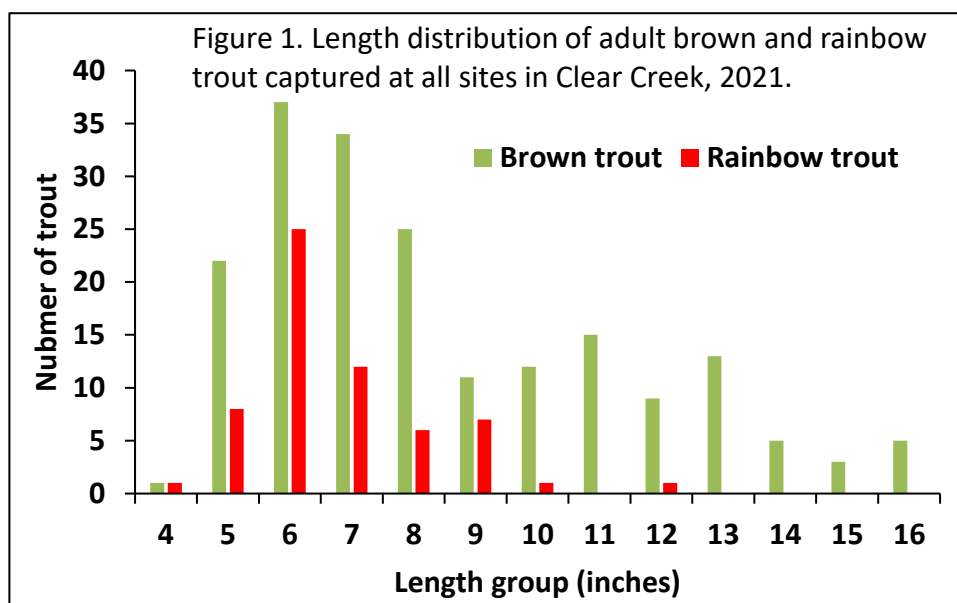


Clear Creek (Arcade) Trout Population Estimate

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Clear Creek is a tributary of upper Cattaraugus Creek in northeastern Cattaraugus and southwestern Wyoming Counties, providing a high-quality fishery for wild brown and rainbow trout. This stream has abundant fishing access, including 5.5 miles of public fishing rights easements. Clear Creek has been managed solely as a wild trout fishery since 1992. Clear Creek is currently 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 of any size may be harvested. In the late summer of 2021, as part of New York State’s trout stream management plan, the stream was sampled in the “Wild-Premier” section by electrofishing at four sites. Combined, the sites totaled 2,145 feet of stream. Our sites had been sampled from 8 to 13 times previously between 1995 and 2020. In all years, adult trout population abundance was estimated from two electrofishing passes.



In 2021, we captured 192 yearling and older (adult) wild brown trout along with 61 adult wild rainbow trout. Adult brown trout ranged in length from 4 to 16 inches (Figure 1), with an average length of 8.9 inches. Adult rainbow trout averaged 7.2 inches and ranged in length from 4 to 12 inches. Adult brown trout abundance in 2021 at our sites ranged from 313 to 622 fish/mile, while adult rainbow trout abundance ranged from 44 to 386

fish/mile (Table 1). For all sites and both species combined, in 2021 the average abundance of adult trout was 623 fish/mile, and the average biomass was 65 lbs/acre. These values exceeded the minimum criteria for inclusion in the “Wild-Premier” management category.

Clear Creek is a stream with ever-changing instream trout habitat due to its steep gradient and substrate of mainly cobble, gravel and sand. Poor land use practices and increasing suburbanization are negatively affecting the stream’s riparian areas. This combined with more frequent and intense rainfall events cause the adult trout habitat at our fish sampling sites to vary considerably from one year’s sampling to the next. This is reflected in the adult trout population densities we have measured from 1995 to 2021. Looking at adult trout abundances in Table 1, we see no discernable long-term population trends for either brown or rainbow trout. For adult brown trout, at our four sites in 2021, we saw increased abundance at three of the sites. One



notable finding from our recent survey work on Clear Creek is that the adult rainbow trout abundance has fallen dramatically at our three downstream most sites. The abundance values in 2021 were a small fraction of what we measured at all four sites from 1995 to 2014. This decline in adult rainbow trout corresponds with reductions in abundance observed for many other Region Nine streams in recent years. Potential causes are increased predation and reduced reproductive success from impacts of high flows in critical periods through the spring or some other factors that are not conducive to rainbow trout reproduction and/or adult trout survival. It should be noted that the adult brown trout population has not increased to replace the adult rainbow trout, thus it may be that overall habitat and carrying capacity for trout has declined in Clear Creek over time, with rainbow trout being the most affected. At three of the four sampling sites in 2021, numbers of young-of-year brown trout captured were high relative to recent years, with the number at the Jones Road site being the highest we have measured in any year. Conversely, numbers of young-of-year rainbow trout captured were very low at three of the four sites, with the other site (near Sandbank Road) having the highest number captured in any of the 14 sampling years. Despite the observed reductions in adult trout abundance, Clear Creek should continue to provide good fishing for anglers wishing to pursue wild brown and rainbow trout, with the highly catchable rainbow trout providing much of the catch.

Table 1. Adult wild brown trout (BT) and rainbow trout (RT) population estimates (fish per mile) for Clear Creek (Arcade), 1995-2021 and average for all years.

Year	Behind Foamex		Near Bray Road		Jones Road		Near Sandbank Road	
	BT	RT	BT	RT	BT	RT	BT	RT
1995	781	1132	884	905	1211	1684	389	695
1996	615	538	490	490	559	784	375	279
1997	379	609	164	455	412	947	281	351
1998	953	323	563	328	1135	639	443	670
2000	857	643	528	462	676	929	444	1167
2002	681	819	670	1113	1196	1216	558	590
2007	406	1208	711	1500	1064	1538	526	882
2014	236	392	419	538	437	782	184	855
2016	598	78	---	---	---	---	575	163
2017	500	175	---	---	---	---	303	684
2018	407	102	---	---	---	---	313	361
2019	383	68	---	---	---	---	181	301
2020	447	26	---	---	---	---	277	253
2021	387	44	622	81	598	152	313	386
Avg.	545	440	561	652	810	963	369	546