

Lake Kanawauke Centrarchid Survey (Survey #:317005)

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Lake Kanawauke is a 141-acre lake located in the Town of Tuxedo in Orange County. This Harriman State Park water is comprised of two basins divided by a causeway. Only the southern basin of the lake was sampled, as the northern basin is inaccessible to larger boats. A cartop boat launch is located off Kanawauke Road. Lake Kanawauke was last surveyed in 1992 using the centrarchid sampling plan (Green 1989). This 2017 centrarchid survey was conducted in response to anecdotal angler reports stating largemouth bass fishing has been poor recently. A total of 1.78 hours of electrofishing time was expended with 0.75 hours targeting all fish and 1.03 targeting gamefish only.

A total of eight species of fish were collected including black crappie, bluegill, bluespotted sunfish, chain pickerel, golden shiner, largemouth bass, pumpkinseed and rock bass. Eighty-one largemouth bass were caught during 1.78 hours of electrofishing time. The catch rate of quality size (≥ 12 inches) largemouth bass was 31.5/h (Table 1), which is well above the mean for NYS lakes of 14/h (Brooking et al. 2018). This was slightly above the 1992 catch rate of 26.7/h. Largemouth bass of preferred size (≥ 15 inches) were caught at 5.1/h which is near the statewide mean of 5/h. Most bass were 12 – 14 inches, and the largest was 19 inches (Figure 1). Proportional Stock Density (PSD) for largemouth bass was 72.7 indicating a high percentage of quality size fish (≥ 12 inches). However, Relative Stock Density of largemouth bass 15 inches or larger (RSD_{15}) was 11.7, which is below the statewide mean of 24, but near the 1992 value of 15.6. Overall, largemouth bass were abundant, with plenty of quality size fish. However, the percentage of preferred size fish (≥ 15 inches) was below average, and no memorable size largemouth bass (≥ 20 inches) were caught.

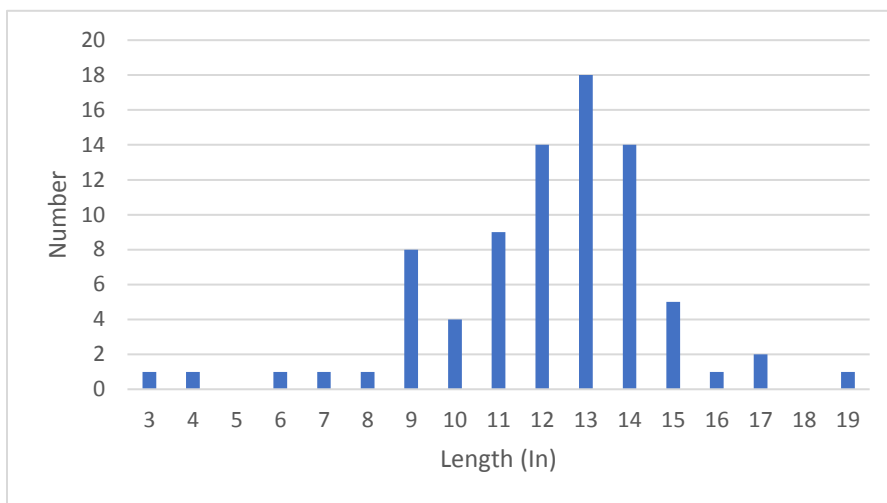


Figure 1. Length frequency distribution of largemouth bass

Bluegill were the most abundant species encountered with a total of 120 collected. The number of quality size (≥ 6 inches) bluegill caught per hour was 56, which is above the statewide mean of 33. PSD for bluegill was 45, which is above both the NYS mean of 33 and the 1992 value of 4. However, RSD_8 was 2, which is below the NYS mean of 6 but above the 1992 value of 0.7. Overall, quality size bluegill abundance is high and PSD rates are much higher than values observed during the 1992 centrarchid survey. Chain pickerel were also fairly abundant, with a catch rate of 11.2/h for ≥ 15 inch fish, and should provide a secondary fishery for anglers.

Overall, fishing should be good in Kanawauke, as good abundance of quality size largemouth bass (≥ 12 inches) and bluegill (≥ 6 inches) were noted. Largemouth bass abundance was consistent with that observed in the 1992 survey, with similarly high catch rates of fish ≥ 12 inches. Lake Kanawauke should be sampled again in five years to assess the centrarchid populations, and to document any changes in



largemouth bass abundance. Lake Kanawauke is currently managed under the statewide fishing regulations, and no change is proposed at this time.

Table 1. Number collected and length category catch rates of sportfish and panfish collected during electrofishing (1.78 hours for largemouth bass, chain pickerel and black crappie and 0.75 hours for pumpkinseed and bluegill).

Species	Number Collected	≥6 inches	≥8 inches	≥10 inches	≥12 inches	≥15 inches	≥18 inches
Largemouth Bass	81	44.4	43.3	39.3	31.5	5.1	0.6
Chain Pickerel	64	34.8	32.6	27.0	24.7	11.2	1.1
Pumpkinseed	26	12.0	0.0	0.0	0.0	0.0	0.0
Bluegill	120	56.0	4.0	0.0	0.0	0.0	0.0
Black Crappie	4	1.7	1.7	0.6	0.0	0.0	0.0

Literature Cited:

- Green, D. M. 1989. Centrarchid Sampling Manual. Chapter 1 *in* Fish Sampling Manual. New York State Department of Environmental Conservation, Bureau of Fisheries, Albany, NY.
- Brooking, T., Loukmas, J., Jackson, R., VanDevalk, T. 2018 (in prep.). 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.