

Past and Current Status of Smallmouth Bass in the South Fork Shenandoah River



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VDGIF Smallmouth Bass Sampling

- Fall Boat Electrofishing
 - South Fork Shenandoah River – 9 sites
 - All habitat types are sampled at each site unless limited by depth – About one hour electrofishing



VDGIF Smallmouth Bass Sampling

- Spring Raft Electrofishing – Smaller Rivers
 - North Fork – 3 reaches
 - Each reach is about 6 miles long
 - Give us spatial fish and habitat data



VDGIF Smallmouth Bass Sampling

- Data collected
 - Fish Length / Weight
 - Catchrate (CPUE)
 - Length Frequency
 - Relative Weights
 - Spawning Success
 - Species Present
 - Occasionally Age/Growth
 - General Fish Health

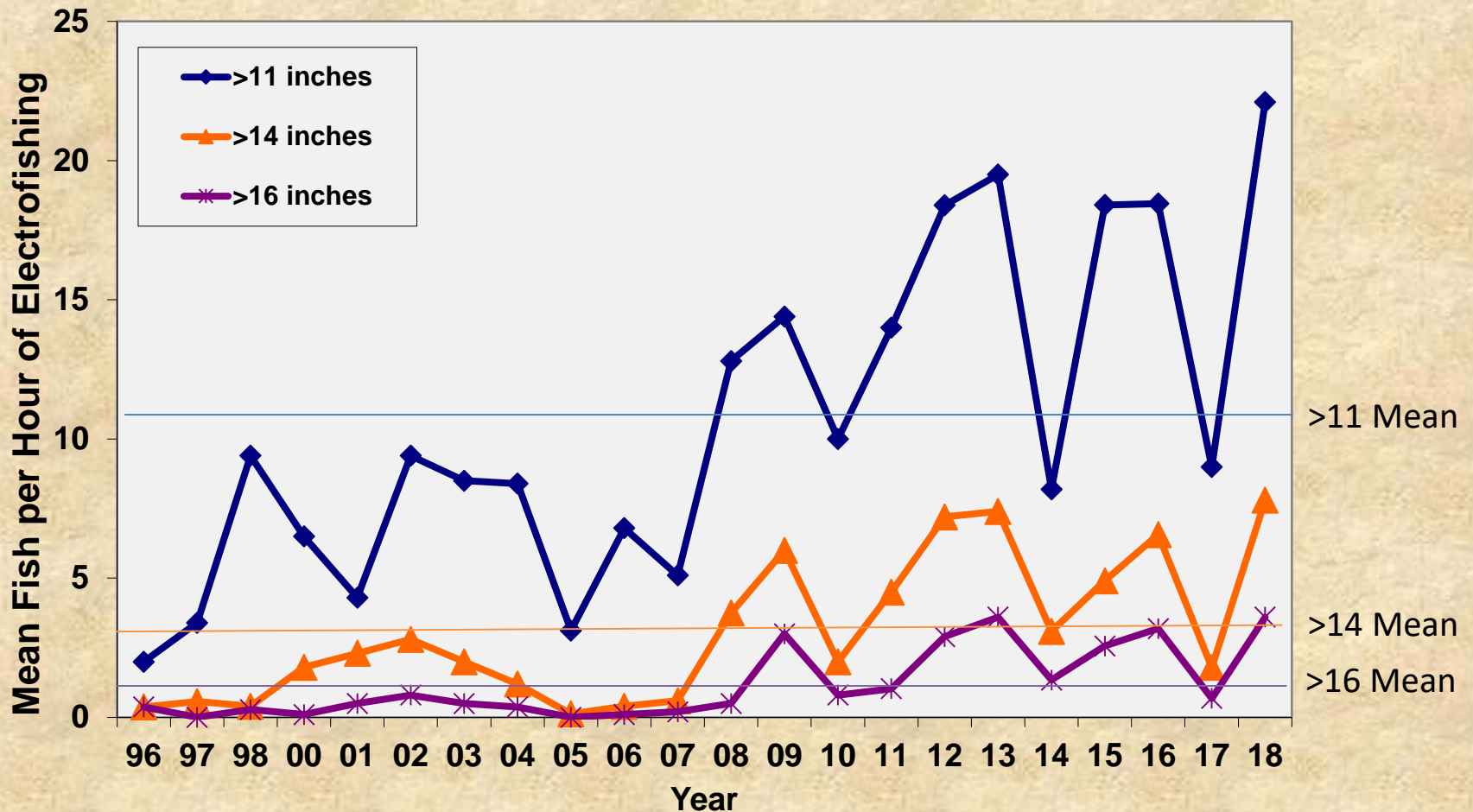
SMB Population

- So what about the fish population size structure and recruitment in the Shenandoah



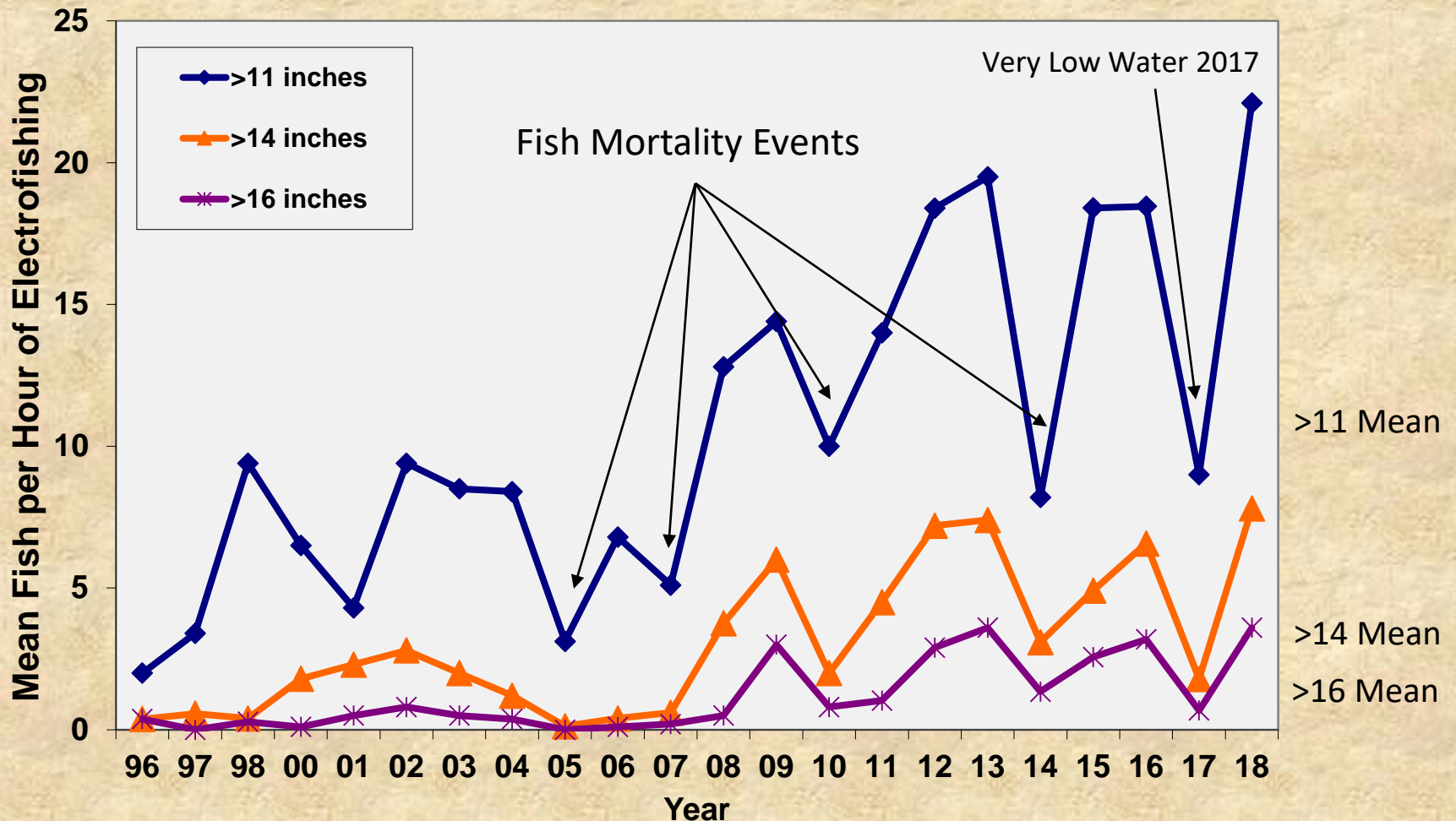
SMB 19 Year Mean Catchrate

South Fork Shenandoah River Smallmouth Bass
Electrofishing Catch Rate and Population Rebound



Fish Mortality Events

South Fork Shenandoah River Smallmouth Bass
Electrofishing Catch Rate and Population Rebound

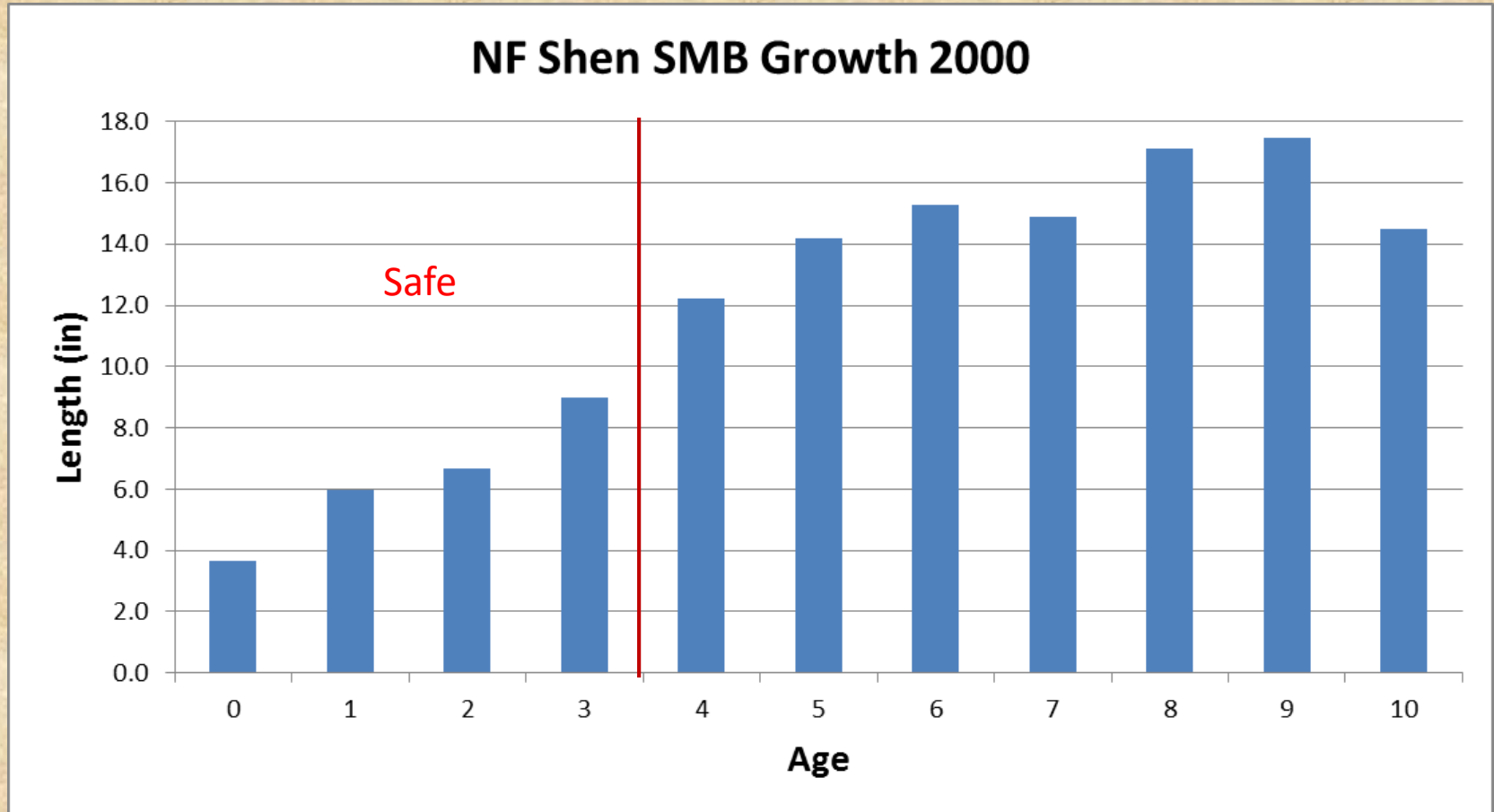


SMB Population

- Population rebound following a disease outbreak?

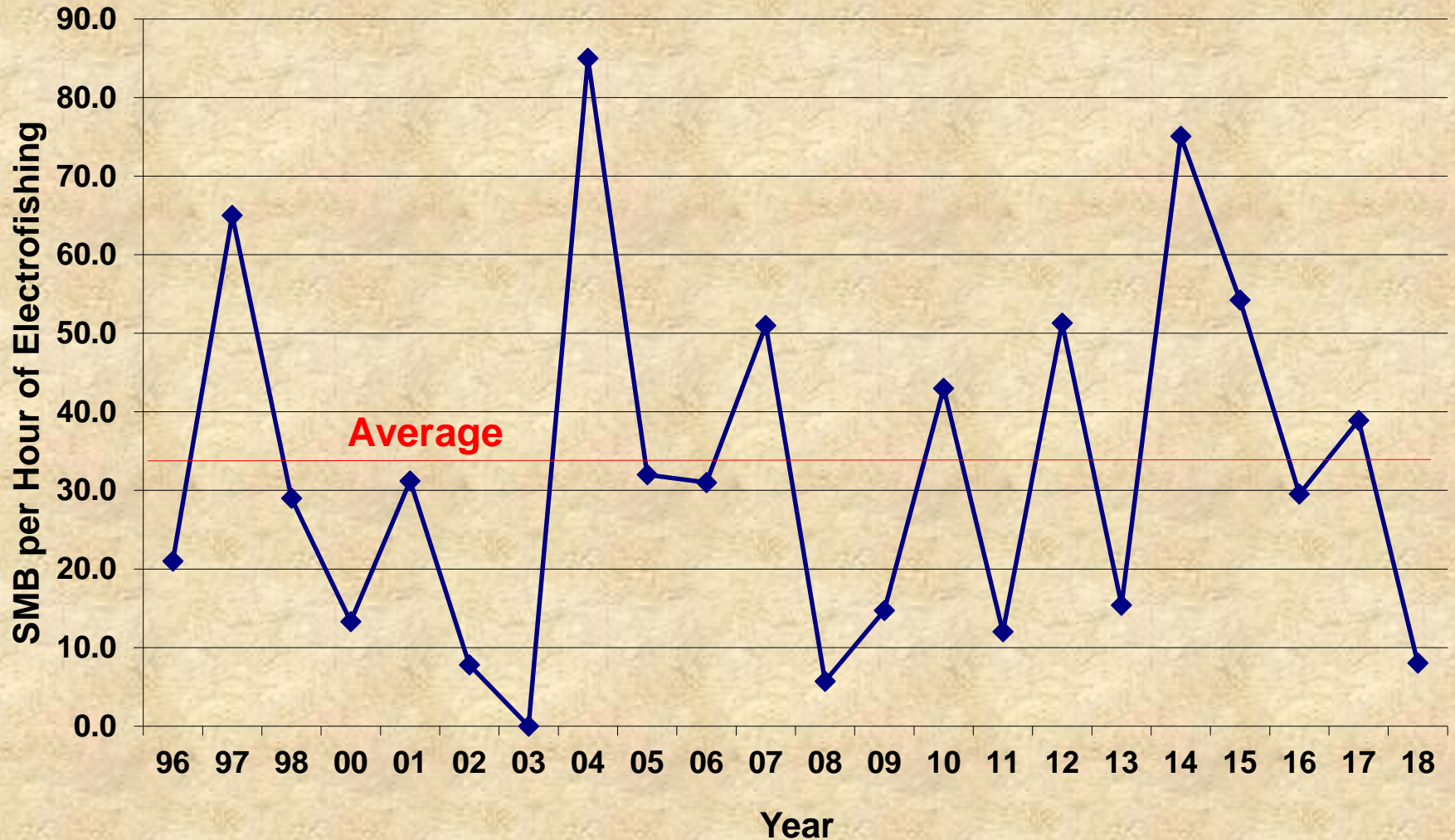


NF SMB Age/Growth Data



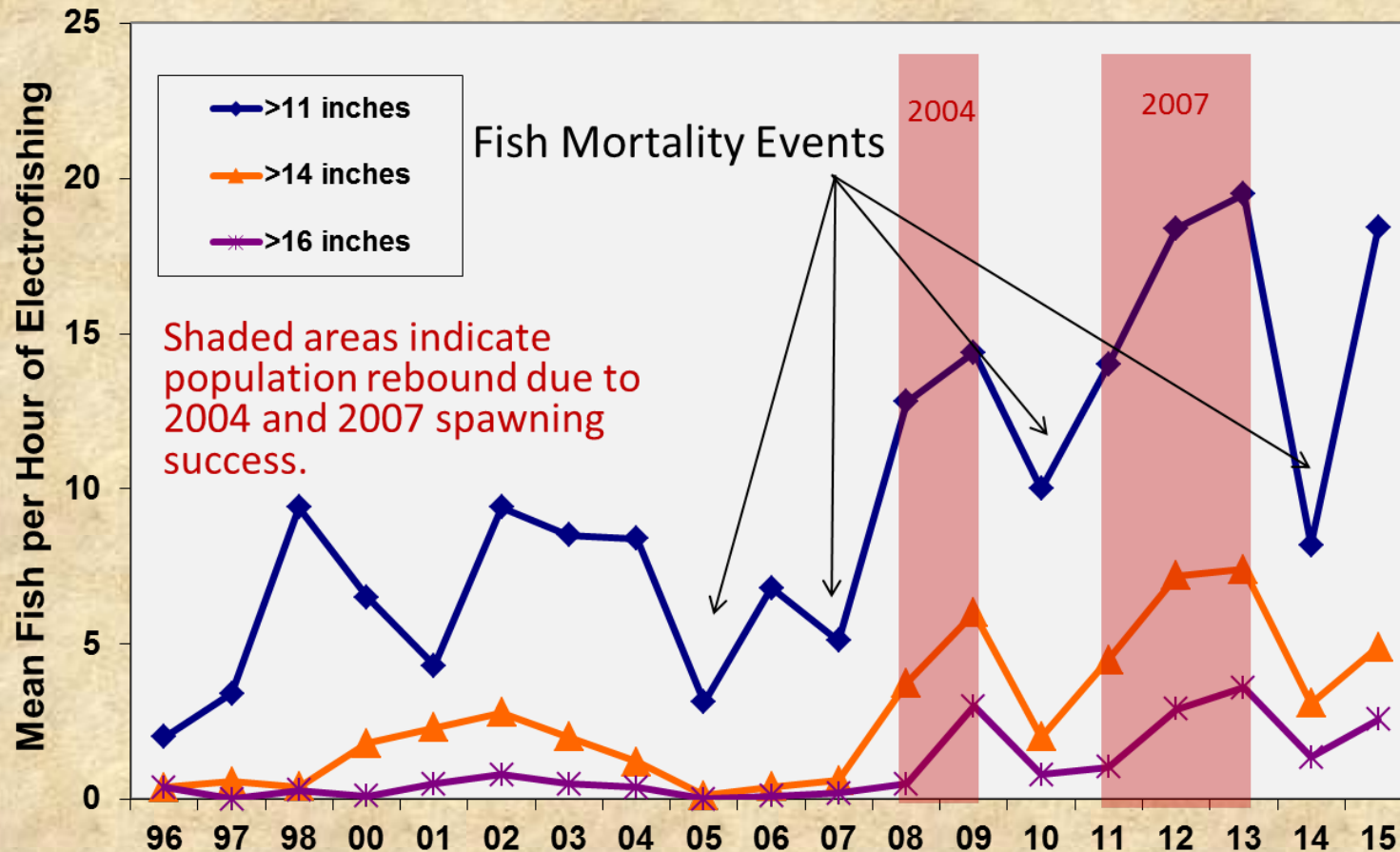
SMB Spawning Success

South Fork Shenandoah River SMB Spawning Success



SMB Population Rebound

South Fork Shenandoah River Smallmouth Bass Electrofishing Catch Rate and Population Rebound



Past Research

Causal Analysis of Fish Kills in the Shenandoah and Potomac Rivers - June 2007

- Anoxia due to low DO – Plant Decomposition – No
- Anoxia due to gill injury – parasitic or microbial – (Potential)
- Low Blood Oxygen – Methemoglobinemia – No
- Bacterial, Viral, Parasitic or Fungal Infections – Insufficient Data
- High pH – No (Possible Contributor)
- pH Fluctuations – No (Possible Contributor)
- High Ammonia Concentrations – No (Possible Contributor)
- Mortality due to Toxic Chemical – Insufficient Data
- Mortality due to Starvation – No

Front Royal SMB Fall 2015



Questions?



Contact Information

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