

**Gasher Brook General Biological Survey (#521032)**  
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Gasher Brook is a small tributary stream to Kayaderosseras Creek near the town of Greenfield, Saratoga County. The 4.26-mile long stream drains an area of 3.21 square miles, 95.3% of which is forested (U.S. Geological Survey, 2021). The stream runs through Daketown State Forest, providing anglers who wish to fish this small brook public access. The purpose of this survey was 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.

Two sites were surveyed on the brook using single-pass backpack electrofishing. The first site (400' long) located downstream of Coy Road and the second site (288' long) located just upstream from the confluence with Kayaderosseras Creek were sampled on July 2<sup>nd</sup> and 8<sup>th</sup>, respectively. Water quality metrics and stream characteristics were recorded prior to the surveys. The stream was 14 feet wide with an abundance of gravel and cover in the form of woody debris at both sampling locations. Water temperatures were 59.1°F and 60.5°F at the time of sampling at each site.

Ninety-eight brown trout and thirty brook trout were captured across the two sites, in addition to seven other common stream dwelling species (Table 1). Trout ranged in size from 1.4 – 11.8 inches, the catch was dominated by young-of-year fish (Figures 1 & 2). The largest fish captured, an 11.8" brook trout had fin erosion suggesting it was a hatchery reared fish, its origin is unknown as this brook is not stocked by the DEC and no private entity stocking permits have been issued for the stream. Brown trout appear to be the most dominant fish species in this water, more so than native brook trout.

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

Species	Number caught	Size range (inches)
Brook Trout	30	1.7 – 11.8
Brown Trout	98	1.4 – 9.4
Cutlips Minnow	1	3.0
Eastern Blacknose Dace	40	2.0 – 2.9
White Sucker	1	3.9
Longnose Dace	18	2.2 – 4.3
Tessellated Darter	6	2.2 – 3.1
Creek Chub	2	3.4 – 3.9
Central Mudminnow	2	2.7 – 3.1

Gasher 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 relatively small fish, it may influence trout populations in the watershed as a whole. The stream provides suitable spawning and nursery habitat, as evidenced by an abundance of young trout. Fish produced in the brook may migrate to the larger Kayaderosseras Creek contributing to the population there.



Furthermore, the stream remains cold during the summer months, potentially providing thermal refuge for trout looking to avoid suboptimal warm temperatures that are known to occur in Kayaderosseras Creek during the summer months.

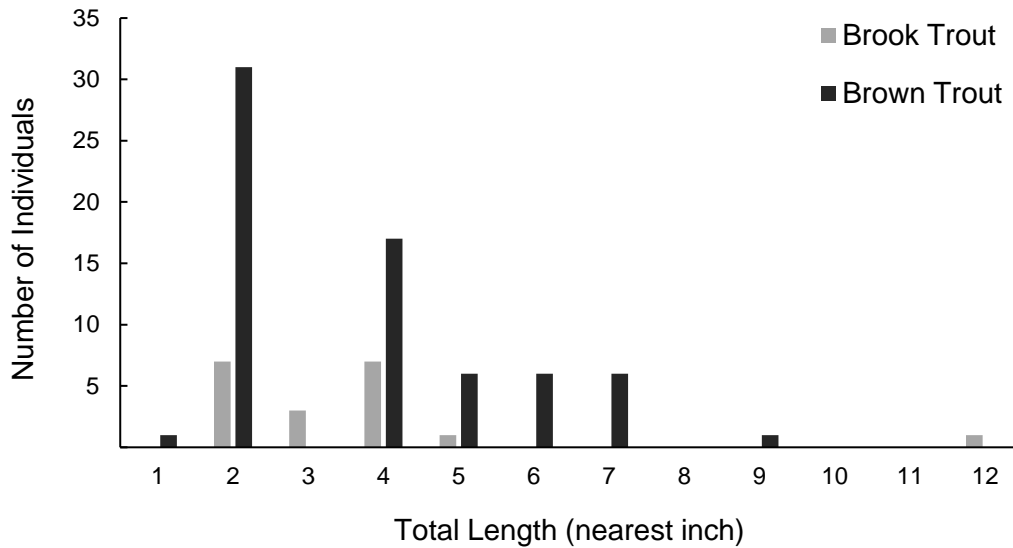


Figure 1. Trout Length Frequency distribution at Site 1 below Coy Road.

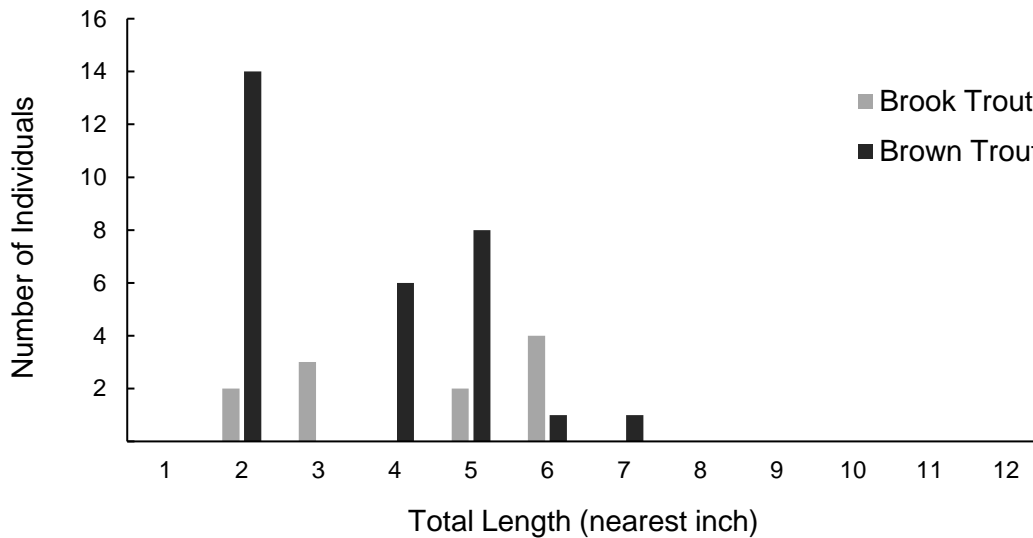


Figure 2. Trout Length Frequency Distribution at Site 2 above the brook's mouth.

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 cold water tributaries like Gasher Brook should be a priority. A considerable portion of Gasher Brook is protected from degradation and land use impacts due to its location in a State Forest. 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

U.S. Geological Survey, 2021. The StreamStats program online at <<https://streamstats.usgs.gov/ss/>>. 16 Dec 2022.