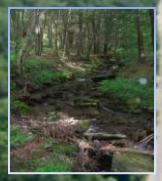
Lycoming College CWI Contribution to PFBC Unassessed Waters Project: 2010-2011

Introduction

Over the past decades, there has been a interest in protecting Pennsylvania's trout populations from environmental impacts, including human impacts. However, increase urgency for protection has recently come about due to the rise of Marcellus Shale drilling activities throughout the state. Pennsylvania contains 86,000 miles of flowing water. To date, the PFBC has surveyed 21,654 miles of which 12,677 miles have be designated as wild trout waters.

Background

As part of the PFBC's continued interest in securing and protecting wild trout populations of Pennsylvania, Lycoming College and Kings College assisted the PFBC in the summer/fall 2010 in completing fish population surveys on unassessed waters of PA. After the 2010 pilot project 10 additional Colleges or Non-profits were trained and assigned a list of unassessed waters in 2011. Through population estimates the biomass class can be assigned to a stream, according to PFBC's criteria. Classes range from Class A, Biomass of at least 30 kg/ha, Class B at least 20 kg/ha, etc. The Department of Environmental Protection uses this classification information to independently confirm whether a stream is wild trout water. The major threat to unassessed wild trout waters is inadequate water quality protection due to the unknown condition of the trout population. This deficient knowledge may result in permitting actions that are not properly conditioned to protect the stream and its trout population.



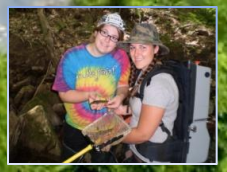
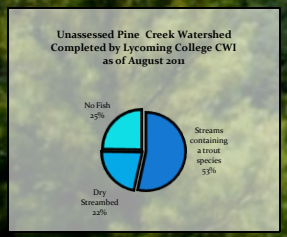
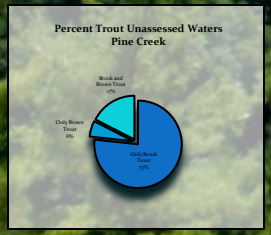


Photo: Pine creek Gorge from Colton Point lookout (rail trail on left of creek)





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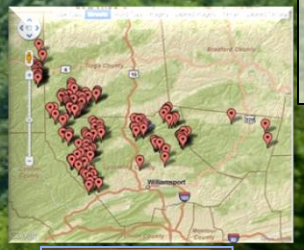
Additional Funding: Susquehanna Chapter Trout Unlimited, Pine Creek Headwaters Protection Group, Pine Creek Preservation Group

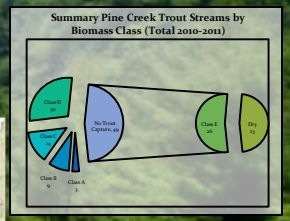
In order to provide more base line data and additional protection for a stream Physical, chemical, and fisheries data where collected at each site. Electrofishing steps included the use of battery powered backpacks using DC (direct current). Prior to sampling, a 100m reach of stream was selected. A minimum of five wetted width measurements were recorded at each site. Other measurements included pH, water temperature, total hardness (mg/L), specific conductance (µS/cm), and total alkalinity (mg/L).

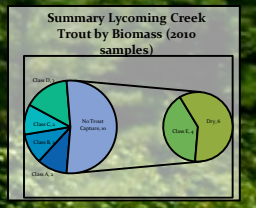
Results

Lycoming College's participation in the project focused on streams in the Pine Creek, Loyalsock Creek and Lycoming Creek basins.

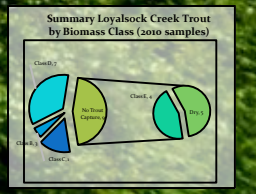
Unassessed Waters Completed by Lycoming College CWI: 2010-2011(Total= 139 Watersheds: Pine Creek=102 Lycoming Creek= 19 Loyalsock Creek= 18)







Award to CWI in recognition of Pine Creek Project



Conclusion

The unassessed waters initiative will continue for the next several years with Lycoming College focusing on Pine Creek and Lycoming Creek, and Susquehanna University focusing on Loyalsock and Muncy water sheds in North Central Pennsylvania.

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