



Tidal River Largemouth Bass Outlook - 2012

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With stable, or in the case of the Chickahominy and James, extremely strong tidal largemouth populations, anglers should enjoy their pursuit of tidal river bass in 2012. There were some concerns about impacts of tropical storms Irene and Lee, but the fisheries seem to have weathered the storms quite well. These storm events produced extremely high flows, with localized flooding in some tributary streams. Degraded water quality in the immediate aftermath of the storms had the potential to impact largemouth bass living in tidal rivers. Department biologists conducted boat electrofishing in the days and weeks following these storm events, documenting unusually low largemouth bass catch rates in sections of the Pamunkey River, lower Rappahannock River, and in some tributaries of the Chickahominy River (ex. Diascund Creek) and James River (ex. Powell Creek). It may be that fish had simply moved into deeper water and were thus not susceptible to capture using boat electrofishing gear. In fact, bass numbers in many waters had rebounded by the time follow-up electrofishing was conducted in late October. Beyond any possible localized setbacks, largemouth bass populations in the Chickahominy and James remain in excellent condition – with an unusually large number of bass over 5 pounds available to anglers in the Chickahominy. As is typically the case, electrofishing catch rates in the Rappahannock River were much lower than other tidal rivers sampled in 2011.

The outlook for the tidal Chickahominy and James bass fisheries in 2012 is excellent. These two fisheries are comparable to some of the best bass lakes in Virginia, based on: (1) catches of bass ≥ 15 inches (CPUE-P) in electrofishing surveys; and (2) an index of the proportion of bass ≥ 15 inches (RSD-P). In 2011, CPUE-P = 30 bass/hour during boat electrofishing in the Chickahominy. And, RSD-P = 47 in the Chickahominy, with RSD-P = 37 in the James. A listing of CPUE-P and RSD-P values for Virginia's best largemouth bass lakes can be viewed by following links at www.dgif.virginia.gov.

In the Pamunkey impacts, if there were any, from the tropical systems of 2011 have yet to be determined, but it is likely that in 2012 the fishery will produce bass in numbers comparable to recent years. The Rappahannock bass fishery in 2012 will also likely be similar to that of recent years, with low bass abundance above Route 301 and extremely low bass abundance below Route 301.

Tidal River Summary

A river-by-river comparison of largemouth bass catch rates, and of the catch of bass 15 inches and larger, may help guide anglers planning a tidal river fishing trip (Figure 1).

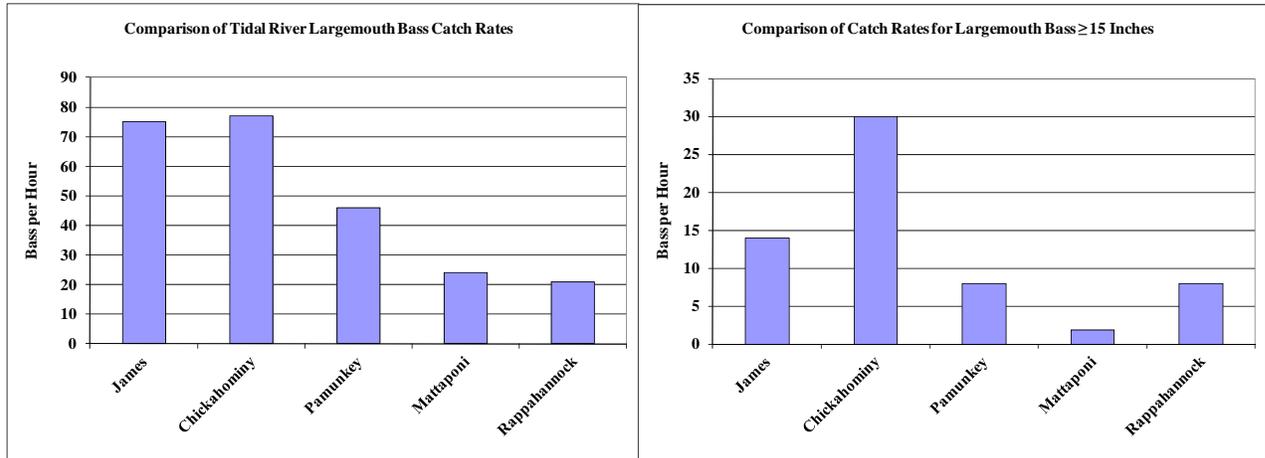


Figure 1. Comparison of largemouth catch rates and catch rates for bass 15 inches and larger in recent electrofishing surveys of the tidal Chickahominy, James, Mattaponi, Pamunkey, and Rappahannock rivers.

1 – Chickahominy: Characterized by high angler catch rates. Given years of strong recruitment and increasing catch rates, anglers should see continued high catch rates over the next several years. Has the highest largemouth catch rates and, thanks to exceptional recruitment of young bass, has surpassed the James in abundance of bass ≥ 15 inches. This fishery should continue to produce ample bass for several years.

2 – James and tributaries: Catch rates are somewhat lower than the tidal Chickahominy. Recruitment has been consistent over time, and this fishery should remain stable for years to come; with the exception of the Chickahominy out producing other tidal rivers in terms of bass ≥ 15 inches.

3 – Pamunkey: Characterized by slower growth and lower catch rates than the James or Chickahominy, however consistent recruitment, should lead to stable catch rates.

4 – Rappahannock: While electrofishing catch rates have increased significantly over several years, they are still relatively low. As a result of low catch rates and relatively slow growth, this largemouth fishery doesn't match the tidal Chickahominy or James. However, it does provide higher catch rates for preferred-size bass than either the Pamunkey or Mattaponi. Its proximity to northern Virginia should attract anglers looking for tidal bass action close to home.

5 – Mattaponi: Very low bass catch rates during electrofishing surveys, with the highest catches of largemouth concentrated from just above Aylett to several river miles downstream of Walkerton. With the exception those who are aware of isolated "hot spots", anglers should expect low catch rates for largemouth in this river.

Tidal Chickahominy River System

Production of young bass has been average or above average for several years. Movement of large numbers of bass into the fishery has produced very high angler catches. In fact, by the spring of 2009 angler catch rates were at record highs, double what they were in 2005, and much higher than most Virginia bass lakes. In the period since 2009, the Chickahominy bass population has continued to improve.

The extremely high level of bass production in recent years combined with stable growth has resulted in an unusual number of large bass in the system. During fall electrofishing in 2011 biologists collected largemouth to 22 inches, with weights ranging up to 7 pounds. The 2011 electrofishing results indicate anglers fishing the tidal Chickahominy in 2012 will see an abundance of largemouth to 16 inches (2 ¼ pounds), and fish to 18 inches (4 ¼ pounds) will be found in higher numbers than in previous years (Figure 2 and Figure 3).

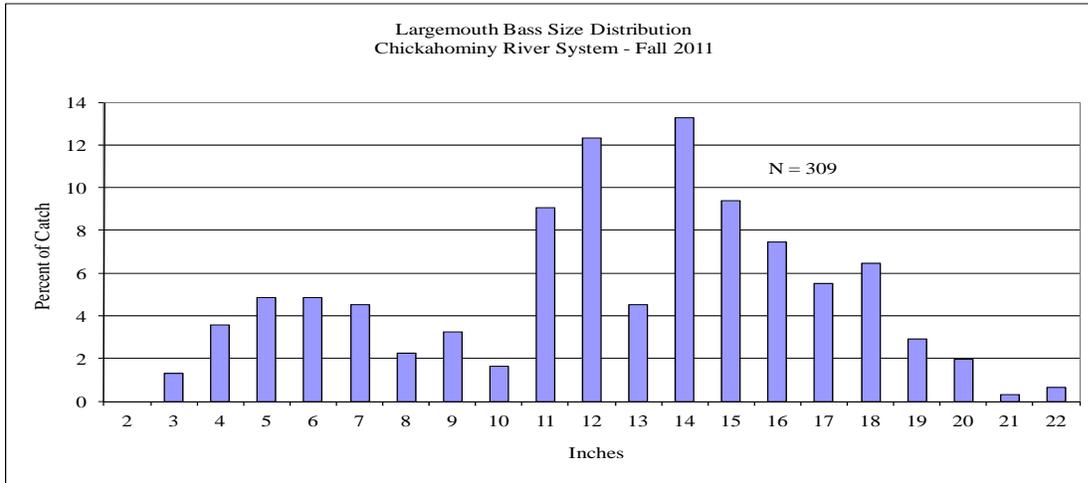


Figure 2. Distribution by length of largemouth bass collected from the tidal Chickahominy River and its tributaries during boat electrofishing – Fall 2011.

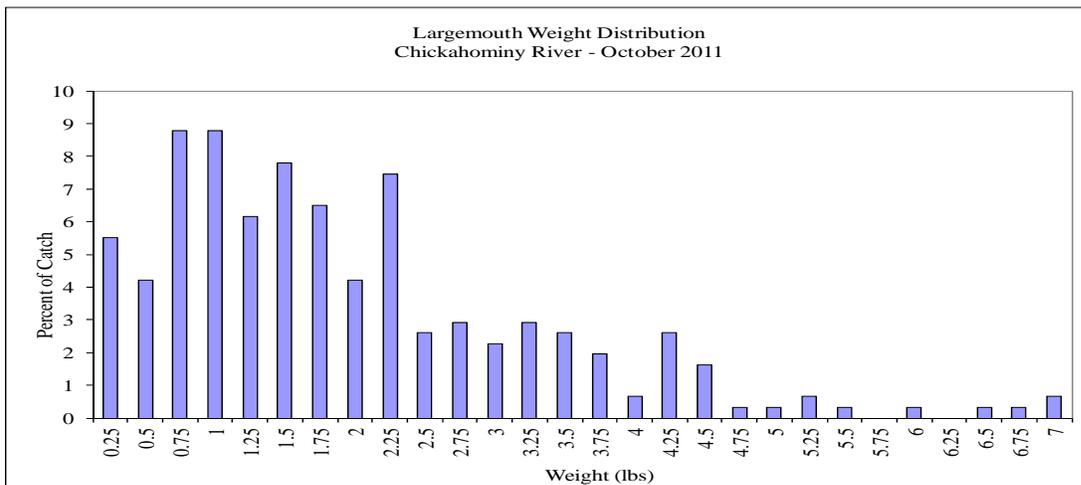


Figure 3. Distribution by weight of largemouth bass ($\geq \frac{1}{4}$ pound) collected from the tidal Chickahominy River and its tributaries during boat electrofishing – Fall 2011.

The Chickahominy largemouth fishery should continue to produce high catch rates over the next several years. At the same time, the number of bass in the 3 – 4 pound range, and the upper limit of bass size, will continue to be higher than typically found in tidal rivers.

Tidal James River & Tributaries

The tidal James has a healthy bass population, with two extremely strong year-classes produced in 2009 and 2011 – this capping six years of stable recruitment (2003 – 2008). Boat electrofishing catch rates have been stable over the past several years, ranging from 54 – 89 bass/hour, and any variability in catch during this period was driven primarily by differences in the catch of young bass.

As in other tidal rivers of the region, this fishery is not known for its trophy potential. In 2010, anglers can expect to see bass to 16 inches, or 3 pounds, produced by the tidal James and its tributaries (Figure 4).

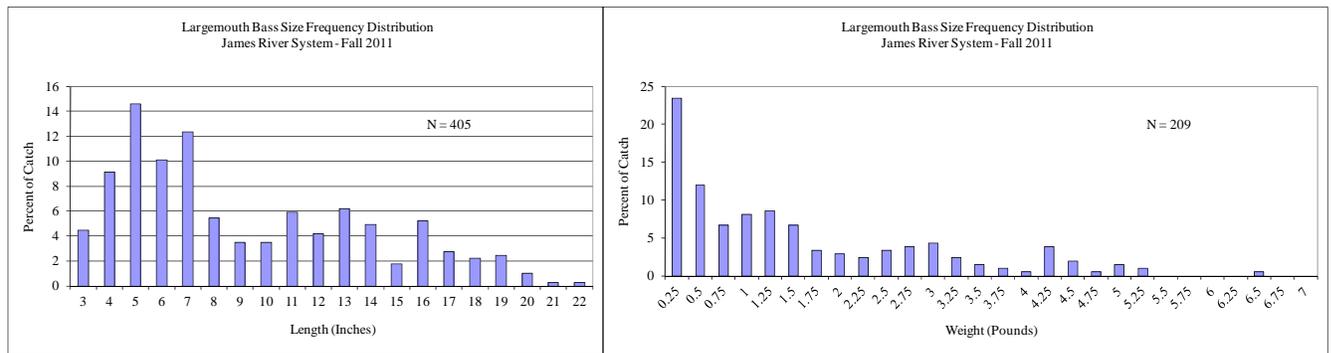


Figure 4. Distribution by length and weight of largemouth bass collected during fall 2011 boat electrofishing on the tidal James River and its tributaries.

It takes an unusually strong year-class to produce fish over 5 pounds in the tidal James; previous to the 2009 and 2011 year-classes, 1998 was the last time such a year class was produced – those bass have succumbed to mortality and are no longer in the system. It will be several years before the 2009 and 2011 year-classes begin to show up as larger fish in angler catches.

Anglers unfamiliar with the tidal James should be aware that some of the best largemouth fishing in this system is found in tidal tributaries from the Appomattox River down to Upper Chippokes Creek – tributaries below this are more likely to be impacted by spikes in salinity. Fishing for largemouth in the mainstem James is best above Hopewell – below this there are only isolated pockets of suitable bass habitat available in the river.

Pamunkey River

Production of young bass has been stable in this river since at least 2003, as reflected by remarkably consistent boat electrofishing catch rates for young-of-year bass (17–22 young/hour). However, largemouth bass in the Pamunkey grow slower than in the tidal

Chickahominy, James, or Rappahannock, with fish generally reaching 12 inches as 3 year olds, and not achieving 15 inches until age 5. Given this slow growth, and fairly high mortality (30% total annual mortality), fish above 15 inches, or 2 pounds, have been uncommon in the Pamunkey. However, results from 2011 fall electrofishing indicate that surviving bass from the strong 2006 year-class have resulted an increase in the size distribution of bass available to anglers, with bass to 17 inches, or 3 pounds, available in good numbers (Figure 5).

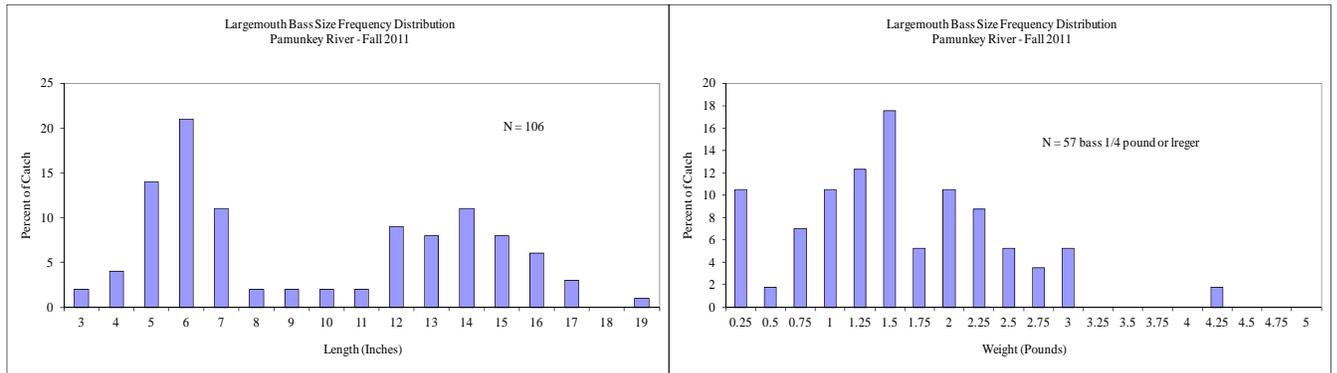


Figure 5. Pamunkey River largemouth bass length and weight distribution – 2011 boat electrofishing.

Rappahannock River

Although trending slightly higher through time, electrofishing catch rates in the Rappahannock have been, and continue to be, consistently low compared to other tidal rivers in Virginia. During boat electrofishing in 2011 biologists sampled largemouth at a rate of 32 bass/hr above Route 301, while below Route 301 catch of bass was just 10 bass/hr. While not abundant, the size structure of this population is such that the proportion of bass ≥ 15 inches is good; with RSD-P = 44 above Route 301 and, in a post-storm 2011 electrofishing survey, RSD-P = 80 below Route 301. Fish to 2 ¼ pounds are most common, with some fish in the 2 ½ to 3 pound range available. While fish above 3 ½ pounds are rare, biologists are monitoring signs of improving size structure, with two 20 inch and one 22 inch largemouth sampled in 2011.

With expanding beds of submerged aquatic vegetation (grass beds) habitat in the lower river is improving. As has been the case in other tidal rivers, these grass beds are associated with increased fish production. Department biologists are monitoring the largemouth bass population response to this improving habitat. As was the case in Back Bay, biologists will be working in 2012 to assess whether stocking is warranted to boost largemouth numbers in areas of the Rappahannock River where habitat has recently improved.

Mattaponi River

Largemouth bass catch rates have been low and somewhat variable in recent boat electrofishing surveys, ranging from 12 bass/hour in 2004 to 38 bass/hour in 2008. Electrofishing catch rates for largemouth bass in this river are substantially lower than in the Pamunkey, James, and

Chickahominy. And, with slow growth, the size of largemouth available to anglers is not impressive (Figure 6).

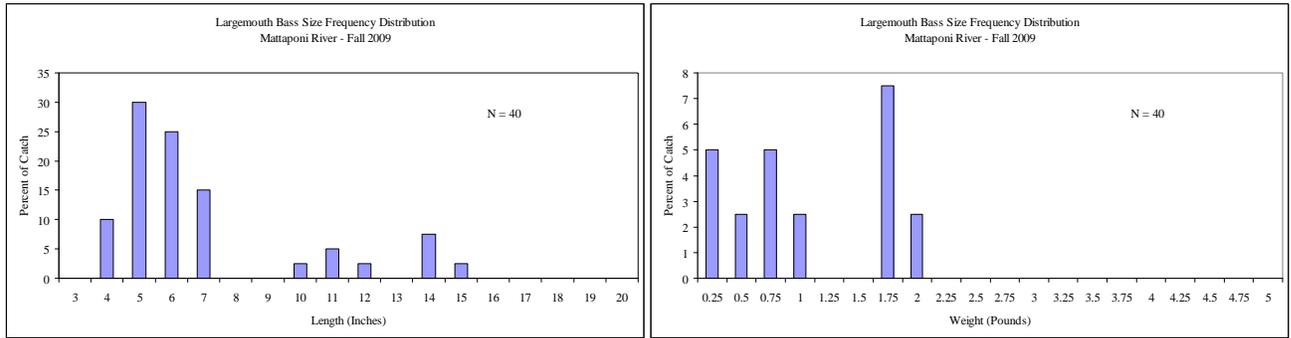


Figure 6. Distribution by length and weight of largemouth bass collected during fall boat electrofishing on the tidal Mattaponi River.

Given the lower productivity of the Mattaponi, and resulting low abundance and slow growth of largemouth bass, this river is likely to continue to produce fewer and smaller bass overall than other tidal waters of Virginia.