Virginia Department of Game and Inland Fisheries
2016 Swan Lake Management Report

Swan Lake, located off the Boulevard in Richmond's Byrd Park, is owned and operated by the City of Richmond under the city's Parks and Recreation Department. The 13-acre lake is the largest of the Byrd Park lakes and as the name states is a popular lake for the city's waterfowl. The lake is managed under the Department's Community Lakes Improvement Program (CLIP) and is stocked annually with harvestable-sized channel catfish. The lake also has self-sustaining populations of largemouth bass and sunfish. The shoreline is fully accessible for bank anglers to walk and find the best fishing locations. Recent growth of excessive amounts of hydrilla makes fishing this impoundment difficult during the late summer to early fall time frame. Anglers are encouraged to try fishing Swan Lake before the hydrilla has the chance to cover the majority of the shoreline.

On September 28th, 2015, the fish community of Swan Lake was sampled using boat electrofishing gear. The previous survey was conducted on April 22nd, 2009. The lack of a boat ramp ruled out the use of the 18.5 foot electrofishing boat typically used on most impoundments. The survey used was able to carefully launch a 14 foot electrofishing boat over the shoreline's rock retaining wall. The 2009 survey revealed a total of seven species of fish with largemouth bass being the most abundant species collected, followed by brown bullhead, channel catfish, yellow perch, bluegill, green sunfish and blue catfish. The 2015 survey was only successful in collecting 3 fish species of largemouth bass, yellow perch, and bluegill.

Largemouth Bass

The largemouth bass population within Swan Lake appears to be in poor shape even though an abundance of bass were discovered. A total of 650 largemouth bass were collected. The CPUE (Catch Per Unit of Effort) for largemouth bass was 1,307 fish/hr. This catch rate, bolstered by the strong Young of Year (YOY) recruitment, is much greater than other impoundments in Region 1. The length frequency distribution revealed 293 bass in the 5 cm group, 325 bass in the 6 cm group and 19 in the 7 cm group. Limited bass greater than 10 cm in length are on the length frequency histogram, but you will have to look really close to see their presence. The average-sized bass measured a whopping 2.5 inches in total length. On a positive note the limited brood stock of largemouth bass were extremely successful with their spawning attempt in the spring of 2015. The survey yielded three preferred-size bass in the 46 to 47 cm range (18 – 18.7 inch range). The largest bass measured 18.7 inches and weighed 4.05 pounds. Our sampling efforts are just a representative picture of the fish community collected along the shoreline on the survey day. From initial observations, it appears that juvenile fish are not being

recruited to the stock-size range of 8 inches or greater. Many factors can be at play to limit survival rates of juvenile bass through their first full year of life. To protect the adult bass population, the bass will continue to be managed under the current regulation of only one bass per day over the minimum size limit of 18 inches

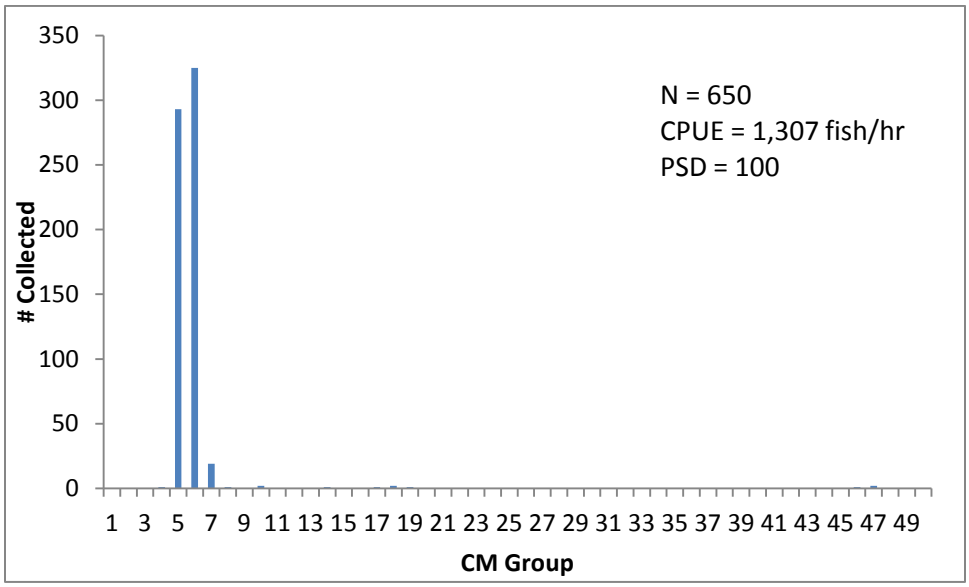

Figure 1. Length frequency of largemouth bass collected from electrofishing survey of Swan Lake on September 28th, 2015.

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. The higher the value, the better the condition of the fish in terms of overall body mass. The relative weight value for the three preferred-sized bass was a favorable value of 107. These larger bass were in great shape and finding plenty of forage in the appropriate size and most likely feeding upon juvenile yellow perch and cannibalizing juvenile bass.

Yellow Perch and Bluegill

The survey was successful in collecting 195 yellow perch (CPUE = 392 fish/hr). The perch size distribution was nothing to write home about with fish in the 2 to 9 inch range. This broad range is not representative of the true distribution which consisted of 193 fish in the 2 to 4 inch range. The survey only had two yellow perch of 9 inches in length. Anglers should not expect too much action from the yellow perch population.

The survey collected 16 bluegill for a catch rate of 32 fish/hr. This catch rate is extremely poor and might be a result of limited recruitment from a weak stock of brood-sized fish. Anglers may be harvesting a large percentage of bluegill that reach the 5 inch length size. On a positive note, the 16 stock-sized bluegill had a favorable relative weight value of 112. These fish have

been finding plenty of available food even though the hydrilla has grown to excessive amounts. Anglers are recommended to release as many bluegill as possible in hopes of allowing the limited stock of adult bluegill to crank out a successful year class of new recruitment.

Additional Species

The survey observed two bowfin that swam away from the electric field. No channel catfish were collected during the survey. Swan Lake was stocked with 300 channel catfish during the fall of 2015. This stocking will provide anglers with some decent action when it is hard to find the largemouth bass. Plans are in the works to have triploid grass carp stocked into Swan Lake during the late spring of 2016 in hopes of eventually controlling the hydrilla growth. The fishery within Swan Lake has limited potential and anglers should not expect too much in the way of trophy fish action. Anglers that fish the lake on a consistent basis might have a better feel for where the larger fish are located.

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