

## Owasco Lake Standard Lake Trout Index (Survey #: 720123)

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06/01/2022

A standardized index gillnetting survey designed to assess the status and population characteristics of Lake Trout on Owasco Lake was conducted in early-mid August 2020. Experimental monofilament mesh gillnets (randomized 50 feet long, 1.0 – 4.0 inch stretch mesh panels) were deployed for one night at each of twenty (20) standard sites around the lake, at depths below the thermocline with temperatures below 50F.

This survey showed a lake trout length frequency distribution (Figure 1) indicative of a stable to maturing population. Their population was predominately composed of stocked fish – natural reproduction is minimal in this lake due to thiaminase contamination from smelt and alewife in lake trout diets.

Smelt were observed in numbers lower than other recent surveys on the lake. Alewife were also observed but to a much lesser degree than smelt. This survey, however, is not intended to assess forage levels in the lake as it is designed to capture lake trout in depths specific to lake trout thermal preferences. Other incidental species captured included rainbow trout, yellow perch, smallmouth bass, walleye and white suckers.

Lake trout CPUE (catch per unit effort) was 10.65 fish per net (Figure 2), slightly above the long-term average, indicating that current stocking levels, while reduced from pre-2006 levels, have not had a significant lasting effect on the adult population in the lake. Lake trout  $\geq 15$  inches were in good condition (avg.  $W_r$  (relative weight) = 0.94), indicating adequate forage in the lake supporting current stocking levels. The longest lake trout captured in this survey was 36.7 inches (approximately 15 pounds). Average length of lake trout was  $21.4 \pm 2.2$  inches.

21 smelt were captured. Fish ranged from 5.47 – 7.24 inches. Average length was 6.2 inches.

3 alewife were captured. Fish ranged from 5.43 – 6.57 inches. Average length was 6.0 inches.

17 yellow perch were captured. Fish ranged from 7.09 – 11.3 inches, with a mean length of 9.2 inches.



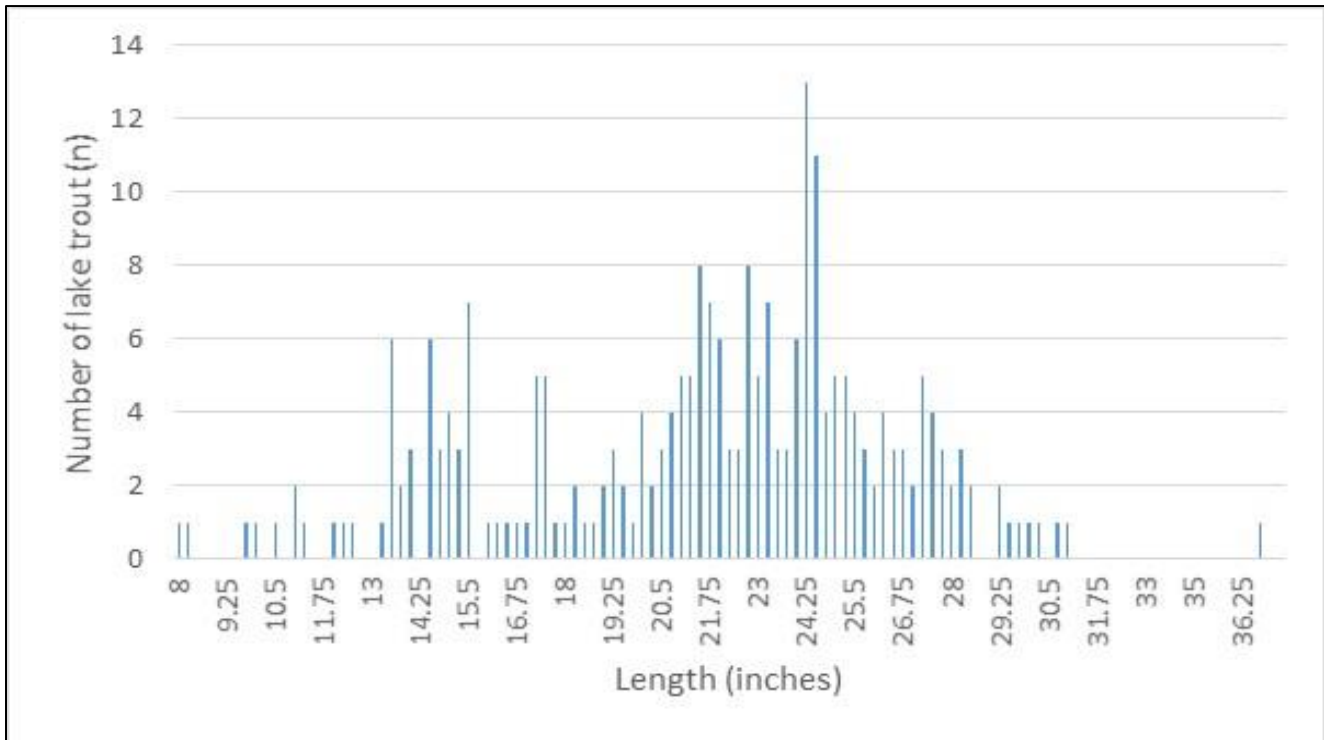


Figure 1. Length frequency of lake trout in Owasco Lake, 2020.

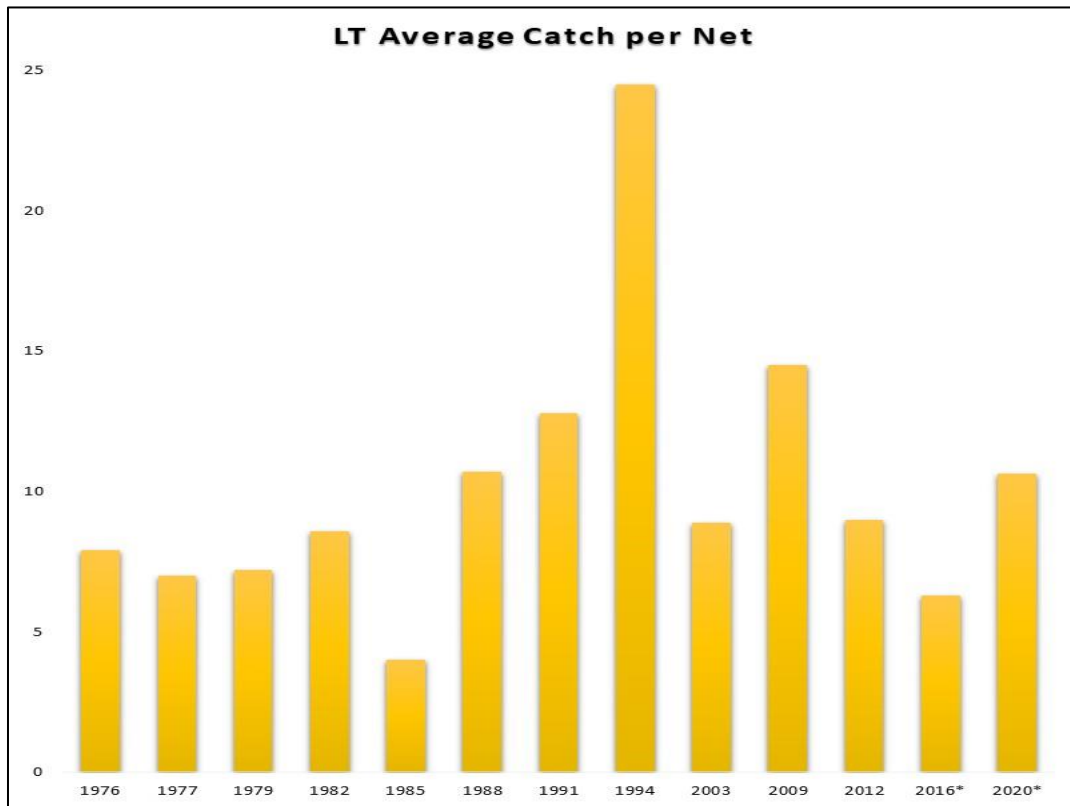


Figure 2. Historical lake trout catch rates in Owasco Lake standard index surveys (fish per net). \*Catch rates adjusted for monofilament netting capture efficiency. These nets are more effective (1.7X) than multifilament gillnets utilized in prior surveys.