

**Fish Creek Young of Year Population Estimate (Survey #:621013)**  
**Les Resseguie, Region 6 Fisheries** **6/3/2022**

Fish Creek (ONT-19-70) is a 14-mile-long tributary to the Black River in the Town of Grieg, Lewis County and is classified as C(TS) by NYSDEC Division of Water (i.e., suitable for fishing and trout spawning). Ample public access is available through 5.4 miles of Public Fishing Rights (PFR) easements which include three Fisherman Parking Areas (FPA). Fish Creek is managed as Wild-Quality from the confluence with the Black River upstream to 1.0 miles above North South Road as outlined by the New York State Trout Stream Management Plan (TSMP; NYSDEC 2020; regulation change effective April 1, 2022). Special fishing regulations apply for trout with an open season of April 1 – October 15, and a daily creel limit of 3 fish with no more than one over 12 inches; and an October 16 – March 31 catch and release, artificial lures only season. In response to angler concerns regarding the new catch and release season and potential negative impacts to wild trout spawning and recruitment, a statewide evaluation was initiated in 2021 to determine if the new regulation was negatively impacting young-of-year (YOY) production in select trout streams across New York (NYSDEC 2021). The evaluation will occur each year through 2024.

Using backpack electrofishing, three sites were surveyed on Fish Creek from September 2 - 3, 2021 to evaluate the relative abundance of YOY trout within the Wild-Quality section. A total of 173 brook trout and brown trout were collected (ranging 2-20.4 inches), 67 of which were classified as YOY ( $\leq 5$  inches) based on length frequency. We calculated population estimates, estimated capture efficiencies, and 95% confidence intervals using the Leslie DeLury Binomial Estimator (Table 1). Temperature loggers, set to capture hourly temperature data from June through September, were deployed at two locations to better understand trout habitat on Fish Creek. This data can be viewed at [SHEDS Stream Temperature Database \(ecosheds.org\)](https://ecosheds.org).

Capture efficiencies of YOY trout were lower at Site 2 and Site 3 compared to Site 1 likely due to the presence of deep undercut banks and much woody debris making it difficult for staff to effectively net fish. To maintain consistency, no modifications to site location or survey methodology is anticipated. Data collected in 2021 provides a baseline for comparison to the YOY assessment surveys that will occur each year through 2024.



# Fish Creek Young of Year Population Estimate (Survey #:621013)

Les Resseguie, Region 6 Fisheries 6/3/2022

**Table 1. Young of Year Population Estimate (N; YOY/acre) and capture efficiencies (P; proportion of the population captured) with 95% confidence upper and lower estimates.**

	Site 1	Site 2	Site 3
N-Lower	58.7	104.6	104.9
N-Estimate	58.9	110.8	113.1
N-Upper	59.1	123.3	128.7
P-Lower	.56	.43	.39
P-Estimate	.78	.58	.55
P-Upper	.89	.70	.68

### Literature Cited

NYSDEC. 2020. *New York State Trout Stream Management Plan*. Albany, NY: New York State Department of Environmental Conservation.

NYSDEC. 2021. *Angler Use and Wild Trout Young of Year Recruitment; Evaluating New York's Winter Catch and Release Season*. Albany, NY: New York State Department of Environmental Conservation.