

# *State University of New York College at Brockport*

## Department of **Environmental Science and Biology**

[www.brockport.edu/envsci/](http://www.brockport.edu/envsci/)

585-395-5975

Fall, 2005

### **From the Department Chairman Dr. James Haynes**

Welcome to the fall semester for new and returning students in the Department of Environmental Science & Biology. I think you are part of one of the most dynamic academic programs at SUNY Brockport. Your senior professors are award winning teachers and researchers with whom many graduate and undergraduate students worked on research projects during the summer. We have a new tenure-track plant ecologist, Mark Norris (see below), who is looking for research students, and we have two adjunct lecturers, David Kosowski (see below) and Gary Neuderfer (who will teach Aquatic Toxicology in the spring). Exciting opportunities await students in the ES&B department, and I look forward to an exciting academic year full of opportunities for students and faculty. Read on to learn about the neat things that happened in the past 6 months.

### **Mr. Mark Norris Lecturer**

Mr. Norris brings a wealth of knowledge about the field of ecology to SUNY Brockport. He has published several articles on ecosystems and land cover change in Kansas, plant-soil interactions in oak savanna, and nutrient research in various locations. Mr. Norris will complete his Ph.D. in Natural Resource Science and Management at the University of Minnesota very soon. He is teaching Ecology and Plant Ecology in the fall semester. He will teach Biostatistics and Ecology in the spring semester. We look forward to working with Mr. Norris for many years to come.

### **David Kosowski Adjunct Lecturer**

Recently retired, David Kosowski comes to ES&B from the NYS Department of Environmental Conservation, Division of Fish and Wildlife in the Avon, NY office. His experience ranges from Senior Aquatic Biologist throughout the Finger Lakes region to forestry work in the Adirondack region. Mr. Kosowski is teaching Fishery Techniques and Fish Identification in the fall semester. He has authored several professional reports from Fisheries Management to electro fishing surveys. We welcome Mr. Kosowski's experience and talents.

### **What are ENV Students Doing?**

**Megan McCone (BS, '03)** - Megan finished her MS in Environmental Policy at SUNY ESF and was employed by the NYS Department of Environmental Conservation as Director of the Environmental Education Campus in Rushford, New York during the summer of 2005. Megan is currently employed by the DEC as their Environmental Education Assistant continuing the diversity initiative for all DEC camps in NYS. This initiative is aimed at bringing awareness of environmental issues to urban children. Megan notes that this is a difficult challenge but very rewarding.

**Jon Guinn (BS, '04)** - Jon recently obtained a job at the Sanibel-Captiva Marine Lab in Florida as a research assistant surveying sea grass beds in Charlotte Harbor estuary of Fort Myers. Jon previously worked for the NYS DEC doing creel surveys on the Hudson River and Lake Erie.

**Timothy Crockett (MS, 06)** - Tim is employed with the U.S. Army Corps of Engineers in Buffalo as a Biologist. Tim's responsibilities include permit application review and filling information requests. Tim will also be involved in creating a GIS database that will be used internally and by the public via Internet explorer.

**Patrick Herbert (BS, 06)** – Pat participated in an RCAg Industries-funded project raising yellow perch from fertilized eggs, assisting in the aquaculture lab, and running tests to determine feeding preferences of perch larvae. Pat also worked on Dr. Haynes' research project at the Erie National Wildlife Refuge in Pennsylvania, using electro-shocking and seines to determine fish diversity and the abundance of threatened and endangered species. Pat also volunteered for graduate student Scott Wells' Longear Sunfish project. As if this were not enough, Pat collected lake sturgeon in the Genesee River and caught 75 different species of fish, four of which are endangered. A busy summer!

**Hollee Schwingel (BS '07)** - Hollee spent the summer volunteering with Visitor Information Services at the Daniel Boone National Forest in Kentucky. She was an interpreter, gave a weekly snake show while handling live snakes, led a canoe trip, gave a lake tour, and led the junior ranger program. She also did black bear programs, a tree treasure hunt, bird watching, and a "walk of the week". When not giving programs at the campground, Hollee participated in a migratory song bird survey, checked gypsy moth boxes, built a bat gate to cover the entrance of an abandoned coal mine that houses the endangered Indian Bat, did backcountry ranger patrol, identified, checked and marked archaeological sites, and assisted on other projects when asked. She also shadowed guides at Mammoth Cave National Park and Cades Cove at the Great Smoky Mountain National Park. Hollee reports that her service with the Student Conservation Association was a wonderful learning experience. (See Dr. Haynes for information on how to volunteer!)

## ***Visit Paradise, Have a Great Learning Experience and Earn SUNY Brockport Credits***

Want to spend two weeks studying in a tropical paradise in January?!

Marine Biology/Geology-Bahamas (ENV/ESC 457, ESC 557/BIO 699) has been taught by Brockport faculty members every year but one since 1973. Students register for the course in the fall semester and the class meets regularly to prepare for 2 weeks of intense fieldwork in January at the Gerace Research Center, San Salvador, Bahamas. The two major assignments for the course are: 1) A properly prepared, scientific notebook that results in a summary of your observations of the geological, physical, biological and ecological characteristics of five marine habitats associated with tropical coral reef ecosystems, and 2) a field research project that requires data collection on San Salvador and library research that results in a paper that compares your observations with what others have said about the topic. The Bahamas course also provides opportunities to interact with faculty and students from many colleges and universities as well as the residents of San Salvador. For more information, please email Dr. James Haynes, at [jhaynes@brockport.edu](mailto:jhaynes@brockport.edu)

## **Concentrations Offered in Environmental Science and Biology**

Thinking about majoring in ENV but unsure what concentration to choose? This may help!

***Aquatic Ecology/Biology***—prepares students for graduate school or employment in limnology and oceanography (physical, chemical and biological processes in freshwater and marine systems), marine biology, fisheries, water pollution studies, environmental analysis, etc.

**Terrestrial Ecology/Biology**—prepares students for graduate school or employment in wildlife ecology and management, conservation biology, plant ecology, terrestrial vertebrate biology, animal behavior, etc.

**Environmental Chemistry**—prepares students for graduate school or employment dealing with chemical analysis for pollution assessment, pollution prevention methods, development of remediation methods, environmental safety and health issues, toxicity testing, etc.

**Earth Sciences**—prepares students for graduate school or employment dealing with the geosphere (soils, erosion) and atmosphere (processes, pollution), watershed and wetland studies, environmental geochemistry, etc.

## ENV Alumni News

**Christopher Keleher (BS '83)** - Here is what Chris writes about his experiences and career.

It was through a love of nature in childhood that I pursued a BS degree in Biology at Brockport. I took all of the aquatic ecology courses that were offered and did fishery research on Lake Ontario and its tributaries with Dr. Haynes as both a student and a research technician on a grant that radio tracked Chinook salmon by airplane across Lake Ontario. With Dr. Haynes, I was a co-author on two papers published in scientific journals. This learning experience was followed by 8 years as a research assistant for Cornell University where I studied mitigation techniques for Adirondack Mountain fish communities and ecosystems impacted by acid deposition.

After moving to Utah, I obtained employment as a fishery biologist in the southeastern part of the state in 1993. Within a year, I was working as a native aquatic species biologist along the heavily populated Wasatch Front. In this position, I gained experience with sensitive aquatic species and the issues surrounding their conservation and recovery. Five years later, I accepted a Senior Staff Fisheries Biologist position for the

Central Utah Water Conservancy District, which is responsible for constructing, operating and managing the Central Utah Project, a large federally funded water project designed to develop and deliver water for Utah's rapidly growing human population. As Utah is the second driest state in the nation, conflicts between water development and aquatic species preservation are frequent. My role was to provide expertise in stream flow issues and regulatory compliance. Another responsibility I had was serving as Local Recovery Coordinator for the June Sucker Recovery Implementation Program (a multi agency, collaborative program to recover federally listed endangered fish endemic to Utah Lake).

My current position is with the Utah Department of Natural Resources as Recovery Programs Assistant Director. My diverse background and ability to work collaboratively to develop constructive solutions to competing allocations of resources enabled me to obtain this job. I now manage the Endangered Species Mitigation Fund for the State of Utah.

Thanks for giving me a great foundation for a challenging and rewarding career!

## SUNY Education Still the Best Buy

Recent economic studies have shown that in the very near future a higher education for many students will be extremely difficult because of rising tuition rates and lack of student loans. However, there is a light on the horizon for students – SUNY. Despite recent and proposed tuition increases, SUNY is still a bargain among similar state universities.

SUNY Brockport offers many scholarship opportunities for incoming and current students. The Department of Environmental Science and Biology specifically offers the **Kenneth E. Damann Research Award** (for a senior who has conducted, and prepared a report on, a research project in aquatic science) and the

**O'Reilly Scholarship** for an academically talented incoming first-year or transfer student. Please visit SUNY Brockport's scholarship web page (<http://www.brockport.edu/scholarship/>) for details about these two scholarships and other scholarships at SUNY Brockport.

## Spring 2006 Class Schedule

ENV 111 Principles of Biology	M/W/F	8:15-9:15
ENV 201/202 Environ. Science	M/W/F	1:15-2:15
Majors Lab	W	9:30-11:45
Honors Lab	W	6:00-8:15
ENV 303 Ecology	T/R	9:45-11:15
Lab	W	2:30-5:30
ENV 430/ BIO 530 Ornithology	M/W/F	1:15-2:15
Lab	F	2:15-5:15
ENV 436 Water Qual. Analysis	W	2:30-5:30
ENV 437 Bio. Invest..Data Interp.	T/R	4-5:30
ENV 439/BIO 539 Cons. Bio	M/W/F	9:30-10:30
ENV 484/BIO 584 Fish Ecology	M/F	3:45-5:15
ENV 495/ BIO 595 Aquatic Tox.	T/R	5:45-8:45
BIO 614 Experimental Design	T/R	4-5:30
BIO 621 Water Chemistry	W	2:30-5:30

### **ENV Club –BEAN Brockport Environmental Awareness Network**

The Brockport Environmental Awareness Network (BEAN) has made enormous strides over the past year to promote environmental awareness on campus. Recently, we participated in the 20th annual International Coastal Cleanup at Hamlin Beach. We had the largest turnout of all the Rochester area parks with almost 300 people in attendance. The Brockport community, students, faculty and staff gave their time and support to clean-up our coastline. Upcoming events for BEAN include America Recycles day (November 15<sup>th</sup>), where Bean plans to bring awareness to the campus community on recycling issues. Additionally, BEAN plans to host a trip to Canandaigua to visit a solar home.

Last semester BEAN participated in the 35<sup>th</sup> anniversary of Earth Day with a fair including vendors and booths from Monroe County Soil and Water District, Lori's Natural Foods, Health Promotions club, and others. Wild Wings was on hand to showcase their birds of prey. BEAN also coordinated the first annual Stormwater Stewardship day. The Brockport community and local municipalities came out to help

promote stormwater awareness and pick up local stream ways. Overall, the events were highly successful and we hope to continue our awareness program on campus. Check out our website for more information on upcoming events [www.acs.brockport.edu/~bean](http://www.acs.brockport.edu/~bean), or come to one of meetings in Lennon 108A Wednesdays at 12:00. We hope to see you there!

President Patrick Kendall at [kpen0917@brockport.edu](mailto:kpen0917@brockport.edu) or come join us Mondays at 4:30 p.m. in the Lennon 108 Student Lounge.

### **ES&B Faculty and Staff**

Dr. James Haynes, Professor and Chairman,  
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**We would love to hear your suggestions or comments about this newsletter.**

**Alumni please drop us an email on what you are doing.**

**Please email [ddilker@brockport.edu](mailto:ddilker@brockport.edu). Thank you.**