

# Trophic Dynamics of Blue Catfish in Maryland



**ROBERT AGUILAR**

**TUCK HINES**

**ERIC JOHNSON**

Sustainable Fisheries Goal Implementation Team Meeting

June 11-12<sup>th</sup>

Annapolis, Maryland



**Chesapeake Bay Program**  
*A Watershed Partnership*

# Trophic Dynamics of Blue Catfish in Maryland



- *Pis:*

Tuck Hines – SERC

Eric Johnson – SERC/UNF

Robert Aguilar – SERC

- *Partners:*

Mary Groves – MD DNR

Jay Killian – MD DNR

Bob Greenlee - VDGIF



# Trophic Dynamics of Blue Catfish in Maryland



- *Rationale:* Invasive blue catfish are expanding in MD. These large predatory fish could pose a serious threat to local ecosystems (e.g., tidal fresh water) and important fisheries (native catfish, river herring).
- *Objective:* Determine how blue catfish diet varies
  - Spatially (Patuxent, Sassafras, Susquehanna, Nanticoke)
  - Temporally (Spring, Summer, Autumn)
  - Ontogenetically with Size



# Trophic Dynamics of Blue Catfish in Maryland



- *Approach:*

Low Frequency Electrofishing in 4 MD systems

Gut Content Analysis / DNA Barcoding

Stable Isotope Analysis

Otolith – Age/Growth

Mercury Load



\* Fisheries Ecosystem Workgroup (FEW) Fabrizio et al. 2010

# Trophic Dynamics of Blue Catfish in Maryland



- *Potential relevance/impacts:*

Relative Abundance / Habitat Preferences in MD

Foodweb Impacts - Diadromous Fishes

Ecosystem Modeling / EBM Reference Points  
(Ecopath with Ecosim, Chesapeake Atlantis Model)

Addressing Data Gaps – Baywide Management

