## **Bureau of Fisheries Technical Brief #tb521040**



## Blue Brook General Biological Survey (Survey #521040) Chris Powers, Region 5 Fisheries

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Blue Brook is a small tributary stream to Kayaderosseras Creek near the town of Greenfield, Saratoga County, New York. The 3.1-mile-long stream drains an area of 1.72 square miles, 94.7% of which is forested (U.S. Geological Survey, 2022). Public access to the stream is somewhat limited, however a portion of the brook crosses through a corner of Daketown State Forest. Despite limited public access the current survey sought to evaluate the status of wild trout and the fish community in the stream as part of a larger effort to better understand wild trout distribution and prioritize restoration and conservation efforts in the Kayaderosseras Creek Watershed.

One 200' long site downstream of the Coy Road crossing was surveyed using single-pass backpack electrofishing on July 15, 2021. Water quality metrics and stream characteristics were recorded prior to the surveys. The stream was small, only 5 feet wide on average; however, water temperatures appeared to be suitable for trout at 64.2°F. The substrate of the stream was predominately sand and gravel with a moderate presence of fish cover in the form of woody debris and undercut banks.

Two brown trout and eight brook trout were captured during a single pass of backpack electrofishing, (Table 1). Brown trout ranged in size from 1.9-2.0 inches, while the brook trout captured ranged from 2.0-4.6 inches (Figure 1). All the fish captured during this survey were of wild origin.

Table 1. Numbers caught and total length ranges of fish from Blue Brook in 2021.

Species	Number caught	Size range (inches)
Brown Trout	2	1.9 - 2.0
Brook Trout	8	2.0 - 4.6

Despite being a small, narrow stream, Blue Brook supports wild populations of both brook and brown trout. Although this stream may not be a popular destination for anglers due to its small size and small fish, it may influence trout populations in the watershed as a whole. The stream provides at least some suitable spawning and nursery habitat, as evidenced by the presence of young trout. Fish produced in the brook may migrate to the larger Kayaderosseras Creek contributing to the population and fishing opportunities

Figure 1. Trout Length Frequency Distribution 7 Number of Individuals 6 ■ Brook Trout 5 ■ Brown Trout 4 2 2 3 5 6 9 10 1 8 Total Length (nearest inch)



there. Furthermore, the cool waters of the stream may serve as a thermal refuge for trout when temperatures increase in the mainstem Kayaderosseras during the summertime.
The local chapter of Trout Unlimited has expressed interest in conducting restoration projects in the Kayaderosseras Creek Watershed. Protection and restoration of quality stream habitat and promotion of aquatic connectivity in cool water tributaries like Blue Brook should be a priority. Attentive NYS DEC regulatory oversight of any stream disturbance projects on this brook should be employed to prevent stream degradation and maintain the status of this wild trout stream.
<u>Literature Cited</u>
U.S. Geological Survey, 2021. The StreamStats program online at <a href="https://streamstats.usgs.gov/ss/">https://streamstats.usgs.gov/ss/</a> >. 04 Jan 2022.