

Meadow Lake Fisheries Survey (#222009)

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Melissa K Cohen, Region 2 Fisheries

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Meadow Lake (95 acres) is the larger of two connected water bodies in Flushing, Queens in the Long Island Watershed. Shoreline fishing access is available but limited due to areas of dense aquatic vegetation, fencing, and ongoing construction projects. Both NYC and NYS freshwater fishing regulations require catch-and-release, only, for all fish except snakeheads. DEC Fisheries has surveyed fish populations of both Meadow and Willow Lakes, annually, to estimate changes in fish populations and remove snakeheads. The objectives of this survey, executed October 5th, 2022, included capturing five white perch for contaminant testing as part of DEC’s Toxic Substance Monitoring Program (TSMP).

Fish capture was difficult. Water temperature was 57°F, turbidity was high, and conductivity was 1,293 μS/cm³. Electrofisher settings of pulse rate and percent range were changed; and alternating current (AC) was applied for several minutes of on-time. Unfortunately, none of these variations resulted in increased fish capture and electrofishing runs were reduced to three, rather than the planned four runs.

A total of 64 fish of four species were captured. White perch, gizzard shad, goldfish and inland silverside were individually measured; eight carp and three American eel were observed and counted. Catch rates for standard size categories, where applicable, are shown in Table 1.

Table 1. Catch rates for fish captured during a 10/5/2022 electrofishing survey of Meadow Lake.

Species	# collected	Time(hr.)	Catch rate (fish/hr.; standard error)					
			All sizes	Age-1	Stock	Quality	Preferred	Memorable
goldfish	4	0.75	5.3 (3.5)	*	*	*	*	*
Silverside	13	0.75	17.3(15.4)	*	*	*	*	*
Gizzard shad	29	0.75	39 (15)	36 (16)	3 (1.3)	1.3 (1.3)	1.3 (1.3)	1.3 (1.3)
White perch	18	0.75	24 (14.4)	0	17.3 (13.3)	1.3 (1.3)	1.3 (1.3)	1.3 (1.3)

Gizzard shad of several size categories, including trophy, were captured. The cause(s) for difficulties observing and capturing fish are unknown and could include lower water temperature. Future surveys should be attempted during different conditions, including temperatures.

