

Virginia Department of Game & Inland Fisheries

Chowan River & Currituck
Sound Drainage

Past, Present and Future
Sampling

Historical Sampling

Nottoway River

- 2002 20 hrs of electrofishing near 4 access points
- 2000 5 hrs of electrofishing at 11 sites
- 1996 5.75 hrs of electrofishing at 5 sites
- 1993 4.5 hrs of electrofishing near 3 access points

Blackwater River

- 2000 550 meters of shoreline electrofished
- 1999 809 meters of shoreline sampled
- 1994 0.5 hr of electrofishing at 1 site
- 1993 3.3 hrs of electrofishing at 4 sites

Historical Sampling

North Landing River

- 2004 5.2 hrs of electrofishing at multiple sites
- 1995 2.8 hrs of electrofishing at 4 sites
- 1994 1.9 hrs of electrofishing at 2 sites
- 1993 2.0 hrs of electrofishing at 2 sites

Northwest Rivers

- 2004 5.1 hrs of electrofishing at multiple sites
- 1995 1.1 hrs of electrofishing at 3 sites
- 1994 0.7 hr of electrofishing at 1 site
- 1993 1.6 hrs of electrofishing at multiple sites

Meherrin River

- 2002 Emporia Dam fish lift monitored 12 d
- 1996 complete community electrofishing conducted at 4 sites
- 1995 multiple sites electrofished in upper, middle and lower sections
- 1994 four electrofishing samples conducted for shad and herring
- 1993 electrofishing for American shad conducted below Emporia Dam

Historical Sampling

1995 Northwest River Electrofishing

- Largemouth bass CPUE = 36 fish/hr; PSD = 59, RSD = 16, Wr = 85
- Bluegill CPUE = 262 fish/hr; PSD = 46, RSD = 5, Wr = 91
- Redear CPUE = 51 fish/hr; PSD = 43, RSD = 7, Wr = 92

2000 Nottoway River Electrofishing

- Largemouth bass CPUE = 11 fish/hr; PSD = 80, RSD = 28, Wr = 91
- Bluegill CPUE = 20 fish/hr; PSD = 51, RSD = 7, Wr = 93
- Redear CPUE = 9 fish/hr; PSD = 90, RSD = 55, Wr = 97

1993 Blackwater River Electrofishing

- Largemouth bass CPUE = 27 fish/hr; PSD = 41, RSD = 20, Wr = 100
- Bluegill CPUE = 63 fish/hr; PSD = 18, RSD = 3, Wr = 97
- Redear CPUE = 1 fish/hr

Recent Herring Sampling

River	Species	Month/Year	Mean TL (N)
Blackwater	Alewife	March/April 2003	259 mm (9)
	Blueback	Late April 2003	252 mm (13)
Nottoway	Alewife	April 2003	260 mm (11)
	Blueback	Late April 2003	266 mm (11)
North Landing	Alewife	March/April 2004	N/A*
	Blueback	March/April 2004	N/A*
Northwest	Alewife	March/April 2004	254 mm (57)
	Blueback	March/April 2004	259 mm (30)
Meherrin	Alewife	Fish lift monitoring	N/A
	Blueback	Fish lift monitoring	N/A

* Salinities too high for effective EF

Striped Bass & Anadromous Shad Sampling & Tagging

2002 Nottoway River Electrofishing

- 124 Striped bass collected and tagged – 6 fish/hr
- 68% male, 32% female
- 81% of fish were greater than 18 inches TL
- *One fish moved from Albemarle Sound to Courtland, Va (Southampton County)
- 169 American & Hickory shad collected – 8 fish/hr
- 68% male, 32% female
- 80% of fish between 40 and 50 cm

2002 Nottoway River Creel Survey (VIMS)

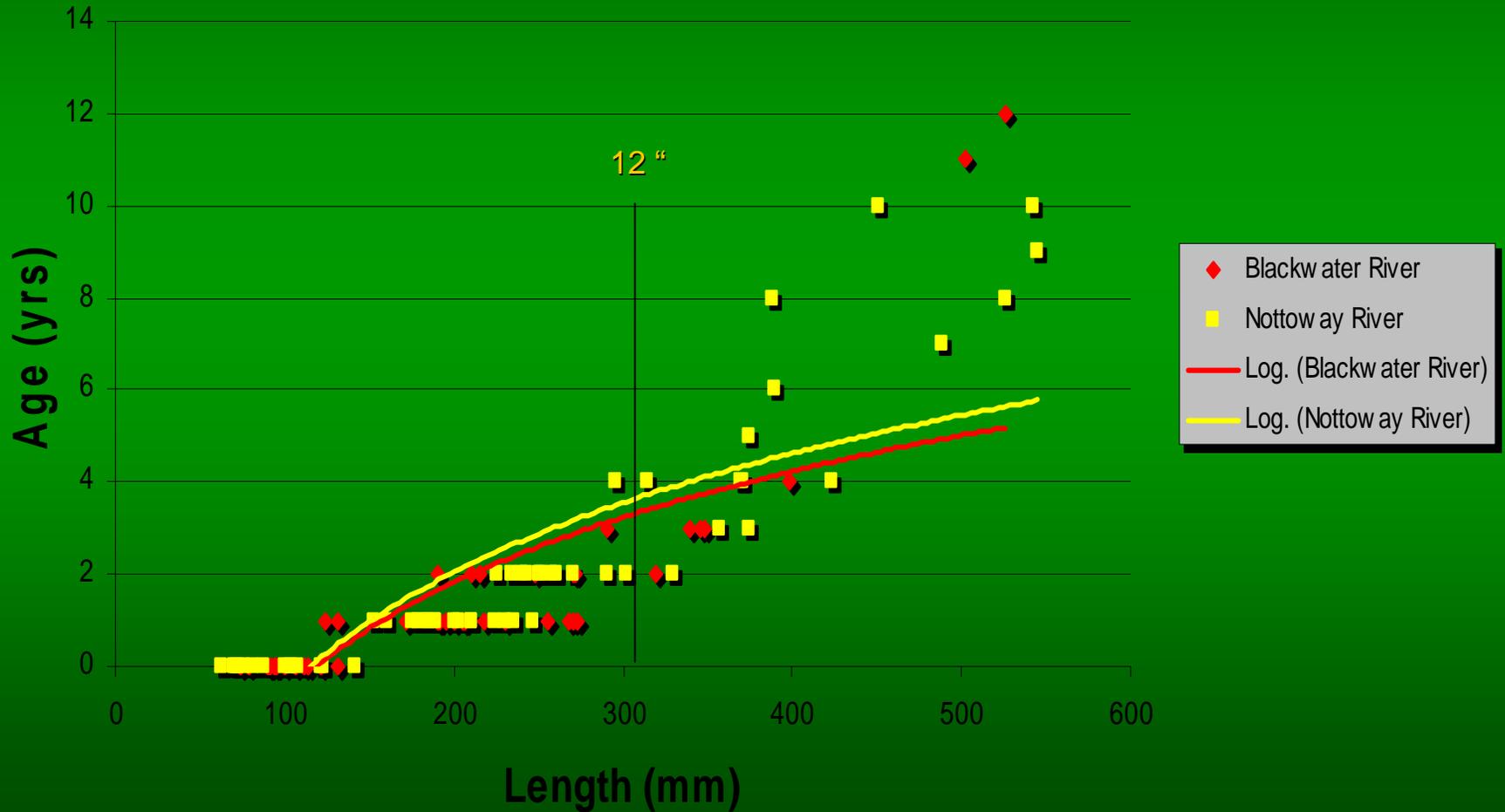
- 12 survey days between Mar. 18 and Apr. 28
- 83 of 85 anglers surveyed were VA residents
- 260 total hours fished – 4 STB harvested; 26 of 33 creeled *Alosa* spp. were harvested

2005 Electrofishing Sample

	Nottoway				Blackwater			Northwest		
	LMB	BLG	RDB	RDE	LMB	BLG	RDE	LMB	BLG	RDE
CPUE (f/hr)	35	49	30	22	17	49	9	14	39	44
PSD	Low	V. High	Avg	V. High	Low	V. High	High	Low	High	Avg
RSD-P	Low	Avg	-	High	Avg	-	High	-	Avg	-
Wr(S)	Avg	Low	Avg	Avg	Avg	Low	Low	Avg	Avg	Low
Wr(Q)	Avg	Low	Low	Avg	Avg	Low	Low	High	Avg	Low

2005 Largemouth Age & Growth

Largemouth Bass Length-at-Age



Regulation Changes

Previous

STB no min length
4 fish/day



AMS no min length
20 fish/day



HIC no min length
20 fish/day



BLH no min length
no daily limit



ALE no min length
no daily limit



Effective July 1, 2006

- 18" min length

2 fish/d

- no min length

10 fish/d in aggregate w/HIC

- no min length

10 fish/d in aggregate w/AMS

- no min length

no daily limit

- no min length

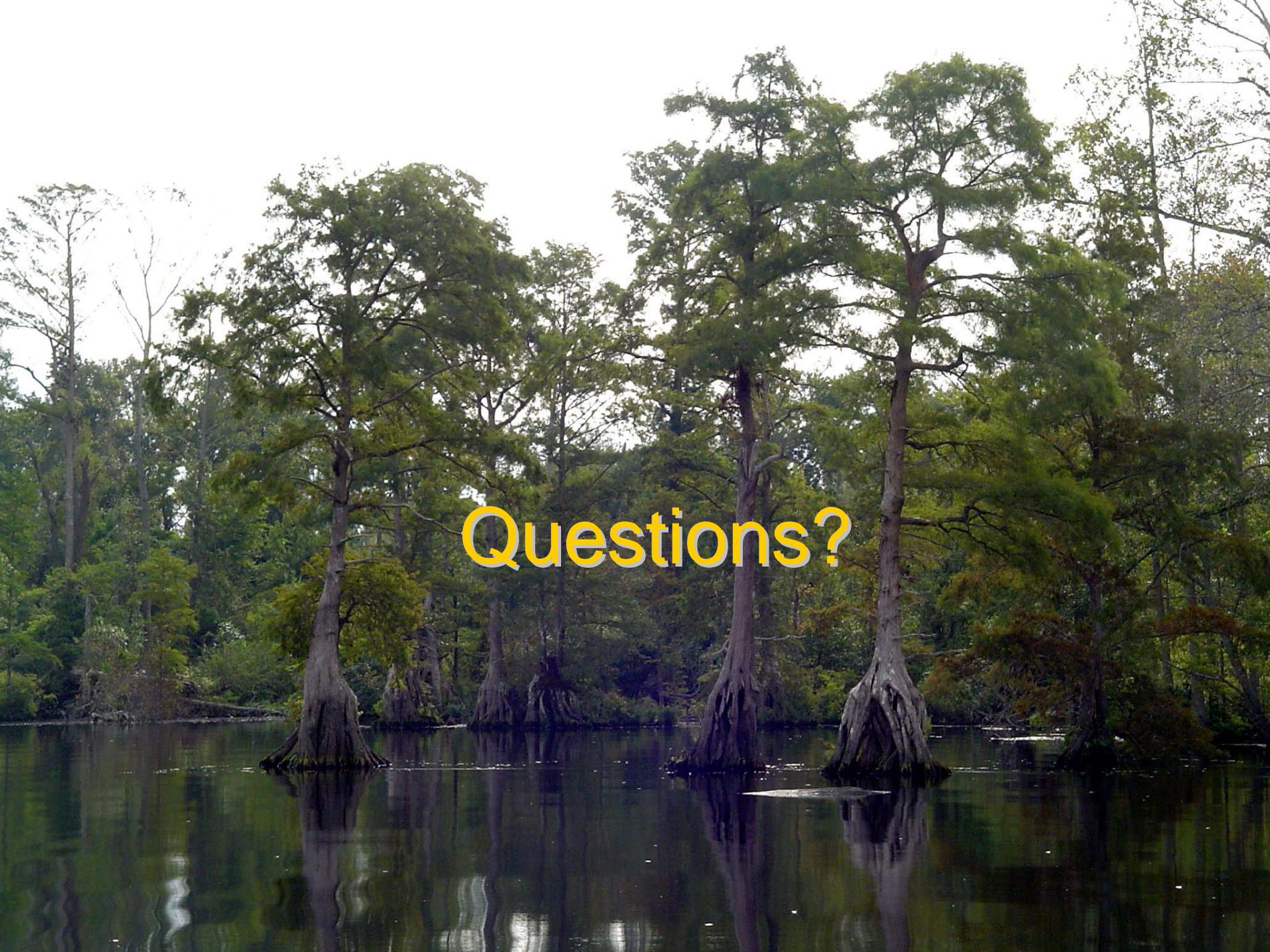
no daily limit

On-going Projects

- Continue tagging of STB in Nottoway, Blackwater, Northwest & North Landing Rivers
- Monitor anadromous shad and herring populations in Nottoway, Blackwater, Meherrin, Northwest & North Landing Rivers and their tributaries

Future Sampling

- Establish fixed sampling stations on Nottoway, Blackwater, Meherrin, Northwest and North Landing Rivers
- Begin anadromous fish sampling in late January and continue through early May
- Sample for anadromous fish in headwater creeks (i.e. Gum Swamp, West Neck Creek, Indian Creek)
- Set gill nets in spring for anadromous spp.
- Determine actual spawning sites in each river
- Establish protocol for monitoring yellow perch and black crappie populations in Northwest River
- Establish catfish sampling protocol in Nottoway and Blackwater Rivers

A photograph of a swampy landscape. In the foreground, several large, mature trees with thick, gnarled trunks and dense green foliage stand in a body of water. The water is dark and still, creating clear reflections of the trees. The background is filled with more trees, some taller and thinner, under a bright, overcast sky. The overall scene is a typical representation of a cypress swamp.

Questions?

Fisheries Related Research and Monitoring in Back Bay: Historical Account

1951 - 1952

- Fish population sampling – cove rotenone
- Creel survey
- Commercial harvest
- LMB tagging study

1959 - 1962

- Fish population sampling – cove rotenone
- Creel survey
- Commercial harvest
- LMB tagging study
- Benthos monitoring
- Impact of salinity on freshwater fish spawning
- Water quality monitoring
- SAV monitoring

1978 - 1980

- Fish population sampling – cove rotenone
- Creel survey
- Water quality monitoring
- Plankton monitoring
- Benthos monitoring
- SAV monitoring and research to re-establish

1985 - 1986

- Fish population sampling – cove rotenone, seining, and trawling
- Water quality monitoring

1989

- Fish population sampling – electrofishing
- Water quality monitoring

2004 - 2005

- Fish population sampling - electrofishing

Current Status of Fish Population in Back Bay

- Primarily brackish-marine fishes (in both species composition and relative abundance)
- Freshwater fishes common in tributary streams
- Limited sport fishery (largemouth bass, bluegill, crappie)
- Commercial fishery (white perch and catfish) not heavily exploited

Future Plans

- Fish population sampling 2007 – every 3 years thereafter
- Water quality monitoring – Va DEQ

An aerial photograph of a vast wetland landscape. A prominent, winding river flows through the center-right of the frame. The surrounding terrain is a mosaic of green marshland and numerous shallow, interconnected ponds and channels. The water in the ponds and the river has a slightly blueish-grey hue. The overall scene depicts a complex, natural hydrological system.

Questions?