

Fish Population Data for Limestone Run

Collected by Lycoming College Clean Water Institute Interns

Jim Rogers

Matt Bennett

Chad Kimmel

Christy Bowersox

and

The Aquatic Biology class Fall 2003

All under the direction of Dr. Mel Zimmerman

Limestone Run Summary

Limestone Run is a calcium carbonate based stream located in Montour and Northumberland counties. The watershed is 11.6 sq. miles and Limestone Run has a length of 10 miles. Three major transportation routes run over or near Limestone Run: Route 80, 147, and 254. The greatest industry in the watershed is agriculture which attributes a great deal to the amount of nutrients in the water. This stream was once covered in lush vegetation but in the past few decades man has impacted Limestone Run tremendously. Now it is listed on the 303d list of impaired waterways. Limestone Run is inflicted by agricultural and stormwater runoff, channelization, erosion, and lack of a sufficient riparian buffers, to name a few.

Data collection on the health of Limestone Run began in 1991 by Milton Senior High School's Outdoor Education class under the direction of Michael Yeager. Water quality testing continued each year by the students and additional data collecting such as macroinvertebrate assessments were added along the way. A multi-school watershed workshop was also created to connect students with similar interests from different districts. In 1997 DEP did an invertebrate assessment of the Elementary School site of Limestone Run and found that the majority of the invertebrates found had a high tolerance level indicating poor stream quality. In 1999 the Pa. Fish and Boat Commission did an assessment of the Elementary School site and found that most of the fish caught had a high tolerance level which is in agreement with the DEP vertebrate assessment that there is stream impairment. In 2002 two-hundred trout were introduced into Limestone Run to see if conditions were satisfactory for their survival. The MSHS students have progressed to doing pebble counts and streambank assessments using GIS, while continuing to do macroinvertebrate and chemical assessments. The students did the majority of the biological, chemical, and physical assessments, without the students and their instructor, Mr. Yeager little would have been done to assess the health of Limestone Run.

Milton Senior High School's (MSHS) Outdoor Ed/ Environmental Studies class received a Growing Greener Grant for \$23,920 and a John G. Clark, Jr. Environmental Education Grant from Merrill W. Linn Land and Waterway Conservancy for \$486. The U.S. Fish and Wildlife Service donated \$10,000 to the Limestone Run Project and the Milton Solid Waste Treatment Plant donated free coliform counts. DEP also provided \$2,000 for the creation of wetland habitats.

In 2003, the Clean Water Institute at Lycoming College was contacted to be part of a multi-school district watershed workshop, organized by Mr. Yeager. In addition, the Aquatic Biology class came back the following week to sample fish at two sites. One goal was to determine if any trout from those introduced were still present in Limestone Run. Another goal was to apply the EPA Rapid Bioassessment Protocol IV and calculate an IBI (Index of Biotic Integrity) for the stream.

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