Growth Patterns of Channel Catfish (*Ictalurus punctatus*) in the Susquehanna River

Daniel J. Isenберg
Jonathan Niles
Geoff Smith

Biology/Ecology Department
Susquehanna University
Introduction

• Study area
  • Lower Susquehanna River = Main Stem, Northumberland South
  • Upper Susquehanna River = North Branch, Northumberland North
Introduction

• Growth dynamics of fish shift throughout drainages
• Altitudes and soil fertility directly correlate to growth (Shepard and Jackson, 2006)
• Elevation shift in the Susquehanna River is ~250m
Introduction

• Fisheries management
• Stocking
Methodology

- Hoop Net (Capture)
- Otolith Reading (Aging)
Hoop Net

- 72Hr soak
- Baited with rotten meat or manufactured bait
- Processed on boat by size class
- Representative sample taken back to lab, n=20
Otolith Reading

- Extraction
- Mounting
- Reading
Preliminary Results

- $R^2$ Value
  - Lower = 0.9281
  - Upper = 0.968
Preliminary Results

- $R^2$ Value
  - Lower = 0.5568
  - Upper = 0.6978
- Significant difference
  - Lower Susquehanna
    - $y = 0.018x - 4.2828$
    - $R^2 = 0.5568$
  - Upper Susquehanna
    - $y = 0.0196x - 4.6727$
    - $R^2 = 0.6978$
Preliminary Results

- $R^2$ Value
  - Lower= 0.6478
  - Upper= 0.602

- Significant
  - Lower Susquehanna

Age v. Weight (g) of Channel Catfish in Lower Susquehanna

Age v. Weight (g) of Channel Catfish in Upper Susquehanna
Variables

- Potential factors
  - Flathead catfish
  - Fishing/Consumption
  - Water recreation
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QUESTIONS??