



## Woodstock Pond 2009

Woodstock Pond is a 7.5-acre impoundment located within York River State Park. Known in its early history as Taskinas Plantation, the park was the site of a 17<sup>th</sup> and 18<sup>th</sup> century tobacco warehouse where local planters stored their crops to be shipped to England. Woodstock Pond was built in the 1950s and the park itself was opened in 1980. Because of its location and the quality of the fishing, this little fishery is ideal for a family outing.

The Virginia Department of Game and Inland Fisheries sampled Woodstock Pond on May 7, 2008. The pond was last sampled on October 15, 2007. A full community sample was conducted to observe the present fishery. The electrofishing effort of 2,400 seconds (0.66 hours) was used to attain a representative sample. Two sample runs were conducted. Both the western and eastern shorelines were sampled. The water temperature was 26°C. Electrofishing efforts consisted of shocking along the shoreline with the majority of the effort concentrated in the 2 to 3 foot depth range. Efforts were made to sample the shoreline brush as close as possible. This is essentially a bass and bluegill fishery with a few other species present in significant numbers. Species diversity was the same as the 2007 survey with largemouth bass, bluegill, redear sunfish, black crappie, American eel, grass carp and golden shiners collected.

### Largemouth Bass

Woodstock Pond provides a decent bass fishery for a small resource. A total of 43 largemouth bass were collected. The CPUE (Catch Per Unit of Effort) for largemouth bass was 64.5 bass/hr. The catch rate is higher than the 2007 sample (CPUE: 51 bass/hr). The size distribution of the collected bass can be seen on the enclosed length frequency graphs. The majority of the bass sample consisted of fish in the 11 to 14 inch range. The high proportion of bass in this size range shows what the average fisherman will most likely be catching. A total of 8 juvenile bass less than 8 inches in length shows signs of fair recruitment from the last two year-classes.

With largemouth bass being the most popular game fish in this country, it has been considered that a "preferred" bass is one that is over 15 inches in length. It is through this size classification that population dynamics are analyzed. The PSD (Proportional Stock Density) is the proportion of bass in the population over 8 inches (stock-size) that are also at least 12 inches (quality-size). The sample showed a high PSD value of 74, which is a direct reflection of the 26 quality-sized bass. The sample had a total of 35 bass that were of stock-size or larger. A balanced bass/bluegill fishery has a bass PSD value within the 40 – 70 range. The RSD-P (Relative Stock Density of Preferred bass) is the proportion of bass in the population over 8 inches that are also at

least 15 inches. The RSD-P value of 11 is a direct reflection of the 4 preferred bass collected. The 2008 PSD value was higher than the 2007 value (PSD = 62), but the RSD-P value showed a percentage decline from the 2007 survey (RSD-P = 17).

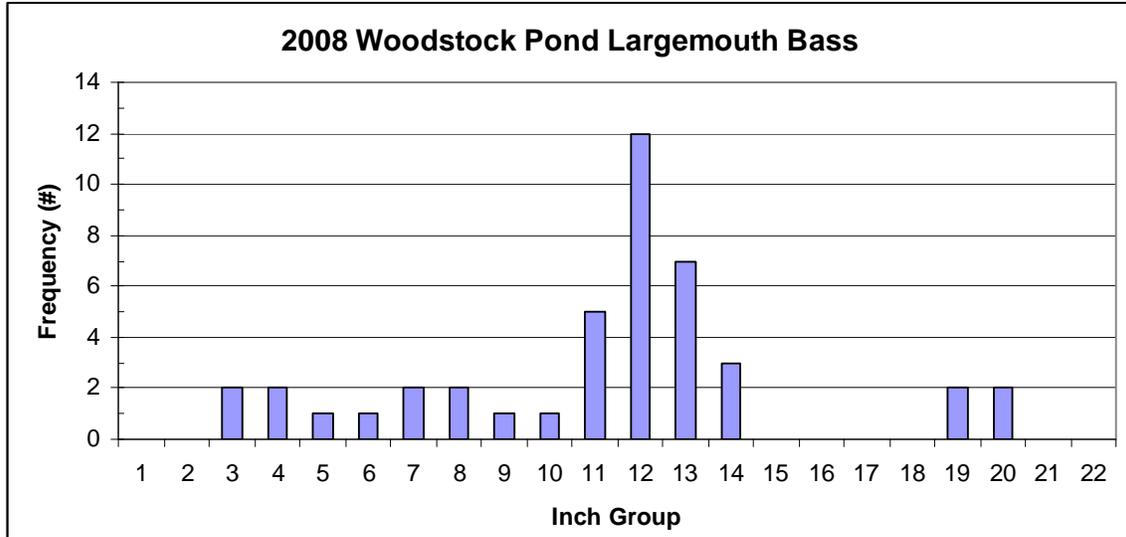


Figure 1. Length frequency of largemouth bass collected from Woodstock Pond on May 7, 2008 (N = 43, CPUE = 64.5/hr)

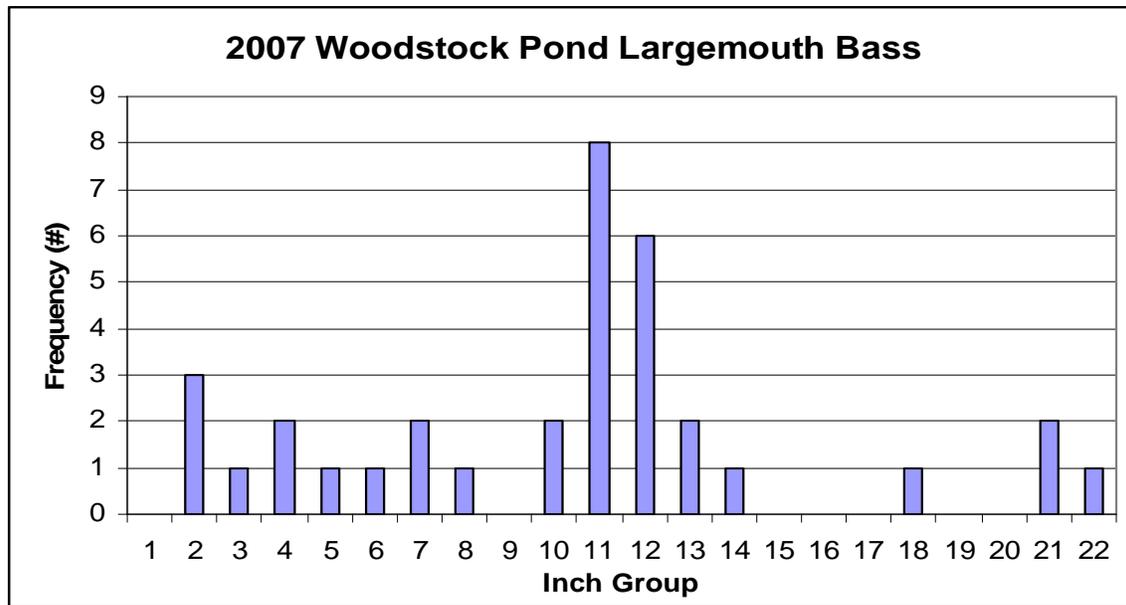


Figure 2. Length frequency of largemouth bass collected from Woodstock Pond on October 15, 2007 (N = 34, CPUE = 51/hr)

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 overall relative weight value was 94. The relative weight values for stock, quality, and preferred bass (>8", >12", >15", >20") were 94, 94, 109 and 110 respectively. The relative weight values for stock and quality-sized bass are slightly below the desired range. The high relative weight values for the preferred and memorable-sized bass show that the larger bass are successfully finding enough prey items to forage upon. The largest bass measured 20.5" and weighed 5.8 lbs.

### Bluegills

Our electrofishing effort showed an abundant bluegill population with 249 bluegills collected. The expanded CPUE of 373.5 bluegills/hr showed a marked improvement from the 2007 fall survey (CPUE: 319.5 bluegills/hr). The size distribution can be seen on the attached length frequency graph. Bluegills were measured in centimeter groups within the size range from 4 to 20 centimeters (1.75 to 8 inches). The length frequency graph shows the population to have a good concentration of bluegills in the 5 to 10 centimeter range along with a large proportion of the fish greater than 15 centimeters (6 inches and larger). The PSD for bluegills is the proportion of bluegills over 8 cm (stock size) that are also at least 15 cm (quality size). The bluegill PSD value of 57 is a reflection of the 98 quality-sized bluegills in the 6 to 8 inch range. A total of 173 stock-sized bluegills were collected.

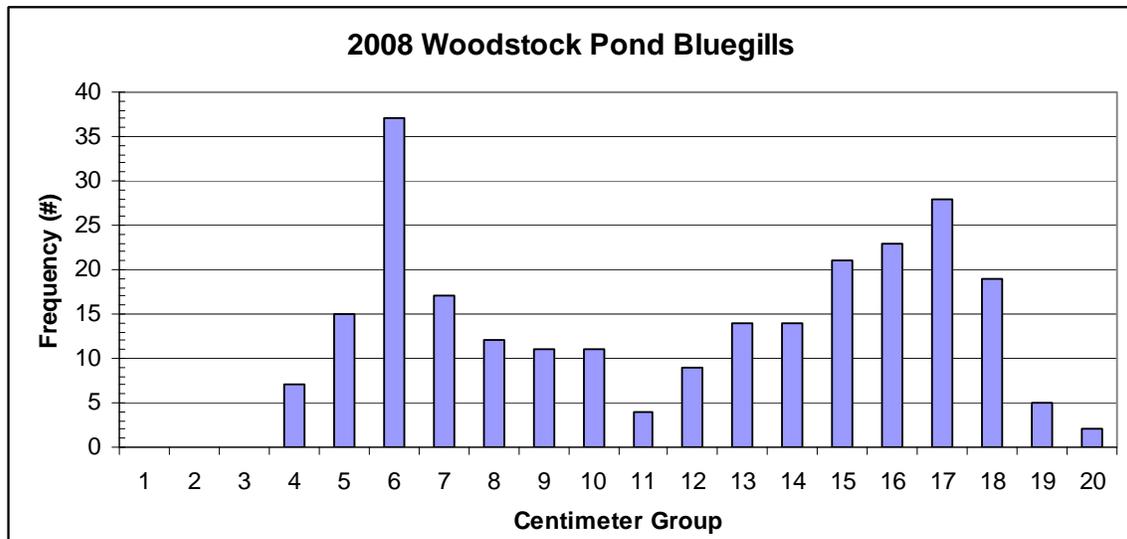


Figure 3. Length frequency of bluegills collected from Woodstock Pond on May 7, 2008. (N = 249, CPUE = 373.5/hr)

### Redear Sunfish

The 2008 electrofishing survey showed the redear sunfish population was primarily dominated by fish greater than 6 inches in length. The survey results showed an improvement in catch rate with 60 redear sunfish collected. The CPUE of 90/hr is higher

than the 2007 survey (CPUE: 72/hr). Limited abundance of juvenile redeer sunfish was detected with the collection of 5 fish less than 5 inches in length. The largest fish was 252 mm (9.92”) in length. Woodstock Pond provides anglers a great opportunity to catch some quality-sized redeer sunfish.

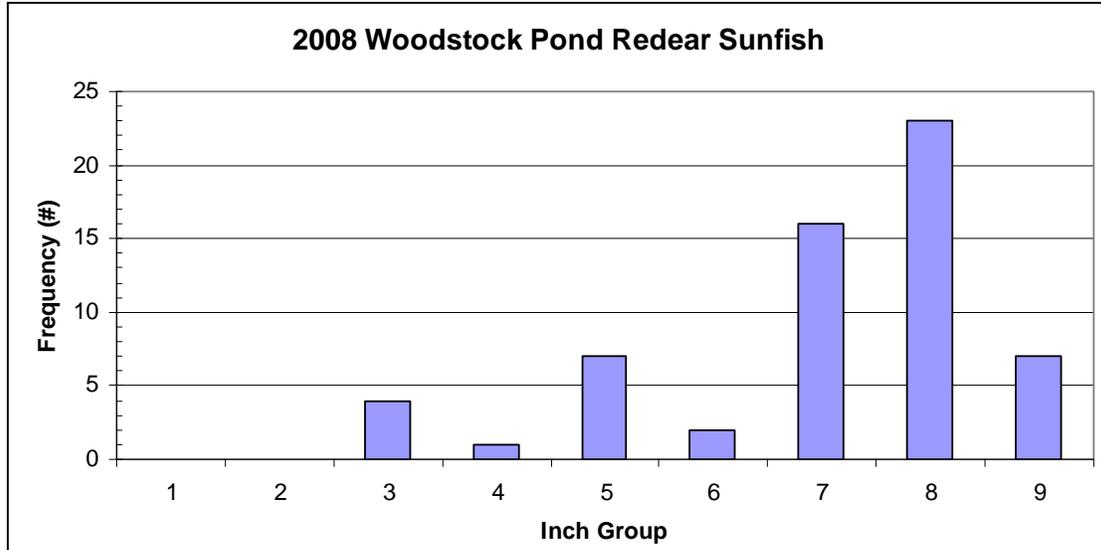


Figure 4. Length frequency of redeer sunfish collected from Woodstock Pond on May 7, 2008. (N = 60, CPUE = 90/hr)

### Black Crappies

The survey revealed the presence of 38 black crappies for a CPUE of 57/hr. This catch rate is less than the 2007 survey (CPUE: 72/hr), but still decent for a small fishery like Woodstock Pond. The 2008 survey showed a very favorable size distribution with many of the black crappies in the 9 to 10 inch range. The largest black crappie measured 287 mm (11.5 inches). Anglers have caught some decent crappies in the past. Anglers that are fishing Woodstock Pond for the first time may be pleasantly surprised by the decent black crappie fishing and the quality sunfish population.

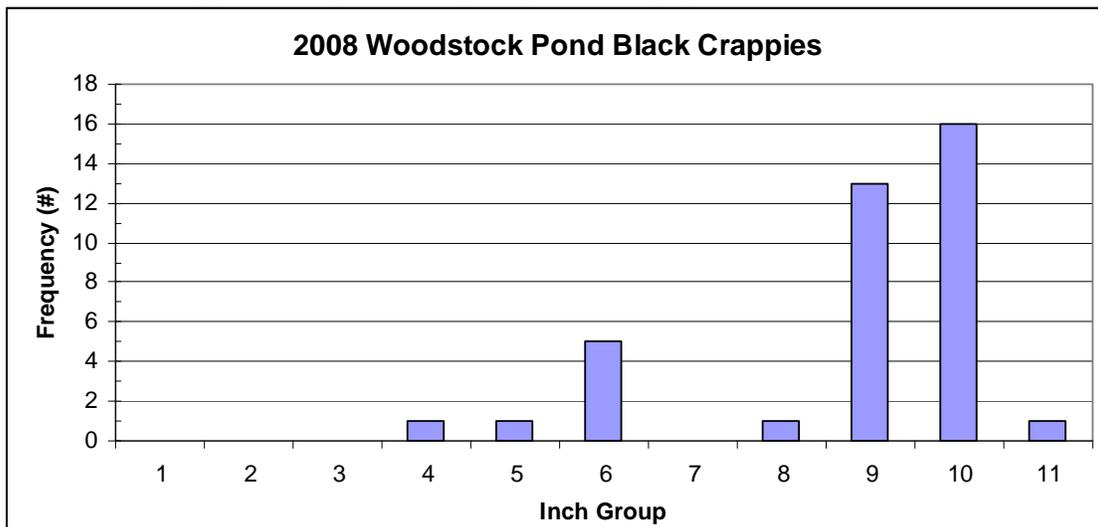


Figure 5. Length frequency of black crappies collected from Woodstock Pond on May 7, 2008. (N = 38, CPUE = 57/hr)

The pond has some additional diversity in the form of American eels, grass carp and golden shiners. Each of these species was collected in limited abundance and may provide some excitement to an angler from time to time. The grass carp were stocked a number of years ago to assist in the control of aquatic vegetation. The grass carp average around 38 to 40 inches in length. Anglers should carefully release these fish if they happen to catch one while fishing Woodstock Pond. American eels have managed to migrate from the York River into Woodstock Pond. The survey collected only 5 eels that ranged in size from 8 to 12 inches in length. A total of 20 golden shiners were collected. The shiners ranged in size from 4.5 to 9 inches and will provide an extra forage base for the largemouth bass.

### **Summary**

An electrofishing sample gives you a snapshot picture of what the fishery looks like. A typical electrofishing survey of a small lake provides a fairly accurate account of the fish assemblage that is present. A great number of variables interact on a fishery and can influence the population structure of a desired species such as the largemouth bass. The 2008 survey showed a decent largemouth bass population (CPUE = 64.5/hr) with the majority of fish in the 11 to 14 inch range. Only 4 preferred-sized bass (> 15") were collected. These bass measured in the 19 to 20 inch range with the largest bass weighed at 5.8 pounds. The limited number of bass greater than 15 inches may be a direct result of angler harvest. The current bass regulation limit is set at a minimum of 15 inches.

The survey revealed an abundance of bluegills present. A good number of 6 to 8 inch bluegills were also collected. The survey revealed some quality redear sunfish in the 7 to 9 inch range. The black crappie population appears to be reasonably balanced with a large percentage of the fish in the 9 to 10 inch range. Any possible accumulation of stunted, juvenile black crappies was not detected.

Anglers can fish from the bank or from rented row boats. Shoreline angling access is best off of the dam where several fishing platforms and piers have been constructed. Boat rentals offer anglers a chance to try their fishing luck or skill in areas of the pond not accessible from the shore. Private boats are not permitted on Woodstock Pond. There is a 15-inch minimum size limit on largemouth bass. The park caters to a wide variety of activities. There are various trails for biking, hiking, and horseback riding. There are picnic shelters, playgrounds, an interpretive center, and a gift shop. Organized group activities are also offered.

York River State Park can be reached by taking Route 607 from I-64. Heading in the direction of Croaker, take Route 606 east to the park. For further information, please contact the park office at 757-566-3036.