

INVASIVE CATFISH IN THE CHESAPEAKE BAY

Bruce Vogt

NOAA Chesapeake Bay Office
Coordinator, Sustainable Fisheries GIT and
Chair Invasive Catfish Task Force

STAC

March 2015



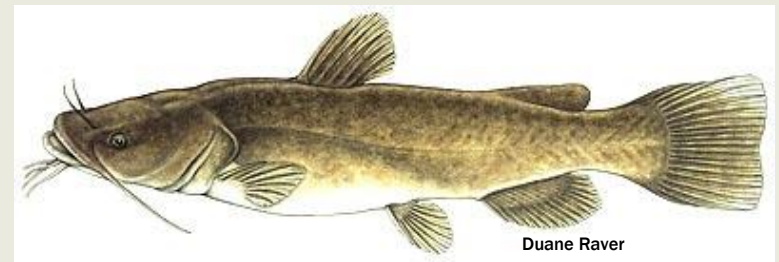
Chesapeake Bay Program
A Watershed Partnership



Blue catfish (*Ictalurus furcatus*)



Flathead catfish (*Pylodictis olivaris*)



HOW DID THEY GET HERE?



- Native to the Mississippi drainage basin.

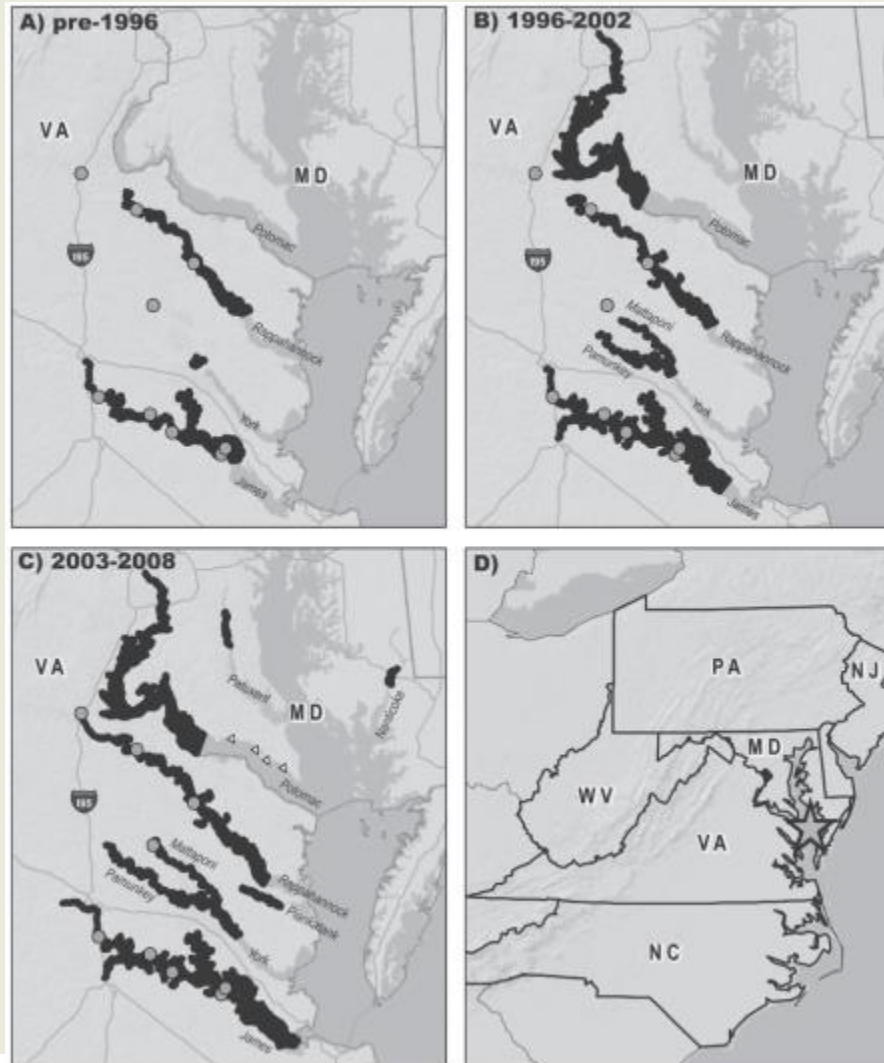


- Over 300,000 juvenile blue catfish were introduced to the region beginning in 1974.



- Population expansion into Maryland tributaries thought to be from unauthorized introductions.

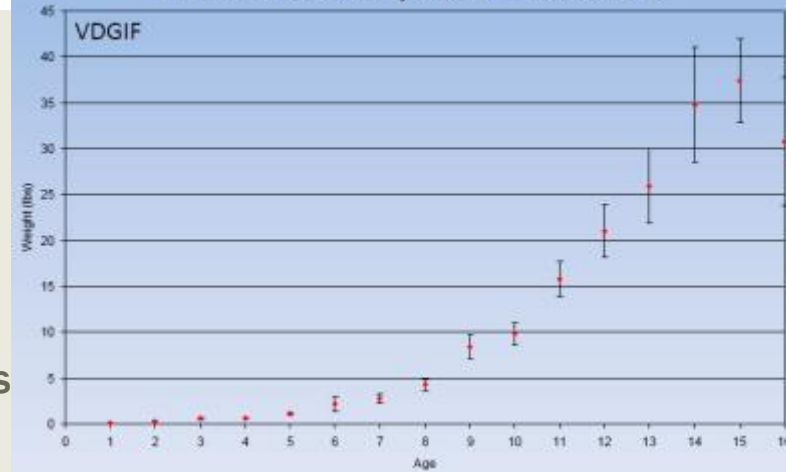
INTRODUCTION SUCCESSFUL...SPREADING



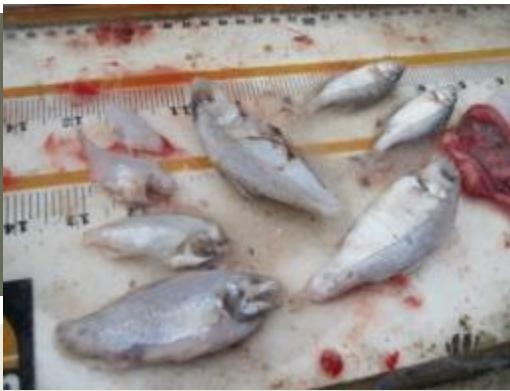
THE CONCERN

- High fecundity (lots of babies)
- Long lived
- Fast growth
- Diet dominated by other fish at around age 3
- Changing trophic structure of our systems
- Hampering restoration of anadromous species
- Big fish = big appetite
- Few natural predators
- Habitat competition with natives

Mean Weight at Age (+/- 95% CI)
Tidal James River, 2002 – 2008 Data



CATFISH DIET



VCU



VDGIF

- As adults, both species feed primarily on fish and shellfish including shad, river herring, menhaden, blue crabs, soft shell clams, and freshwater mussels.



VCU



VCU

HOW MANY ARE OUT THERE?



MD DNR Potomac River Electrofishing Survey, 2012

WHAT'S BEEN DONE?

Coordinating Bay-Wide Management: The Fisheries Goal Implementation Team



POLICY

- **ASMFC Resolution 2011**

- **“That the Atlantic States Marine Fisheries Commission supports the development of and implementation of a strategy that minimizes the population and ecological impacts of non-native invasive catfish species throughout the Chesapeake Bay watershed.”**

- **Fisheries GIT Policy Statement**

- **“The Sustainable Fisheries Goal Implementation Team Executive Committee has concluded that 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.”**

IMPROVE UNDERSTANDING

- VDGIF diets studies with VA Tech
- VA Sea Grant electrofishing study
- > \$1M in NCBO-funded research projects in Maryland and Virginia
 - Blue catfish diets
 - Population size
 - Distribution and movement
 - Growth rates
 - Contaminant load



INVASIVE CATFISH TASK FORCE

- Workgroup formed in 2012 under the Fisheries GIT
- Responsible for coordinating the best available science and **developing management recommendations to mitigate invasive catfish spread and minimize impacts on native fish species**

Task Force members:

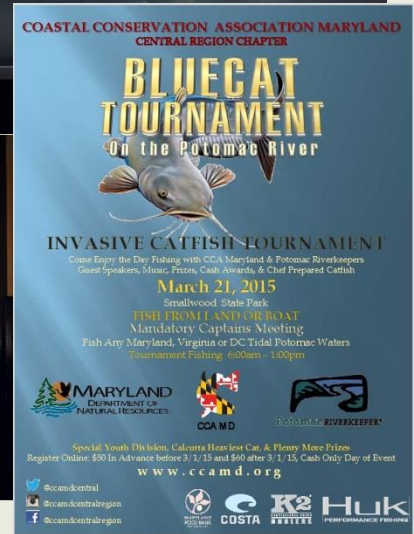
- NOAA
- MD DNR
- SERC
- Potomac River Fisheries Commission
- VIMS
- VCU
- VDGIF
- VMRC
- Virginia Marine Products Board
- DC Division of Fish and Wildlife
- PFBC
- DNREC

REPORT RECOMMENDATIONS AND TIMELINE

- **March 2014--Report completed and Recommendations Supported by Fisheries GIT in March 2014**
 - 1: Targeted Fishery-Independent Removals
 - 2: Commercial Fishery and Market
 - 3: Increased Harvest – Electrofishing
 - 4: Monitoring and Early Detection
 - 5: Fish Passage Barriers
 - 6: Review of Regulations
 - 7: Consistent Communication; Public Awareness
- **April 2014--Management Board conditionally approved pending STAC review**
- **May 2014—ANSTF briefed**
- **November 2014-- STAC review complete**
- **December 2014--Comments considered by ICTF and Fish GIT**

NEW DEVELOPMENTS

HB 2240 Blue catfish; introduction, stocking, and release of Blue catfish, exception.



NEXT STEPS

- ICTF revising the report to include STAC comments including:
 - More discussion of uncertainty
 - Updated findings from ongoing research (contaminants and ecological impacts)
 - Focus on setting goals and objectives for the fishery
- Opportunity to incorporate invasive catfish in Management Strategies and Workplans?
 - Fish Habitat
 - Forage
 - Water quality
 - Fish passage
 - Toxics (human health)
 - Blue crab

QUESTIONS?

MARYLAND STATE RECORD
84 LBS (2012, POTOMAC)

VIRGINIA STATE RECORD
102 LBS (2009, JAMES)



Captain Josh Fitchett (left) helps Ed Jones display his Maryland record, 84-pound blue catfish.

MD DNR



VA DGIF