



DEPARTMENT OF
**GAME & INLAND
FISHERIES**
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Virginia Department of Game and Inland Fisheries 2018 Dorey Park Pond Management Report

Dorey Park Pond, located on Darbytown Road in eastern Henrico, is owned and operated by Henrico County. The 5-acre impoundment is managed under the Department's Urban Lake Program and is stocked with harvestable-sized trout and channel catfish. The lake was built in old borrow pits and traditionally has had problems with water quality (low pH and dissolved oxygen). Periodic lime applications and an aeration system have helped to alleviate the issues. A major fish kill occurred in the summer of 2008 which eliminated the majority of the fishery. Bluegill and largemouth bass were restocked in 2008 along with trout and channel catfish.

On October 5th, 2017, Department of Game and Inland Fisheries staff conducted a boat electrofishing survey to assess the current fishery. The previous survey was conducted on October 12th, 2016. A complete shoreline circuit of the pond was conducted with the total electrofishing effort of 860 seconds (0.238 hr). The 2017 survey covered the same shoreline circuit as the past surveys. All encountered fish were collected by dip nets and placed in an aerated live well tank. Length measurements were taken on all fish along with weights taken on all bass and the majority of stock-sized bluegill. The survey revealed limited species diversity with the collection of 6 fish species. These fish species in order of overall abundance were bluegill, golden shiner, largemouth bass, green sunfish, white perch and American eel. The fishery within Dorey Park Pond may have some potential, but the survey yielded very little to write home about. The survey is just a snapshot photo of the fish assemblage collected along the shoreline. The deeper holes within Dorey Park Pond may have harbored some larger fish that stayed clear of the shallow shelves of the shoreline. Anglers that frequently fish the pond have been able to catch a few respectable fish over the years.

Species	N	CPUE (#/ hr)	Min TL (")	Max TL (")	Mean TL (")	% contribution
Bluegill	469	1,963	1.46	5.16	3.2	66.1
Golden Shiner	98	410	3.03	7.6	4.05	13.8
Largemouth Bass	95	397	2.05	15.94	3.37	13.4
Green Sunfish	34	142	1.77	4.65	2.71	4.8

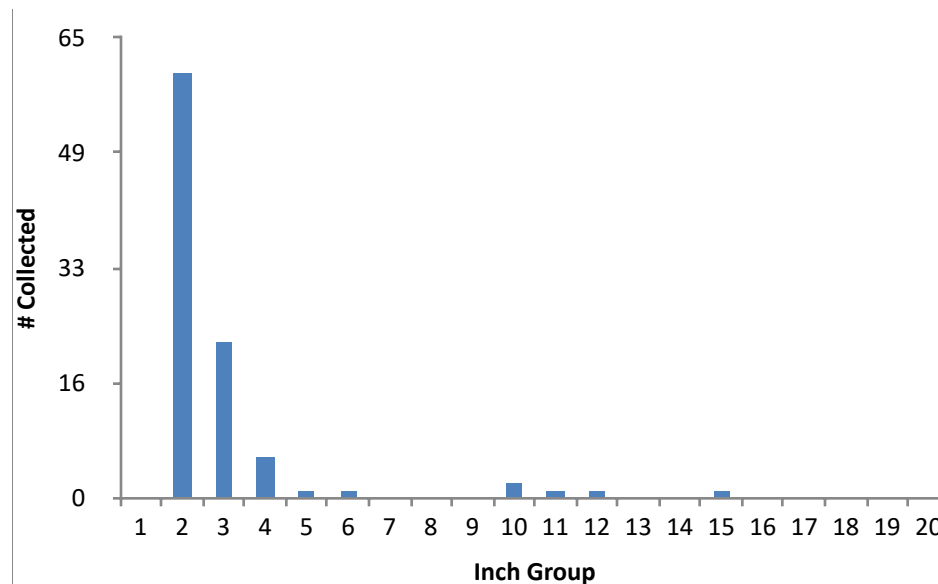
American Eel	6	25	11.22	24.88	13.96	0.8
White Perch	5	20	3.5	5.4	4.4	0.7
BLG/GSF Hybrid	3	12	2.05	3.23	2.78	0.4

Table 1. Catch rates and size distribution of the various species collected from Dorey Park Pond during the electrofishing survey on October 5th, 2017

Largemouth Bass

The survey provided additional insight into the strength of the largemouth bass population. The survey produced a total of 95 largemouth bass for a CPUE (Catch Per Unit of Effort) of 397 bass/hr. This catch rate showed an incredible increase when compared to the 2016 survey (CPUE = 48 bass/hr). The collected bass ranged in size from 2 to 15 inches with the majority of the sample based on the large collection of YOY (Young of Year) bass from the 2017 spawn. Refer to Figure 1 to see the large class of juvenile fish in the 2 to 4 inch range. The catch rate of young bass (< 8”) was an incredible 376 fish/hr. Due to the high density of juvenile bass, the average length of a collected bass was 3.37 inches; down from the 2016 average length of 6.84 inches. The largest bass measured 15.94 inches and weighed 2.34 pounds. Only 2 bass were greater than 12 inches in length. The limited brood stock of bass had a very successful 2017 spawning season. To protect the adult bass within the pond, the bass regulation has been set at a minimum size limit of 18 inches with a harvest limit of one bass per day. Anglers should carefully release all bass and practice catch and release if they would like to see improvements in the bass population. The more brood stock bass that are present will increase the chance that recruitment of juvenile fish will occur. Increased bass abundance will hopefully step up to the opportunity to forage upon the abundant bluegill population.

The 600 F-1 largemouth bass fingerlings that were stocked into Dorey Park Pond in 2016 appear to have contributed very little to the overall population. Predation upon fingerling sized bass during the winter months by stocked brown trout and brook trout might have a serious impact on the survival rate of bass. Competition for aquatic invertebrates and fish fry with the abundance of bluegill, green sunfish, and illegally stocked white perch might have a factor in limited bass recruitment past the first growing season.



LMB
 N = 95
 CPUE = 397 fish/hr
 CPUE-P = 4 fish/hr
 PSD = 40

Figure 1. Length frequency distribution of collected largemouth bass from Dorey Park Pond on October 5th, 2017

Weights were taken on largemouth bass to calculate relative weight values. Relative weight values are an indication of body condition. A value from 95 to 100 represents a fish that is in the healthy range and finding a decent amount of food. A higher relative weight value indicates fish with a better body condition. The relative weight data of the largemouth bass revealed the 5 stock-sized bass to have a value of 88. The two quality-sized bass had a relative weight value of 92. The relative weight value of the lone preferred-sized bass was a favorable 105. The juvenile bluegill in the 2 to 3 inch range should provide bass plenty of nourishment.

Bluegill

The bluegill population within Dorey Park Pond continues to be dominated by the abundance of juvenile fish. The survey collected a total of 469 bluegills for a CPUE of 1,963 fish/hr. This catch rate actually showed a decline from the 2016 survey (N = 732; CPUE = 2,773 fish/hr). Collected bluegills ranged in size from 1 to 5 inches. Taking into account the abundance of juvenile fish, the average size bluegill measured a less than impressive 3.2 inches. The largest bluegill measured 5.16 inches in length. The relative weight data of the 253 stock-sized bluegills was favorable with a value of 102. This value showed that the average-sized bluegill is finding a sufficient amount of food resources. Anglers should not expect to catch too many large bluegill from Dorey Park Pond. If you

catch a bluegill greater than 6 inches from Dorey Park Pond, consider yourself a master angler with the knowledge and expertise to out fish an electrofishing boat.

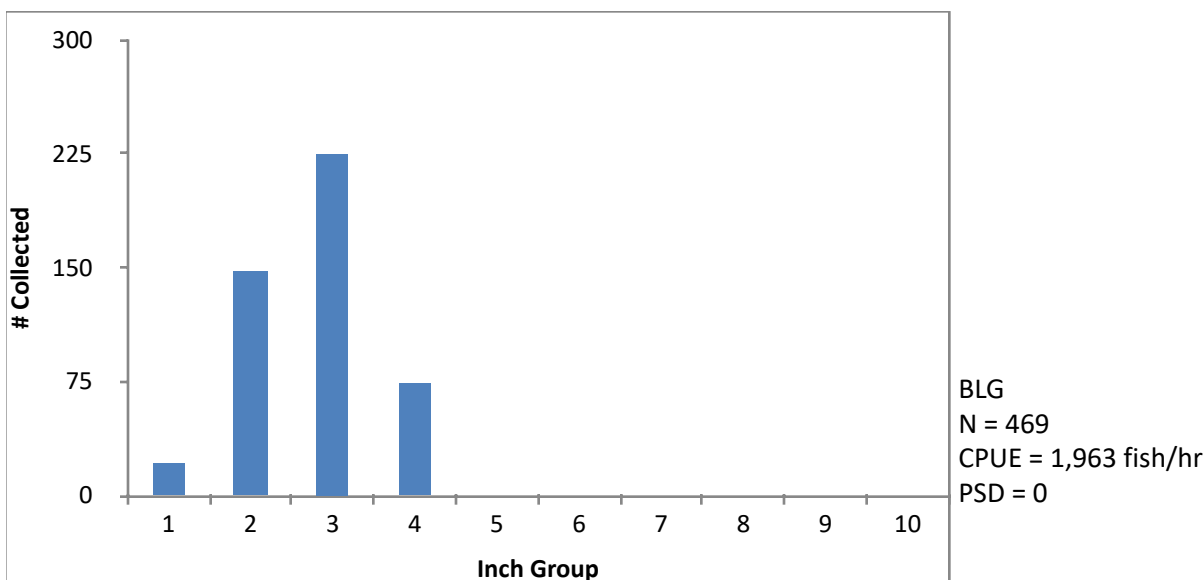


Figure 1. Length frequency distribution for bluegill collected from Dorey Park Pond on October 5th, 2017

Additional Species

The survey yielded some additional diversity in the form of American eels, golden shiners, white perch, and green sunfish. A total of 5 American eels were collected. These eels ranged in size from 11 to a whopping 25 inches. A large collection of golden shiners were found in 2017 with 98 shiners boated. These shiners are most likely from bait bucket introduction that has established a breeding population of mature golden shiners. Collected shiners ranged in size from 3 to 7.6 inches. The survey collected a total of 34 green sunfish that ranged in size from 2 to 4.6 inches. Five juvenile white perch in the 3.5 to 5.4 inch range were collected. Angler reports have detailed the catch of mature white perch. Anglers are reminded to not stock fish into any public water without approval from DGIF. The illegal stocking of white perch into Dorey Park Pond is frowned upon. All collected white perch were removed from the pond.

The survey did not provide any channel catfish. Dorey Park Pond is stocked with channel catfish every year at a rate of 350/acre. The total number of 1,750 channel catfish provides a great opportunity for anglers to try their luck. Anglers must follow the posted regulations of harvesting only 4 catfish/per person/day. It is quite possible that the majority of stocked channel catfish had been harvested by the time of the sample. Catfish species can be hard to sample if they are holding in the deeper regions of any waterbody. Dorey Park Pond receives 5 stockings of rainbow and brown trout each winter. A trout fishing license is required from November 1st to April 30th to legally fish for trout. Anglers must also have a valid Virginia fishing license if they are over the age of 16. A trout license is not needed to fish the pond from May 1st to October 31st. Anglers that may catch trout in the early part of May must still abide by the 4 trout/person/day regulation. Fishing on Dorey Park Pond is limited to one active fishing rod per person. This regulation holds true all year long.

No boats are allowed in Dorey Park Pond, but all of the pond can be accessed along the shoreline. The park has many amenities including picnic shelters, a children's play area, a Frisbee

range, soccer fields, lighted baseball fields, tennis courts, a horse ring and numerous riding trails. Dorey Park Lake can be reached by traveling south on Laburnum Avenue and then turning left on Darbytown Road. The entrance to the park will be on the right, and the official visiting hours for the park are sunrise to sunset.

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