trout providing trophy opportunities.

Table 1. Adult wild brown trout (BT) and rainbow trout (RT) population estimates (<u>fish per mile</u>) for Lime Lake Outlet, 1992-2022.

	Mill Street		Worden Road		Blw McKinstry Cr		Above FPA	
<u>Year</u>	<u>BT</u>	<u>RT</u>	<u>BT</u>	<u>RT</u>	<u>BT</u>	<u>RT</u>	<u>BT</u>	<u>RT</u>
1992	659	35	1224	153	671	224	376	0
1994	570	43	652	67	859	306	529	12
1996	404	70	930	130	920	290	546	45
1998	718	176	859	365	1034	494	1099	11
2000	370	213	686	79	887	371	593	22
2002	532	568	763	566	809	708	736	11
2007	531	790	411	800	483	1045	901	22
2014	260	154	204	634	195	524	714	36
2016	375	125			918	260		
2017	279	260			726	753		
2018	330	250			575	521		
2019	320	160			630	466		
2020	620	260			699	863		
2022	560	220	802	292	836	918	720	97