

Skaneateles Lake Spring WAE (Survey #:722001) Emily Zollweg-Horan, Region 7 Fisheries

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Skaneateles Lake is 8,960 acres in area with a maximum depth of 315 feet and an average depth of 145 feet. Located west of Syracuse, within portions of Onondaga, Cortland and Cayuga counties, the watershed is largely rural in nature. The Village of Skaneateles is situated at the north end at the outlet to Skaneateles Creek. Skaneateles Lake is part of the Oswego River watershed, which drains to Lake Ontario. Boating access is available at the DEC launch on the northwest side, at the town launches at Mandana and Scott, and at private marinas around the lake. The lake provides excellent fishing opportunities for smallmouth bass, yellow perch, and lake trout, and some of the best shore fishing for rainbow trout in the Finger Lakes. Grout Brook, located at the south end of the lake, supports a popular spring fishery for wild, lake-run rainbow trout. Two strains of rainbow trout (Finger Lakes wild strain, and Finger Lakes hybrid strain) were stocked by DEC, along with landlocked Atlantic salmon. Finger Lakes wild strain stocking ended in 2021 due to lack of recruitment. Walleye have been reported by anglers in recent years. The lake is oligotrophic, steep-sided, and deep and has a history of excellent water quality. Modest littoral areas supporting areas of dense aquatic vegetation are present at the north and south ends of the lake and a narrow littoral fringe extends along the length of the eastern and western shorelines. Management concerns for the lake include harmful algal blooms, Viral Hemorrhagic Septicemia virus (VHSV), declining angler catches of rainbow trout and landlocked Atlantic salmon, and an expanding walleye population.

During spring 2022 (mid-late April), the regional fisheries unit targeted the walleye population of Skaneateles Lake using larger mesh ganged gill nets. The main objectives of this survey were to obtain information on walleye population structure and spawning locations. Sixteen gill nets were set overnight on bottom and either perpendicular or oblique to shore depending on the steepness of the lake bottom at the net site.

A total of 173 fish were collected including 26 lake trout, 8 white suckers, 73 yellow perch, one smallmouth bass, four rock bass, and 60 walleye. Lake trout have not been stocked in Skaneateles Lake since 1996; therefore, all the lake trout collected were considered wild. Reports of walleye in the lake have been coming in for many years; and this is the fifth spring DEC survey to attempt to find their spawning areas. Catches were inconsistent with five of the nets having no walleye, one net having 21 walleye, and the mean number of walleye in nets that did catch walleye at 5.4 walleye per net. The nets with no walleye did catch other fish, and were set in locations, depths and water temperatures that have produced walleye in the past. Ages of 60 walleye were determined by scale or otolith aging.

Walleye captured in this survey ranged in length from 348 to 675 mm, and the largest weighed 3577 grams. Scale and/or otolith analysis indicated that most were age 3 to 6 years (average age of 5) but thirteen older walleye (7, 8, 9 and 11 years old) were also caught.

Increasing catch rates and larger numbers of older fish combined with recent declines in angler catches of rainbow trout and Atlantic salmon are cause for concern. Walleye were not legally introduced to Skaneateles Lake and given the presence of multiple ages capable of reproduction along with the availability of suitable spawning habitat in the lake and several inlet streams, it is reasonable to believe that a self-sustaining population of walleye is now established. Given their documented predatory impacts on salmonine populations in other lakes and reservoirs, walleye are likely impacting the rainbow trout and landlocked Atlantic salmon populations of Skaneateles Lake. Management actions must be taken if we want to restore the high-quality fisheries for these two species that anglers have come to expect.

