

Class in session for GLES master's programs

The new Great Lakes Ecosystem Science (GLES) master's programs started this fall with seven students: three are pursuing the thesis-based MA and four are in the internship-based MS program. We were pleased to offer two GLES students graduate assistant positions. Keith Pawlowski is working in Dr. Karatayev's lab and Michael Borrelli is working in Dr. Pennuto's lab.



Graduate student Keith Pawlowski measures dreissenid mussels for one of Dr. Karatayev's projects.

Most of the GLES students are taking GLC 600 Great Lakes Seminar this semester.



Sara Mochrie, project manager with Ecology and Environment, presents for GLC 600.

GLC 600 is a required course for students in both GLES programs. The purpose of the course is to provide an opportunity for invited speakers representing various groups within the Great Lakes basin to give presentations on Great Lakes environmental science and management topics.

This semester speakers are from Buffalo State, UB, US Fish and Wildlife Service, Ecology & Environment, and Buffalo Niagara Riverkeeper. We hope that GLC 600 will be a

venue for students and faculty to interact.

GLC 600 is being held in the Classroom Building, room B332 on Wednesdays 4:30-6:00 PM. For a schedule of fall 2013 presentations, or if you would like to present during the spring 2014 semester, please contact Kelly Frothingham, GLES program coordinator.

OTHER GLES CLASSES:

This semester, five other classes are being offered for GLES students:

- GEG 525 Fundamentals of GIS
- GEG 575 Principles of Hydrology
- BIO 635 Great Lakes Ecology
- PSM 601 Project Management for Math and Science Professionals
- GES 525 Advanced Hydrogeology

For more information on the GLES M.A. or M.S. programs, or to apply, please visit the [Education](#) section of the GLC website.

Monitoring the effects of Elton Creek stream restoration

GLC biologist Dr. Chris Pennuto and graduate student Steve Sliwinski are part of a research team investigating how in-stream restoration activities affect the movement and population dynamics of trout and sculpins in Elton Creek, NY. The long-term project brings together the NYS DEC, researchers from the Great Lakes Center and UB, stream restoration consultant, Dave Derrick, and LaFarge Quarry operators to restore critical trout habitat in the stream.

Large machinery moved huge quantities of boulders August 19-23, installing hydraulic cover stones, single-stone bendway weirs, brush piles, living dikes, and bank amendments along 1.2 km of stream. Dr. Pennuto and Sliwinski assessed sculpin and

trout populations before any restoration activities began, and will re-assess the same locations at 6, 12, and 18 month post-restoration.

Using a backpack electroshocker, they caught brown trout and sculpin in Elton Creek. All trout captured were implanted with passively induced transponder (PIT) tags. A remotely operated PIT tag reader system is currently being installed in the stream to remotely monitor the movement of tagged fish.

The work should provide important information to fisheries managers on the benefits of in-stream habitat modifications to trout and sculpin populations in NY streams.



Graduate student, Steve Sliwinski, with a nice brown trout collected and PIT tagged as part of the Elton Creek restoration project.