

Falls Brook Biological Survey # 521078
Tom Shanahan, Region 5 Fisheries

4/8/2022

Falls Brook (C-48-34-4-1) is a small Champlain watershed stream in the Town of Elizabethtown in Essex County. The brook starts on the eastern flank of Hurricane Mountain at an elevation of approximately 2,400 feet. The area near the source is within the Hurricane Mountain Wilderness, but the lower two thirds of the brook flows through private lands. There is a foot trail to Hurricane Mountain that crosses the brook and that was our lone sampling point. The lower part of Falls Brook has been periodically stocked with landlocked Atlantic salmon fry as part of the Lake Champlain restoration effort; it is not stocked otherwise. This was a general biological survey, the first since 1929 according to our records.

A 300-foot segment was sampled with a backpack electrofishing unit in October 2021. Despite seemingly good habitat for wild brook trout, no fish species were captured or observed. The streambed consisted primarily of boulders, cobble, and gravel with a handful of nice pools interspersed throughout the section. The site featured complete overhead tree cover and it is unlikely that this headwater reach becomes too warm for brook trout survival. Though Adirondack mountains streams typically have poor productivity, as reflected in depressed conductivity values, the reading of 9 $\mu\text{mhos/cm}$ at Falls Brook was among the lowest we have recorded for streams. The efficiency of an electrofishing backpack is reduced at those levels, so that may have been a contributing factor in the lack of fish.

The water levels in Adirondack streams were generally quite good in 2021, so conditions in Falls Brook at the time of this survey may not be representative of a typical year. The sampling site was near the upper limits of this stream; therefore, it is not difficult to imagine water levels in dry years being too low to support fish. No management recommendations for this brook other than periodic monitoring.

