



State University College at Brockport

Department of Environmental Science and Biology

Spring 2014 Newsletter

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Going Forward with the Department of Environmental Science and Biology

All ecological systems experience periods of change and stasis. Although these are often seen as opposing states, in reality they occupy ends of a continuum grading from rapid flux to equilibrium conditions. Similarly, academic institutions may experience different states of disturbance, ranging from relative calm to abrupt change. In regards to the Department of Environmental Science and Biology, I believe that the next few years will be ones of rapid change. Internal and external forces will affect how we (students, staff, and faculty) carry out our primary missions, which are to teach and learn, conduct meaningful environmental research, and provide service to the community.

The main internal issue that will affect ES&B is turnover in faculty and staff. Dr. Makarewicz will leave us in 2014, closing out a remarkable 40-year career at Brockport, and a look around Lennon reveals several other professors with lots of gray hair. Although none plan to retire soon, by 2020 there obviously will be several new faces in ES&B. One other imminent change is coming—in May Hilary Mosher, our wonderful Instructional Support Technician, will be leaving for a job with the Finger Lakes Institute.

Three related external forces also will impact us: economic, demographic, and technological. The college faces a million-dollar-plus “structural deficit,” due mostly to declining state financial support and lower graduate enrollments. Over the next few years there also will be fewer seniors graduating from high schools in western New York, placing more pressure on the college’s enrollment targets. Finally, economics, in concert with rapid changes in how “information” and learning can be delivered, will drive an increase in on-line courses—a particular challenge to ES&B’s program, given our reliance on hands-on, lab- and field-based courses.

Now for the good news: *there will be change*, and change—whether ecological or academic—can be a positive thing. At the college level, people are thinking urgently and creatively about the budget and student recruitment. At the department level, we recently hired a new faculty member, Dr. Katie Amantangelo, and in the fall we will welcome a new insect biologist, Dr. Ely Kosnicki. We also will recruit dynamic people to fill Dr. Makarewicz’s and Ms. Mosher’s positions. Although some might describe the college’s current financial situation as a crisis, remember that the Chinese ideogram for “crisis” is comprised of the characters for “danger” and “opportunity.” ES&B faculty and staff are thinking proactively about the challenges and opportunities that lie ahead and are working to strengthen an already vibrant program. Most importantly, current and former Environmental Science and Biology students can help the department adapt to the future in several vital ways. Both groups can help recruit new students by spreading the word about the great environmental science program and opportunities for engaged learning that we have here at Brockport. Alums also can assist by helping to place current or graduating students in jobs and internships, thereby strengthening the College at Brockport environmental science community. Together, we can go forward—into an uncertain time, but one that also is rich with opportunity.

Dr. Joseph Makarewicz’ Retirement

As a reminder to everyone who has had the opportunity to interact and collaborate with, and learn from, Dr. Joseph Makarewicz, the Spring 2014 semester marks the conclusion of an outstanding 40-year career of teaching, research, and service with the State University of New York, College at Brockport. Dr. Makarewicz will remain on campus completing a few of his many research and scholarship projects. Please take the opportunity to review the Fall 2013 Environmental Science and Biology newsletter for the full article on Dr. Makarewicz’s career. Once again, thank you, Dr. Makarewicz, for your distinguished service to the College at Brockport.

Best of Luck, Hilary! You will be missed by faculty, staff, and students in the Department of Environmental Science and Biology

After almost ten years as the Department of Environmental Science and Biology's Instructional Support Technician, Hilary Mosher has decided to leave Brockport for an exciting position with the Finger Lakes Institute in Geneva, New York. There, she will be the PRISM (Partnership for Regional Invasive Species Management) Coordinator, which involves coordinating invasive species control and eradication efforts for the Finger Lakes region. The job will demand someone who is creative, energetic, and passionate about the environment – so Hilary is well-suited to the position.

Hilary came to the College at Brockport in 2002, when she began an MS program in Biology under the direction of Dr. Makarewicz. After receiving her degree in 2004, she became an Instructional Support Assistant with the Department of Environmental Science and Biology. Hilary brought new life to the introductory Environmental Science course by upgrading labs and engaging in interactive teaching. She later added civic engagement into the course's curriculum, and activities, such as stream rehabilitation for the Town of Sweden and cleaning pathways along the New York State Barge Canal. The students loved her and the course. Comments ranged from "loved this lab" to "very good course, I would recommend to anyone."

Hilary's duties in Environmental Science and Biology now range from setting up labs for faculty, repairing and maintaining field and lab equipment, dealing with small and large boats, advising students for ECOS, updating the department website, assisting in teaching Marine Biology/Geology in the Bahamas with Dr. Haynes, and outreach for the department. Hilary also served as Chair of the College at Brockport's Sustainability Task Force, which has resulted in the Association for the Advancement of Sustainability in Higher Education's STARS Silver award, Princeton Review's listing in its Guide to Green Colleges, and Rochester Business Journal's Environmental Leadership Award for work with the campus retention ponds and adoption of a sustainability policy.

Hilary's outside activities have been equally as important as her duties at the College at Brockport. Hilary is a former board member and current team coordinator for RochesterCares, Inc., an agency dedicated to inspiring community engagement through volunteerism. She also is site host for Monroe County's Pick Up the Parks event on April 26th at Northampton Park. Other community events that Hilary has helped organize include the International Coastal Cleanup at Hamlin Beach State Park, canal and trail cleanups, stormwater drain stenciling, imagine-it recycling, and corporate day of services. In all of these activities, Hilary's motto has been, "Lead by example, be proactive, and motivate others to use their most powerful tool: their voice and action."

In spite of Hilary's busy schedule as Instructional Support Technician, she still managed to earn a Masters degree in Public Administration from the College at Brockport. She also began a family with her husband, Scott, and successfully balanced the many demands on her time placed upon her by her two young sons, Finn and Parker.

We all will miss the physical manifestations of Hilary's work for the department – her contributions to the introductory environmental science labs, assistance with labs in other courses, her work on sustainability and community outreach issues, and the ways in which she successfully balanced the many tasks that were constantly thrown at her – in short, her many contributions to the mission of the department and college. However, what we will miss most is her ready smile, friendliness, and enthusiasm, the ways in which she brightened the hallways on Lennon Hall and made it a better and more enjoyable place in which to live and work.

Hilary's last day of work for the department is Friday, May 16. Before then, be sure to congratulate her on her new position with the Finger Lakes Institute and thank her for all she has done for the College at Brockport. She will be missed!



Congratulations to Environmental Science and Biology 2013 Award Recipients

John A Bateman—School of Science and Mathematics Graduate Award

John (B.S. '10, M.S. in progress) was the recipient of this year's School of Science and Mathematics Graduate Student Award. The award recognizes a graduating student with a minimum GPA of 3.85 and significant scholarly activity in their field. John's research experience dates back to when he was an undergraduate, and he continued to gain experience by working on several research projects as a graduate student. Examples of his research include his thesis on effects of stormwater retention ponds on calling amphibians, examining the relation between lake-level fluctuations and vegetation responses in a coastal wetland, and identifying changes in wetland plant community composition along an elevation gradient. John also monitors breeding bird and amphibian populations in Great Lakes coastal wetlands as part of the Great Lakes Coastal Wetland Monitoring Program.

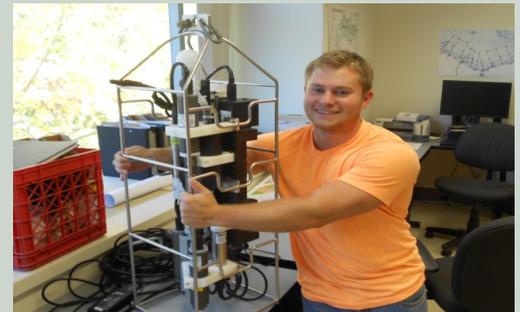


Catherine Jirovec-Department Scholar

A former Marine, a single parent, and a commuter student (over an hour drive each way!), Catherine managed to maintain a GPA worthy of being selected as Department Scholar for 2013. Catherine worked with Dr. James Haynes on the Long-ear Sunfish project in Tonawanda Creek. Catherine graduated *summa cum laude* and made the President's List and Dean's List with honors.

Josh LaFountain-Kenneth Daman Research Award for best aquatic ecology research project

Josh's research accomplishments so far include the following: honor's thesis - coral cover in the Bahamas; fatty acid composition of spot-tail Shiners and lake trout; and long-term trends and the trophic state of Conesus Lake, 2012. After graduation, Josh plans on taking "a little time off" from college before entering graduate school.



Environmental Science and Biology Majors—“Livin’ the Life”

Matt Piche (MS in progress) Natural Resource Coordinator, Department of the Environment and Natural Resources, Native Village of Eyak, Cordova, Alaska

Aaron Heminway (BS '11 , MS in progress) Tetra Tech, Inc., Biologist—Invasive Species Specialist

Andie Graham (MS in progress) ALS Environmental, Wet Chemistry Analyst

Molly Stetz (BS '12, MS in progress) Summer internship, Soil and Water Conservation, Genesee County, Conservation Planning Assistant



Elizabeth McGuire (MS '13) Environmental Protection Agency, Region 4, Atlanta, GA, Life Scientist

Hollee Schwingel-McLean (BS '07) Environmental Scientist, Energy Northwest, Richland, Washington.



Kaitlyn Wauhkonen (BS '11) YMCA Camp Pentalouan, Michigan, Outdoor Education Instructor

For more information on jobs and internships our students are getting, visit our webpage at www.brockport.edu/env or Facebook page at The College at Brockport, Department of Environmental Science and Biology

Environmental Science and Biology Faculty News

Dr. Joseph Makarewicz, Keynote speaker, Genesee River Basin Summer 2014 on restoration and remediation of the Genesee River watershed

Dr. Jacques Rincharde presented at the 25th Annual Meeting of the Lower Lakes Lake Trout Workshop entitled “Monitoring of thiamine in lake trout eggs from Lakes Ontario and Erie”

Dr. Paul Richards won a grant from the NYS Water Resources Institute to map karst areas in Albany County. This grant will fund graduate and undergraduate field work mapping in the summer of 2014. Dr. Richards was also guest lecturer at NRCCA Advanced Training Program. Dr. Richards published: Weighted-Flow Accumulation and aerial Photography for describing Overland Flow Paths: A Case Study in Western New York. **NOTE: Dr. Richards acts as an advisor for graduate-level students in Environmental Science and Biology with a concentration in Earth Sciences**

Mr. Bradley Mudrzynski, Research Scientist and Adjunct Professor, SUNY Brockport, Environmental Science & Biology (BS '07, MS '10) Published “Influence of habitat structure and fruit availability on use of a northeastern stopover site by fall songbirds”, Wilson Journal of Ornithology. **NOTE: Dr. Christopher Norment co-authored**

Dr. James Haynes and Mr. Scott Wells (MS '09) published Fish habitat relationships in the Tonawanda and Johnson Creek Watersheds of Western New York State, USA in Journal of Ecology and the Natural Environment 5 (12): 396-406.

Dr. Douglas Wilcox received a \$249,000 grant from USEPA through Ducks Unlimited to study wetland restoration activities in Buck Pond and Buttonwood Creek in the Braddock Bay Fish and Wildlife Management Area as part of the Great Lakes Restoration Initiative.