

# Eastern Brook Trout JOINT VENTURE



THE QUARTERLY NEWSLETTER OF THE EBTJV

SUMMER 2010

## Mid-Atlantic Division



### In This Issue:

Editors Notes .....	Page 1
TU's Strategic Plan .....	Page 2
New York .....	Page 3-4
Pennsylvania.....	Page 5-9



## Editor's Notes

Welcome to our Summer edition of the EBTJV newsletter. This edition outlines the great brook trout project planned and revued in 2010.

Please keep me informed of new interested parties for my mailing list and also keep me updated on changes of positions within councils and chapters. Our distribution list is now over 160. There are quite a few folks that are interested in our native brookies so please take the time to submit articles.

I've continued to add links to all url's and emails contained in the newsletter. You just need to click on them to email or visit a website. I'm open to suggestions and new ideas so feel free to send them to me at [williamo@maine.rr.com](mailto:williamo@maine.rr.com).

Our EBTJV Google Group membership continues to grow. It's a site where we have a forum for discussions, a place to upload and post files/documents/newsletters and send reminders to the entire group. You can join by clicking the tab on the right side of the page: <http://groups.google.com/group/ebtjv>. Visit it often... It's a very useful tool for the EBTJV where you can download newsletters from all EBTJV regions.

Please note that **A Call for EBTJV Habitat Proposals** has been posted on [www.easternbrooktrout.org](http://www.easternbrooktrout.org). Deadline for applications is Sep. 17.

Enjoy the Newsletter and our Google Group — Tight Lines!

by Bill Oleszczuk

# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## Trout Unlimited's Strategic Plan

### Protect, Reconnect, Restore and Sustain

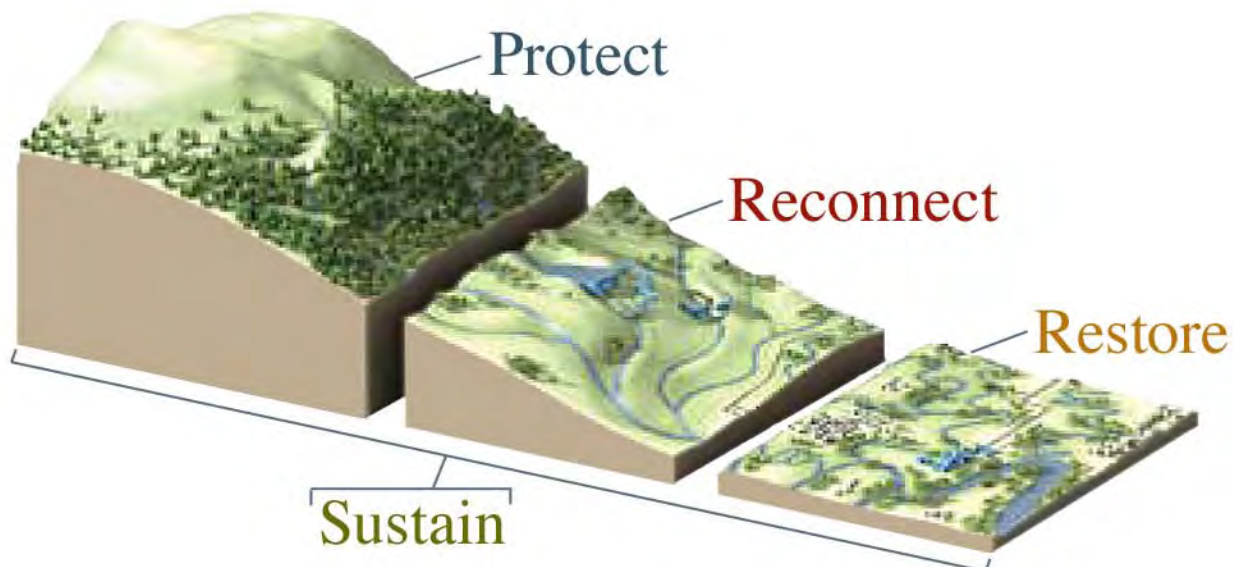
Trout Unlimited's strategic plan focuses on four key goals: to "Protect, Reconnect, Restore and Sustain" the habitat and watersheds that support wild and native trout and salmon in North America. To achieve the "protect" component of the plan, it will be necessary to secure the future of coldwater habitat on both public and private lands. The Coldwater Land Conservancy Fund (CLCF) is a central component of TU's work to permanently protect private lands from incompatible development and energy exploitation. The CLCF is intended to encourage collaborations and partnerships with land trusts and public agencies to achieve the common goal of permanently protecting lands with important trout and salmon habitat from inappropriate development and energy extraction.

This winter, Trout Unlimited plans to unveil a matching grants program for land trusts partnering with TU chapters to help permanently protect priority streams and watersheds throughout the Eastern Brook Trout's historical range. At the request of the land trust community, the Coldwater Land Conservancy Fund small grants program will provide grants of up to \$15,000 on a bi-annual basis

to cover the hard-to-raise "transaction costs," such as surveys and legal fees, which are an inevitable part of any land deal but sometimes pose a major obstacle. Grants can also help fund stewardship costs associated with voluntary public angling access on lands protected through TU/land trust partnerships. By making this type of investment in collaboration with partnering land trusts and state agencies, TU can dramatically increase its ability to safeguard critical coldwater habitat, often providing enhanced access for angling in the process.

Keep your eyes open for this grants program this winter, and start talking to your local land trust about properties with importance to Eastern brook trout that they may be working to permanently protect.

Nathaniel Gillespie  
Fisheries Scientist & Director of Eastern Lands Protection Project  
Trout Unlimited  
1300 N. 17th Street, Suite 500  
Arlington, VA 22209



# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## New York

### Three year project to locate unknown wild brook trout populations in WNY

Beginning in June, 2010 and continuing each summer through 2012, NYS DEC Region 9 Fisheries will be conducting surveys on previously unassessed streams. This will occur in five counties in the far western end of New York State. Some surveys will also be completed on streams that have historically held brook trout populations, but may have lost them due to land use changes, expansion of beaver populations or introductions of exotic trout species. The project is funded from a Federal Aid to Sportfish Restoration grant. We will utilize two seasonal technicians each summer/fall for the majority of the field work with regional biologist coordination and oversight of the project.



In the previous 20 years, regional fisheries staff have documented unknown wild brook trout populations in nearly 100 streams and with this project's ability to sample hundreds more streams, it is likely we will locate many more brook trout populations. This information will allow the region to update the original brook trout population status, compiled for the EBTJV several years ago. We now have access to the level 12 HUC's (sub-watersheds) for New York State, which is the same level used by other states in the original assessment work. Following the completion of this project, we should have a much more detailed and accurate assessment of the status and location of our brook trout populations in the far western part of the state.

Additionally, most of the brook trout populations we are likely to find are in streams that currently have a water classification that does not provide them with the fullest protection from disturbance. By documenting these populations, we will be able to offer these streams the fullest protection possible under New York State law. During each survey where trout are found, an evaluation of threats to brook trout will be completed. These include impassible culverts and other barriers. Notes are made of streams with potential for future habitat restoration work.



Results of field work through mid-July showed 13 sampling days producing 13 streams with only brook trout present, 5 streams with only brown trout present and 8 streams with mixed populations of both. A total of 93 streams have been assessed, of which some were dry or contained no fish. At least one HUC 12 watershed was evaluated that will likely attain a status at the level of "population reduced" (50-90% of system containing wild brook trout) or possibly even "population intact" (>90% containing brook trout). We also sampled a few streams containing a individual wild brook trout that are much larger than the average found in low fertility western New York streams. Several fish of 11-12.5 inches have been found. It is not clear whether these larger fish are due to low population densities or if they are fish with greater growth potential than normal.

# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## New York *continued*

### Region 8 Brook Trout Surveys

Region 8 Fisheries has completed electrofishing surveys on 62 streams in Steuben County, with 54 in the Chemung drainage and 8 in the Genesee drainage. Wild trout were collected in 35 streams. Brook trout, brown trout, and a combination of brook trout and brown trout, were collected in 20, 7 and 8 streams, respectively. Nineteen streams in which trout were collected are not currently classified as trout streams. These streams will be added to a list of streams that qualify for reclassification. We will continue to conduct brook trout electrofishing surveys throughout the summer and early fall.



11.5 inch brook trout; Culver Creek, Steuben County  
Article by Jim Daley



# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## Pennsylvania

### EBTJV Programs

A call for **EBTJV habitat proposals** has been posted on the EBTJV website at [www.easternbrooktrout.org](http://www.easternbrooktrout.org). Deadline for submitting applications is Sep. 17.

Two proposals for restoring brook trout habitat were received during the report period:

1. Expanding Brook Trout within Willow Creek as per the NFHAP and PA EBTJV State Conservation Strategy
  - Type of Project: In-stream habitat, Riparian planting and Assessment
  - Project Location: Berks County, Maiden creek Township
  - Total Project Cost: \$121,800
  - Total Federal Matching: \$0
  - Total Non-Federal Matching: \$71,800
2. Restoring Browns Run fish passage with the NFHAP and PA's EBTJV State Conservation Strategy
  - Type of Project: Fish Passage
  - Project Location: Barr Township, Cambria County,
  - EBTJV / NFHAP Funding Requested: \$50,000
  - Total Project Cost: \$333,000
  - Total Federal Matching: \$0
  - Total Non-Federal Matching: \$283,000 + in-kind

### On-Going Brook Trout Programs

#### Susquehanna River Basin Commission

by Tom Clark (SRBC)

**Cessna Run** was electro-fished by the Western PA Conservancy in November of 2009. They documented 15 fish species. Brook trout were sparse and the population was dominated by mimic shiners, creek chubs, and blacknose dace (68% of the sample), but with the large food base now, the brook trout population should improve over the coming years.

**Drury Run** holds native brookies all through the main stem above the confluence with Stony Run which destroys the stream. The best population is above Sandy Run. The population decreases in health as you move downstream. There is a very interesting and easy to treat discharge on Sandy Run that we are focusing some attention on since

it has a small population of brook trout above it and none below. This discharge should be of some interest to the EBTJV since fixing it would restore an entire stream.

**Birch Island Run** water quality suffers from low pH due to acid deposition. However, we found a pretty healthy population of brook trout throughout, minus a section of Little Birch Island that is downstream of an AML and associated discharge. This site also interests us greatly since there seem to be good numbers of brook trout upstream and fewer downstream.



**Bear Run**, is one of the largest AMD impacts to the headwaters section of the WB Susquehanna. It contributes about 327 tons/year acidity, 34 tons/year iron (Fe), 29 tons/year manganese (Mn) and 20 tons/year aluminum (Al). In 2005, the Indiana County Conservation District (ICCD) completed the Bear Run Restoration Plan, which documented that eight of the 27 AMD discharge sites in the watershed are contributing 72 percent of the AMD loading into Bear Run.

Bear Run restoration is coming along nicely. The Phase II treatment system is filling up with water and the 20 acres surrounding the site have been reclaimed. With Phase I-III now complete, we will be documenting the results via sampling and fish shocking in the fall and will begin turning our attention to Phases IV-VIII.

# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## Pennsylvania *continued*

### Allegheny National Forest / WINS Coalition

[Excerpted from the ALLEGHENY WINS "WATERSHED IMPROVEMENT NEEDS" Coalition, 2009 Annual Report - provided by Nathan Welker (NFS)]

#### Spring Creek Watershed Restoration Project

Partner - Sponsor: Western Pennsylvania Conservancy

The purpose of this pilot project was to reconstruct portions of two forest roads, remove multiple fish passage barriers, and improve riparian and in-stream habitat throughout the Spring Creek drainage in Forest and Elk Counties. Specific objectives of the project included: 1) reconstructing three miles of Forest Roads 227 and 403 to improve drainage and reduce sedimentation; 2) eliminating fish passage barriers associated with inadequate road crossings; 3) hardening and decommissioning dispersed camp sites located along both roads; and 4) hardening existing parking to reduce sedimentation while improving access to the stream.

- Three miles of forest road were reconstructed to improve drainage and reduce sedimentation.
- In-stream habitat was improved using 100 hemlock logs to construct 10 multi-log vane deflectors and two modified mud sills.
- Over 1,200 ft of stream bank were stabilized on Spring Creek as a result of instream structures and road and stream crossing improvements.

#### Big Mill Creek Watershed Restoration Project

Partner - Sponsor: Elk County Freshwater Association

In 2005 a group of private individuals, concerned with the deteriorating condition of streams in their area, got together and formed the Elk County Freshwater Association (ECFA). ECFA's goals include:

- Identifying and increasing public awareness of environmental impacts in local waters
- Mitigating environmental impacts in order to improve, restore, and protect water quality and aquatic life
- Improving recreational opportunities for local citizens and visitors. Big Mill Creek was the first watershed targeted for restoration due to its value as a local fishery, recreational area, and public water supply.

A review of PA Fish and Boat Commission (PFBC) records showed that Big Mill Creek had been steadily deteriorating as a result of long-term acidification by acid rain. Historic and recent sampling revealed chronic acidification (pH < 5) in its headwaters and in a majority of tributaries resulting in the loss of wild brook trout fisheries.

In 2006 ECFA began working with a consultant to restore Big Mill Creek through remediation involving alkalinity addition to the stream. The passive treatment approach they selected combines an aerobic limestone basin (AeLB) and anaerobic vertical flow wetland (AVFW).

This involves the diversion, treatment, and return of a portion of the stream flow at several headwater tributaries. The diverted and treated stream flow will contain elevated alkalinity sufficient to mitigate both chronic and episodic acidification in the tributaries, with the combination of projects preventing episodic acidification in the lower main stem; maintain base flow pH > 6.5 and storm flow pH > 6. The combination of systems will restore water quality and aquatic life to at least 20 miles of Big Mill Creek and its tributaries.



#### Activities and Accomplishments

- DEP, as the funding agency, completed pre-project monitoring in June 2008.
- ECFA and Elk County Conservation District regularly take students sampling on Big Mill Creek and its tributaries.

# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## Pennsylvania *continued*

- ECFA has received \$65,000 from PFBC's Sinnemahoning Creek Watershed Restoration Grant Program to improve fishing access and complete a fish habitat improvement project on Big Mill Creek.
- ECFA completed the first of four passive treatment systems on a tributary to Ellithorpe Run.
- ECFA and USFS have selected locations for remaining three passive treatment systems and are working to complete a Special Use Permit for construction in 2010-2011.

### Browns Run Watershed Assessment

Partner - Sponsor: Western Pennsylvania Conservancy

Located in Warren County near the City of Warren, the Browns Run watershed contains three streams classified as Exceptional Value (EV) – Browns Run, Morrison Run and Dutchman Run. This project is a comprehensive Coldwater Heritage study of the Browns Run watershed to collect baseline data on water quality and aquatic health. The goal of the plan is to document threats and recommend protection and restoration efforts in the watershed and its three EV streams. Key participants in this study include the US Forest Service, Warren County Conservation District, and Cornplanter Chapter of Trout Unlimited.

This project is a comprehensive Coldwater Heritage study of the Browns Run watershed to collect baseline data on water quality and aquatic health. The goal of the plan is to document threats and recommend protection and restoration efforts in the watershed and its three EV streams. Key participants in this study include the US Forest Service, Warren County Conservation District, and Cornplanter Chapter of Trout Unlimited.

### Activities and Accomplishments

- Fish sampling was completed for main-stem Browns Run and Morrison Run in summer 2009. Sections of Dutchman Run in the ANF were sampled for fish in summer 2008.
- Fisheries data are currently being compiled and analyzed.
- A draft of the Coldwater Conservation Plan for the Browns Run Watershed is expected to be complete by April 2010.

### Morrison Run Restoration Project

Partner/Sponsor: Cornplanter Chapter of Trout Unlimited (CCTU)

Morrison Run is classified as an Exceptional Value stream by the PA Department of Environmental Protection and holds a good population of native brook trout. It is also a major tributary to Browns Run and ultimately the Allegheny River, which is a federally designated Wild and Scenic River. The forests and waters of the watershed are recovering from decades of past exploitation from unsustainable timber harvest and industrial development. Today the watershed is prized by the local community for its recreational resources, timber base, and as a native brook trout fishery.

The goal of the project is to restore and improve riparian and instream habitat along Morrison Run through the reduction of sedimentation, rehabilitation of riparian areas, and removal of fish passage barriers from the main stem. Specific objectives of this project include:

- Expanding the range and numbers of the native brook trout populations, currently confined to isolated pockets throughout the drainage.
- The elimination of all four fish passage barriers from the main stem.
- Decommissioning or hardening two fords on the main stem.
- Reconstructing portions of FR156 to improve drainage and reduce sedimentation.
- Improving and promoting recreational opportunities (e.g., fishing) in the drainage.

Partners in the Project include: Cornplanter Chapter of Trout Unlimited, Western Pennsylvania Conservancy, Warren County Conservation District, PA Fish & Boat Commission, US Forest Service, and 4 private landowners.

### South Branch of Kinzua Creek Acid Remediation Project

Partner – Sponsor: PA Fish and Boat Commission

Acid precipitation is negatively affecting streams on the Allegheny National Forest. Over time, chronic acidification leaches base ions and aluminum from soils and decreases a watershed's natural buffering capacity. Eventually, pH levels are lowered and aluminum concentrations rise

# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## Pennsylvania *continued*

to a point where area streams are no longer capable of supporting a healthy aquatic community. In 2005 a study comparing soil nutrients of archived soil samples from 1967 and samples collected between 1997 and 1999 found that soils in and around the ANF are indeed becoming more acidic and there has been a significant reduction in base cations over the 30 years.

This project was begun in 2008 as a cooperative effort between the PFBC, Penn State Center for Dirt and Gravel Road Studies (CDGR), and USFS to assess an innovative new approach to repairing and maintaining dirt and gravel roads that would provide for the treatment of streams impaired by acid deposition. It was designed as a demonstration project for CDGR and may assist in the development of Best Management Practices (BMP) for watershed scale acid buffering in catchments where the natural buffering capacity of soils and geology are lacking.

CDGR designed the road segments, and Dr. Rachel Brennan at Penn State University analyzed the Acid Neutralizing Media (limestone sand and crab shell chitin) to be used within the Passive Treatment Systems.

Construction was completed in July 2009 with several sections of Forest Road 279 resurfaced using a limestone based Driving Surface Aggregate (DSA). In addition, the roadside ditches were retrofitted with passive treatment systems containing either limestone sand or crab shell chitin. These improvements are expected to increase pH, add alkalinity, and provide additional acid neutralizing capacity within the treatment watersheds.

The results of initial monitoring have been promising. The pH values of treatment stream water have risen from the mid-4's up to as high as the mid-6's. Alkalinities have also increased from 0 to as high as 267 mg/L. Monitoring of fish populations and water quality will continue in 2010. Articles are under development for submission to scientific periodicals and professional seminars.

### Eastern Abandoned Mine Program

by Rebecca L. Dunlap, Manager

Trout Unlimited, through its Abandoned Mine Drainage (AMD) Technical Assistance Program, a free technical assistance program that provides biological assessments as one of its core components, identified wild trout in an unnamed tributary to Moravian Run in Clearfield County

as well as in Birch Island Run and in the headwaters of Tangascootack Creek in Clinton County this spring and summer.

As the lead non-profit organization for the West Branch Susquehanna Restoration Initiative, TU is working with numerous local, state, and federal government and non-government on a coordinated, strategic, and cost-effective AMD cleanup approach for the West Branch Susquehanna River. To date, Trout Unlimited has provided over 30 technical assistance projects to watershed groups, TU chapters, conservation districts, and others in the West Branch Susquehanna River watershed.



*Electro-fishing*



*Measuring, Weighing & Counting*

# Eastern Brook Trout JOINT VENTURE



PROTECT | RECONNECT | RESTORE | SUSTAIN

## Pennsylvania *continued*



*A Nice Male Brookie*

### **Unnamed Tributary to Moravian Run, Clearfield County**

Moravian Run is a direct tributary to the West Branch Susquehanna River in Clearfield County and its watershed is home to several miles of abandoned mine drainage-impaired streams. The Senior Environment Corp and Trout Unlimited are working to document all wild trout waters in this watershed to support the need for current and future AMD treatment projects. Fish data collected as part of this technical assistance grant indicate a brook trout fishery worthy of a Class C designation and document a native trout population that will provide a means of natural repopulation to Moravian Run once the AMD-pollution is abated.

### **Birch Island Run, Clinton County**

According to the Pennsylvania Department of Environmental Protection, Birch Island Run, a direct tributary to the West Branch Susquehanna River in Clinton County, is impaired with metals from abandoned mine drainage. TU conducted an assessment of this stream's fishery near its mouth for the Susquehanna River Basin Commission and discovered several different age classes of brook trout. These fish indicate a breeding population in a stream once considered nearly lifeless as a result of historical coal mining pollution.

### **Tangascootack Creek, Clinton County**

Tangascootack Creek is one of the most downstream sources of AMD-pollution that the West Branch Susquehanna River receives. Trout Unlimited and the Clinton County Conservation District identified Young-of-the-Year brook trout in the headwaters of the South Fork of Tangascootack Creek before the stream is heavily polluted with AMD from Muddy Run. The Conservation District is currently working to address seven AMD-discharges in Muddy Run and these Young-of-the-Year trout will provide a means of natural repopulation to the South Fork of Tangascootack Creek once the AMD-discharges are abated.

*Articles by Ken Undercoffer*

