

Lake Tiorati Centrarchid Survey (Survey #: 319004)

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1/13/2019

Lake Tiorati is a 293-acre lake located in Harriman State Park in the Towns of Woodbury and Tuxedo in Orange County. Public access is found along most of the shoreline, and a cartop boat launch is located off Lake Tiorati Brook Rd. Electric motors only are permitted, and a Palisades Interstate Park Commission boat permit is required for all boaters accessing the lake. Lake Tiorati is managed under statewide fishing regulations, and ice fishing is permitted when the State Park deems conditions are safe. This 2019 survey was conducted to determine current centrarchid abundance and size structure, which was last assessed here in 2002. Methods for this survey followed those found in the black bass and sunfish sampling manual (Brooking et al. 2018). A total of 1.5 hours of boat electrofishing was conducted on 5/21/19 with one hour spent targeting gamefish only and 0.5 hours spent targeting all fish. An additional night of electrofishing was scheduled to occur on the following night, but due to mechanical issues with the boat, this did not occur.

A total of ten species of fish were collected including one black crappie, 77 bluegill, 18 chain pickerel, four golden shiner, 41 largemouth bass, 31 pumpkinseed, 61 redbreast sunfish, 42 smallmouth bass, two yellow bullhead and 62 yellow perch. Largemouth bass catch/h was 27.3 and catch/h of quality size (≥ 12 inches) and preferred size (≥ 15 inches) largemouth bass was 14/h and 4/h (Figure 1). Catch/h for all size largemouth was below the NYS mean, but catch/h of quality and preferred size largemouth was at or near the NYS mean. (Brooking et al. 2018). The 2019 catch rates of any size and quality size largemouth were below the 2002 and 1992 catch/h, but the catch/h of preferred size largemouth was near the 2002 and 1992 catch/h. The largest proportion of the sample (46%) of largemouth were 11 to 14 inches in length (Figure 2). Forty-two smallmouth bass were collected during 1.5 hours (28/h) of electrofishing, which is near the statewide mean of 27/h. However, the catch rate of quality size (≥ 11 inches) and preferred size (≥ 14 inches) smallmouth bass was 1.3/h and 0.7/h, which is well below the NYS means of 10/h and 5/h.

Bluegill were the most abundant panfish collected at 154/h with most (64%) bluegill between five and seven inches long (Figure 3). Catch/h of quality size (≥ 6 inches) bluegill was near the statewide mean of 33/h. However, only three bluegill were ≥ 8 inches. Additionally, 31 (62/h) pumpkinseed and 61 (122/h) redbreast sunfish were caught during this survey.

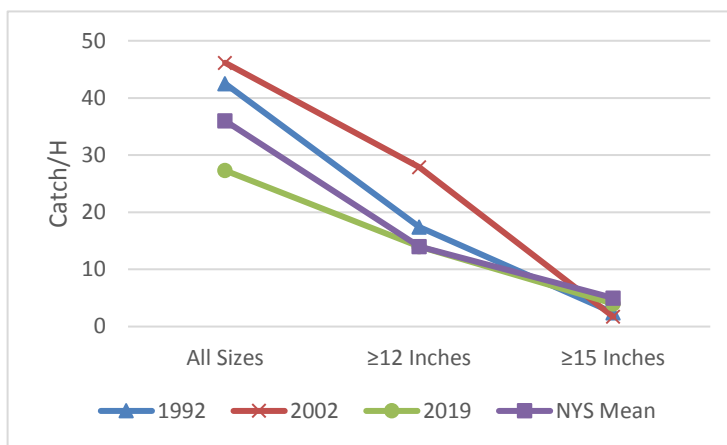


Figure 1. Catch/h of largemouth bass caught during spring electrofishing during 1992, 2002, 2019 and the statewide average.

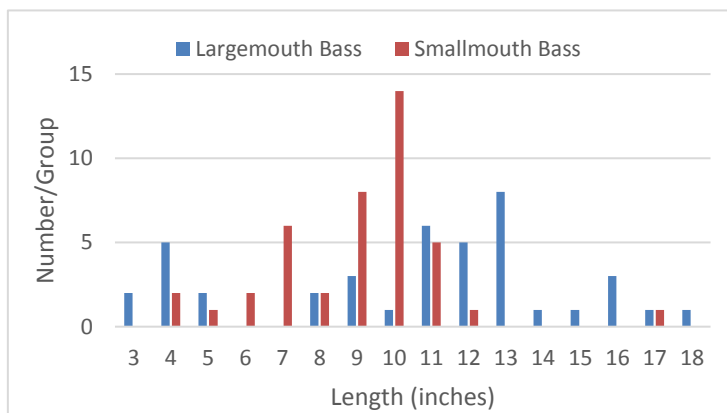


Figure 2. Length distribution of largemouth and smallmouth bass.



Overall, fishing should be good in Tiorati for anglers looking to catch decent numbers of fish, as good abundance of quality size largemouth bass and bluegill was seen. However, these species do not appear to be reaching large sizes with only two largemouth caught over 17 inches and only three bluegill over 8 inches. While smallmouth bass appear to be moderately abundant, catch/h of quality and larger size smallmouth was minimal, and these fish are likely not providing a quality fishery. However, since only half of the planned shocking time was conducted, results from this survey should not be used to make full management decisions. These results are merely an indication of what may be present at Tiorati, and a full centrarchid survey should be conducted before management decisions are made. No change in management is recommended at this time.

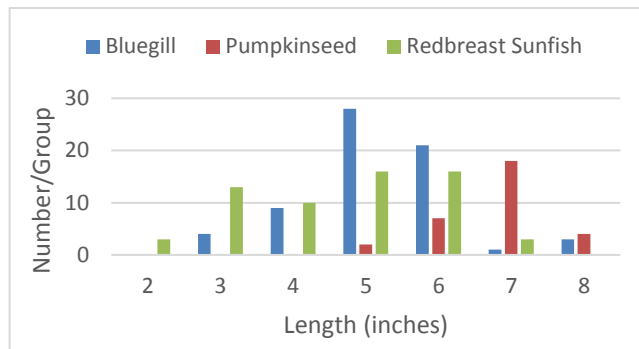


Figure 1. Length distribution of bluegill, pumpkinseed and redbreast sunfish.

Literature Cited:

Brooking, T., Loukmas, J., Jackson, R., VanDevalk, T. 2018. Black bass and sunfish sampling manual for lakes and ponds. New York State Department of Environmental Conservation, Federal Aid in Sportfish Restoration, F-63-R, Study 2, Job 2-2.3, Albany, New York.