



## Tidal River Largemouth Bass Outlook - 2010

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As of late 2009, largemouth bass populations in Virginia's tidal rivers were generally strong (Chickahominy and James), stable (Pamunkey), or improving, as in the Rappahannock where electrofishing catch rates were the highest ever recorded. Electrofishing is a technique fisheries managers use to sample fish inhabiting shorelines and other shallow water habitats.

The outlook for Virginia's tidal river bass fisheries in 2010 is excellent, particularly for the Chickahominy and James. These two fisheries are comparable to some of the best bass lakes in Virginia, based on: (1) catches of bass  $\geq 15$  inches (CPUE-P) in recent electrofishing surveys; and (2) an index of the proportion of bass  $\geq 15$  inches (RSD-P). In 2009 electrofishing surveys, CPUE-P = 29 bass/hour in the James and Chickahominy, with RSD-P = 45 in the James and RSD-P = 35 in the Chickahominy. 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](http://www.dgif.virginia.gov).

### Tidal Chickahominy River System

Boat electrofishing catch rates have been high over the past several years – over 100 bass/hour in three of the last four years (Figure 1).

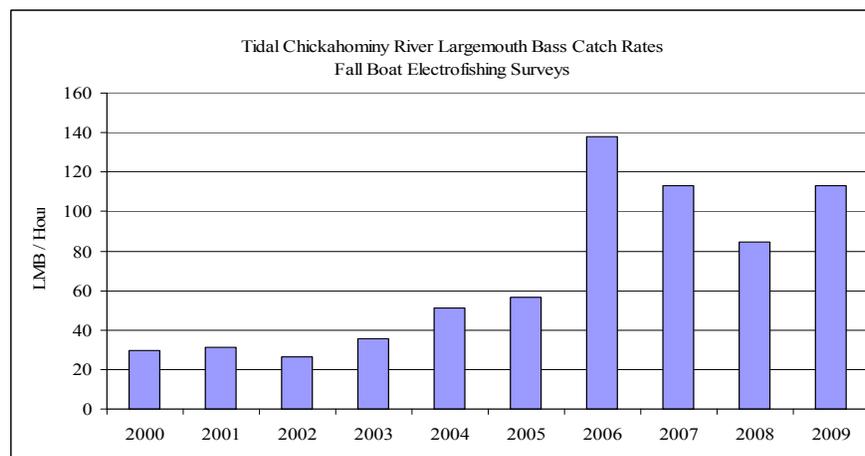


Figure 1. Largemouth bass catch rates (bass/hour) in fall boat electrofishing surveys conducted during 2000 – 2009 in the tidal Chickahominy and its tributaries.

Production of young bass has been high for several years: with a record year-class in 2009; a strong year-class in 2005; and average year-classes in 2006 and 2007. As a result, angler catch rates were at record highs in the spring of 2009, double what they were in 2005, and much

higher than most Virginia bass lakes. The fishery should continue to produce high catch rates over the next several years.

During a period of low abundance in 1999 – 2003, young bass grew faster than normal, and there was a resulting increase in the average size of adult bass – even a few reports of fish over 7 pounds. However, with increased abundance in recent years, growth of young bass has slowed markedly. Some will remember the classic description of the Chickahominy – “you can catch a bunch of bass, none of them over 1 ½ pounds”. In future years, largemouth bass in angler catches may mirror that of times gone by.

Electrofishing results indicate anglers fishing the tidal Chickahominy in 2010 will see an abundance of largemouth to 16 inches (2 ¼ pounds), with the occasional fish to 18 inches (3 ¾ pounds), in their catch (Figure 2).

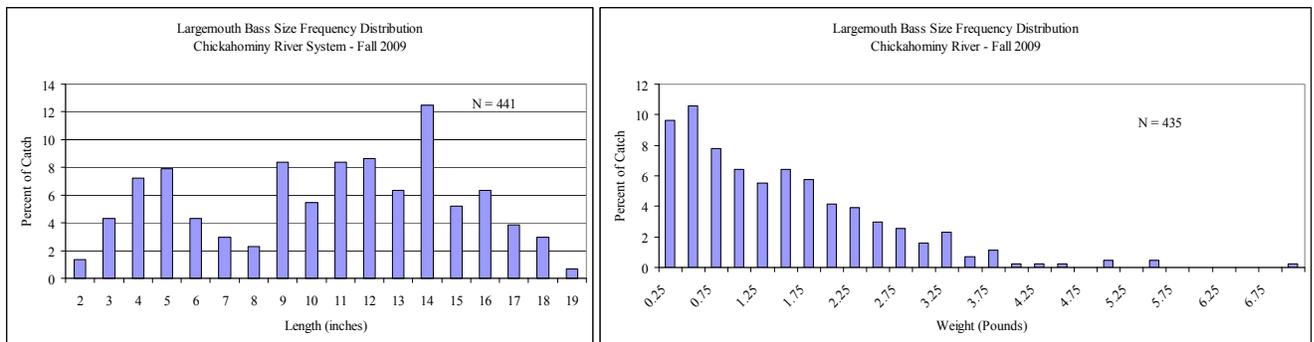


Figure 2. Distribution by length and weight of largemouth bass collected in the fall 2009 boat electrofishing survey of the tidal Chickahominy River and its tributaries.

### Tidal James River & Tributaries

The tidal James has a healthy bass population, with six years of stable recruitment (2003 – 2008), and an extremely strong year-class produced in 2009. 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. Growth of bass in the James has remained stable, and is higher than the Chickahominy.

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 18 inches, or 3 ½ pounds, produced by the tidal James and its tributaries, with rare fish to 6 ½ pounds (Figure 3).

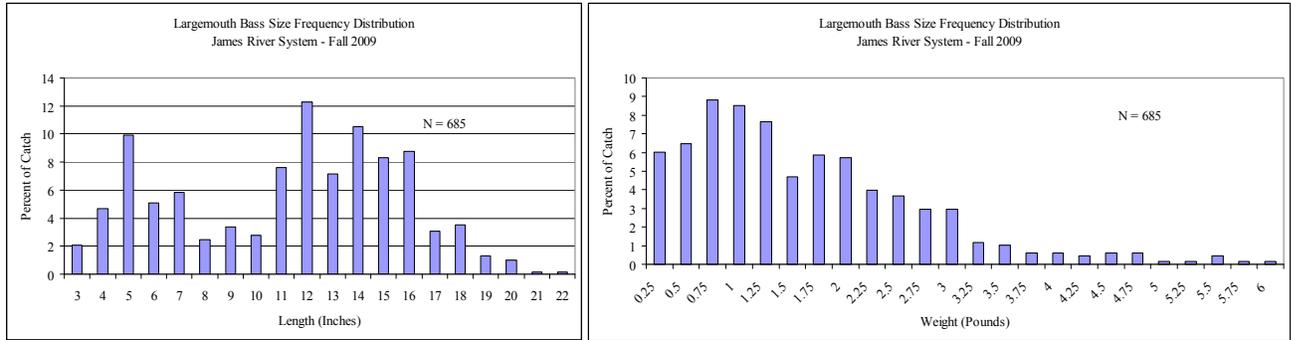


Figure 3. Distribution by length and weight of largemouth bass collected in the fall 2009 boat electrofishing survey of the tidal James River and its tributaries.

Although the Chickahominy offers higher catch rates, the James has been the most consistent tidal river largemouth fishery in Virginia over the past decade. All indications are that it will continue to produce over the next several years. 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

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 (17–18 young/hour). The 2006 year class was exceptional (37 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, are uncommon in the Pamunkey (Figure 4).

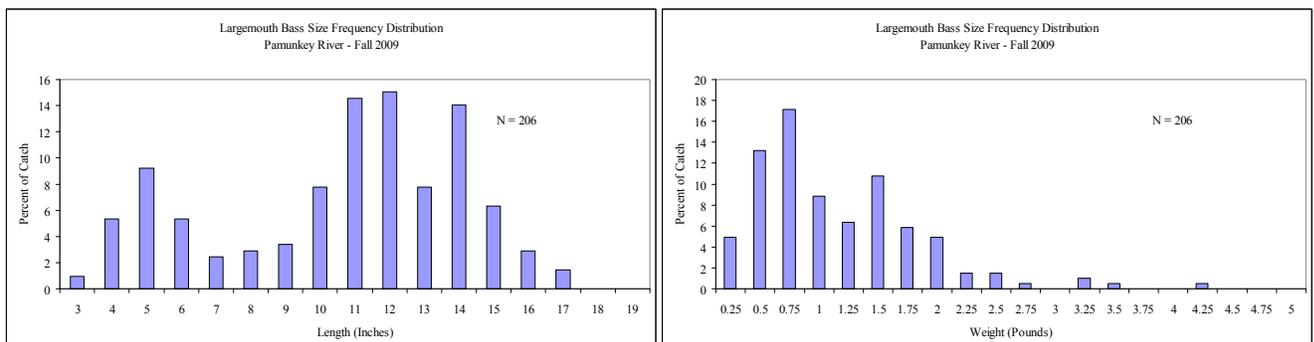


Figure 4. Distribution by length and weight of largemouth bass collected in the fall 2009 boat electrofishing survey of the tidal Pamunkey River.

## Rappahannock

Electrofishing catch rates have increased slowly over several years. However, catch rates are still low, 21 fish/hour in 2009, and are consistently lower than other major tidal rivers in Virginia. While not abundant, the size structure of this population is such that the proportion of bass  $\geq 15$  inches is good (RSD-P = 38), and catches of bass  $\geq 15$  inches (CPUE-P = 6 bass/hour) are better than the Mattaponi. Fish to 2 ¼ pounds are most common, with some fish in the 2 ½ to 3 pound range available. Fish above 3 ½ pounds are rare (Figure 5).

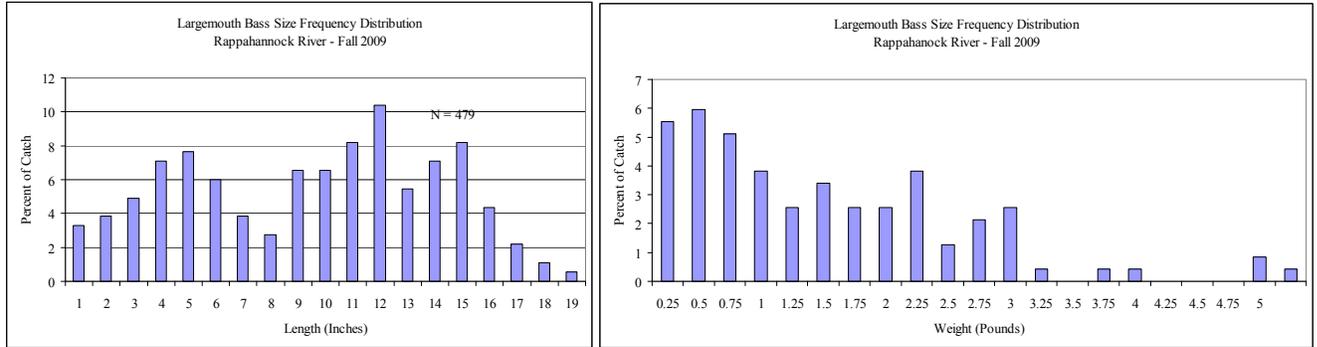


Figure 5. Distribution by length and weight of largemouth bass collected in the fall 2009 boat electrofishing survey of the tidal Rappahannock River.

## Mattaponi

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. In 2009, catch was intermediate, 24 bass/hour. Catch rates for largemouth bass in this river continue to be 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).

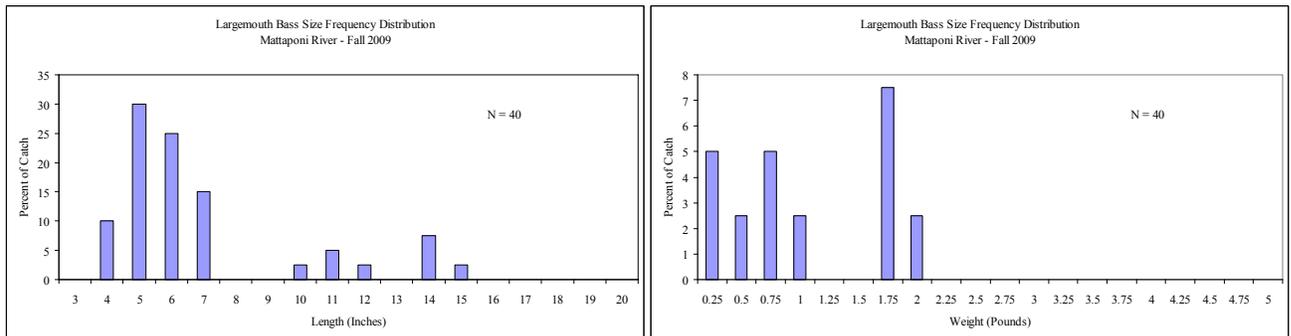


Figure 6. Distribution by length and weight of largemouth bass collected in the 2009 fall boat electrofishing survey of the tidal Mattaponi River.

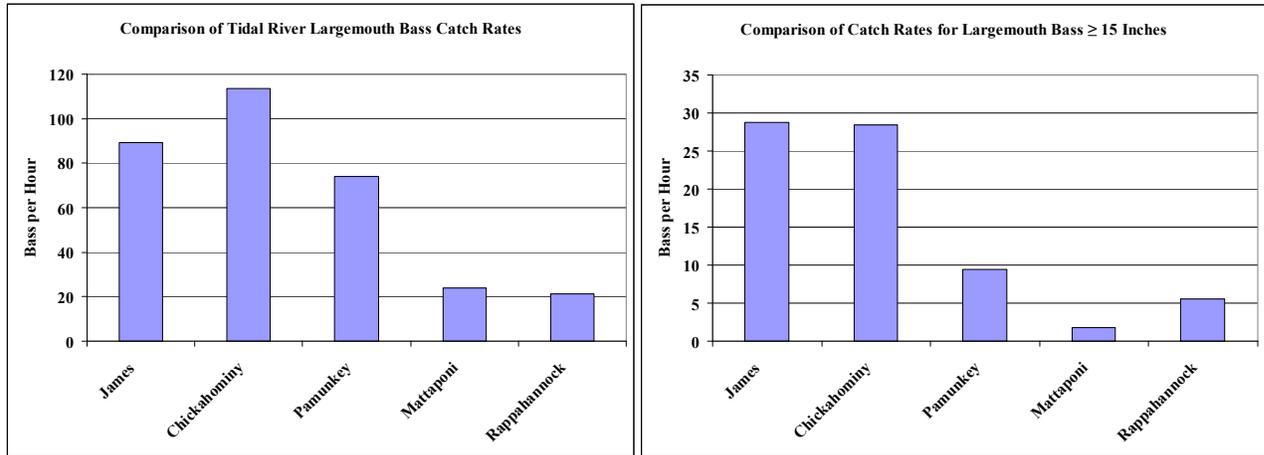


Figure 7. Comparison of largemouth catch rates and catch rates for bass 15 inches and larger in recent electrofishing surveys of the tidal Chickahominy, James, Mattaponi, Pamunkey, and Rappahannock rivers.

### 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 7).

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 is a close second to the James in abundance of bass  $\geq 15$  inches. This fishery should continue to produce ample bass for several years.

2 – James and tributaries: Although catch rates are somewhat lower than the tidal Chickahominy, bass grow faster as young fish in this population, therefore, adult bass are somewhat larger at a given age in the James versus the Chickahominy. Recruitment has been consistent over time, and this fishery should remain stable for years to come, out producing other tidal rivers in terms of bass  $\geq 15$  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.