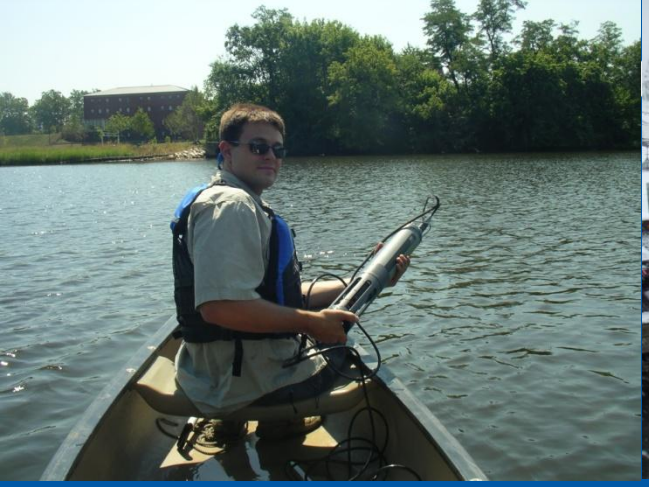


BLUE AND FLATHEAD CATFISH IN THE CHESAPEAKE BAY: WHAT TO DO ABOUT THEM?

BRUCE VOGT
COASTAL & LIVING RESOURCE MANAGER
NOAA CHESAPEAKE BAY OFFICE

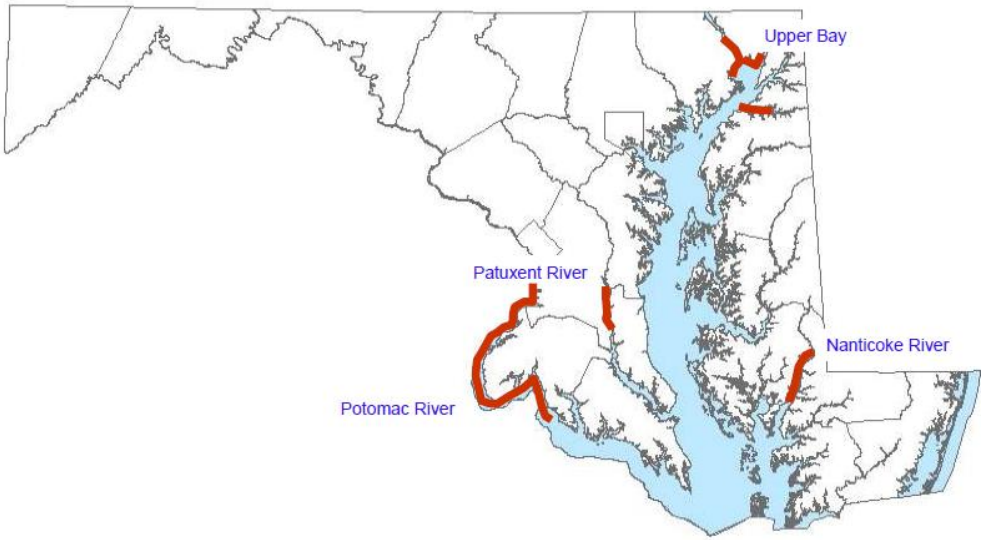
Mid-Atlantic Aquatic Invasive Species Panel

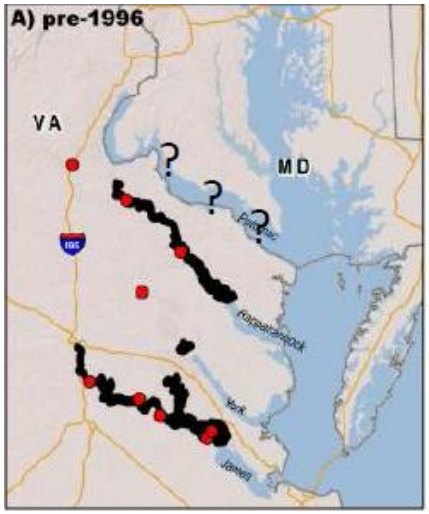
May 18, 2011

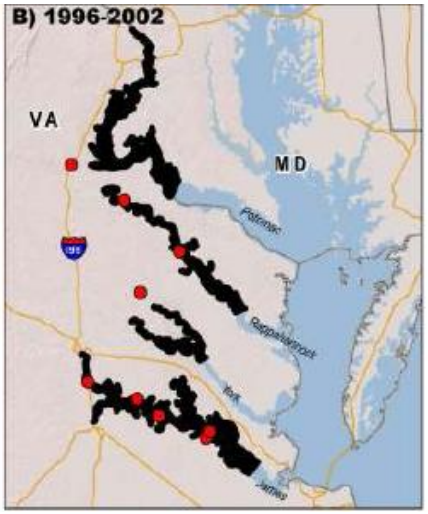
Blue Catfish: Background and Biology

- Large, long-lived (20+ years, up to ~100 lbs.)
- Native to Mississippi, Missouri, Ohio River Basin
- Opportunistic feeder
- Introduced to Chesapeake Region ~1975

Blue Catfish: Distribution / Range





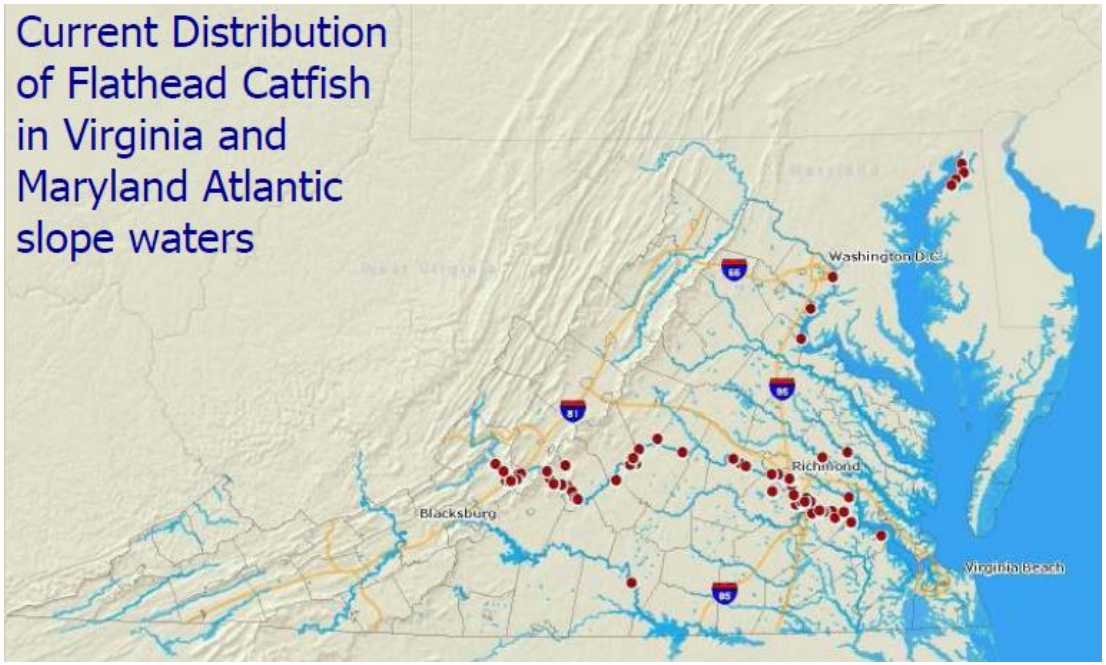


Flathead Catfish: Background and Biology

- Large, long-lived (15+ years, up to 125 lbs.)
- Native to Mississippi and Gulf slope drainages
- Opportunistic and aggressive feeder
- Introduced to Chesapeake Region ~1965

Flathead Catfish: Distribution / Range

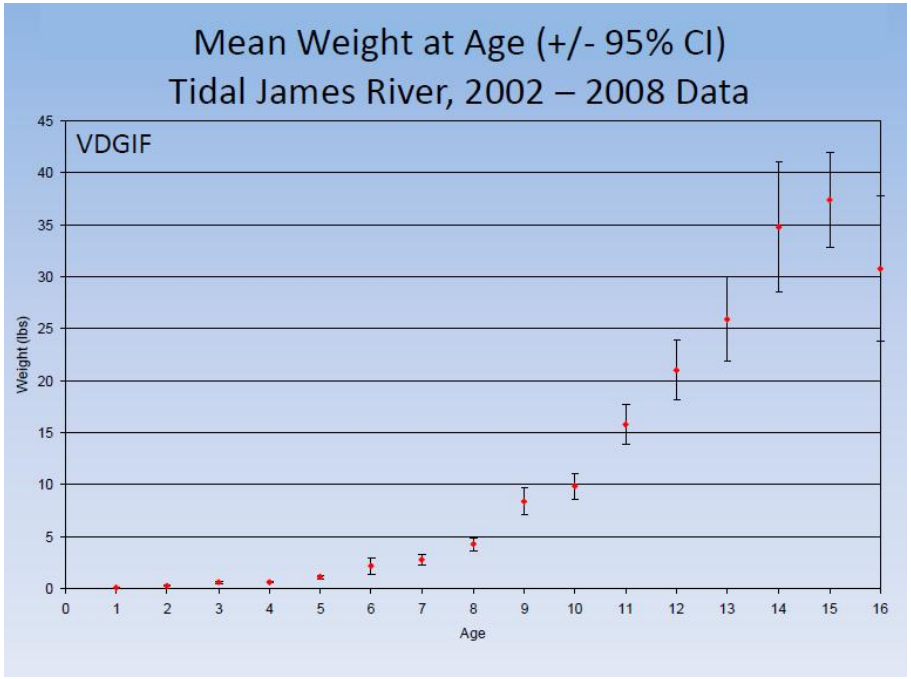
- Introductions ca. 1965 (flathead) and ca. 1970 (blue)
- Followed by establishment in other major tributaries by 2002.

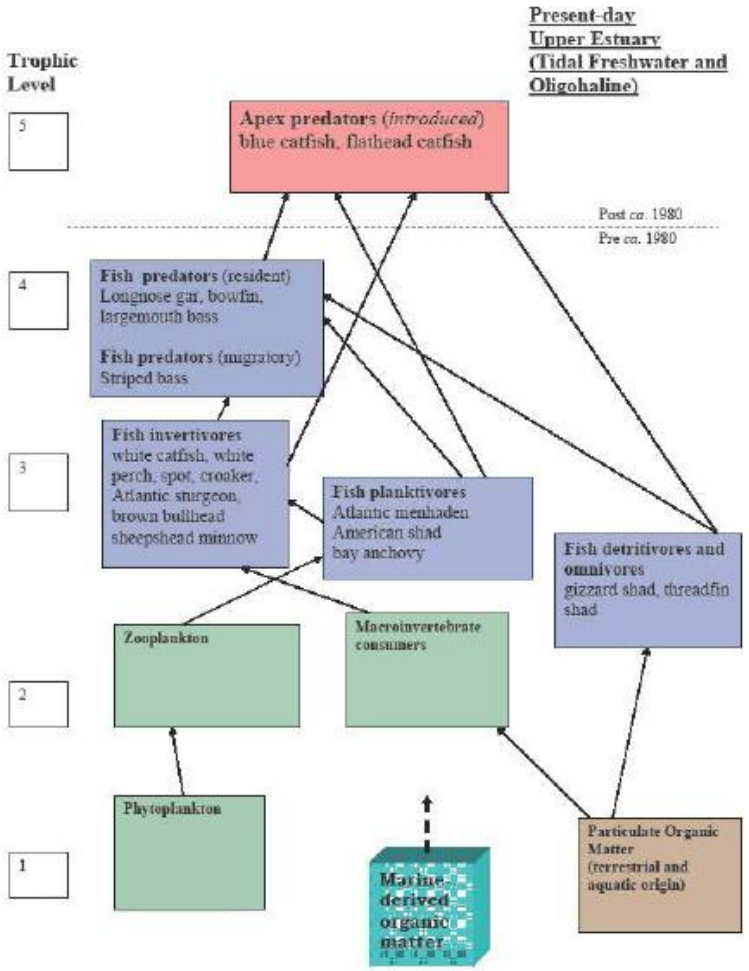


Electrofishing Surveys

Feeding and Growth

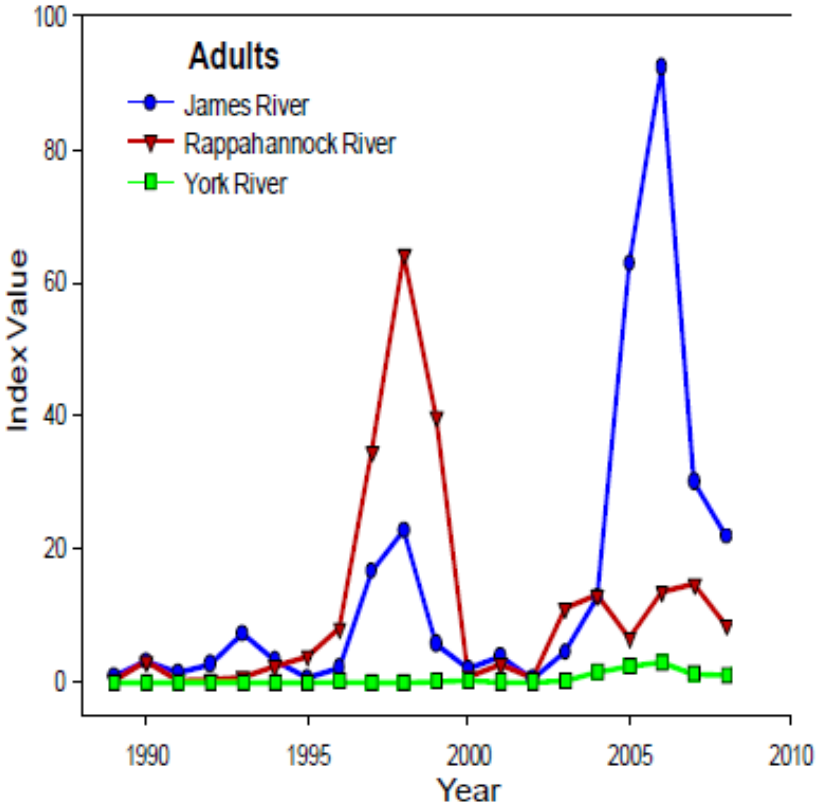
- Top “apex” predator in Chesapeake Bay tributaries .
- Very fast growing





Relative Abundance

- Trends of increasing density and expanding age and size structure –variable among River systems
  - Likely due to time since population establishment and differences in watershed area and productivity.
- Variable recruitment – year class strength indicative of landscape level environmental processes

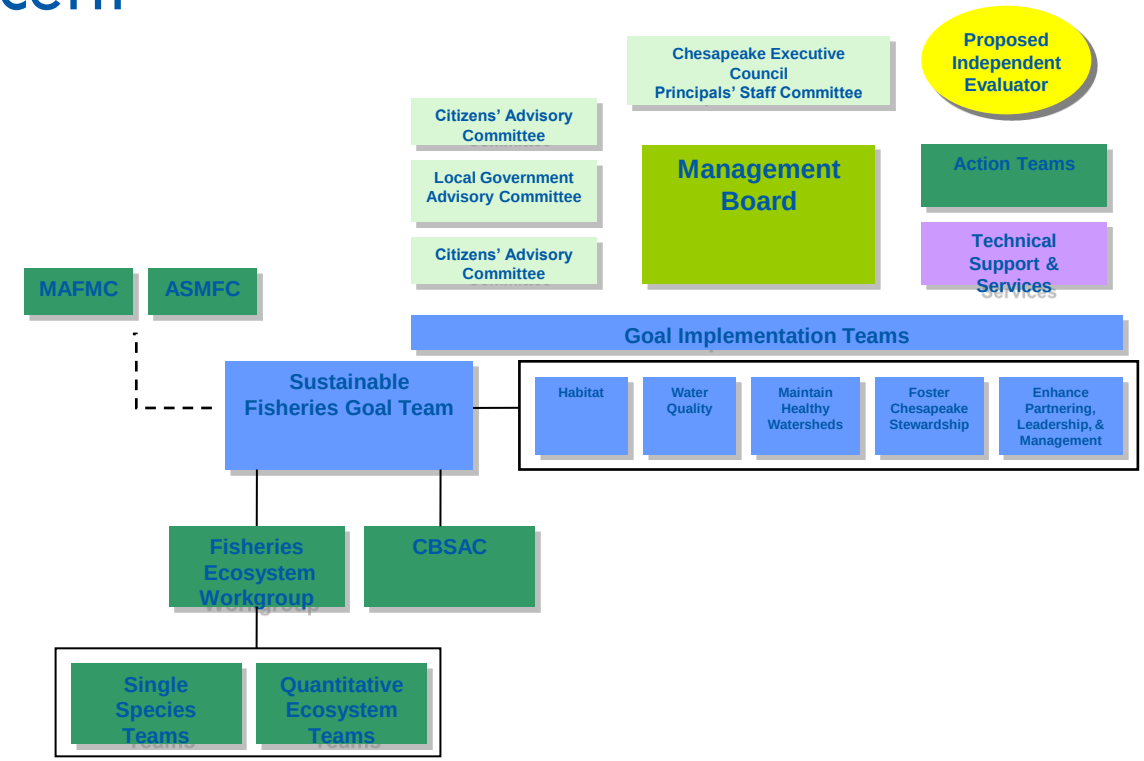


Management Implications

- May compromise restoration of native species (e.g. Shad and possibly At. Sturgeon) and alter lower trophic levels through hypothesized top-down cascades
- Range expanding due to angler introductions and ironically, habitat restoration (dam removal, fish ladders)
- Eradication of established populations may be difficult and costly
- Commercial and recreational fishing interests conflict

What is being done?

- **Sustainable Fisheries Goal Implementation Team** (Fisheries GIT) Executive Committee members raised issue / concern



What is being done?

- Panel of experts invited to Fisheries GIT meeting in December 2010 to summarize what is known about invasive catfish
- Consensus from Fisheries GIT meeting:
  - Blue Catfish constitute an invasive species
  - A range of management options should be considered
  - Inter-jurisdictional policy to be developed
  - Workgroup formed

Next Steps

- Determine if blue and flathead catfish are "invasive" by definition
  - *A species that is non-native to the ecosystem under consideration [Chesapeake Bay] and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. (National Invasive Species Management Plan)*
- Develop synthesis of best available science to include population estimates, distribution (range), ecological impacts, etc.
- Develop matrix of management options and implications
- Consider Pilot 'Control and Surveillance' program
- Draft Atlantic States Marine Fisheries Commission (ASMFC) Resolution
- Initiate public awareness campaign
- Produce ecosystem modeling scenarios showing potential ecological effects

Backup

Fisheries GIT Invasive Catfish Vision & Mission

Vision (the outcome we want to achieve):

- Chesapeake Bay tributaries free of negative effects caused by invasive catfish

Mission (what we need to achieve the vision):

- Develop and implement bay wide policies and management plans to reduce non native catfish populations, mitigate their spread, and control their negative effects on native species.