

Stream Entomology 101: Bugs That Live in Seneca Streams and What That Tells Us About Water Quality

Adrianna Hirtler and Jim Murphy

Adrianna Hirtler's favorite place on Earth is a particular gorge stream near Burdett, NY. Her love for this and other magical streams of the Finger Lakes led to her involvement with the Community Science Institute (CSI) in Ithaca, NY where she works with volunteer groups who monitor water quality by looking at small organisms that live under rocks in flowing water. She has a Bachelors' degree in Natural Resources from Cornell University, an MS in Environmental Studies from the University of Oregon, works seasonally as a ranger naturalist at Yosemite National Park and is certified in family-level aquatic insect taxonomy through the Society for Freshwater Science. She is currently the bio-monitoring coordinator for CSI. Most bio-monitoring through CSI has been focused in the Cayuga Lake watershed but in the past few years, volunteer efforts have sprouted up around Seneca Lake as well.

As Jim Murphy puts it, he has spent one-half of his life as an eighth-grader in the Watkins Glen school district teaching Physical Science and Environmental Science classes. For Jim, the most transformative classroom is Glen Creek, which flows out of Watkins Glen State Park and past his school. For the past 10 years he and his students have conducted a monitoring program in the creek and this has spawned a generation of students who now observe streams and watersheds with a different eye. Jim received a BS degree in Community Health from SUNY Brockport and an MPH degree in Environmental Health from the University of Michigan School of Public Health. He had a 15-year stint on the Schuyler County Environmental Management Council and most recently served for three years on the Working Committee that helped to assemble the 2014 Schuyler County Comprehensive Plan. He is presently working on initiatives to bring geospatial technologies and STEM courses into various curricula within his school district. He and his wife Joan arrived in Schuyler County with a 5-month old child, choosing to relocate in this area solely on the basis of its physical beauty and rural character. This decision was never regretted and the community provided a fine foundation for three children who found their paths as a Coast Guard helicopter pilot, speech pathologist, and marketing researcher.