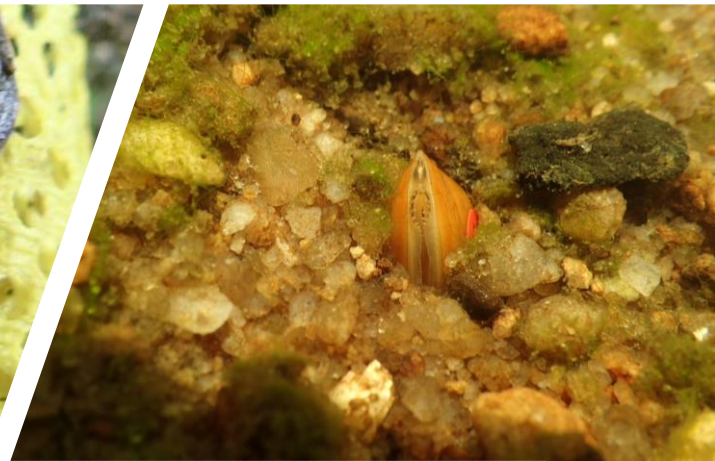




Aquatic Habitat, A Field Perspective

Michael Fisk

Eastern Region Coordinator



NC Wildlife Resources Commission Aquatic Wildlife Diversity Group

- Monitor and conserve nongame species
- Habitat protection
- Manage invasive species
- Augmentation and reintroduction





Production and Stockings

Aquatic Species Habitat Needs

Streams with:

- Unobstructed and moderate flow
- Stable coarse sand, gravel, or rock free of sediment
- Well-oxygenated water free from excessive nutrients
- Stable water temperature

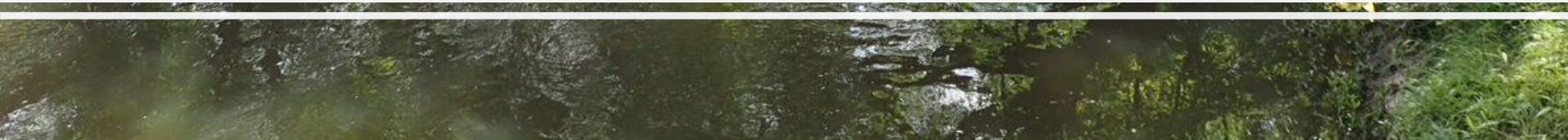


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Good Habitat



Increased Sedimentation

- Poor water quality
- Low dissolved oxygen
- Algal blooms

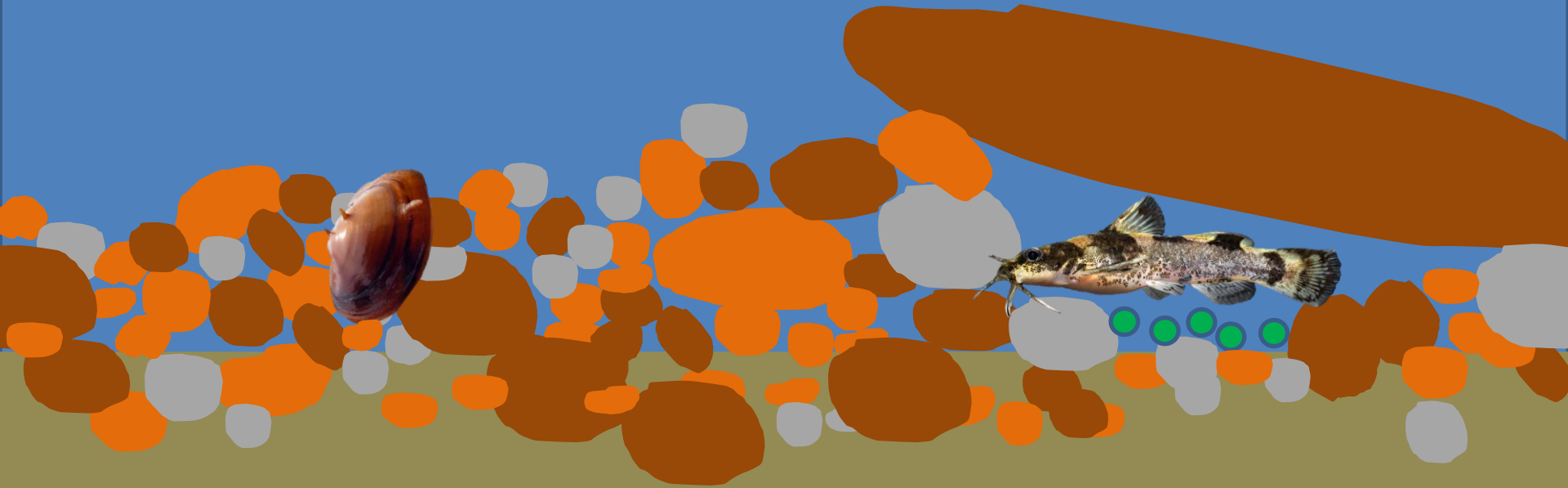


Sea

Sea Grant

Interstitial Space

- Functions and benefits of interstitial space
 - Shelter/habitat for adult fish and mussels
 - Spawning habitat
 - Rearing habitat for larval/juvenile fish and mussels



Interstitial Space

Increased Sedimentation

Fills in interstitial space

- Sediment prevents fish from laying eggs
- Smothers eggs and larvae
- Clogs the gills of mussels and salamanders
- Reduces habitat for adults



Improperly Installed Culverts

- Prevents migration
(host fish for mussels)
- Modifies habitat
downstream



Chemicals and Pollutants

- Lethal Impacts
 - Kill aquatic species
- Sub-lethal impacts
 - Compromise immune systems
 - Impair reproduction
 - Reduce growth





Sea Grant

Increased Stream Temperature

- Lethal and sub-lethal impacts




Stressors to Aquatic Habitat

- Sedimentation
- Improperly installed culverts
- Chemicals/pollutants
- Temperature

Detrimental to Species Conservation and Recovery



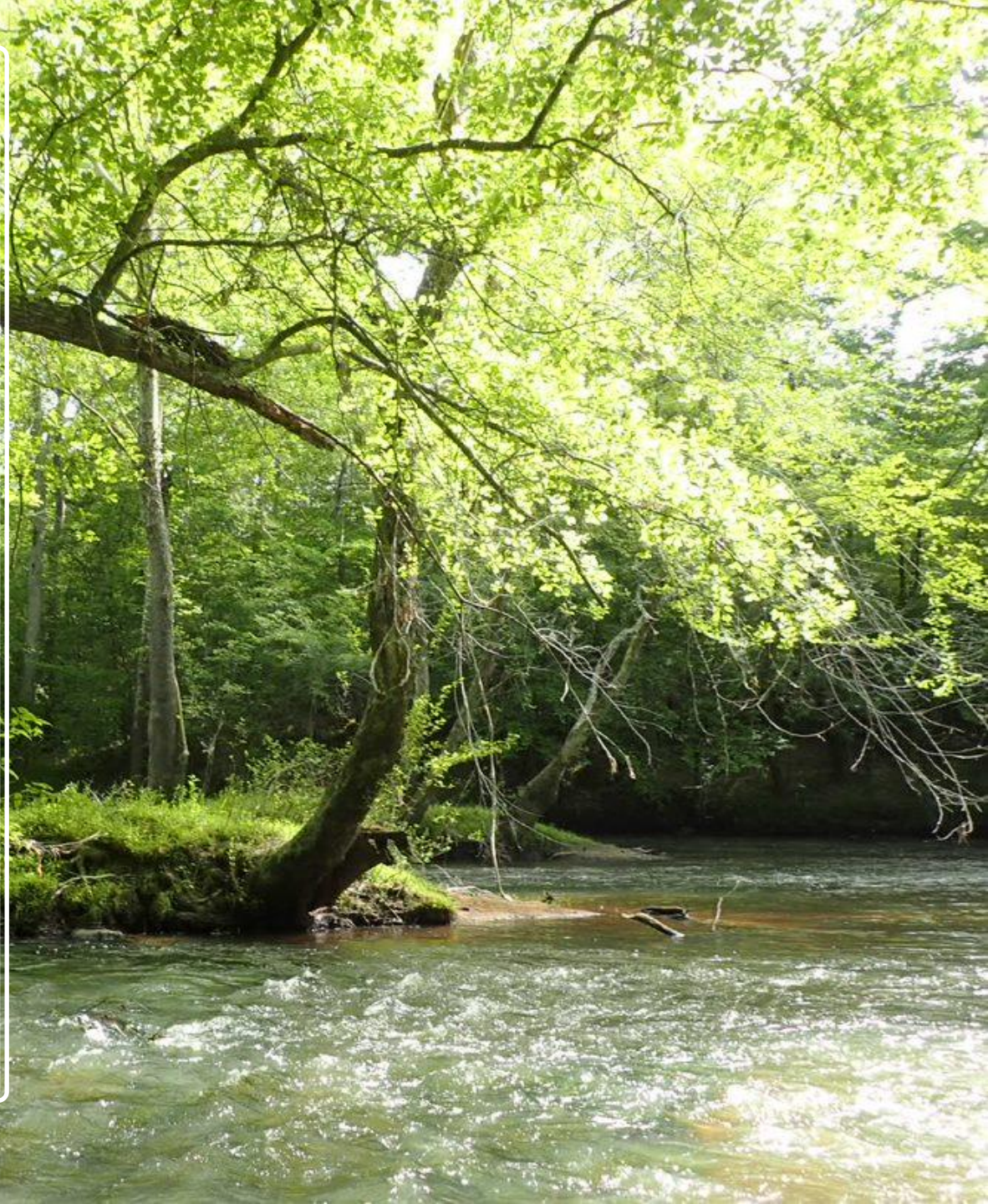


How you can help!

- Stream buffers/SMZs
- Avoid crossing streams
- Proper stream crossings/culverts
- Proper application and storage of chemicals (herbicides, etc.)

BMPs protect water quality and habitat by reducing:

- Sedimentation
- Chemical pollution
- Alteration of stream temperature
- Promote movement of species



BMPs protect water quality and habitat by reducing:

- Sedimentation
- Chemical pollution
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**Pre-Harvest
Management Plan**

