
University of Pennsylvania



Institute for Environmental Studies

presents

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Stroud Water Research Center

An assessment of the Schuylkill River Basin based on aquatic insect communities

The Schuylkill River Basin has long represented a valuable resource to the inhabitants of the Delaware Valley, from the original Native Americans through the early European colonialists and from the industrial revolution to the present mix of urban, suburban, and rural developments. In using this resource, most of the streams and rivers in the basin have been dammed, diverted, pumped, and/or polluted at one time or another. Our study was designed to use aquatic macroinvertebrates such as insects, worms, and crayfish that live in the river and its tributaries to assess current conditions at 19 sites. Students were used to process samples and interpret data similar to the activities of volunteer monitoring programs. The 19 sites were on major tributaries or branches, and their watersheds represented 57% of total basin area. A wide range of conditions was observed, from good to poor. Variation among years was large enough to affect site assessments for individual years. Because each site integrates land and water use over a relatively large area, it can be difficult to identify the source or sources of water/habitat degradation. However, most sites where macroinvertebrate assemblages indicated degraded conditions were in watersheds with significant urban or mining development. This study illustrates how data from students or volunteer organizations can be used to identify areas that need protection and areas that need attention, even in a complex river basin than reflects both present and past use. The study also illustrates the importance of basing stream assessments on multiple sites over multiple years.

Date: Thursday, September 19, 2002

Time: **NOON - 1:30 pm**

Place: **Auditorium at Wistar Institute**

On Penn's campus: Spruce Street & Penn's 36th Street Walkway

NO REGISTRATION REQUIRED

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