Quality, quantity, and availability:

important factors for anadromous fish habitat within internal waters of the Albemarle-Pamlico region

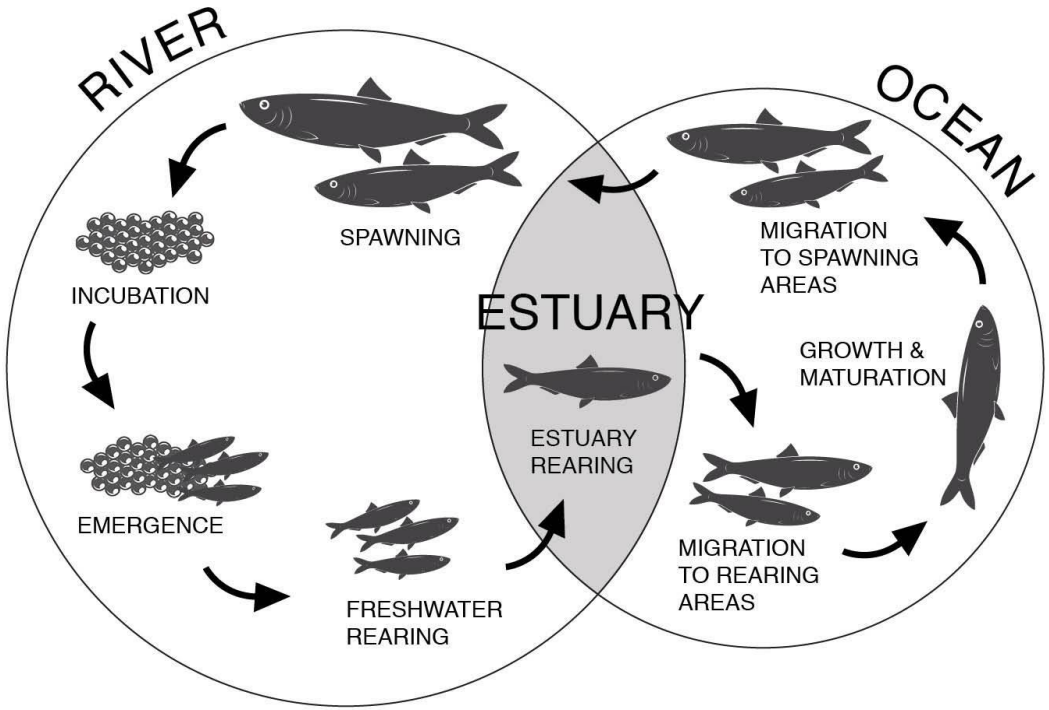
Jeremy McCargo

Anadromous Research Coordinator

NORTH CAROLINA Wildlife RESOURCES COMMISSION

Anadromous Life Cycle

Anadromous–live as adults in the ocean and migrate into freshwater rivers and creeks to spawn



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Anadromous Species in North Carolina

American Shad

Alosa sapidissima

Striped Bass

Morone saxatilis

Hickory Shad

Alosa mediocris

Atlantic Sturgeon

Acipenser oxyrinchus

Shortnose Sturgeon

Acipenser brevirostrum

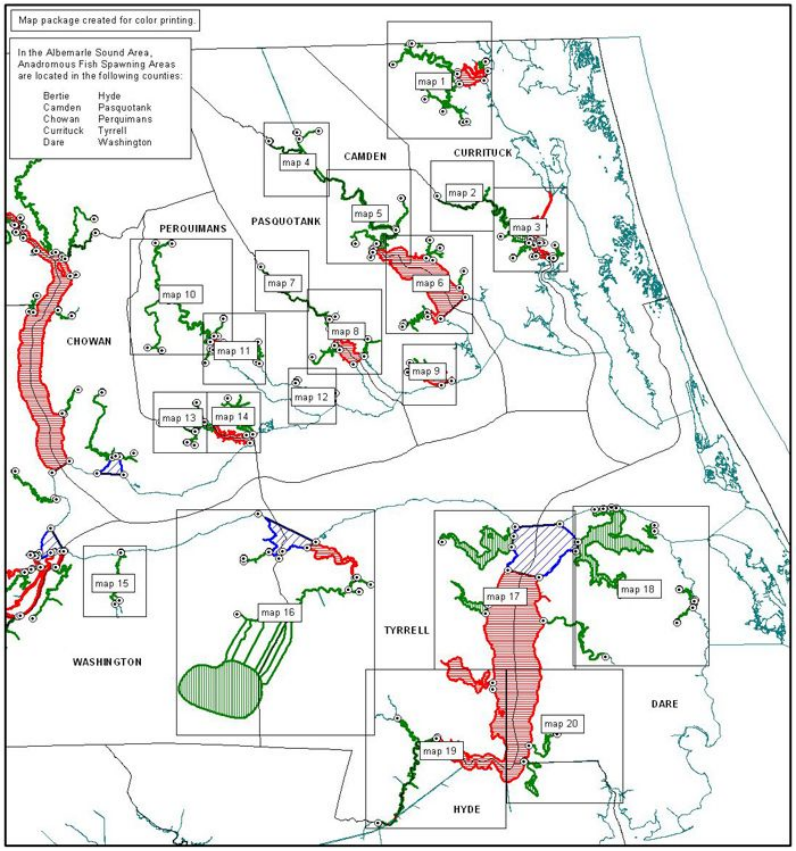
Blueback Herring

Alosa aestivalis

Alewife

Alosa pseudoharengus

Anadromous Fish Spawning Areas



- NCDMF and NCWRC authority
- Necessary for spawning and early development
- Provide physical, biological, and chemical attributes necessary for successful spawning
- Direct observation of spawning, capture of running ripe females, or capture of eggs or early larvae

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Protecting habitat quality

- AFSA established to protect spawning areas for anadromous fishes
- Permit reviews
- In-water work moratorium
- Dredging restrictions
- Sampling programs

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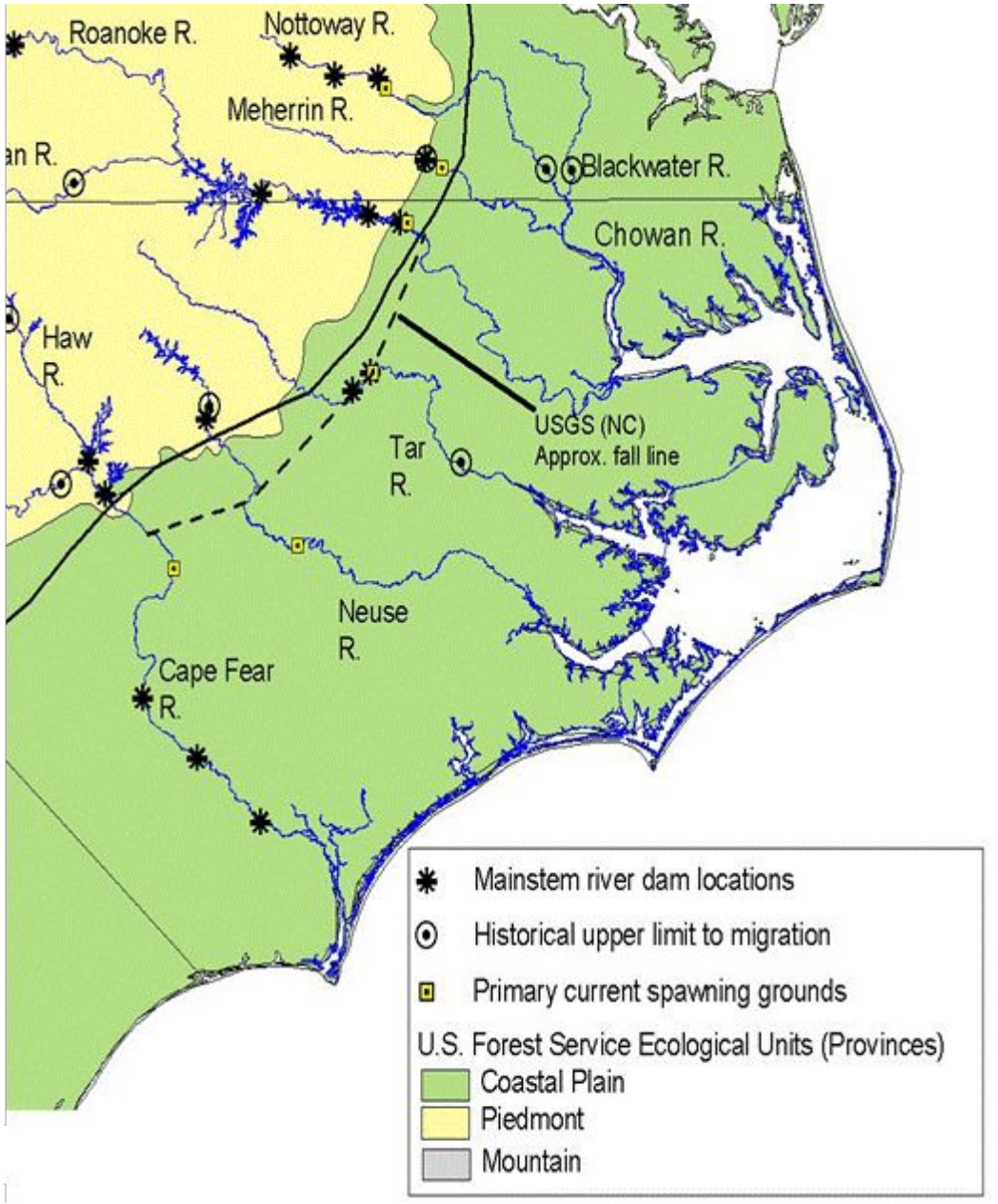
Restricted Access to Habitat

- Dams block spawning migrations
- Obstructions at or downstream of historical spawning areas
- Reduced spawning success following dam construction



Habitat Access Restoration

Roanoke River

- Passage requirements for Roanoke Rapids Lake and Gaston Lake dams

Neuse River

- Quaker Neck Dam: removed 1998
- Cherry Hospital Dam: removed 1999
- Rains Mill Dam: removed 1999
- Lowell Mill Dam: removed 2005
- Milburnie Dam: removal pending

Tar River

- Rocky Mount Mills Dam: exploring passage opportunities

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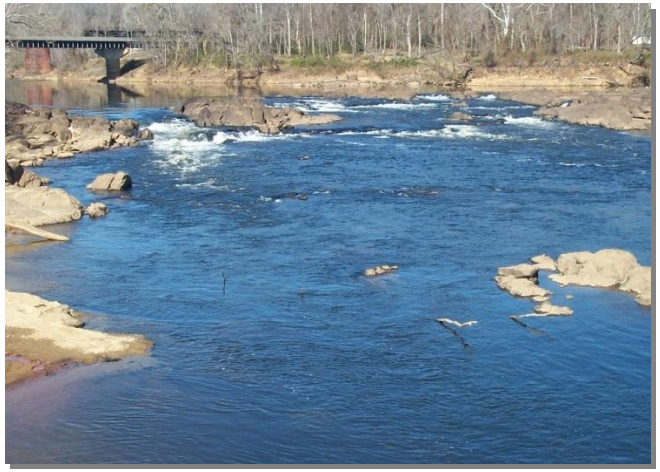
Streamflow Management

- Opportunities for beneficial flow conditions
- Kerr Lake (USACE) water control plan
- Roanoke River striped bass spawning flows
- Potential for improvement at Falls Lake?



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Path Forward

- Continue protecting anadromous fish spawning areas
- List new areas in NC Administrative Code
- Identify future dam removals
- Replace culverts and other obstructions
- Increase fish passage opportunities
- Improvements in habitat quality, quantity, and availability will help provide viable fish populations capable of sustainable harvest

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Questions?

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