

State University College at Brockport

Environmental Science and Biology

www.brockport.edu/envsci/

585-395-5975

Autumn 2002

Welcome Back!

Dr. Joseph Makarewicz, Chairman

On behalf of the faculty and staff of the Department of Environmental Science and Biology I welcome you back to SUNY Brockport for the Fall 2002 semester. Much has happened during the summer months. As you will note from the title, our program in Environmental Science has been elevated to full department status – the Department of Environmental Science and Biology. The Department of Environmental Science and Biology is located on the first floor of Lennon Hall. We believe this new arrangement will better serve your education.

The incoming class of Environmental Science majors is about 20 students including transfers and freshmen. All Environmental Science and Biology students should receive this document and other notices through web-mail. We have created an e-mail listing of all declared majors and minors through the Angel system on campus. This will allow us to contact you about registration, seminar speakers and other opportunities. Have an interesting and fulfilling semester. Please stop by and introduce yourself. My office is 125 Lennon Hall.

Congratulations!

O'Reilly Environmental Scholarship Recipients

Stephanie Abbink is a transfer student from the Finger Lakes Community College Conservation Biology Program. She arrives with a 3.3 GPA and is interested in Terrestrial Ecology.

Audrey Payne is an incoming freshman from Portville, NY. Besides being a recipient of the O'Reilly Scholarship, she has the distinction of being a Distinguished Scholar in Residence. This award (\$9800) goes to students with SAT scores of

>1250 and class rank of valedictorian or salutatorian.

Student News



Megan McCone (above right) (BS '03) worked this summer as an Environmental Educator at NYSDEC's Camp Colby in the Adirondack Mountains. She worked with 12 to 14 year old students and is shown here doing a dissolved oxygen analysis on Lake Colby.

Heather Halbritter (BS '01) spent the summer working as research technician for the Washington State Department of Fish and Game. She is starting a job working on a white-tailed deer telemetry project for the Pennsylvania Department of Fish and Game.

Sarah Wasson (BS '03), **Christine Washington** (BS '03) and **Sarah Donovan** (BS '04) worked during the summer as research assistants at the Iroquois and Montezuma National Wildlife Refuges on a study of how habitat management methods affect grassland bird populations.

Nicholas Parnell (BS '98, MS '02) has been working on three research projects for Drs. Haynes and Makarewicz: “Biological Study of Irondequoit Bay” for Monroe County, “Fishery Survey of Waneta and Lamoka Lakes” for the Waneta-Lamoka Lakes Homeowners Association, and “Measuring RAP Progress the Rochester Embayment of Lake Ontario—Determining Baseline Levels of Bioaccumulative Chemicals of Concern in Air, Water, Sediment and Sentinal Species for the Great Lakes Protection Fund.

High School/Transfer Students Scholarship Opportunity

We are pleased to announce that the O'Reilly Environmental Science Scholarship will be offered to incoming, full time students who plan on majoring in the Environmental Science and Biology program. This is a one-time award of \$2,500. The criteria for this scholarship are as follow:

- High school average of 88 or above
- Rank in top 25% of class
- SAT score of 1040 or above

Students who wish to obtain an application for this scholarship may do so by contacting the Scholarship Office located in the Rakov Center or by accessing the Environmental Science and Biology web page.

Jobs Board

Drs. Norment and Haynes have organized a “**Jobs Board**” on the first floor hallway of Lennon near Room 120. The Jobs Board is updated weekly and has potential job listings for all the concentrations in the major. Not only are jobs posted but internships, scholarships, and opportunities for summer field station study are also on the board

How to get an Advisor!

Declaration of Majors and Minors

A list of students majoring in Environmental Science and their advisors is located on the first floor between Rooms 106 and 108. If your name is not on this list, please see our department secretary, Deborah Dilker, in Room 103, Lennon to declare a major and be assigned an advisor.



Dr. Chris Norment
Chancellor's Award in Teaching

One important aspect of a student's education is the training that he or she receives outside of the classroom. Hands-on experience is important because it provides exposure to “real world” situations, may help a student decide if a chosen major is what he or she really wants, and will help in the competition for jobs and positions in graduate school. Thus, I feel that an important part of my job as a professor at SUNY Brockport is to provide interested, capable students with opportunities to assist with my research projects. Most of these projects have involved studies on the ecology and conservation biology of grassland birds in the Northeast. Funding for these projects from agencies such as the United States Fish and Wildlife Service has helped me employ several students each summer to work on my research projects. Through these opportunities, SUNY Brockport students have gained valuable experience censusing birds, studying avian reproductive ecology, and measuring habitat characteristics. Students interested in pursuing careers in field biology, particularly in vertebrate ecology, and who have a good work ethic, a willingness to learn and enthusiasm, should talk to me about opportunities for fieldwork in the coming summers.

New Faculty Member

Dr. Geoffrey Gardner is a plant ecologist who has just graduated from State University at Albany. His dissertation work was on the persistence and spread of disease in the American beech tree. The disease is a combination of an insect infestation and a fungal infection of the bark of the American beech. His work involves research in scale insect demography, invasive species dynamics, disease ecology, and plant-pathogen interactions. Dr. Gardner is also interested in forest community dynamics. Courses taught include Ecology and Plant Ecology. In his spare time, Geoff enjoys playing ice hockey and hiking.

Makarewicz, Noll and Autin Receive USDA Grant

Professors Makarewicz (Environmental Science and Biology), Noll (Earth Science) and Autin (Earth Science) are part of a team working on improving management practices in agriculture. In a major step forward for the Conesus Lake Watershed Management Plan, SUNY Brockport Environmental Science Professor Joe Makarewicz and SUNY Geneseo Biology Professor Sid Bosch were awarded federal funding for a three-year pilot project that will implement management strategies to reduce soil erosion and loss of nutrients derived from agriculture in the Conesus Lake watershed. The \$680,000 grant from the United States Department of Agriculture designed by Makarewicz and Bosch will bring together a wide variety of public and private entities in an effort to reduce nutrient and soil loss from several subwatersheds into Conesus Lake.

David Woods, Planning Director of the Livingston County Planning Department, states that, "This project will significantly further the goals of the Conesus Lake Watershed Management Plan Policy Committee to reduce the flow of nutrients into the lake." Makarewicz, who operates a state-certified water-quality laboratory at Brockport, and Bosch, who is a specialist in lake plant biology, are advisors to the Conesus Lake Watershed

Management Plan, now under development. Obtaining the USDA grant constitutes a major step forward in the management planning process, according to Bosch.

Under the project, Makarewicz, Noll and Autin and undergraduate and graduate assistants at Brockport will focus on measuring loss of nutrients from agricultural land through streams and into the lake. They will compare nutrient loss before and after best management practices have been installed. Bosch and his students at Geneseo will continue to monitor algae and weed growth in the lake. Over the past two years, findings from these two areas of research have suggested that stream runoff of nutrients from subwatersheds dominated by agriculture may be promoting the growth of filamentous algae and Eurasian water milfoil in certain parts of the lake. These plants are recognized as a problem throughout the lakes of North America, and as a major cause of water quality degradation in Conesus Lake.

Volunteers Needed to Perform Educational Shows

Ellen Post ('02), who graduated from Environmental Science and Biology last spring, is now Executive Director of **Wild Wings, Incorporated** located at Braddock's Bay, Rochester. Wild Wings is a not-for-profit corporation established in November 1995 whose mission is to promote a better understanding of the natural world using birds of prey as a teaching aid. **Wild Wings** is in need of volunteers as show performers. A knowledge of raptors is helpful but not necessary and good stage performance is necessary. Show people are not required to handle birds but may enter the training program if they wish.

If you are interested in this volunteer opportunity, please contact: Ellen Post at **Wild Wings**, (585) 392-7500 or fax (585) 391-1805

**The Environmental Science and
Biology Office and Secretary have
moved!!!**

Ms. Deborah Dilker continues as the Department's secretary. Her office has moved to 103 Lennon Hall – "the Front Desk". If you have any questions, please feel free to stop by or call at 395-5795.

Spring 2003 Advisement

An important reminder to all Environmental Science and Biology students – **be sure to contact your advisor in late October** to make an appointment for advisement for the Spring '03 semester.

Faculty advisors are:

Aquatic Ecology: Dr. James Haynes, 121 Lennon (395-5783)

Aquatic Ecology: Dr. Joseph Makarewicz, 125 Lennon (395-5747)

Terrestrial Ecology: Dr. Christopher Norment, 119 Lennon (395-5748)

Terrestrial Ecology: Dr. Geoffrey Gardner, 117 Lennon Hall (395-5743)

Earth Science: Dr. Mark Noll, 327 Lennon (395-5717)

Environmental Chemistry: Dr. Markus Hoffmann, 228 Smith (395-5587)

Announcing New Spring Courses

Environmental Science (ENV 201) will be taught this coming spring at noon (MWF) by Dr. Haynes. Students will explore and debate cultural, economic, ethical and scientific issues of several environmental problems utilizing the case study approach.

Plant Ecology (BIO 495) will be offered by Dr. Gardner from 12 to 1pm on MWF.

**Spring 2003 Environmental Science
and Biology Courses**

Env. Sci. 201 Environmental Science

Dr. Haynes
MWF 12:00-1:00

BIO 303 Ecology

Dr. Gardner
T/R 9:45-11:15
M/R lab 1:15-4:30

BIO 411 Evolution

Dr. Haynes
T/R 1:15-2:45

BIO 495 Plant Ecology

Dr. Gardner
MWF 12:00-1:00
T lab 3-6:00

BIO 436 Water Quality Analysis

Dr. Makarewicz
W 2:30-5:30
Lab by arrangement

BIO 439/539 Conservation Biology

Dr. Norment
MWF 9:30-10:30

Bio 636 Water Chemistry

Dr. Makarewicz
W 2:30-5:30
Lab by Arrangement

BIO 440/540 Herpetology

Dr. Norment
MWF 1:15-2:15
F lab 2:15-5:15

BIO 423/523 Pollution Biology

Dr. Haynes
MF 3:45-5:15