



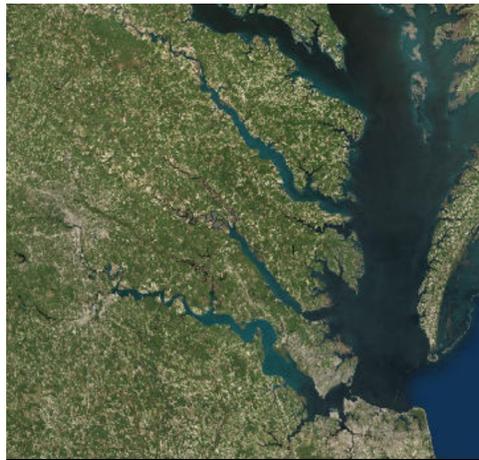
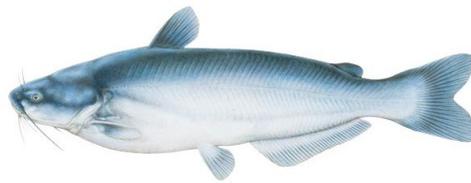
# TIDAL BLUE CATFISH



The tidal rivers in Virginia provide excellent opportunities for anglers interested in catching Blue Catfish. These dynamic flowing systems allow for a diverse fishing experience. Rivers are in a constant state of flux, and so are fish populations. Biologists sample rivers annually with specialized electrofishing (EF) equipment to assess population status and trends. Much has happened over the last several years in terms of catfish sampling. Virginia Department of Game and Inland Fisheries (VDGIF) sampling dates back to the 1990's and is the primary long-term dataset used for assessing Blue Catfish populations in Virginia.

### River Rankings (based on EF surveys):

- #1 James River
- #2 Pamunkey River
- #3 Rappahannock River
- #4 Mattaponi River



A 102-pound Blue Catfish caught by Tim Wilson and Danny Ayers on the James River in 2009 (Right; Photo credit: Larry Scarborough, Jr.). Color drawing of a Blue Catfish (Top Left; Credit: Joe Tomerelli). The tidal river systems entering the Chesapeake Bay (Middle; Map source: ESRI).



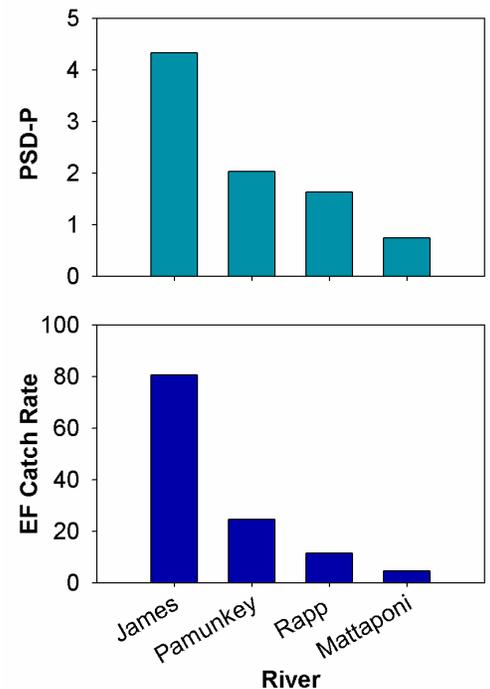
## Background

Virginia's tidal rivers offer excellent opportunities to catch Blue Catfish, but the James River in particular has been recognized nationally for more than a decade as a premier trophy fishery. Anglers from around the country and Commonwealth have been traveling to central Virginia for guided James River fishing trips. The current James River record Blue Catfish, caught in 2009, weighed over 102 pounds (see picture above). Blue Catfish are native to several Midwest U.S. river drainages (Mississippi, Missouri, and Ohio rivers) and range geographically into South America. Not native to Virginia, Blue Catfish are a large fork-tailed catfish species.

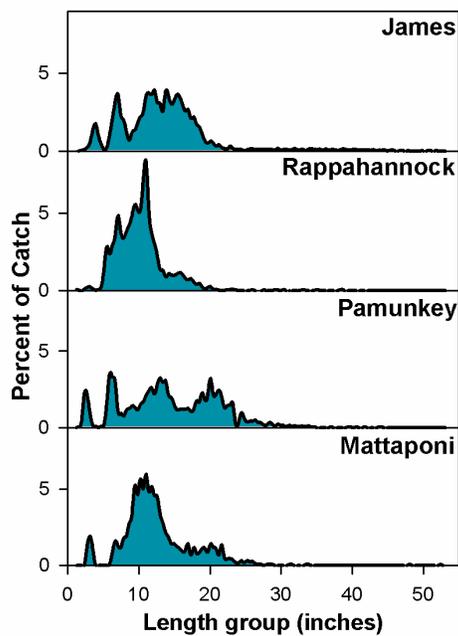
They were first introduced to tidal waters of Virginia in the early 1970's with stockings in the tidal James and Rappahannock rivers. In 1985, they were released in the Mattaponi River, and eventually populated the Pamunkey River. They can survive in relatively high

salinities up to 15 ppt, about half the salinity of sea-water. This has allowed populations to spread into other tributaries throughout the Chesapeake Bay including the Piankatank River and the tidal Potomac River system. Populations are likely driven by productivity levels (nutrient availability) in tidal rivers.

The establishment of non-native predatory fish species has a long history in freshwater fisheries management across the globe. Other freshwater fisheries in Virginia that are based on introduced fish populations include: Rainbow Trout, Brown Trout, Walleye, Smallmouth Bass, Largemouth Bass, Channel Catfish, and Flathead Catfish. Because of the blue cats broad expansion and high numbers, there is uncertainty with regards to impacts on other important fisheries resources (e.g., Striped Bass, American Shad, River Herring, and Blue Crabs) causing major concerns among Chesapeake Bay stakeholders. For this reason, large-scale research studies are in place to understand potential impacts. For



The Proportional Size Distribution for preferred sized ( $\geq 30''$ ) or PSD-P, is a numerical descriptor of length-frequency data with larger values indicating a greater number of preferred sized fish in the population when comparing rivers (top). The bottom plot shows average catch rates (catch per hour of electrofishing) of Blue Catfish  $\geq 30''$  from electrofishing surveys in 2014 from each river.



Length frequency expressed as the percent of catch during 2014 electrofishing surveys for each river. The more peaks present indicate more age classes in the population. The more peaks in the larger size groups indicate larger fish in the population.

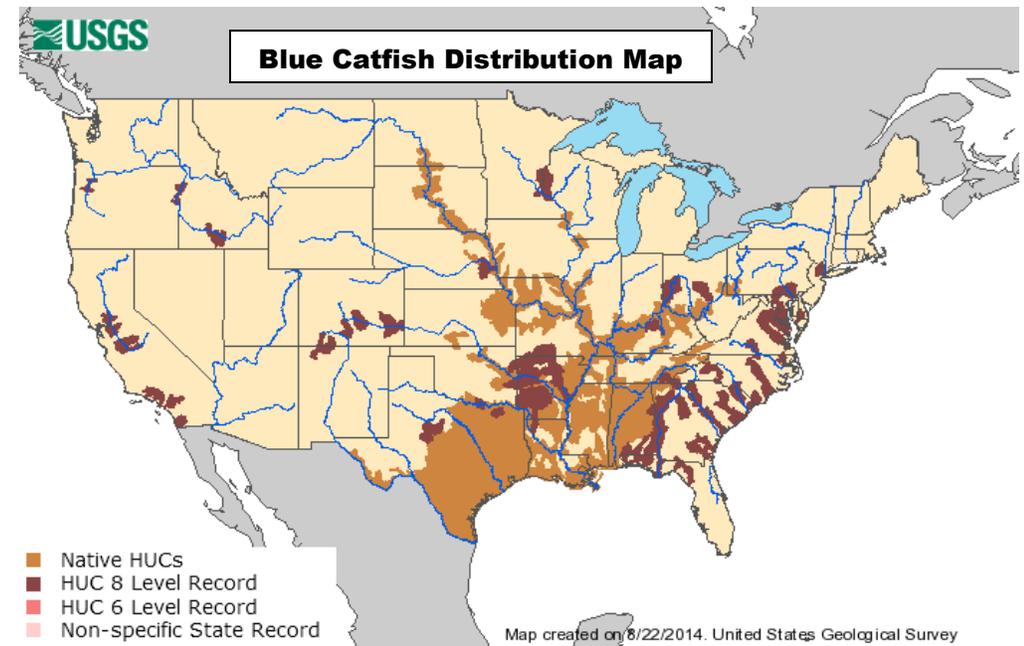
example, Virginia Tech researchers are exploring the diet of Blue Catfish in the major tidal rivers in Virginia. This is key to understanding impacts to other species. The Virginia Institute of Marine Science is conducting a large-scale study to estimate population size in the James River.

## Findings

The James, Rappahannock, Pamunkey, and Mattaponi rivers were sampled by VDGIF using boat electrofishing in July-September 2014 to detect status and trends in catfish populations. VDGIF sampling dates back to the 1990's and is the primary long-term dataset used for assessing Blue Catfish populations in Virginia. In general, look for deep holes, fallen trees, and drop-offs, especially along the outer bends in the river. Creek mouths are also a good option.

Here's how they stack up:

**#1 James River & tributaries** — This river provides the best catfishing in Virginia with unmatched numbers and high abundance of large fish. The James has the highest PSD-P and EF catch rates of preferred sized ( $\geq 30''$ ) Blue Catfish. High numbers of large fish can be found upstream of James Harrison Bridge.



Map of Blue Catfish distribution from the U.S. Geological Survey. Light brown shows native range of the species, while darker brown indicates an introduced non-native population. HUC = hydrologic unit code.

Be prepared for any size between 1-100 pounds.

**#2 Pamunkey River** — If you want an opportunity to catch good eating size cats in the 3-5 pound range, look no further. This river is loaded with eaters.

**#3 Rappahannock River** — The Rapp is characterized by high abundance, but relatively smaller fish in overall size than the other tidal rivers. If you want numbers to fill the freezer, and aren't worried as much about trophy fishing, the Rapp provides a great opportunity in Northern Virginia.

**#4 Mattaponi River** — Even with these rankings, there's really no wrong answer when deciding which river to go to if you want to catch blue cats. They are abundant in all tidal rivers, but the key is to know where to look. Focus on the habitats mentioned earlier, and you should have a good shot at catching fish. This river is similar to the Pamunkey as far as size goes, but the fish are less abundant.

## The Regs

In Virginia, the "32 inch" regulation which limits possession of Blue Catfish over 32 inches to one fish per person per day is still in place, and applies to recreational and commercial fishers no matter the method of

harvest. Restricted harvest of these large, relatively rare, fish allows them to be recaptured—resulting in higher numbers of large fish.

There is no limit on harvest of Blue Catfish smaller than 32 inches from Virginia's tidal rivers. So, fill the freezer with a good eating fish. The VA Marine Resources Commission (VMRC) regulates commercial fisheries in these waters, but in the case of freshwater species, VDGIF regulation allows harvest of certain species from tidal rivers. Questions regarding commercial harvest methods in tidal rivers should be directed to the VMRC. In the James River, the Virginia Department of Health's consumption advisory recommends (visit: [www.vdh.state.va.us](http://www.vdh.state.va.us)) no consumption of Blue Catfish over 32 inches in the James, and no more than 2 meals/month of less than 32 inches. The recommendation for all other rivers is no more than 2 meals/month regardless of size.

\*\*\*Be safe, wear a life jacket, and please obey fishing and boating regulations while on the water\*\*\*

By: Aaron Bunch & Bob Greenlee

Eric Brittle, Chad Boyce, Alan Weaver, John Odenkirk, and Mike Isel provided useful comments.

### For more information please contact:

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