

## Second Pond General Biological Survey (Survey #519065)

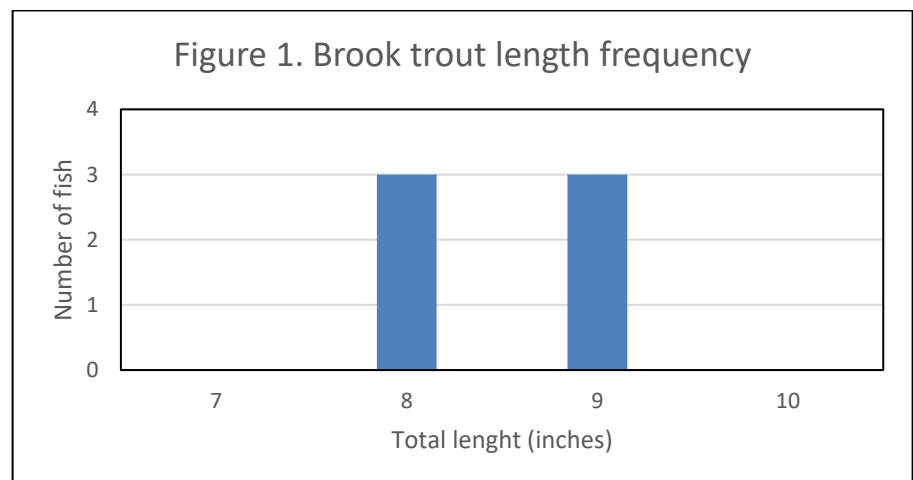
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Second Pond is a 46.2-acre pond located within the Siamese Ponds Wilderness area in the Town of Johnsbury, Warren County. The pond drains to the East Branch Sacandaga River and is within the Upper Hudson River watershed. A two-mile trail extends from the Chatiemac Lake trailhead to the south shore of the pond. The Siamese Ponds Wilderness Area Unit Management Plan states that Second Pond will be managed as an Adirondack Brook Trout Pond to preserve its native fish in the presence of non-native species. The pond is known to contain a non-native minnow, golden shiner; however, it is not considered a good candidate for reclamation via piscicide as it is surrounded by significant wetland complexes. Second Pond is stocked annually with 1,400 Temiscamie x Domestic hybrid fall fingerling brook trout and is subject to statewide general fishing regulations.

An earlier fisheries survey conducted on Second Pond in 2000 yielded golden shiners and 30 brook trout of at least two age classes. The intent of the current 2019 survey was to re-evaluate the pond's brook trout population and determine whether stocking rates are still adequate and appropriate to maintain a desirable fishery.

Two Swedish-experimental gillnets (Six - 25' panels w/ variable mesh), one standard single panel gillnet (30'x 5', 0.75" mesh), and a minnow trap (0.25" mesh) were set for ~24 hours starting around noon on July 26, 2019. Six brook trout ranging from 8.2- 9.7" were captured in the experimental gillnets (Figure 1.). Four additional fish species were captured across all gear types (Table 1.). Water quality data collected at a location near the center of the pond on July 25<sup>th</sup> indicated that a thermocline was present at 10 feet down; the waters below the thermocline had low dissolved oxygen levels of 2.5mg/L or less. Water temperatures measured above the thermocline were over 70 degrees Fahrenheit.



The brook trout catch of only 6 fish was lower than expected considering that 30 trout were captured using the same gear and effort in 2000 and the pond is still stocked annually with



1,400 fall fingerlings. The largest trout captured in 2019 was a 9.7 inch long yearling, while multiple two-year old fish in the 11-12” range were encountered in 2000. Four golden shiners comprised the entire “non-trout” catch in 2000, this is in stark contrast to 2019 as over 400 non-trout fish species were captured. It is widely known that non-native fishes can have deleterious impacts on brook trout populations in Adirondack ponds. It is likely the apparent expansion of the cyprinid and bullhead populations in Second Pond have negatively impacted brook trout growth in this system.

Table 1. Total number & length range of the fish captured at Second Pond, July 2019.

Species	Number captured	Length range (inches)
brook trout	6	8.2 - 9.7
golden shiner	139	3.1 - 4.3
brown bullhead	227	3.3- 8.6
fathead minnow	7	2.2 - 2.7
common shiner	104	2.4 - 3.6

Brook trout are surviving to age-one in Second Pond; however, no two-year old or older fish were captured in 2019 to demonstrate multi-year survival. The pond’s water quality data is somewhat concerning and may indicate that suitable trout habitat is scarce during portions of the summer months due to warm temperatures and anoxia. The pond is relatively accessible for a backcountry brook trout water and it has established primitive camping sites which may encourage angling pressure. Stocking of Temiscamie x Domestic hybrid fall fingerling brook trout should be reduced from 1,400 to 1,000 fall fingerlings annually. The reduced stocking rate will hopefully help to improve trout growth rates by decreasing interspecific competition while still providing a recreational fishery. A follow up survey should be conducted to determine the impact of the reduced stocking rate and inform future management strategies.