

The College at Brockport: State University of New York
Digital Commons @Brockport

Environmental Science & Ecology Department
Newsletters

Environmental Science and Ecology

Fall 2012

Newsletter Fall 2012

James M. Haynes

The College at Brockport, jhaynes@brockport.edu

Follow this and additional works at: http://digitalcommons.brockport.edu/env_news

Repository Citation

Haynes, James M., "Newsletter Fall 2012" (2012). *Environmental Science & Ecology Department Newsletters*. 5.
http://digitalcommons.brockport.edu/env_news/5

This Book is brought to you for free and open access by the Environmental Science and Ecology at Digital Commons @Brockport. It has been accepted for inclusion in Environmental Science & Ecology Department Newsletters by an authorized administrator of Digital Commons @Brockport. For more information, please contact kmyers@brockport.edu.



The College at Brockport

ENVIRONMENTAL SCIENCE & BIOLOGY

FALL 2012

ENVIRONMENTAL SCIENCE AND BIOLOGY

Summer Internships with the DEC for Environmental Science students

In the summer of 2012, Eric Long (BS '13) had an internship at the Department of Environmental Conservation working with biologists Amy Mahar and Jenny Landry on native freshwater mussels of the Lake Ontario watershed. "We've spent all summer surveying streams all along this watershed, searching for freshwater mussels. This project, funded by State Wildlife Grant (SWG) was designed by Jenny and Amy to find the approximate distribution

of different species of native fresh water mussels in the Lake Ontario watershed. Unlike the invasive Zebra and Quagga mussels. These native mussels are very good for the stream as they act as a filter to keep it clean. This means that they can serve as a very accurate bio-indicator for the stream quality. Through this internship, I've learned quite a bit about stream ecosystems, such as identifying different plants and animals, as well as research techniques and data collecting. "This

internship also helped me gain some exposure in the field, as well as helping me network with possible future employers." Attached is a picture of us doing a survey in Conesus Outlet. In addition to Eric, Taylor Ouder Kirk (BS '13), Molly Stetz BS '13), and Josh Crolund MS '13) also worked for the DEC this summer.



South Africa Internship—Emilee Millet '14

Emilee worked at Endip Wildlife Laboratory in Kruger National Park in South Africa the summer of '12. "I always wanted to work in Africa since I was



very little and sure enough, with a little hard work, it happened." Emilee

worked for Cornell Vermaak, a disease ecologist in his fully equipped lab. In the lab she analyzed fecal samples from animals in the reserves for disease surveillance, tested water samples, prepared and analyzing blood smears, patrolled reserves on quad bikes, and nursed orphaned baby zebra, Nwana back to health. The large project was culling impala and checking for worm parasites on the reserve. The best news is that Emilee was offered a job to come

back and work for Dr. Vermaak and continue her education at the University of South Africa. He is an expert on diseases and microbiology but wants to expand his lab and the services he provides, moving into the environmental science realm (Emilee's major) seemed like the perfect fit. Emilee will be relocating to South Africa in June of 2013 to finish up her senior year of undergraduate work. If you would like more information, please send Emilee an email at emill8@brockport.edu. Emilee will be presenting her work in Africa as a department seminar later in the fall semester.



Travels with Dr. Norment

One of the many great things about my job is the opportunity to travel. Although Thoreau wrote that “it is easier to sail many thousand miles through cold and storm and cannibals ...than it is to explore the private sea,” travel has greatly enriched my professional life, as well as my private one. Since coming to the College at Brockport in 1993, my work has taken me to the mountains of Baja California, the subarctic Alaskan tundra, the Snowy Mountains and Great Barrier Reef of Australia, Death Valley and the Mohave Desert, and the Rocky Mountains of the western U.S. Along the way, I have searched out goose nests for the U.S. Fish and Wildlife Service, circumnavigated remote Alaskan islands mapping nesting colonies of Common Eiders, studied the breeding biology of Australian pipits, watched desert pupfish in their dwindling natural habitats, studied one of only two species of desert salamander in the world, and tracked populations of alpine plants. These experiences have given me much to think about, taught me new ways of looking at ecological systems, and so enriched my teaching and scholarship here at Brockport. Last spring and summer were no exception in terms of professional travel and opportunities for learning. Over spring break, I traveled to the Death Valley area, using financial help provided by the College at Brockport’s Faculty Scholarship Account. While in the Death Valley area, I continued my research project on the conservation of rare and endangered species of the region, interviewing biologists, resource managers, and politicians; searching out pupfish and salamanders in the field; and investigating geological features and habitats related to my work. Much of what I experienced will eventually make its way into the book that I am writing about my project, *In the Fullness of Time*. Then, during the first three-and-one-half weeks of our summer break, I helped lead an American Universities International Program (AUIP) trip to northern Queensland, Australia. Students in the AUIP group, which included nine SUNY students (one of the participants was Zach Eannuzzi, a Brockport Environmental Science major), studied coral ecosystems on the Great Barrier Reef and tropical rainforest ecosystems. They searched out marsupials during night canoe trips, went walking with Aboriginal elders, spent several days with a farm family, and traveled into the Outback—as I did, too. I saw tree kangaroos (!) and the large, flightless cassowary for the first time, and along the way thought a lot about educational practices and the ecology of tropical Australia. It was a wonderful, enriching time, and I hope to have many more similar professional travel experiences in the years ahead.



David Greer (MS '14): Becoming a good scientist to be a good teacher

Crouching among the tall blades of grass sits David Greer observing and researching what he loves most, the great outdoors. David is a graduate student in the Department of Environmental Science and Biology who has been studying the decline of grassland birds in Northern New York. The College at Brockport, he explains, has left him impressed with its commitment to a “quality education that is research driven.” It is this ability to conduct research, along with the support of faculty and fellow students, that David has attributed to his growth as a student, scientist, and researcher. Originally from Spencerport, NY, David graduated with his undergraduate degree in Biology Education from Roberts Wesleyan College in 2010. Continuing his education at The College at Brockport in the fall of 2010, David discovered the Environmental Science Graduate Program was “small and intimate yet very rigorous and with excellent

professors.” David, admittedly, has always been fascinated with nature. It was this interest in the outdoors and passion for children that has formed his goal of becoming a science teacher. Through working with children at summer camps such as Camp Li-Lo-Li and Camp Iroquois, as well as trips to the New York State Adirondack Park to study in fall 2009 and Northern Ireland in the summers of 2006 and 2008, David discovered what he wanted to do. He realized that aside from personally enjoying nature’s beauty with hiking, camping, running, and rock climbing he could bring the wonder of the environment to his students either in the United States or overseas. Through it all, it is his faith that keeps him motivated to instill the love of science in children and to take a minute to enjoy nature’s beauty. Working with children as a Sunday school teacher, he has found a way to combine his unwavering faith with his commitment

to the earth. In David’s opinion, to take his career to the next level, he needs the field experience of a research scientist to really validate what he would be teaching. As he puts it, “I couldn’t be a good science teacher without first being a good scientist.”

David was our Teaching Assistant in Environmental Science and Biology for AY 10-11. He taught Environmental Science (ENV 202) and Biology of Organisms (ENV 204) labs.



Welcome to future Environmental Scientists

Brad (BS '07, MS '10) and Melissa Mudrzynski welcomed Nathan Andrew in January 2012

Danielle (MS '12) and William Turk welcomed babies Adrian and Cameron in April 2012

Patrick (BS '06, MS '10) and Carrie Herbert welcomed Hannah Grace in July 2012

Justin (MS '13) and Lindsay Rogers welcomed Mia Scarlett in August 2012

Sarah (Davidson, BS '05) and Matt Hile and big sister Penelope Rose welcomed Violet Catherine in August 2012

Ryan (BS '00, MS '02) and Jody Walter welcomed Henry in April 2012

Professor Mark and Cara Norris and big sister Mae welcomed Sophia Elaina in May 2012

Congratulations to all



Alumni News

Matthew Nowak BS '09 Appointed to the NYSDEC as forestry technician. Working in Potsdam.

Melissa Winslow MS '12 Appointed at Groundwater and Environmental Services in Hauppauge, NY as Environmental Scientist. Groundwater and Environmental Services works with large oil companies (Exxon, BP, etc) sampling groundwater.

Marc Chalupnicki BS '03, MS '06 Marc works for USGS Great Lakes Science Center in Cortland, NY raising and stocking lake herring and Atlantic salmon into Lake Ontario. USGS is also assessing lake sturgeon populations in the Genesee River, Cayuga Lake, Cayuga/Seneca Canal, Erie Canal, Oneida River, Oswego River, and northern tributaries in the St. Lawrence River.

Erin Stocksclaeder BS '10 Invasive Species Coordinator, Natural Resource Management and Protection, Fairfax VA County Park Authority.

Aubrey Galusha BS '11 Ph.D. program at University of Albany

Matt Lane Technician at Aquatic Research in Syracuse. Matt writes "{Dr. Makarewicz} There is no doubt that the skills I learned in your Water Quality Analysis course will help me succeed in this position."

Ben Sleeper BS '12 Ben was recently featured on the Iowa DNR Facebook page for his summer work netting shovelnose sturgeon on the upper Mississippi River in southern Iowa. This sturgeon was originally PIT tagged in 2007 and recaptured in 2008 and again in 2012 120 miles south of original 2008 capture. It migrated through at least three lock and dams. In August, Ben moved on to a graduate research assistantship at the University of Arkansas-Monticello School of Forest Resources where he is studying the soil and water properties at a BLH wetland restoration site in Chicot County Arkansas.



ENV Students Research Invasive Species

Aaron Heminway BS/MS '14 Completed his second season of field work doing vegetation sampling with Dr. Wilcox, Brad Mudrzynski (BS '07 MS '10, Research Scientist), Katie Des Jardin (BS/MS '15), Matt Piche (MS '13), Rob Cornish (BS '11, MS '13), and Dave Sanderson-Kilchenstein (MS '13) on the GLRI coastal wetland monitoring project. Students traveled from Erie, Pennsylvania to Kingston, Ontario sampling Great Lakes coastal wetlands.

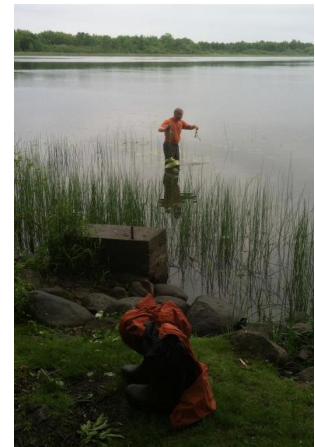
Rebecca Bernacki (Becca) BS '11, MS '14 is doing research on the Emerald Ash Borer and the woolly adelgid which kill green ash and eastern hemlock trees, respectively.

Earl Pringle BS '13 Earl is researching Emerald Ash borer (*Agrilus planipennis*).

Jamie Berlowitz BS '95 performed research for the USDA SITC (Smuggling Interdiction and Trade Compliance) program. This program was created to prevent the introduction and establishment of plant and animal diseases that prove detrimental to US agriculture.

Donald Defilippis BS '05 Don is performing field work in Ottawa NWR in western Lake Erie.

Tom Hughes MS '02 Clark Reservation and Chittenango Falls State Parks are home to about 88% of the U.S. population of the federally and state threatened American hart's-tongue fern (*Phyllitis scolopendrium* var. *Americana*). Regional efforts continue to protect this rare fern from invasive plants, most notably pale swallow-wort (*Cynanchum rossicum*). The invasive plants threaten to extirpate the ferns by competing for nutrients, changing soil condition, and overcrowding habitats. Volunteers in four consecutive years worked to hand pull and dig swallow-wort in both parks. In addition, herbicides have been applied to patches of swallow-wort where manual removal is not feasible. These efforts are making a difference, and they are continuing in 2012. NYS Parks has provided funding to support the conservation efforts of SUNY College of Environmental Science and Forestry faculty and graduate students as well as other partners, including US Fish and Wildlife Service, NY Natural Heritage Program and Council of Park Friends.



Justin Rogers, MS '13 is performing research on the non-native Norway Maple (*Acer plantanoides*) in Cobb's Hill Park in Rochester, NY. This fast growing species is resistant to environmental stressors and outcompetes native trees.