

## South Twin Lake Brook Trout Survey (Survey #621607)

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South Twin Lake (SL-25-101-5-P268) and North Twin Lake (SL-25-101-5-P267) are privately owned ponds that are managed by NYSDEC through a cooperative agreement, so the Department can maintain Little Tupper strain brook trout as a gamete source for stocking other waters in the state. Located just north of Star Lake, St. Lawrence County, both ponds are easily accessible for annual broodstock monitoring and pathology. South Twin Lake and North Twin Lake are connected via a short outlet from South Twin Lake to North Twin Lake. Little Tupper strain brook trout and kokanee salmon were first stocked in 1997 after a reclamation in fall of 1996. Wild populations of both species currently exist in these waters. Kokanee salmon stocking occurred last in 2001 and the last brook trout stocking occurred in 2015. Eggs have not been collected from South Twin since 2015 or from North Twin since 2007.

On 2 November 2021, one 6x6 Oneida style trap net was set in the southern bay of South Twin and tended the following morning. Thirteen fish were caught and measured, seven brook trout, five kokanee and one brown bullhead. The brook trout ranged in size from 147mm-409mm (5.8-16.1 inches). Milt was collected and pooled together from the five male brook trout, the results of which was a very small amount of supplemental milt for the following days egg collection. This is done to use gametes from fish with wild selected genes to enhance the genetic makeup of the Little Tupper broodstock collected from Boottree Pond. All five kokanee and the five male brook trout were collected to be sent to the Rome Fish Disease Unit for pathology analysis. The bullhead and two hard female brook trout were released. No pathogens were detected by the NYSDEC Rome Fish Disease Control Unit.

Catch was lower this year than in previous years, perhaps due to a change in water levels, or amassing debris. When the water level is high, as a result of a particularly rainy year or a blocked outlet, fewer fish are caught in South Twin Pond. Similarly, catches are lower when debris, (e.g., fallen trees) are present. This is because the placement of the trap net, in the small bay where the brook trout are known to spawn, becomes crowded and the net will not fish properly if it is not properly deployed. The water temperature during the fish collection was 50°F. If South Twin Lake is going to continue to be a source of Little Tupper strain brook trout eggs NYSDEC may need to spend some time clearing out debris from the southern bay where historically the catch has been high. Additionally, at times fish movement between South Twin and North Twin is inhibited because of accumulation of debris and beaver activity. Previously young-of-year brook trout were observed in this short channel, but not in recent years.

No attempts were made to collect fish from North Twin again this year due to low numbers in previous years.

