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Frink Brook General Biological Survey (#521063)

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Frink Brook is a small tributary stream to Kayaderosseras Creek near the town of Middle Grove, Saratoga County. The 5.06 mile-long stream drains an area of 2.15 square miles, 98.9% of which is forested (U.S. Geological Survey, 2022). Public access to the stream exists from Middle Grove State Forest off Middle Grove Road. A survey was conducted on this portion of the stream in 2006 and numerous wild brook trout were captured (NYSDEC, 2021). Despite limited public access near the brook mouth the current survey sought to evaluate the status of wild trout and the fish community in that area, below a fish migration barrier, as part of a larger effort to better understand wild trout distribution and prioritize restoration and conservation efforts in the Kayaderosseras Creek Watershed. Access to the stream was granted via a private landowner.

Two sites (230 & 200' long) between the brook mouth and the Camp Stomping Ground pond dam were surveyed using single-pass backpack electrofishing on September 9th, 2021. Water quality metrics and stream characteristics were recorded prior to the surveys. The stream was 15 feet wide on average with a predominately gravel, sand and cobble bottom. The lower site near the mouth was characterized by lower gradient and more cover in the form of woody debris. Water temperatures averaged 65.0°F at the time of sampling.

Ten brown trout and four brook trout were captured in addition to nine other common stream dwelling species (Table 1). All the trout were captured at the uppermost site. Brown trout ranged in size from 1.6-6.6 inches, while all the brook trout captured were young-of-year fish three inches or less in length (Figure 1). All the fish captured during this survey were of wild origin.

Table 1. Number and total length ranges of fish captured from Frink Brook in 2021.

Species	Number caught	Size range (inches)
Brown Trout	10	2.2 – 6.3
Brook Trout	4	2.7 – 3.0
Central Mudminnow	1	2.6
White Sucker	4	2.4 – 6.8
Common Shiner	7	2.2 – 2.6
Eastern Blacknose Dace	194	1.3 – 3.0
Longnose Dace	47	1.6 – 3.8
Northern Redbelly Dace	3	1.9 – 2.2
Tessellated Dater	6	2.1 – 2.6
Creek Chub	31	1.9 – 4.4
Cutlips Minnow	2	3.4 – 4.0

Frink Brook supports a wild population of brook and brown trout. Less trout were captured then what we expected knowing that numerous brook trout were captured in the stream during the

2006 survey. It is possible that the pond and dam upstream of the sampling sites play a role in warming the stream, potentially impacting habitat suitability for trout. Water temperatures were 65.0°F at the time of sampling, and although these temperatures are not lethal to trout, they are on the higher end of the suitable range for both species. In some years the warming effect of the pond may contribute to conditions in the stream below that are entirely unsuitable for trout. Nonetheless, this stream may not be a popular destination for anglers due to its small size and relatively 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 there.

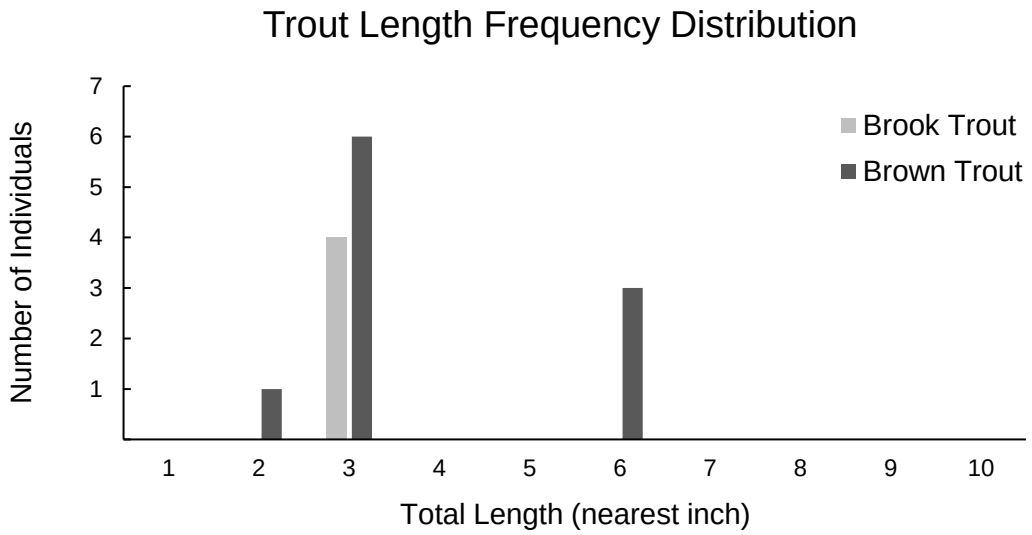

Figure 1. Trout length frequency distribution at site located ~300 feet upstream from mouth.

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 tributaries like Frink 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.

Literature Cited

New York State Department of Environmental Conservation Bureau of Fisheries, 2021. Statewide Fisheries Database, Version 75. 18 DEC 2021.

U.S. Geological Survey, 2022. The StreamStats program online at <https://streamstats.usgs.gov/ss/ >. 04 Jan 2022.