

Allegheny WINs

(Watershed Improvement Needs)

Coalition

Success, Impacts, and Opportunities

May 19, 2022








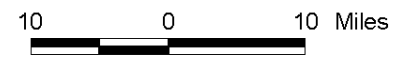
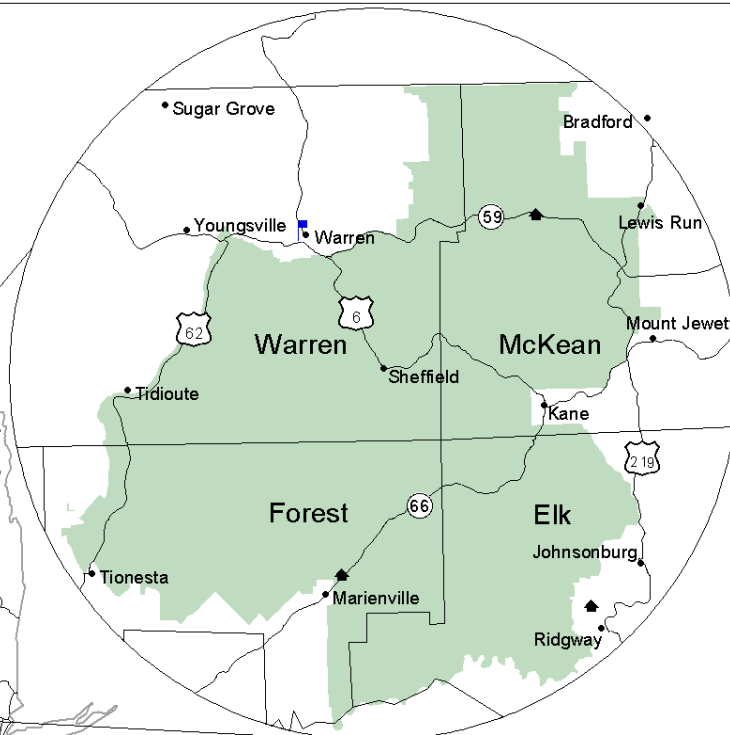
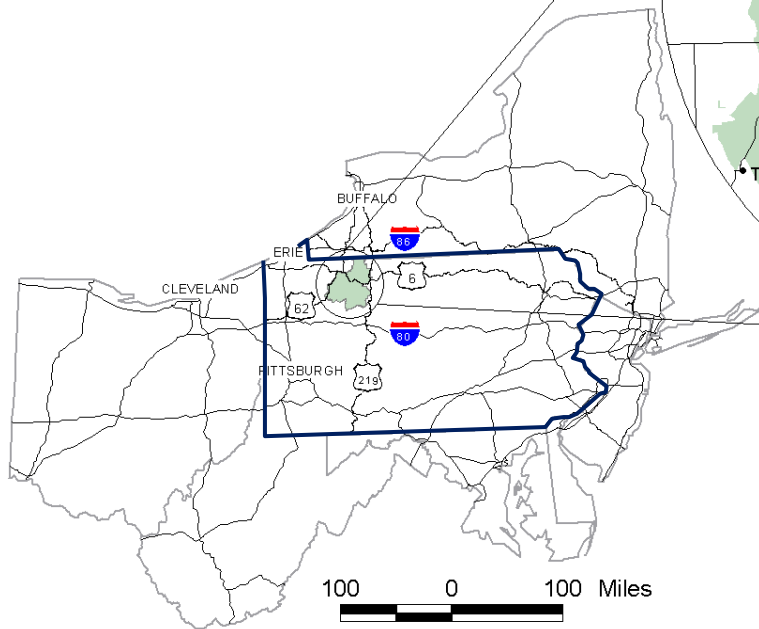
Nathan Welker, M.S.
Aquatics Program Manager

USDA Forest Service
Allegheny National Forest
Warren, Pennsylvania



ALLEGHENY NATIONAL FOREST

-  Allegheny National Forest Proclamation Boundary
-  Ranger District
-  Forest Headquarters



FOREST FACTS



- Established 1923
- 513,000 acres
- only National Forest in Pennsylvania
- within an 8-hour drive of 1/3 of the U.S. population
- Research began in 1927 (Kane Experimental Forest established 1932)



TODAY: ANF IS A WORKING FOREST MANAGED FOR MULTIPLE USES



SPECIAL DESIGNATIONS

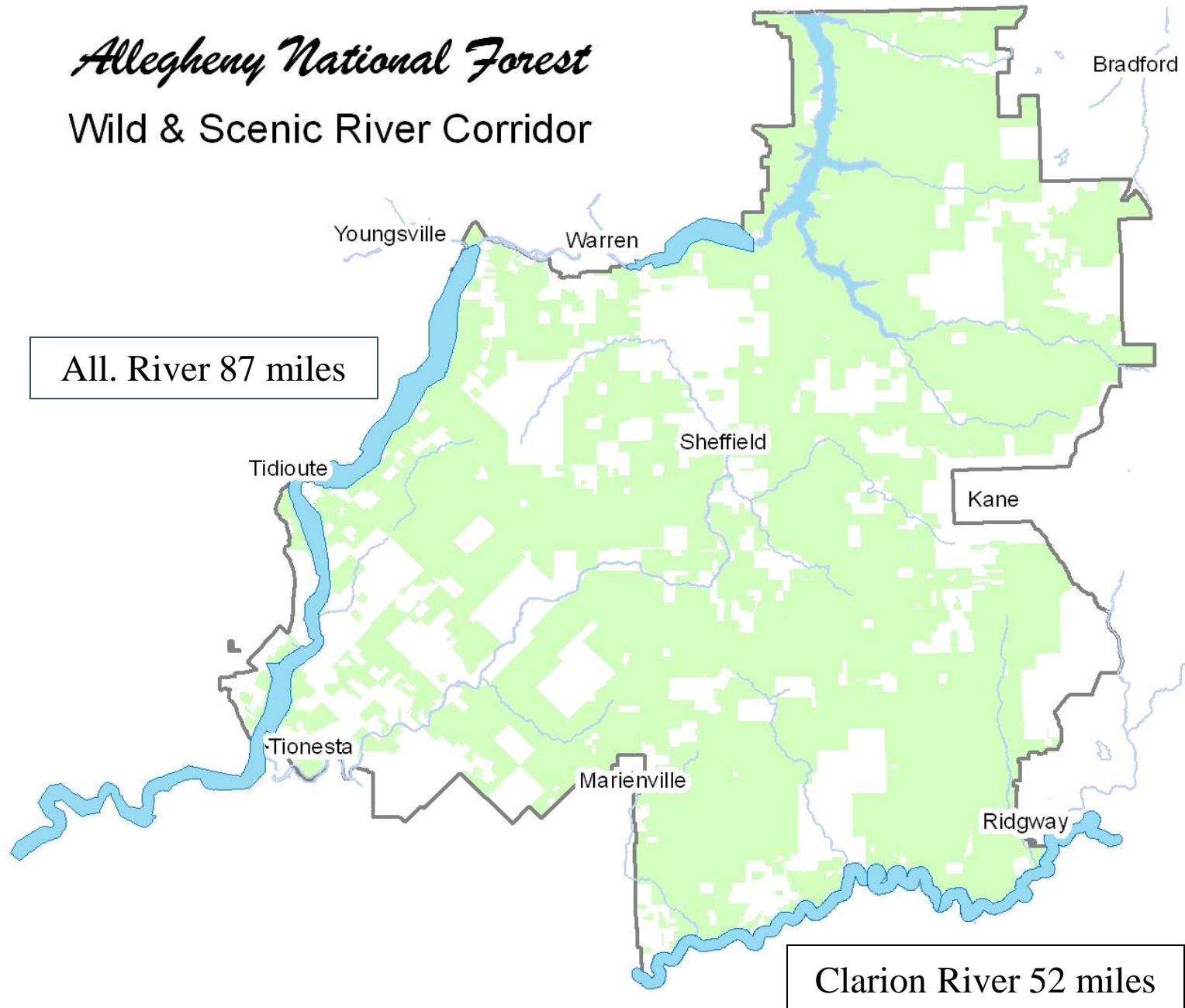


- Allegheny National Recreation Area
(20,152 acres)
- Wilderness Areas
 - Hickory Creek (8,979 acres)
 - Allegheny Islands (7 islands; 372 acres)
- National Natural Landmarks
 - Tionesta Scenic Area (2,018 acres)
 - Hearts Content (122 acres)
- Tionesta Research Natural Area
(2,113 acres)



Allegheny National Forest

Wild & Scenic River Corridor



Lotic Environments
STREAMS & RIVERS



- Exceptional Value Streams
– 67 mi
- High Quality Coldwater Fisheries
– 1,525 mi
- Coldwater Fisheries
– 418 mi
- Warmwater Fisheries
– 41 mi



Lentic Environments

PONDS & IMPOUNDMENTS



273 waterbodies in ANF watersheds

(few are naturally occurring)



ALLEGHENY RESERVOIR



24.2 miles long at “summer pool” with 91 miles of shoreline, it covers 12,080 acres and is 137 feet deep at summer pool

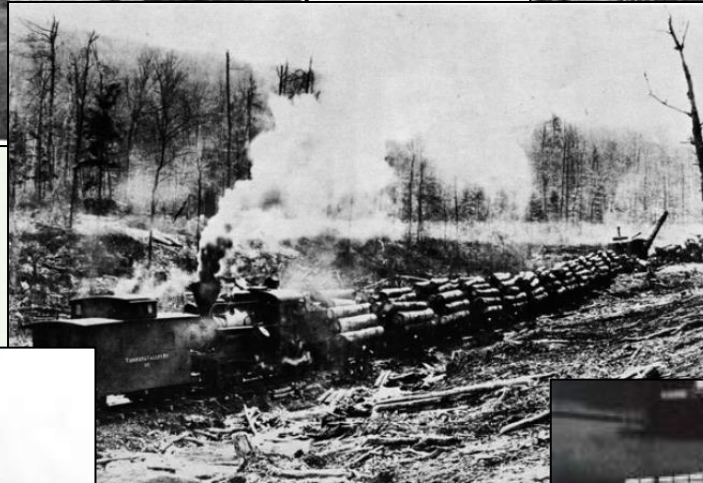
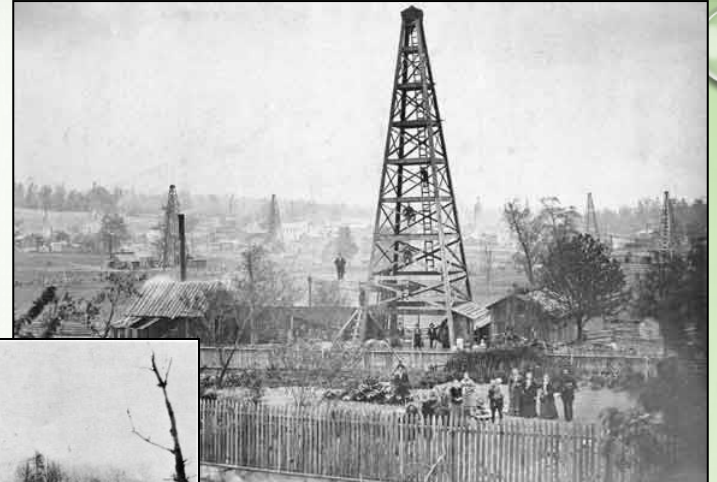




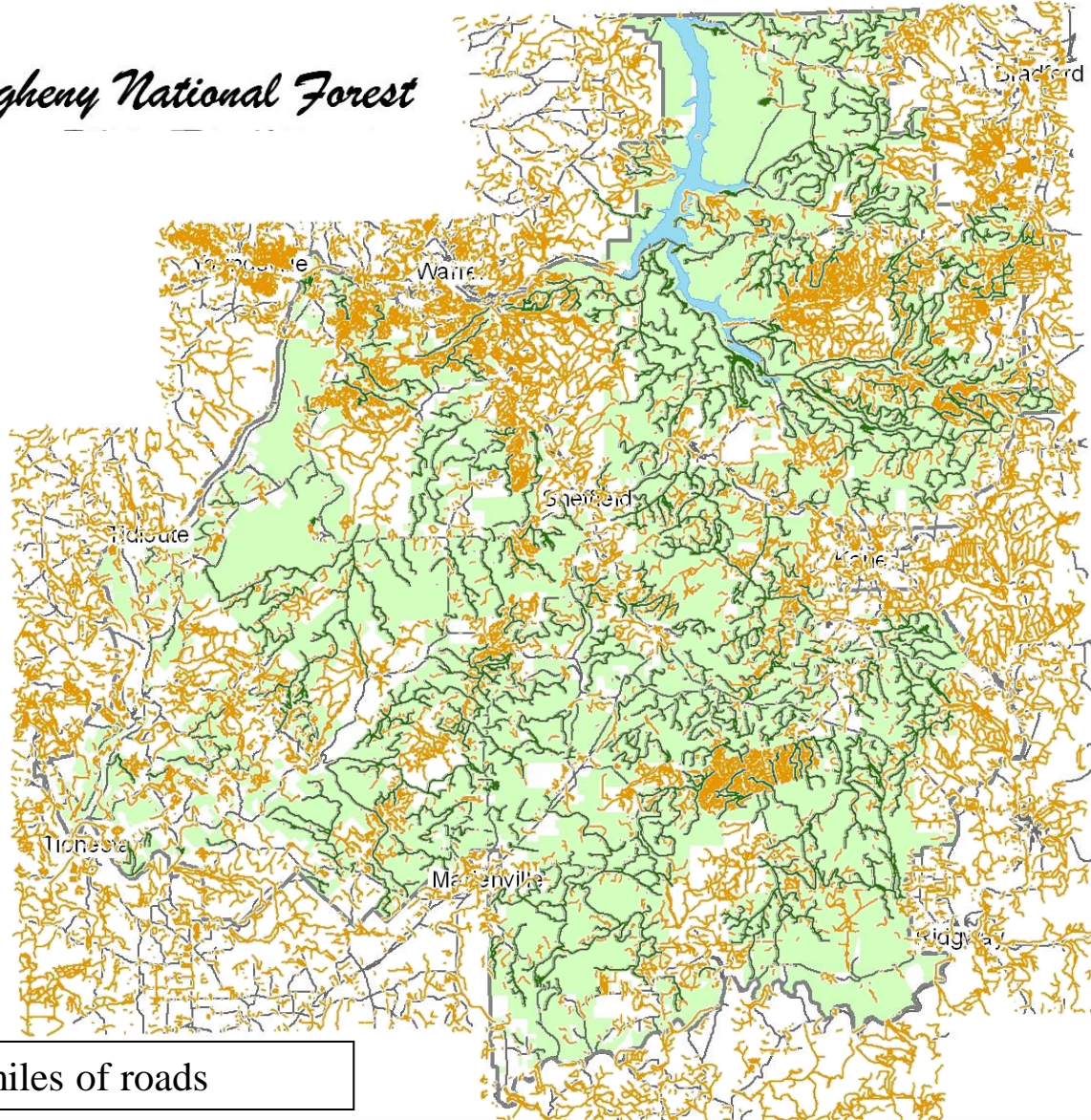
ALLEGHENY NATIONAL FOREST

“LEGACY OF IMPACTS”





Allegheny National Forest

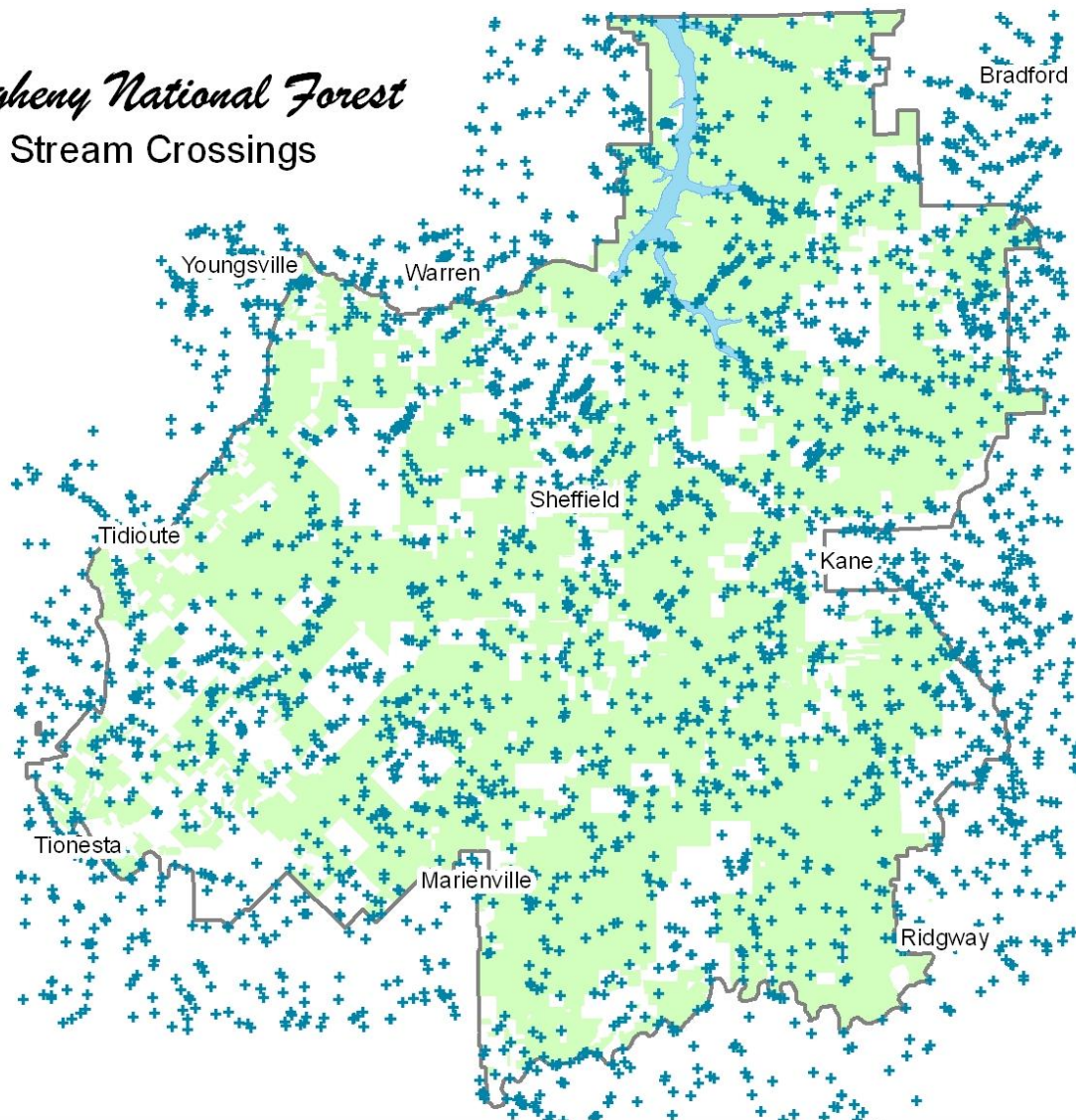


>2,800 miles of roads



Allegheny National Forest

Stream Crossings



Erosion & Sedimentation



Pollution

These are the two most important sources of the pollution of our streams: *coal and oil*. In addition, there are others, which are more or less local, yet may become quite important in certain sections. These are *various industrial establishments*, such as *glass factories, china factories*, different kinds of *chemical factories, wood-pulp mills*,³ *saw mills, tanneries*, etc. There are certain sections of the state, for instance the region of the *headwaters of the Allegheny* and of *Clarion River*, where establishments of this kind are the *chief source of contamination*.

Clarion River possibly is *one of the worst streams in the state*. In the region of its headwaters, in Elk County, it is not mine water, but the *refuse* of various establishments, such as *wood-pulp mills, tanneries, chemical factories* (*Elk Creek*), which renders the water unfit for life, and finally *Toby Creek*, emptying into it in the southwestern portion of Elk County, adds its share in the form of *mine water*. The water of Clarion River, in this region, is *black like ink*, and retains its peculiar color all the way down to where it empties into the Allegheny (at Foxburg); here the deep blackish brown color of the Clarion River water *contrasts sharply* with the bluish green water of the Allegheny River.

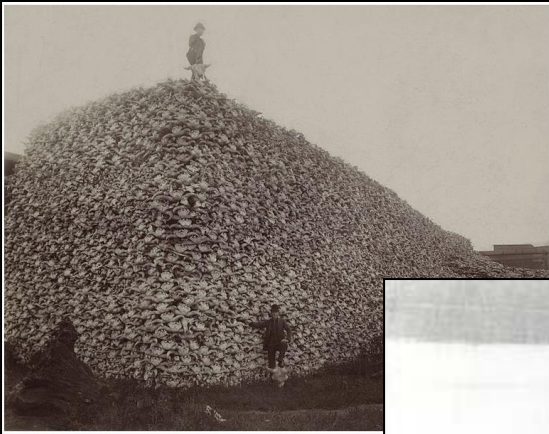
The Destruction of the Fresh-Water Fauna in Western Pennsylvania

A. E. Ortmann

Proceedings of the American Philosophical Society, Vol. 48, No. 191.
(Jan. - Apr., 1909), pp. 90-110.



Excessive Subsistence and Market Hunting

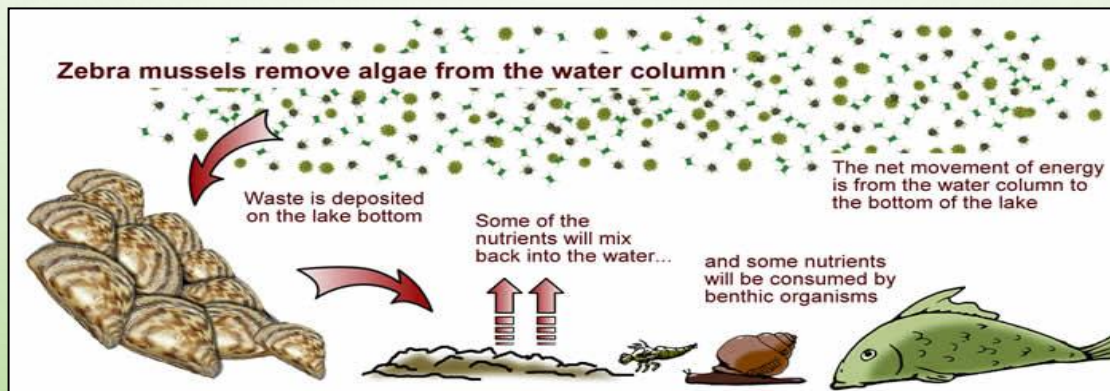


Invasive Species

- Non-native aquatic animals and plants species "whose introduction does, or is likely to cause economic or environmental harm or harm to human health".

Zebra mussels damage native mussels by:

- Attaching to individuals (Strayer and Jirka 1997)
- Altering food resources and habitat (Hakenkamp et al. 2001)



AQUATIC COMMUNITIES

At least 71 *fish* species occur in ANF streams and impoundments.



Pennsylvania & New York State Fish
BROOK TROUT (*Salvelinus fontinalis*)

Pennsylvania's only native
stream dwelling salmonid.



Former Pennsylvania record
was a 6-pound, 9.6-ounce
brook trout caught by Shawn
Keener of Ridgway in 1994

(New York State Record photo)



Distribution:	North America
Max Size:	10 lbs
Max Length:	25 inches
Max Age:	24 years



State Record NORTHERN PIKE (*Esox lucius*)



35-pound, 48-inch
Northern pike caught
in Allegheny Reservoir
in 2003

Distribution:	North America and Europe
Max Size:	68 lbs
Max Length:	58 inches
Max Age:	25



Former State Record
WALLEYE (*Sander vitreus*)



17-pound, 9-ounce walleye
caught in Allegheny
Reservoir, in 1980

(Lake Erie photo)

Distribution:	North America
Max Size:	25 lbs
Max Length:	42 inches
Max Age:	29 years



potential State Record
MUSKELLUNGE (*Esox masquinongy*)



Distribution:	North America and Europe
Max Size:	70 lbs
Max Length:	72 inches
Max Age:	30 years

Local musky regularly
approach the 54-pound, 3-once
Pennsylvania State Record
(Niagara River photo)



PADDLEFISH (Polyodon spathula)



Distribution: North America
and Europe

Max Size: 220 lbs

Max Length: 7 feet

Max Age: >50 years

PA began stocking paddlefish
in Ohio and Allegheny Rivers
in 1991.

New York began stocking
Allegheny Reservoir's in
1998.





NON-FISH

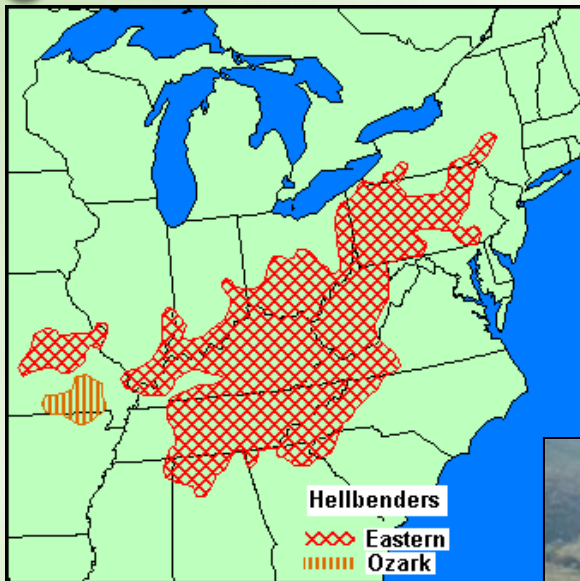
NON-FISH SPECIES

SLOWER TO RECOVER



EASTERN HELLBENDER

(*Cryptobranchus alleganiensis alleganiensis*)

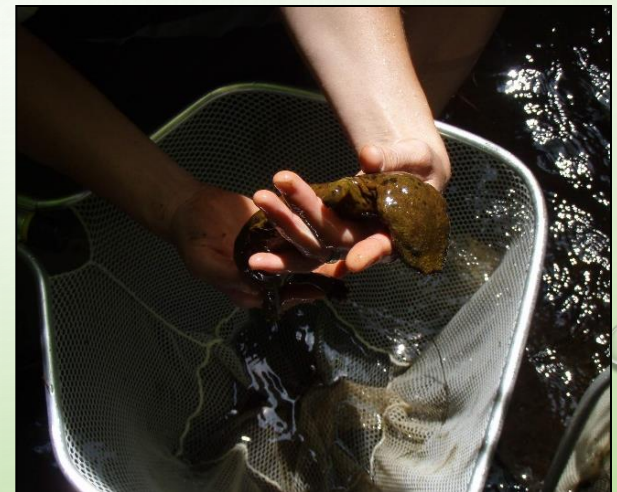


Distribution: Susquehanna and Mississippi River drainages

Max Size: 4 – 5 lbs

Max Length: 30 inches

Max Age: >40 years



Freshwater Mussels **ALLEGHENY NATIONAL FOREST**

Rapidly declining over the past 100 years:

- **28 *species*** are known present
- Seven (25%) are ***federally listed*** as endangered or threatened
- Seven more (another 25%) are designated as ***Regional Forester Sensitive Species*** by US Forest Service



FEDERALLY LISTED AND PROPOSED FRESHWATER MUSSELS

Family Unionidae

Scientific Name (Status)	Common Name	Status	Distribution (Counties)
Epioblasma torulosa rangiana	Northern riffleshell 	Endangered	Allegheny River (Forest, Warren) Conewango Creek (Warren)
Epioblasma triquetra	Snuffbox 	Endangered	Allegheny River (below ANF in Venango)
Pleurobema clava	Clubshell 	Endangered	Allegheny River (Forest, Warren) Tionesta Creek (Forest)
Plethobasus cyphus	Sheepnose 	Endangered	Allegheny River (Forest)
Theliderma cylindrica	Rabbitsfoot 	Threatened	Allegheny River (Forest, Warren)
Villosa fabalis	Rayed bean 	Endangered	Allegheny River (Forest, Warren)
Fusconaia subrotunda	Longsolid 	Proposed (Threatened)	Allegheny River (Forest, Warren)





WHAT IS ANY ONE PERSON ...
ANY ONE AGENCY TO DO?!?!

Allegheny WINS Coalition


“To promote protection, restoration, and habitat improvement activities in watersheds that lie entirely or partially in the Allegheny National Forest to achieve Forest Service and community needs through collaboration and partnerships.”

April 2007





STATE & REGIONAL RESTORATION INITIATIVES

- Pennsylvania Fish & Boat Commission, Division of Habitat Management (2006)
 - Eastern Brook Trout Joint Venture (2005)
 - The Center for Dirt & Gravel Road Studies (2001)
 - Pennsylvania Trout Unlimited (53 Chapters & 13,000 members)
 - Federal, State & Local Agencies
 - Organizations
- 

Allegheny WINS Coalition

PARTICIPATING ORGANIZATIONS

Nonprofits:

Brokenstraw Watershed Council

Elk County Freshwater Association

Kinzua Fish & Wildlife Association

The Nature Conservancy – PA & CW NY

Pennsylvania Council of Trout Unlimited

PA Council of Trout Unlimited – Allegheny Mountain Chapter

PA Council of Trout Unlimited – Cornplanter Chapter

PA Council of Trout Unlimited – Iron Furnace Chapter

PA Council of Trout Unlimited – Jim Zwald Chapter

Pennsylvania Organization for Watersheds and Rivers (POWR)

Pennsylvania Environmental Council (PEC)

Western Pennsylvania Conservancy

Allegheny WINS Coalition

PARTICIPATING ORGANIZATIONS

County Agencies:

Elk County Conservation District

Forest County Conservation District

McKean County Conservation District

Warren County Conservation District

Warren County Adult Probation & Parole

State Agencies:

PA DCNR – Bureau of State Parks

PA DCNR – Bureau of Forestry

PA DEP – Northwest Regional Office

PA Department of Transportation

PA Fish & Boat Commission

PA Game Commission



Allegheny WINS Coalition

PARTICIPATING ORGANIZATIONS

Federal Agencies:

US Army Corp. of Engineers – Kinzua Dam

US Army Corp. of Engineers – Tionesta Dam

US Fish and Wildlife Service – PA Field Office

US Fish and Wildlife Service – Allegheny Nat. Fish Hatchery

USDA Forest Service – Allegheny National Forest

USDA Natural Resources Conservation Service

Tribal Nations:

Seneca Nation of Indians



SHORT-TERM COALITION OBJECTIVES

Meet periodically to share information & promote watershed restoration efforts on the Allegheny National Forest

- Develop an inventory of potential projects
- Prioritize projects & watershed
- Develop projects to protect & improve high quality watersheds & aquatic ecosystems
- Develop projects to restore impaired watersheds & aquatic ecosystems

LONG-TERM COALITION OBJECTIVES

Work cooperatively, leveraging resources and assisting one another in the completion of mutually beneficial projects

- Aggressively take advantage of non-allocated funding sources
- Proposals developed by partners and the FS
- Utilize the Wyden Amendment to assist partners across boundaries
- Maximize everyone's gains through the prioritization and completion of mutually beneficial projects.



Allegheny WINS Coalition

SUCCESS, IMPACTS, AND OPPORTUNITIES



ALLEGHENY WINS COALITION

A tremendous amount of success in its first 15 years:

- \$13.1 million in external funding brought to the ANF
- >13,521 volunteers have donated >86,915 hours
- >250 watershed restoration projects
- >80 river and reservoir cleanups
- >180 environmental education and outreach events
- >10,000 students reached
- (3) Pennsylvania River of the Year selections
 - Conewango Creek (2015), Allegheny River (2017),
and Clarion River (2019)

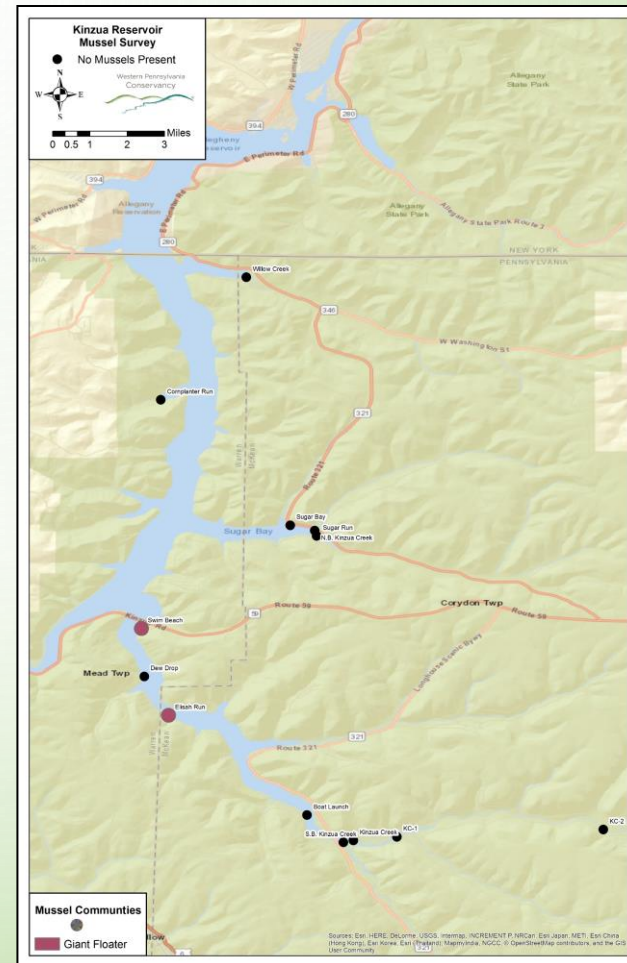
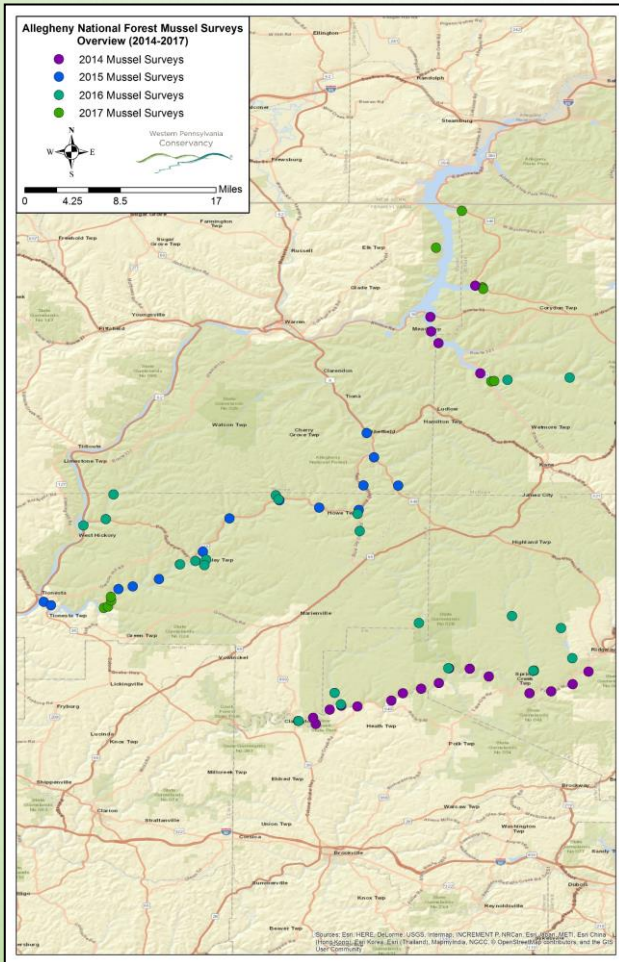


Allegheny WINS Coalition

ON THE GROUND PROJECTS



SURVEYS AND MONITORING



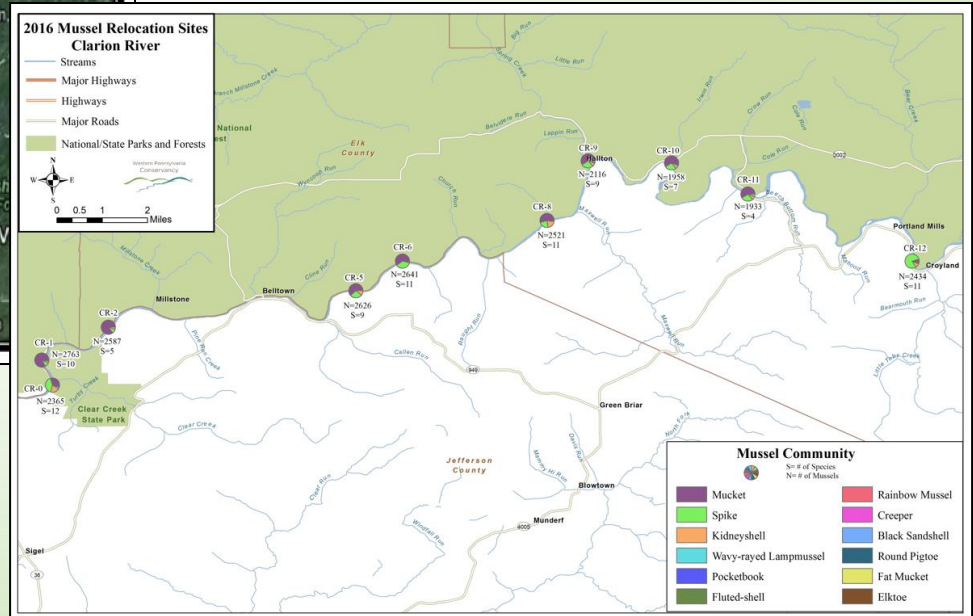
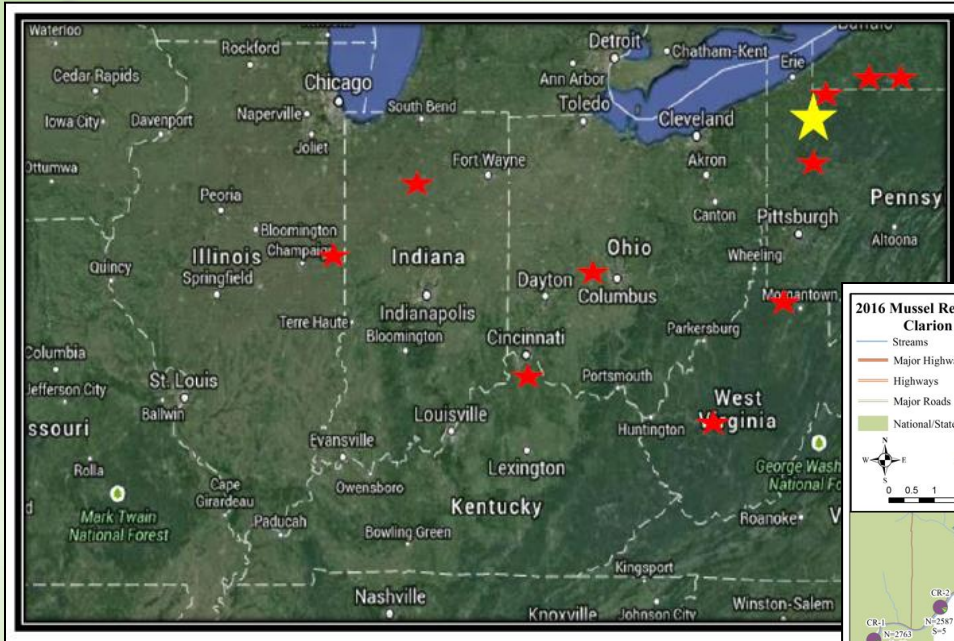
SALVAGE & RELOCATION



-- PennDOT bridge replacement projects --

REINTRODUCTIONS

Locally



Regionally

IMPROVEMENTS TO FOREST SERVICE ROADS



POLLUTION CONTROL & PREVENTION



Erosion & Sedimentation

Chemical & Thermal



AQUATIC ORGANISM PASSAGE
STREAM CROSSING REPLACEMENTS



AQUATIC ORGANISM PASSAGE CULVERT REMOVALS



AQUATIC ORGANISM PASSAGE DAM REMOVALS



ROAD DECOMMISSIONING



STREAM BANK STABILIZATION



LARGE WOOD ADDITIONS

STREAMS LACKING LARGE WOOD
TEND TO LACK HABITAT DIVERSITY



LACK OF POOLS

SHALLOW POOL DEPTHS

STREAM HABITAT IMPROVEMENT PROJECTS



Log & Stone Structures



LAKE HABITAT IMPROVEMENT PROJECTS



Porcupine Cribs



LAKE HABITAT IMPROVEMENT PROJECTS



Christmas Tree Reefs



RIPARIAN ZONE RESTORATIONS

Riparian Plantings

Noxious Weed Treatments



Vegetation management to improve composition and structural diversity

ACID DEPOSITION TREATMENTS

Elk County Freshwater
Association – Big Mill Creek



ACID DEPOSITION TREATMENTS



Pennsylvania Fish & Commission –
South Branch Kinzua Creek



LAKE CLEANUPS



Allegheny Reservoir Cleanup, 18th Annual

Tionesta Lake Cleanup, 13th Annual

Chautauqua Lake Cleanup, 7th Annual



RIVER CLEANUPS



Allegheny River Cleanup, 14th Annual



Conewango Creek Cleanup, 14th Annual



OIL & GAS PIPE REMOVAL PROJECTS



ILLEGAL DUMPSITE CLEANUPS



PRE AND POST CONSTRUCTION MONITORING



ENVIRONMENTAL EDUCATION





AND MANY, MANY MORE TO COME!!



QUESTIONS?