

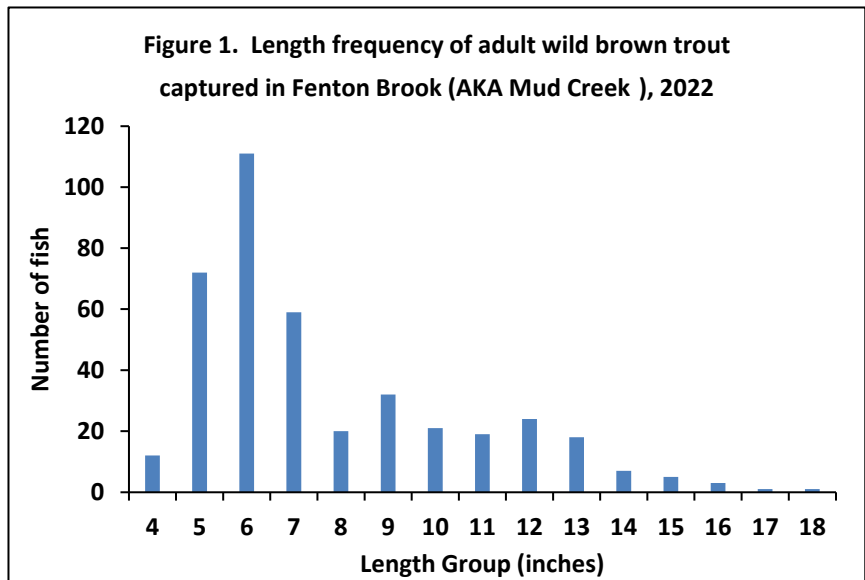
# Fenton Brook (aka Mud Creek) Trout Population Estimate

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Fenton Brook, also known as Mud Creek, is a tributary of Conewango Creek, located in western Cattaraugus County. This 11-mile-long stream has been managed as a wild trout fishery since stocking was discontinued in 2002, due to a high abundance of wild brown trout. The stream from its mouth to County Route 6 downstream of Fancher Hill Road is managed with a “Wild-Quality” 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, three fish may be harvested, only one of which can be >12 inches. Fishing access to this stream is on the extensive non-posted, private lands, as there are no public fishing rights (PFR) easements available. We are currently in the process of obtaining PFR on segments of this stream. In 2022, as part of New York State’s trout stream management plan, the stream was sampled by electrofishing at three sites totaling 2,220 feet to estimate the adult wild trout population abundance and biomass. These sites had been sampled from 3-11 times between 1992 and 2021. In 2013-2022 surveys, trout population abundance was estimated from two electrofishing passes. In previous years we used one-pass methodology.

In 2022, we captured 405 yearling and older (adult) wild brown trout, ranging in length from 4-18 inches and averaging 8.1 inches (Figure 1). The average estimated abundance of adult wild brown trout in 2022 for all three sampling sites was 990 fish/mile ( $\pm 41$ ), ranging from 856-1167 fish/mile. Average adult brown trout biomass was also high this year at 115 lbs/acre. The number of young-of-year (YOY) brown trout captured in the first electrofishing pass at the three sites (5,000, 1,263 and 495 YOY/mile),



indicated excellent reproductive success, in 2022. Adult trout habitat was of good quality, consisting of limited boulder cover, undercut banks and deep pools. The habitat in our sites appears to be representative of the middle four miles of this stream, which is superior to areas farther downstream and upstream.

The average abundance and biomass of wild brown trout in Fenton Brook in 2022 greatly exceeded the values needed for its inclusion in the “Wild-Quality” management category. Our middle sampling site, located downstream of the Village of Leon, has 12 years of sampling data over the last 30 years and adult brown trout abundance has varied considerably, particularly since



2018, with no significant long-term trend apparent (Figure 2). However, the abundance in 2022 was the highest we have measured. As with adult abundance, the numbers of YOY brown trout captured have varied over the sampling years at our middle site; however, the numbers captured in 2017-2022 have all been moderate to high, with the 2021 and 2022 values the highest we have measured. Based on angler reports, a limited population of wild rainbow trout still exists in Fenton Brook, however none were captured in our 2022 sampling. They were found to be moderately abundant between 2002 and 2012 surveys but appear to have declined since then. The origin of these fish is unknown, but un-permitted transfer by anglers in the late 1990s is suspected. Based on this year's sampling, Fenton Brook should continue to provide quality angling for those wishing to pursue wild brown trout and the occasional wild rainbow trout in a small stream setting.

