

## Boottree Lake Brook Trout Egg Take (Survey #621608)

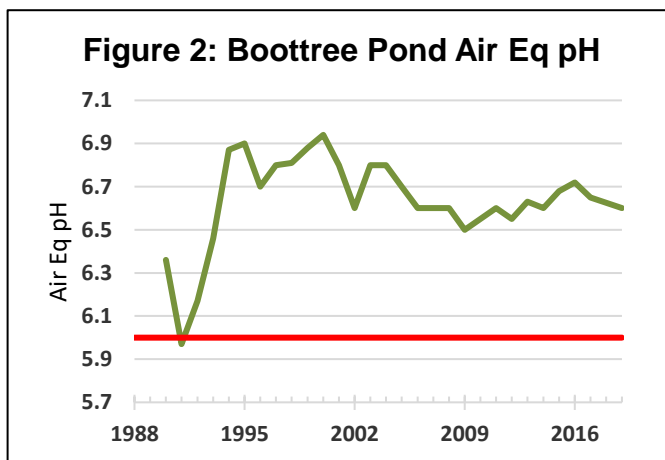
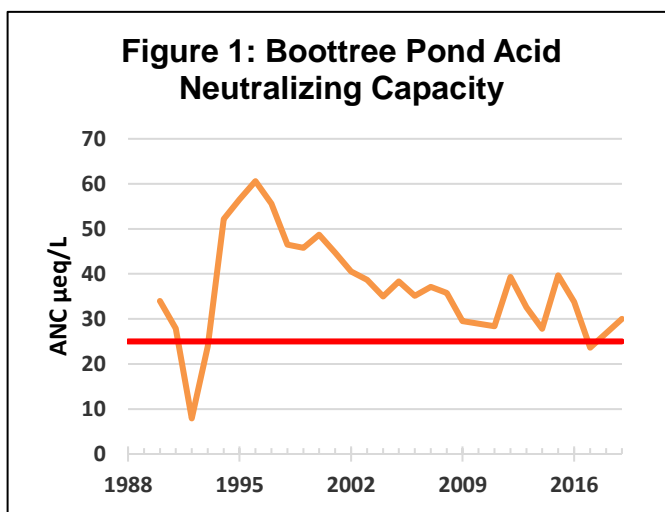
Anne Resseguie, Region 6 Fisheries

3/14/2022

Boottree Pond is a 15-acre pond located on the Massawepie Boy Scout property in the Town of Piercefield, St Lawrence County. There is no known natural reproduction of brook trout in Boottree Pond; however, roughly 600 4.5-5-inch Little Tupper Strain brook trout are stocked each fall. Stabilized acid neutralizing capacity (ANC) and pH (Figures 1 & 2), due to liming in 1993, combined with high levels of dissolved oxygen below the thermocline make Boottree Pond an ideal water for sustaining a healthy brook trout population. The red lines on Figures 1 and 2 indicate the threshold below which the water should be re-limed according to the 1990 FEIS report. New York State Department of Environmental Conservation (NYSDEC) collects fish from Boottree Pond each fall to harvest gametes to propagate this heritage strain brook trout for stocking purposes.

In a typical year, up to four Oneida style trap nets are set overnight in Boottree Pond. On the second day fish are removed from these nets and sorted into totes depending on sex and stage (ripe/hard). Eggs are collected in a bowl and fertilized with milt from the males. The fertilized eggs are disinfected, and water hardened in argentine to prevent possible disease transfer to NYSDEC fish hatcheries. The fertilized eggs are rinsed in pathogen-free water prior to being transferred to South Otselic Hatchery where they will be raised and ultimately stocked back into Adirondack waters.

On 3 November 2021, three trap nets were set. Fisheries staff conducted the brook trout egg collection the following day lakeside at Boottree Pond. This egg collection is done lakeside because broodstock for this strain are not held in the hatchery system. In 2021, all three nets caught brook trout; however, the back corner net (Site 1) caught the most fish as in previous years. All fish caught were marked with an adipose fin clip indicating they had been stocked. The water temperature was 49°F. A total of 151 brook trout were netted, of those, 64 were used for the egg collection (23 females, 41 males). Twenty-three thousand green eggs were taken from 23 ripe females and fertilized. Males were used at a 2:1 ratio, with five males being used twice. A small amount of



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supplemental milt collected from five males in South Twin Pond on 3 November was used to increase genetic diversity. All fish used for the egg take were released. The fertilized eggs were transported to the South Otselic hatchery. The number of brook trout needed for 2022 fall stocking is 12,035.

Each year adult brook trout are sent to the Rome Fish Disease Control Unit for disease screening. In 2021, 13 unused brook trout were tested and no harmful pathogens were detected.

