

Baisley Pond Bass and Sunfish Survey (#221008)
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Baisley Pond is an approximately 28-acre freshwater pond in Jamaica, Queens, in the Long Island Watershed. Approximately 90% of the shoreline is softened and consists of grass or Phragmites with the latter limiting fishing access in some areas. A wheelchair-accessible concrete promenade borders the southeast shoreline. Aquatic macrophytes are present throughout the lake, impeding fishing and electrofishing from late spring into fall. Baisley’s fish population is self-sustaining and both New York State and New York City fishing regulations are catch-and-release, only.

DEC Bureau of Fisheries has performed four evening boat electrofishing surveys of Baisley Pond since 2008. This boat electrofishing survey was executed the evening of October 5, 2021, to estimate relative fish abundance and status of the predator/prey relationship. Portions of the pond were either too shallow and/or vegetated to electrofish, allowing for approximately 50% of shoreline coverage during the survey. Kite strings wrapped around the boat’s propellor further hindered progress. To the extent possible, sampling protocol followed the DEC Black Bass and Sunfish Sampling Manual for Lake and Ponds (Brooking, et al., 2018). Three, ten-minute generator on-time runs were completed during which all fish were collected, except carp and American eel, which were observed and counted as bulk fish. Water temperature was 19°C, conductivity was 673 µmho/cm³, pH was 8.5 and Secchi depth was 2.0 feet.

A total of 219 fish were collected consisting of largemouth bass, black crappie, bluegill, and brown bullhead with bluegill the most abundant (Table 1). One largemouth bass of memorable size was captured. Largemouth bass lengths ranged from 2.4 inches to 21 inches; weights ranged from under 0.1 ounces to 4.7 pounds. Largemouth bass overall mean relative weight was 88.3. A total of seven carp and two American eel were observed but not collected. Four black crappie and one brown bullhead were captured.

Table 1. Number collected and length category catch rates for fish species captured during a boat electrofishing survey of Baisley Pond in 2021.

Species	Total catch	Time (h)	CPUE (fish/h; standard error)				
			All sizes	Age-1	≥stock	≥quality	≥preferred
Black crappie	4	0.52	7.7 (5.2)	0	7.7 (.2)	0	0
Bluegill	178	0.52	342 (64)	27 (14)	250 (24)	11.5 (6)	0
Brown bullhead	1	0.52	1.9 (2)	0	1.9 (2)	1.9 (2)	1.9 (2)
Largemouth bass	25	0.52	48 (19.3)	38.5 (21)	9.6 (5.1)	5.8 (3.4)	5.8 (3.4)

Length frequency distribution shows most captured largemouth bass in the range of two to eight inches (Figure 1). A similar distribution was found in a 2018 Baisley Pond survey although more fish in the 15-18-inch length category were captured then (Figure 1). Both PSD and RSDp were 60 for largemouth bass. Panfish PSD was 4.38 and RSDp was zero.



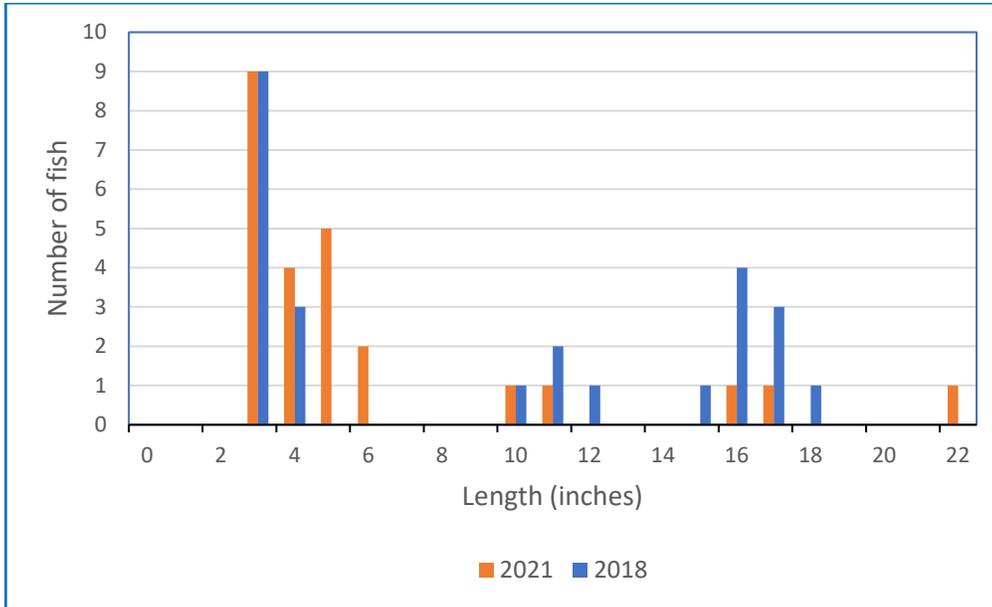


Figure 1. Length frequency distribution of largemouth bass from two Baisley Pond electrofishing surveys

High largemouth bass PSD, low sunfish PSD, and high panfish catch rate, collectively indicate bass recruitment and exploitation is low, and sunfish recruitment high, similar to the population status found in the 2018 survey. Aging of sunfish scales indicate these fish are not growth-stunted so the reason for lack of large-size sunfish is currently unknown. It is possible we missed capture of larger fish due to our sampling access limitations.

The bass between two and six inches may provide opportunities for anglers to catch a decent-sized fish in a couple years. Black crappie may also become an angling target species at Baisley: four stock size black crappie were captured in this survey whereas none were captured in 2018. Alternatively, only one brown bullhead was captured in this survey whereas 17 were captured in the previous survey. It is possible we were not able to capture this species also due to access limitations.

Literature Cited

Brooking, T., Loukmas, J., Jackson, R., VanDeValk, T. 2018. Black bass and sunfish electrofishing protocol 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.