



The EcoEagle

of Boston College



Newsletter of the Environmental Studies Program
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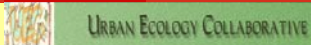
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www.bc.edu/envstudies

Partners



**BC Lynch School of
Education**



A Note from the Director

Welcome to the Spring 2008 edition of the EcoEagle! In response to increased demand by students, the Environmental Studies Program is expanding its opportunities for undergraduates in both curriculum and research. We are offering a suite of new courses from both the Biology and Geophysics Departments, including two new core courses with a sustainability focus. Professor Laura Hake will be offering ***Sustaining the Biosphere (BI144)*** in the spring semester that will take an integrated approach to global environmental problem-solving. I am offering ***Ecology of a Dynamic Planet (BI145)*** this fall that focuses on the biological interactions among all organisms – including humans. This new ecology course investigates the challenge of understanding and maintaining sustainable ecosystems and in collaboration with the Lynch School of Education and the Urban Ecology Institute, includes special discussion sections for pre-service teachers. The Geophysics offerings are described in detail below.

Our research program continues to flourish with support from the Intersections Program and commitments from a variety of faculty. Under the direction of Dr. Peter Auger, *The Environmental Scholars Program* has eleven participants this year with research topics ranging from diamondback terrapin orientation studies to remote sensing of Red-tail Hawk behavior. Dr. Auger and Jess Schmierer will lead another rainforest ecology summer field trip to Costa Rica that will feature expanded opportunities for independent research. In addition, we are collaborating with Dr. Russell Burke at Hofstra University on Long Island and will be coordinating terrapin research activities and hosting students from both universities at our study sites. These new resources are critical for us as we have over 100 Environmental Studies Minors registered in our program!

In closing, I want to bid fond farewell to our former Program Coordinator, Ms. Maria Aucoin with thanks for her devotion to our students. Maria is back in New Orleans and deeply involved in a variety of ecological adventures. I am delighted to welcome BC alumnus Ms. Jess Schmierer (Bio 2007) to our program as the new Coordinator and encourage you to contact me or Jess about our program resources and how we can share them with you.

~ Dr. Eric Strauss

New Courses for Fall 2008

GE 440 - Global Biogeochemical Cycles Biogeochemical cycles describe the transport and transformation of substances in the environment through physical, chemical, and biological processes. We apply an Earth System Science approach to analysis of regulation and perturbation of biogeochemical cycles throughout Earth history and by human activities.

BI405- Aquatic Ecology The fundamental concepts of ecology will be introduced through an exploration of aquatic ecosystems. Topics in ecology of particular importance to aquatic systems will be emphasized to understand how physical, chemical, biological and anthropogenic factors influence population dynamics and community structure. While this course will cover coastal systems and estuaries, there will be an emphasis on freshwater streams, wetlands, and lakes.

Upcoming Events

“Last Child in the Woods” 7:00 pm, Wednesday, April 16th Higgins 310

Come hear Richard Louv discuss his new book about the decrease in children’s connection with nature and “saving our children from nature deficit disorder.” Richard Louv is a journalist who focuses on family, community and their relationship with nature and the environment.

Earth Day! Tuesday, April 22nd All Day in the Dust Bowl

Come check out the various events,(speakers, Mount Trash-More, screening of “The Eleventh Hour,” live music, community forum on sustainability, and more!) being held on campus and help raise environmental awareness in your own community!

Environmental Scholars Research

Red-Tailed Hawk-The ever-increasing urbanization of the Boston area forces avian predators, such as the breeding pair of red-tailed hawks, to adjust their behavior accordingly. Utilizing a locally-devised transect system, in addition to a internet-programmable camera (Sony), the focus of Dominic Kim’s project aims to investigate these local changes in hunting, nesting, foraging, etc. Hopefully, with the conclusion of this research, Boston College students and faculty alike will gain interesting and novel insight to the behavior of red-tailed hawks.

Diamondback Terrapins-Katie Cava is conducting research on the threatened Diamondback terrapins that are participating in the headstaring conservation project. She is researching the connection between initial hatching size and subsequent growth rates. She hopes that her research can shed light on growth differences between males and females, siblings, and subgroups. Chrissie Lanzieri is looking into possible mechanisms that hatchling terrapins might use in recognition. Diamondback terrapins demonstrate multiple paternity yet often hatchlings from the same nest display the same phenotype despite having different genotypes. She hopes to compare genetic test results to the hatchling’s displayed phenotype and determine if phenotypic cues could be a potential mechanism used by terrapins in kin recognition.

SmartGrowth- Stephen Randazzo is exploring a combination of fiscal, legislative, and land-use measures that could be used to increase the number of affordable housing units within the city of Boston. The availability of affordable housing is a major component of the increasingly popular concept of sustainable urban design, Smart Growth, which seeks to combat urban sprawl by advocating more compact, public-transit-oriented, community-based city planning. Through an analysis of case studies from urban environments around the United States, Stephen’s research focuses on the political feasibility of various initiatives, such as tax-based incentives and loosening certain zoning regulations, which have proven to pave the way for greater affordable housing.

Education- Seniors, Jessica Young and Molly Hale are integrating their Environmental Scholars research into the education spectrum, working with advising Lynch School Professor and co-author of an upcoming textbook on Urban Ecology, Dr. Katherine McNeil. Both Young and Hale interview 11th and 12th grade students from Boston-area schools to gain an understanding of students' perceptions of global climate change, how the media affects their opinions on the issue, and how their responses can develop theory which necessitates education on climate change in our schools.

Minors Volunteer at Cape Wildlife Center

In February, about 12 environmental studies minor braved the cold to help build shelters for rehabilitating wild animals and birds at the new Cape Wildlife Center (CWC) in Barnstable MA. The CWC, which was relocated last spring to a larger facility that can comfortably host more wildlife, is a program of the humane society that provides veterinary and rehabilitative care, wildlife advocacy, and humane resolutions to human-wildlife conflicts. Some of the 1,300 patients that are treated annually include songbirds, shorebirds, waterfowl, birds of prey, snakes, turtles, skunks, opossums, rabbits, raccoons, coyotes, and foxes. The trip, led by Dr. Peter Auger, who has worked with the CWC in numerous other projects including the headstarting program of the diamondback terrapins allowed students to contribute to the community as well as gain a better perspective of wildlife field research.

Public Science Day at BC

On Thursday, February 14th, a group of 4th and 5th graders from Dorchester’s Russell Elementary School visited the environmental studies lab in Higgins to study diamondback terrapins. Katie Cava, Chrissie Lanzeiri, Emily Migliaccio, Director, Dr. Eric Strauss and Program Coordinator, Jess Schmierer, taught the students how to measure, weigh, feed & gather data on the tiny terrapins.

Photos courtesy of Lee Peligrini and the Office of Marketing and Communications

