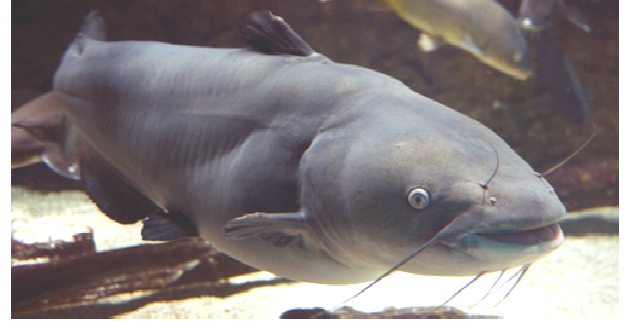


Invasive Catfish in the Chesapeake Bay

What are blue and flathead catfish?

- Blue and flathead catfish are native to the Mississippi, Missouri, and Ohio River basins.
- They were introduced into the James, Rappahannock, and York Rivers in Virginia during the 1960s-1980s.
- They are now common in most major tidal tributaries in Virginia and also in some large Maryland tributaries.
- They can live longer than 20 years, and can grow to be greater than 100 pounds. They prefer freshwater but can thrive in brackish waters as well.
- Although both species are considered invasive in the Chesapeake Bay, the threat of blue catfish is more concerning because of their increasing populations, rapid range expansion, and capacity to consume significant amounts of native species.



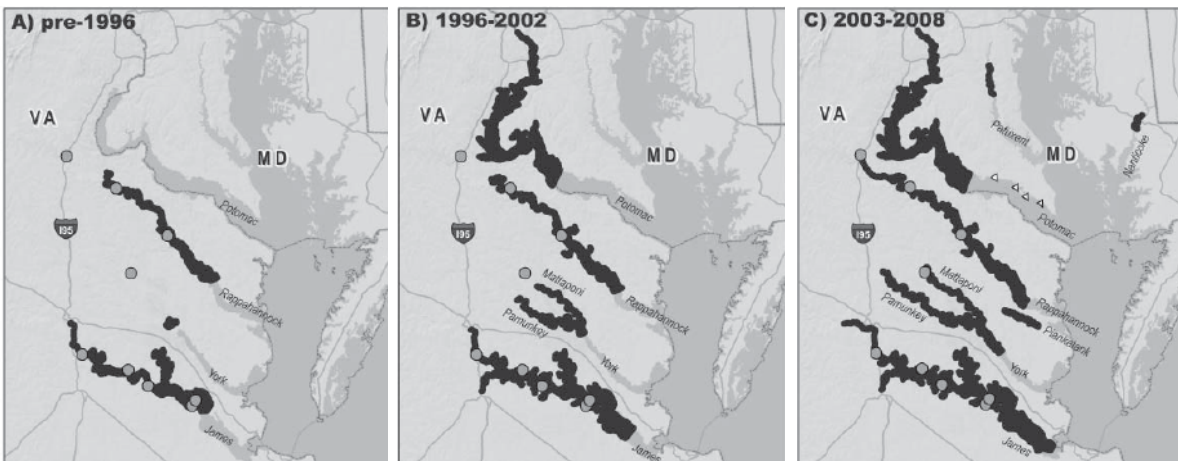
Blue Catfish (CBP)



Flathead Catfish (State of Pennsylvania)

Why are blue and flathead catfish a problem in the Chesapeake Bay?

- Blue and flathead catfish are considered invasive (having the potential to cause economic and/or environmental harm) in the Bay watershed. Adults of these species have few natural predators in the Bay and consume native species of fish and shellfish.
- These catfish are quickly spreading throughout the Bay into nearly every major tributary. In some studies on the James and Rappahannock they are estimated to make up 75% of the total fish biomass or 75% of the total weight of all fish inhabiting that tributary (Schloesser *et al.* 2011; VDGIF; VCU).



Distribution of blue catfish in Chesapeake Bay tributaries from 1996-2012 (Schloesser *et al.*, 2011; Garman *et al.*, unpublished data).

- As adults, both species feed primarily on fish and shellfish including shad, river herring, menhaden, and blue crabs. As the catfish in the Bay grow larger, they will consume more native Bay fish.



American Shad (CBP)



River Herring



Menhaden



Blue Crab

What is being done to address invasive catfish in the Chesapeake Bay?

Policy and Management

- The Chesapeake Bay Program’s Sustainable Fisheries Goal Implementation Team (SFGIT) is a group of Chesapeake Bay jurisdictional managers and other fisheries stakeholders that have recognized invasive catfish as a problem.
- The SFGIT is committed to developing policy options to mitigate their spread while keeping in mind their recreational and economic value.



Blue Catfish (VIMS)

- The SFGIT Executive Committee adopted an Invasive Catfish Policy statement in January 2012, stating “the potential risk posed by blue catfish and flathead catfish on native species warrants action to examine potential measures to reduce densities and limit range expansion, and to evaluate possible negative ecological impacts.”

- The Invasive Catfish Task Force was established by the SFGIT to coordinate research, increase public awareness, and recommend policy options to reduce spread and mitigate the impacts of catfish on valuable Chesapeake Bay resources.



Tagging study to estimate the population of blue catfish in James River (July 2012, NCBO)



Gut content analysis of blue catfish shows multiple blue crabs were consumed (VCU)

Science

- The SFGIT has sought management driven research to further understand blue and flathead catfish’s negative impacts on native species.
- VIMS is working with commercial watermen on a tag and recapture study in which 15,000 catfish were tagged in July and 5-7% of the fish were since recaptured. 900 fish have been processed and they are now analyzing these data using appropriate models.
- VCU is working on the attached “Catfish Portal” that will show the current locations of blue and flathead catfish, potential habitable areas, and areas of concern for protection.
- VCU is also working on a predation study to further determine the diet composition of blue catfish.
- VIMS is researching contaminant concentrations in blue catfish that will be used to evaluate the efficacy of using fisheries as a population control strategy



James River Electrofishing Surveys (upwards of 6000 catfish/hour)



James River Record Blue Catfish (102 lbs; 2009)



Maryland Record Blue Catfish (84 lbs, 52 in, Potomac River, 8/13/12)

Catfish Portal

(In Development)

