

Restoration research bites:

- ◆ ERIE researchers Alan Rabideau, Ken Shockley, and Doug Lambert recently teamed with historian Michael Frisch and Canisius College sociologist Erin Robinson to win a highly competitive NSF "INSPIRE" grant (3 years, \$800K) to study groundwater restoration from an interdisciplinary perspective.
- ◆ ERIE Trainee Justin Donhauser presented "One Way to Use an Ecosystem Theory for Decision Making in Environmental Policy" at the *Society for Philosophy of Science in Practice Conference*.
- ◆ ERIE Trainee Mike Habberfield presented "Rapid Stream Assessment Techniques Inform Restoration Differently Based on Levels of Stream Disturbance" at the *5th National Conference on Ecosystem Restoration*. Co-authors were Stacey Blersch, Joseph Atkinson, & Sean Bennett.
- ◆ ERIE Trainee David Spiering was awarded the Abrahams & Woldenberg Field Scholarship from the UB Geography Dept. The \$850 award will be used for analysis of soil samples collected at post-industrial sites in Erie and Niagara Counties.
- ◆ ERIE REU participant, Peter Byrley & David Blersch were featured in this recent [UB Reporter piece](#) and [Buffalo Rising article](#) discussing their research on the potential use of algae for biofuels and other beneficial uses.
- ◆ ERIE Trainee Louis Williams recently attended the Recital of the Great Law at the Oneida Longhouse in Ontario, Canada to support his dissertation research in American Studies.

2013 Summer Stream Ecosystem Restoration Workshops



Instructor Paul Fuhrmann in the field teaching participants about invasive plant species (Photo credit: Doug Lambert)

This past summer we had a successful series of workshops focused on stream ecosystem restoration. Participants learned the latest in both restoration science and applied skills from leading restoration researchers and practitioners.

We are already busily planning the 2014 workshops. They are slated to begin on June 2nd and run through June 27th. Please stay tuned to the [workshop webpage](#) for updates and registration information.

Workshop topics will be expanding over the next couple of years to include not only streams, but groundwater, lakes, and other

ecosystems in the Great Lakes region. Topics for 2014 include stream restoration design, stream assessment & monitoring, surface water & groundwater interactions, permeable reactive barriers for groundwater restoration, riparian area ecology & restoration, invasive species, modeling techniques, and more! We will now offer a **Professional Certificate in Environmental Restoration** to those who complete required workshops.

Thank you to everyone who helped make our 2013 program a success and we hope to see you next summer! Registration will open later this year.



Participants practicing stream flow measurement techniques in Dr. Chris Lowry's workshop (Photo credit: Doug Lambert)



Summer 2013 ERIE IGERT Internship Spotlight

First year Ph.D. student and ERIE IGERT Trainee Beynan Ransom (left) has completed an internship learning metabolite extraction techniques to assess phytoremediation barrier performance. The internship was hosted by Dr. Lee Newman's biotechnology lab at the SUNY College of Environmental Science and Forestry, where there are several on-going phytoremediation projects involving volatile organic compounds. Through the month-long internship, Beynan learned how to extract and derivatize trichloroacetic acid from hybrid poplar leaf cuttings and detect them using gas chromatography. In the future, he will use these techniques to study the impact of a hybrid poplar phytoremediation barrier sponsored by Motorola Solutions, Inc. and maintained by the ERIE program.



ERIE REU students kayaking on the Buffalo River with Buffalo Niagara Riverkeeper (Photo credit: Sarah Delavan)



2013 ERIE REU students after the Annual ERIE REU Summer Research Symposium (Photo credit: Sarah Delavan)

Summer 2013 ERIE REU Program

This summer the ERIE Research Experience for Undergraduates (REU) hosted eight students from across the United States. These bright and talented students were chosen from a pool of over 200 applicants. The 2013 students were: Anthony Brais (University at Buffalo), Jessica Lee (University of Maryland - Baltimore County), Victoria Liberty (University at Buffalo), Hannah Matthews (University of Vermont), Aaron Perez (Humboldt State University), Andres Benetiz Ospina (Humboldt State University), Melissa Reardon (University of Virginia), and Paul Reed (University at Buffalo).

The REU students conducted ecosystem restoration and engineering for sustainability related research under the guidance of professors with assistance from doctoral students. Projects included phytoremediation of groundwater, restoration of river meanders, low-tech drinking water treatment, culverts and fish passage, and more. They also had weekly research trainings and social activities where they visited areas of environmental importance in the Western New York region over their 10-week stay at UB. The program ended with a Research Symposium where the students gave oral and poster presentations on their summer research.

Congratulations to everyone for a very successful summer! The ERIE REU Program will begin soliciting applications for summer 2014 later this year. Please visit our [ERIE REU webpage](#) for more information on the program and updates on how to apply.

ERIE People News

- ◆ Congratulations to ERIE IGERT Trainee **Susan Mackintosh** who completed her Ph.D. in Chemistry. Her dissertation was entitled "Answering Burning Questions: Analysis and Quantification of Halogenated Flame Retardants and Their Metabolites in Environmental and Biological Matrices." Dr. Mackintosh is currently a Post-Doc at San Diego State University.
- ◆ Congratulations to ERIE IGERT Trainee **David T.R. Stewart** who recently accepted a position teaching Chemistry at D'Youville College in Buffalo. David plans to defend his dissertation at the end of this year.
- ◆ Congratulations to former ERIE IGERT Director Dr. **David Blersch** who started a new position as an Assistant Professor in the Department of Biosystems Engineering at Auburn University in Alabama. Thanks to David for all of the great work and assistance he has provided to ERIE over the years and we wish he and his wife, ERIE IGERT Trainee **Stacey Sloan Blersch**, the best of luck in their new endeavors!
- ◆ Congratulations to **Peter Byrley**, who has worked as a student research assistant for the ERIE Program while working on his undergraduate degree in Environmental Engineering. Peter recently began his doctoral studies in Chemical and Environmental Engineering at the University of California - Riverside.

Please consider donating to the **Ecosystem Restoration Scholarship Fund**. Your tax-deductible gift will support summer student research in ecosystem restoration in the Great Lakes and western New York Region. **Your support is greatly appreciated** and important to expanding our ecosystem restoration research.

Donations are accepted [online](#). Thank you!

We hope you enjoyed this issue of the ERIE Newsletter. Please share with others who may be interested. If you have any suggestions, comments, or concerns, please send them to igert-erie@buffalo.edu. You can find more ERIE news and information at www.erie.buffalo.edu