Upcoming CEP events

Albemarle Ecological Field Site Closing Event:

December 9 time and place t.b.a.

Highlands Field Site Closing

Event: December 12, 3:00 pm, Highlands Biological Station Nature Center, Highlands, North Carolina.

CEP Annual Environmental Colloquium: date, time and place t.b.a. 2004
Colloquium: Values and Valuation.

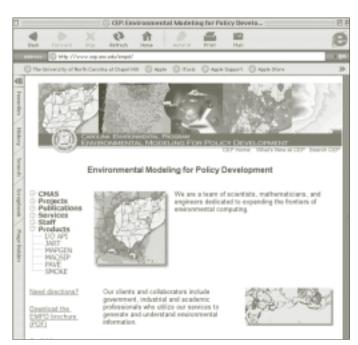
CEP Annual Commencement Reception: May 16, 1:00
pm, Miller Hall Lawn.

CEP Environmental Modeling for Policy Development web site offers service tothe environmental community

www.cep.unc.edu/EMPD

The Internet home for the CEP's new Environmental Modeling for Policy Development Research Network offers:

- downloadable software, including the Sparse Matrix
 Operator Kernel Emissions (SMOKE) Modeling
 System, the Multiscale Air Quality Simulation
 Platform (MAQSIP), the Models-3/EDSS Input/Output
 Applications Programming Interface (1/O API),
 the Package for Analysis and Visualization of
 Environmental Data (PAVE), the Environmental
 Decision Support System (EDSS), and the
 Map Generator (MapGen)
- a listing of all active EMPD projects, with links to project web sites
- a list of EMPD publications, many available online
- a list of EMPD services to the environmental community, such as air quality modeling assistance, emissions modeling assistance, ozone forecasting, process analysis and software development
- a roster of EMPD research associates and faculty
- the U.S. EPA-supported Community Modeling and Analysis System (CMAS) homepage



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Volume 2, Issue 2



F A L L 2 0 0 3

News from the Carolina Environmental Program at The University of North Carolina at Chapel Hill

FIELD SITES

Field site opens in Morehead City

The CEP's fifth field site puts Carolina students in the midst of one of the U.S.'s premier areas for marine science research

"Research taking

place in North

Carolina is being

translated into

public policy

along a great

deal of the

Atlantic coast."

Rachel Noble, Field Site Director

In August, the Carolina Environmental

Program's Morehead
City Field Site
launched its inaugural
semester as five UNCChapel Hill students
began an intensive,
hands-on learning
experience in one of
the country's leading
locales for marine science research.

The new field site—the CEP's fifth—is located at UNC's Institute of Marine Sciences (IMS) in

Morehead City, North Carolina. The region is also home to the Duke University Marine Laboratory, a National Oceanic and Atmospheric

Administration research facility, the

North Carolina State
University Center for
Marine Sciences and
Technology,
the North Carolina
Department of
Environment and
Natural Resources
Marine Fisheries headquarters and the
Shellfish Sanitation
Branch of its Division
of Water Quality.

The area's convergence of academia and real-world dependence

on the marine environment gives participating students a unique opportunity to observe, participate and learn. Nearby Pamlico Sound is the second largest

lagoonal estuarine system in the country, and the area faces similar concerns as other coastal communities, such as the impact of develop-

ment on water quality, ecosystem health, sustainable fisheries and other environmental issues. This is the first time in recent years that Carolina undergrads have had an opportunity to study in the region.

"Research taking place in North Carolina is being translated into public policy along a great deal of the Atlantic coast," noted Field Site Director Rachel Noble. "Many of our students eventually want to become involved in public policy or management, so this is an unbeatable opportunity to see how research field-work is designed and implemented in order to tackle those problems.

Students are learn-

ing field techniques

associated with marine sciences, fisheries, water quality, oceanography, biochemistry and other disciplines. A lot of other programs focus on academic book-based work, but our students are out there collecting and interpreting their own data."

Students at the Morehead City Field Site are taking two courses taught by IMS faculty: Human Impacts on Estuarine Ecosystems, and Coastal and Estuarine Ecology. Each student also continued on page 6



UNC Institure of Marine Sciences in Morehead Ciy, NC

Carolina Environmental Program

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Jessica Factor, Spring 2003 CEP Public
Affairs Intern and Contributing Writer
UNC-Chapel Hill Design Services,
Design

OUTREACH

Statewide 'One North Carolina Naturally' conservation effort moves forward

CEP receives grant from Z. Smith Reynolds Foundation to support conservation initiative

The Carolina Environmental Program
The Carolina Environmental Program
continues to assist the North Carolina
Department of Environment and Natural
Resources (DENR) with a new statewide
land and water protection initiative established to guide North Carolina's future
conservation efforts. "One North Carolina
Naturally" was created to develop and
implement a comprehensive statewide conservation plan, with input from government
agencies, private organizations, landowners
and the public.

Inaugural conference a success

On April 16-17, 2003, more than 600 local and state officials, legislators, business leaders and conservation groups from around the state gathered in Raleigh for a One North Carolina Naturally conference to learn about the results from eight regional meetings and the vision for a statewide plan. They got a glimpse of the early stage development

of a geographic information system (GIS) database that will map and identify conservation opportunities across the state.

"We got a very positive reaction from participants," reported Richard Rogers, DENR's director, Office of Conservation and Community Affairs, who is heading the One North Carolina Naturally initiative. "Everyone understood the need for us all to coordinate and work cooperatively to create a plan to meet North Carolina's conservation needs for the next 25 to 30 years."

Foundation grant supports initiative

In July 2003, the Winston-Salem-based Z. Smith Reynolds Foundation awarded a \$100,000 grant that will allow the CEP and DENR to continue their efforts, under the One North Carolina Naturally initiative, to build a comprehensive statewide conservation plan by deter-

mining work already under way, connecting and supporting those efforts, and deciding how to fill in gaps. The foundation had previously provided a smaller grant to help fund the regional meetings that led up to the April conference.

"This grant is groundbreaking," said CEP Director and project Principal Investigator Doug Crawford-Brown, "because the Z. Smith Reynolds Foundation has asked the department and the program to work in concert with a coalition of land preservation groups led by the American Farmland Trust, Conservation Trust for North Carolina, North Carolina Public Interest Research Group, North Carolina Recreation and Park Society, The Nature Conservancy and The Trust for Public Land. All of us will work together to advance land conservation in North Carolina, with the CEP's role being impartial survey and continued on page 2

OUTREACH

CEP provides fact-based policy papers as service to State by Jessica Factor, CEP Public Affairs Intern

In May 2003, the Carolina Environmental Program began distributing fact-based policy papers on environmental issues as a service to the State of North Carolina. CEP Environmental Policy Papers, which are intended to help local, state and national decision makers, are distributed

An Advisory Board and the Program's Faculty Advisory Committee will over-

twice a year and provide impartial, factual

information on environmental issues.

see production of the papers. Tony Reevy, associate director for advancement at the CEP, said that the papers are available to anyone interested in environmental issues. "The papers may be particularly helpful to state decisionmakers concerned with environmental issues, heads of non-governmental organizations (NGOs) and environmental decision-makers associated with local governments," he noted.

The first paper, released on May 31, 2003, provides facts about land conservation in North Carolina. It was mailed to almost one thousand individuals, including members of the North Carolina General Assembly, the Carolina Environmental Faculty at UNC and selected officials at North Carolina environmental NGO's and local governments. The second paper, scheduled to mail in November 2003, will discuss

measures of sustainability in North

Anyone may subscribe to the CEP Environmental Policy Papers by sending a request to cep@unc.edu or by calling the CEP at (919) 966-9922. The papers are also available on the CEP web site, www.cep.unc.edu, under the Outreach and Public Service section.

One North Carolina continued on from page 1

needs assessment research. This research will allow DENR and UNC to develop a publicly available land conservation database and decision system."

The land conservation coalition also received a \$100,000 grant from the Z. Smith Reynolds Foundation for planning in support of land conservation in North Carolina. Through the Conservation Trust for North Carolina, this group also includes 22 other North Carolina land trusts.

"We have placed such a high priority on this issue because it influences all aspects of environmental protection and natural resource preservation," said Bill Ross, secretary

of DENR. "By supporting both of these grants, Z. Smith

Reynolds has acknowledged how essential land conservation is for quality of life, economic gain and human survival."

The Z. Smith Reynolds Foundation's executive director, Tom Ross, said: "One of the main foci of our environment pro-

gram is preservation of North Carolina's natural assets, including green space, forests, wetlands and farmland. We also emphasize bringing together all those

interested in preservation of these irreplaceable resources to create statewide networks, plans and polices. For all of these reasons, we felt it important to support both of these land conservation proposals. We hope that our investment will establish continuing statewide col-

"This research will

allow DENR and

unc to develop a

publicly available

land conservation

database and

decision system."

Principal Investigator Doug Crawford-Brown

laboration between government, academia, environmental organizations and

> land owners." "We deeply appreciate this visionary leadership and support from the Z. Smith Reynolds Foundation," said Crawford-Brown. "This grant will bring everyone involved in land conservation in our great state together. It is a very focused way to improve our quality

of life and our environment."

The next step in the One North Carolina Naturally planning process, according to



CEP undergraduates present their group research in support of One North Carolina Naturally at Research in the Capital, an undergraduate research symposium for the North Carolina General Assembly at the Legislative Building in Raleigh, April 22, 2003. From left to right, Tatum Neill, Hans Perlmutt and Kelly Anderson.

Rogers, is to begin a series of county-bycounty inventories in several regions to identify land that is currently being conserved, or could be conserved in the future. A successful pilot inventory in the Central Piedmont region, which was led by a local organization and garnered input from a wide range of local and regional agencies and groups, will serve as a model for the seven other regions of the state as they begin this first step in the development of regional plans. CEP faculty and students are helping to conduct surveys and collect information in

By dividing the state into regions, this

process will address the huge diversity in conservation planning, needs and issues

across North Carolina as the statewide plan is fine-tuned. In addition to the Z. Smith Reynolds grant, DENR is pursuing other funds from the National Oceanic and Atmospheric Administration (NOAA) and the USDA Forest Service to help expedite the regional planning process.

Work is also moving forward to develop a GIS format that will translate the results of the regional planning into Internet-accessible maps that can be used in a variety of ways by a wide range of stakeholders. By working with federal agencies that include the US EPA and USDA Forest Service, and other state agencies such as the Departments of Commerce and Transportation, DENR hopes to build a mapping tool that will be useful to a wide variety of users, from local planners, to conservation groups, to the general public.

DENR also welcomes comments on the draft plan and draft GIS map presented at the April conference, noted Rogers. "Over the next year or so, with everyone's help, we will build upon those draft plans. The more information we get, the more we'll put into the plans." These can be found on the DENR web site at www.enr.state.nc.us/officeofconservation/images/DraftwithMaps2.pdf. ■

Moving forward

NC DENR Secretary Bill Ross speaks at the One North Carolina Naturally conference.

Private gift adds support for conservation initiative

The CEP received a gift from Eddie Smith, owner of Grady White Boats in Greenville, N.C., through a family foundation, toward the April One North Carolina Naturally conference.

"My company and I continue to be very concerned about the environment and about conserving the land and waterways. We support a lot of fishery conservation efforts and other environmental causes, so it was a natural for us to help with this," he said.

Smith is a 1965 Carolina graduate and a member of the steering committee for the University's Carolina First campaign. "With my strong ties to UNC , I saw an opportunity to make this gift though the University and support Carolina."



CEP Associate Director for Advancement Tony Reevy greeted One North Carolina Naturally conference attendees at the CEP booth there.

CEP Board of Visitors Welcomes New Chairman and Vice Chair

by Jessica Factor, CEP Public Affairs Intern

The Carolina Environmental Program welcomes Edith Cecil and George Watts Carr III as the new chair and vice-chair, respectively, of the cep Board of Visitors. Both will began their two-year, volunteer terms this fall.

Cecil is vice president for the Professional Exchange and Community Outreach at the Institute of International Education (IIE) in Washington, D.C. She is responsible for the IIE Professional Exchange Programs, the Hubert Humphrey Fellowships, IIE's four domestic offices and the U.S. Career Development Programs. She was also the founding director of the United States Environmental Training Institute and, from 1990 to 1992, was special assistant to the Assistant Secretary of State at the United Nations Conference on Environment and Development. She holds a M.A. in geography with an emphasis on environmental studies and a B.A. in political science and earth sciences from The University of North Carolina at Chapel Hill.

Cecil said she agreed to volunteer her time as chair of the Board of Visitors because she believes strongly in the program. "The program offers wonderful opportunities to students from many disciplines," she noted.

Watts Carr III of Greensboro is the incoming chair of the Piedmont Triad Partnership for Economic Development and serves on the North Carolina State Economic Development Board. He is a life member of the unc -Chapel Hill General Alumni Association, a member of the Chancellor's Club and holds a BS in industrial relations from Carolina.

Carr has a particular interest in the environment in relation to economic development, which he believes will offer a new outlook to the cep. "I think that Steve Levitas [the former Board chair] thought that I could bring a different perspective to the Board since I was pro-development, but I was for sensitive development. I strongly believe that a good environment is good economic development policy, and that the state would be much more successful in growing businesses and recruiting businesses if we maintained the best possible environment at the same time."

Cecil and Carr have set goals for their terms. Both

say they want to work together and with the other Board members to continually improve the CEP and its initiatives. Cecil wants to attract more students to the program by expanding outreach. She also plans to work on fundraising for the program. Most importantly, she hopes to engage other Board members to become more actively involved in the CEP.

Carr, who with his wife is funding an endowment to support students attending the cep's new Morehead City Field Site, said, "I'm hoping to be able to visit all of the field

sites and see everything that we're doing."

The CEP and its Board of Visitors thanks Steve Levitas for his service and leadership as founding chair, and now past-chair, of the Board. "Steve was a wonderful leader to launch the cep," said Cecil. "Through his vision, leadership and networks he put the program on the map. Steve's personal interest in the environment helped to position the Board to become what it is today.

Gifts to CEP recognized

The Carolina Environmental Program is a participant in UNC 's Carolina First campaign. This critical effort, which focuses on providing private support for unc students, faculty, research, facilities and strategic initiatives, runs through June 2007. UNC's environmental programs are a campaign priority.

A bequest from the estate of Shirley Rabb Winston, received in March 2003, founded the Robert Alonzo Winston Conservation Scholarship Fund. Under the administration of the CEP, the fund will support Robert Alonzo Winston Scholarships in Conservation for U NC undergraduates. The fund is named for Robert Alonzo Winston, an 1899 UNC graduate.

In spring 2003, an anonymous donor made a generous commitment to the Carolina First campaign. Beginning in 2004, the pledge will fund two stipends per year for five years to unc students attending the cep's Albemarle Ecological Field Site in Manteo, North Carolina.

Gifts from these and many other donors help the CEP advance environmental study, research, and outreach and public service at UNC. We thank them for their generous support.

RESEARCH

Duke Energy gift supports drought vulnerability study

CEP receives \$100,000 to study Catawda River Basin and connection between drought and environmental problems

The Duke Energy Foundation has made a \$100,000 gift to the CEP to fund "Drought Vulnerability in the Catawba River Basin," a study of the watershed that flows from the Blue Ridge through Charlotte, North Carolina, and into South Carolina. A UNC team led by Dr. Larry Band will work in partnership with Duke Energy and other major stakeholders: local, state and federal agencies as well as local communities, all of whom have substantive interest in water, the major shared resource within the Catawba River Basin.

Band, who is the Voit Gilmore Distinguished Professor and chair of the UNC -Chapel Hill Department of Geography, is the principal investigator for this project.

"Drought is the sleeping giant of environmental problems. It has always been a perennial problem out west, but they are at least cognizant of water shortage. On the East Coast, and especially in the Southeast, water has generally been plentiful, but the last set of droughts has certainly taught us very suddenly that that is not always true. And we're reaching the point where we will outstrip our water supply in a number of years."

Drought is caused by a combination of natural and societal factors, from shifting rainfall patterns, to human modification of the landscape through urbanization, agriculture and deforestation, Band noted. We still don't fully understand why drought occurs, why it lasts as long as it does, or how to best measure it. Unlike a flood that takes place suddenly and shows clear effects, drought comes on slowly and develops over a period of years, but typically leads to much more economic and societal damage.

Through the CEP, this project brings together UNC faculty from Environmental Sciences and Engineering, Geography and other programs with Duke Energy and other major stakeholders in the Catawba River

Basin to design a framework to learn more about the region's vulnerability to drought.

"Because environmental problems in general—and drought specifically—are interdisciplinary in nature, Duke Energy's gift really supports the collaboration of diverse faculty at UNC that we need to approach the problem in an integrated manner," said Band. "It also gives us the opportunity to interact with a full set of stakeholders who actually live and work in the basin."

EDUCATION

UNC's Ecology Curriculum aligns with CEP

Move brings new opportunities for undergraduate and graduate education in ecology



Bob Peef

On July 1, the Ecology
Curriculum at UNCChapel Hill became formally aligned with the
Carolina Environmental
Program. The Ecology
Curriculum has existed
as an interdisciplinary
graduate program within
the College of Arts and
Sciences for more than 25
years, drawing upon the

expertise of faculty from a range of UNC departments to explore the scientific study of ecology and its applications to environmental and conservation issues.

The curriculum remains a part of the College of Arts and Sciences, which will continue to award its graduate degrees. However, this move will, for the first time, allow the Ecology Curriculum to offer formal undergraduate education through a bachelor's degree concentration in Ecology, Conservation and Biodiversity. The concentration, administered by the CEP, will be open to students majoring in the CEP's BS in Environmental Science or BA in Environmental Studies programs.

Ecology faculty will teach several undergraduate courses in the CEP's Environmental Sciences and Environmental Studies programs, and Ecology graduate students will act as teaching assistants. Two new faculty members who will teach undergraduate and

graduate classes in the Ecology Curriculum will hold joint appointments in the CEP (see related article). Offices for the Ecology Curriculum will remain in Miller Hall, which is also home to the CEP.

"By aligning formally with the CEP, the Ecology Curriculum now has an associated undergraduate degree and can draw on the resources of the CEP to strengthen the curriculum and link it more formally to other units on campus, such as the School of Public Health," explained CEP Director Doug Crawford-Brown.

"This move greatly strengthens the study of ecological science, human ecology and ecosystem management within the Carolina Environmental Program. It gives our undergraduate students exposure to this area, and provides a central focus for graduate ecology study, ensuring that ecological activities from throughout the campus are integrated. In addition, the Ecology Curriculum will enhance the CEP-associated faculty's ability to collaborate on interdisciplinary research in ecosystem functioning and management, such as the management of watersheds."

The Ecology Curriculum has, for many years, had insufficient resources to expand to the level of faculty and students needed for a world-class program of research and education. "This new administrative arrangement will allow the curriculum to significantly increase resources and bring the study of ecology into the larger realm of environmental study, exploring more fully the interactions between environment, ecosystems and human health," Crawford-Brown added.

Robert K. Peet, professor in the Department of Biology and a member of the Carolina Environmental Program faculty, who has been actively involved with the curriculum for nearly three decades, will chair the Ecology Curriculum.

"Through this collaborative interaction, the CEP and the Ecology Curriculum will be more intertwined in our activities, and I think we will all come out ahead," Peet said. "The CEP will provide administrative and development support and nurture us, while the Ecology Curriculum will provide a graduate program and supervise an undergraduate concentration within the CEP, so we'll be contributing to each other's efforts. And because the Ecology Curriculum focuses more broadly on the interplay between science and social science, that will be reflected in some of the courses that our new faculty will be teaching."

Senior Associate Dean Doug Kelly of the College of Arts and Sciences sees the move as a win-win situation for the college and the CEP. "Getting ecology taught is a large part of the environmental effort on campus, and this gives us the chance to leverage the resources that both groups have. We'll have the opportunity to share joint faculty appointments across units, which will lead to more professional connections between CEP and the college. This connection with the CEP is just a natural for us. We are excited about working with the leadership of the CEP, and about the prospects for Ecology."

CEP faculty adds two with joint appointments

This year, two bright young academics will join the UNC-Chapel Hill faculty with joint appointments in the Carolina Environmental Program.

Flora Lu Holt joins the faculty as assistant professor with a joint appointment in Anthropology and the CEP. Holt is teaching a core course for ecology graduate students this semester, and will teach in the Department of Anthropology, in the CEP's undergraduate program and in the graduate Ecology Curriculum.

Holt earned her Ph.D. in Ecology at UNC-Chapel Hill in 1999 and spent several years as a fellow and lecturer at Stanford before returning to Carolina this fall. In addition to teaching, she will continue several research collaborations that she began as a graduate student here, including a project looking at land use among indigenous people in the Ecuadorian Amazon, and how land use changes with market integration, oil development and cultural change.

"My position was designed to build a bridge between Anthropology, the CEP and the Ecology Curriculum, and to foster meaningful interdisciplinary work



Flora Lu Holt

in the social and natural sciences," Holt explained. "The Ecology Curriculum, by its nature, really fosters the flexibility available for students to pursue these types

of interdisciplinary links, and that was very attractive to me. This is my dream job!"

Judith Farquhar, chair of Department of Anthropology, said "the department is delighted to welcome Flora Lu Holt as a faculty member after watching her stellar career as a graduate student unfold here in the 1990s. The combination of interests that Flora has realized so well, ranging from field ethnography to engaged environmental research, perfectly represents what anthropology can contribute to research on ecology and environment. With her exciting and lucid teaching style, we also expect Flora to attract a great many new UNC undergraduates into taking an anthropological approach to understanding and helping to solve world environmental problems."

In June 2004, Karin Pfennig will join the faculty as assistant professor with a joint appointment in the Department of Biology and the CEP. Pfennig, who earned her Ph.D. in Biology at the University of Illinois, is now completing a post-doctoral fellowship in teaching and research at UNC and Duke. Beginning next summer, she will teach classes in the CEP, the Ecology Curriculum and the Department of Biology, and will develop courses that contribute to graduate and undergraduate training in Ecology.

Pfennig will also continue her research on how behavior evolves and the role that it plays in evolutionary diversification. She is studying several species of spade-foot toads found in Arizona to learn how behaviors of the males and females during breeding sorts them out into the correct species and keeps them from mating together and becoming hybrids. She plans to draw on the interdisciplinary resources of the CEP to investigate the impact of historical land use patterns, changes to the habitat over time and other factors that

may affect the behaviors and populations of these toads.

"One of the things that I really like about UNC is the strengths they're developing in all different areas," Pfennig said. "There are so many people doing so many different things, and I really like how the CEP is bringing people from all sorts of departments together. That's the primary reason why I chose UNC."

Steve Matson, chair of the Department of Biology, said that "Karin Pfennig brings expertise in the areas of mate selection and the evolution of pathogen virulence to the Department of Biology. She has already established an impressive publication record, and is clearly poised for an outstanding career. As the first joint appointment between Biology and CEP, she will strengthen the natural ties between these two programs and contribute to the teaching mission of the Ecology Curriculum. The Department of Biology feels fortunate to have attracted Dr. Pfennig to the department, and we look forward to her arrival next

From the CEP Grad Files

A peek into the files of recent graduates from the CEP's joint undergraduate degree program with the College of Arts and Sciences—bearers of a BA in Environmental Studies or a BS in Environmental Science—who have gone onto careers in the environmental arena.

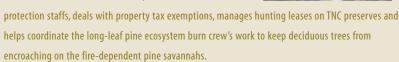
Carrie Banks

Graduated: 2002

Major: Environmental Studies
with a Concentration
in Environmental Communications
Current position: Conservation Assistant.

Current position: Conservation Assistant, The Nature Conservancy, Durham, N.C.

Key responsibilities: Carrie has her hand in a bit of everything at The Nature Conservancy. She keeps satellite offices apprised of activities in the Durham field office, assists the land deal and



Impact of CEP experience: "The semester at the Highlands Field Site impacted me more than anything else in college. The internships really put you into a job before you graduated. Mine was a project with the Division of Water Quality, sampling and comparing the macro-invertebrate communities, like the crane fly larva, in streams.

"I had a liberal arts background, so that experience immersed me in the scientific community. I would be in over my head [at The Nature Conservancy] if I didn't know some Latin botany names that I learned at Highlands, and I also learned about land trusts for the first time there. I grew up in the mountains, so I've always had a passion for land conservation. But going to Highlands and meeting adults who felt the same way opened the door for me to say, 'Hey, I could actually make a career out of this!""

Career plans: "I definitely want to stay at The Nature Conservancy for a few years, then I'm thinking about graduate school for environmental education. I might like to get into state or national parks."

Simon Jones

Graduated: 2002

Major: Environmental Studies, with Minor in Business **Current position**: Ecotourism Coordinator, The Conservation Fund, Chapel Hill, N.C.

Key responsibilities: Simon's main focus is on ecotourism development, working with communities to explore this economic option, helping with business planning, marketing and partnership building to create the infrastructure needed for ecotourism.

One of his major projects is the 10,000-acre Palmetto Peartree

Prospress evened by The Conservation Fund on the North Carolina coast. He is working.

Preserve owned by The Conservation Fund on the North Carolina coast. He is working to develop the ecotourism assets: boardwalks, an eco-lodge, etc. He is also helping The Conservation Fund,s land conservancy group so he can learn about the real estate aspect of the organization.

Impact of CEP experience: Interned with The Conservation Fund for two summers and part-time during the year, although not through CEP. "I did the business track that they had when I was at school, so I gained knowledge about how business and the environment can be integrated and examples of how that has worked, limitations to it and how it could expand in the future.

Career plans: To focus on business and the environment, and ecotourism.

Family ties: Simon,s father, who runs the North Carolina Zoo, shares his son's interest and involvement in land protection and the environment.

Liz Ferrell

Graduated: 2001

Dual Major: Environmental Studies and Spanish **Current position**: Intern, Law Firm in Charlotte, N.C.

Career path to date: Started out working at the Catawba Lands Conservancy, a regional land trust in Charlotte. As a program associate, she was a "jack of all trades," helping with grants, starting a volunteer training program, coordinating a major fundraising event and helping manage the member database. She then took a job at a law firm to prepare herself for law school, which she started this fall. **Career plans:** "I am torn, to tell you the truth. Looking at the loans I'll have to



Impact of CEP experience: "It's an excellent program, and I was glad to be one of the first people to go through it. It helped me to be a thoughtful person. Even though I am going to law school and I'm not quite sure what direction my career will take, I'm still glad that I did the environmental program, because it will always be part of my life. I will be involved in some way, shape or form in an environmental organization, whether it's pro bono or what I end up doing."

Matt Simon

Graduated: 2002

Major: Environmental Science, Minor in Biology **Current position**: Geographic Information Systems (GIS) Scientist,
Environmental Services Inc., Raleigh, N.C.

Key responsibilities: Working at a private environmental consulting firm on a groundbreaking project to develop an archeological predictive model for the Department of Transportation. In Phase I of the project, he is taking all of the data that the Office of State Archeology has collected for the past 50 years, and digitizing it. Ultimately, the model will aid in the DOT's decision making for quicker and more hassle-free road building. **Impact of CEP Experience:** "I decided to join the program



sophomore year after taking an ecology course, and as the major progressed and GIS became an option, I leaned toward that. That's how I got interested in that type of work. "I went to Highlands for a semester, where I worked with a conglomeration of garden clubs. I put together a manual of rare, threatened and endangered species on the Highlands Plateau. I worked with botany pretty exclusively, and I enjoyed it quite a bit. It was a valuable experience, and I think that when I go back to school, it will be for botany ecology or something related."

Career plans: "I will stick with this organization for a few years, and then head back to school for a master's in ecology, possibly geography, GIS, something like that. I think environment will definitely be part of it."

E D U C A T I O N

CEP students garner study awards

Foundation supports study in Asia; five CEP students receive Earth Day Scholarship

The Institute of International Education (IIE), with the generous support of the Freeman Foundation, offers the Freeman Awards for Study In Asia to help give American college students the opportunity to learn firsthand about this region of increasing importance to America's economic well being and global security. The primary goal of the Freeman-ASIA Program is to increase the number of American undergraduates who

study in East and Southeast Asia by providing students with information and financial assistance. Awardees are expected to share their experiences with their home campus to encourage study abroad by others, and to spread understanding of Asia in their home communities.

In the past two years, four Carolina undergraduates have received Freeman-ASIA grants toward the cost of their semester at the CEP's Thailand Field Site: Eric

Chen and Jordan Shackelford in 2002, and James Wallace and Rebecca Kehrer in 2003.

CEP student Charles J. McCall was also a winner of the Benjamin Cummings Environmental Science Earth Day Scholarship, awarded by academic publisher Addison-Wesley/ Benjamin Cummings to five students across the country who have shown enthusiasm, dedication to their studies and passion for the field of environmental science.

Hail to the Class of 2003!



CEP graduation speaker and North Carolina Senator Ellie Kinnaird (center) presents a departmental diploma to cep graduate xxxxx xxxxxx (left) while program Director Doug Crawford-Brown (right) and cep Director, Student Affairs Greg Gangi (far right) look on.



CEP 2003 graduate Asia Yeary (left) with UNC faculty member Dr. Philip R. Berke of the Department of City and Regional Planning (right).

Morehead City continued from page one

interns with an IMS faculty member or a nearby organization to get unparalleled experience in a specific area, such as microbial and phytoplankton ecology in North Carolina's estuaries, or the effects of beach renourishment along the Outer Banks. To deepen students' understanding of North Carolina's

central coast, weekly field trips take students to observe research by IMS faculty in the Neuse River estuary and in Pamlico Sound, to visit organizations like the North Carolina Coastal Federation, and to explore the needs and impacts of beach renourishment projects. A Speaker Series, open to the public, features nationally and regionally recognized scientists, including IMS and other UNC faculty, discussing their research and its implications for estuarine, coastal, marine and fisheries issues.

As at the other CEP field sites, the five students in Morehead City will conduct a group Capstone project throughout the semester that will challenge them to draw upon everything they learn through their coursework,

field trips and internships.

"This field site

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the coast."

John Wells, director of the

Institute for Marine Science,

An opening event for the field site on October 11 featured speaker Thomas Malone, director of the Horn Point Environmental Laboratory at the University of Maryland Center for Environmental Science, a well-known biological oceanographer

who specializes in estuarine environmental issues. The event drew local and state elected officials, board members from the IMS and the CEP, UNC officials and many members of the local scientific community.

John Wells, director of the Institute for Marine Science, is pleased that the IMS was chosen to host the CEP's newest field site. "This field site provides a unique opportunity for top-notch undergraduates interested in the marine environment to experience and study that environ-

ment at the coast. The IMS faculty is very enthusiastic about having these students here for the semester, and has helped formulate and implement a very innovative program."



Rachel Noble, director of the Morehead City Field Site



CEP provides fact-based policy papers as service to State by Jessica Factor, CEP Public Affairs Intern

In May 2003, the Carolina Environmental Program began distributing fact-based policy papers on environmental issues as a service to the State of North Carolina. CEP Environmental Policy Papers, which are intended to help local, state and national decision makers, are distributed twice a year and provide impartial, factual information on environmental issues.

An Advisory Board and the Program's Faculty Advisory Committee will oversee production of the papers. Tony Reevy, associate director for advancement at the CEP, said that the papers are available to anyone interested in environmental issues. "The papers may be particularly helpful to state decision-makers concerned with environmental issues, heads of non-governmental organizations (NGOs) and environmental decision-makers associated with local governments," he noted.

The first paper, released on May 31, 2003, provides facts about land conservation in North Carolina. It was mailed to almost one thousand individuals, including members of the North Carolina General Assembly, the Carolina Environmental Faculty at UNC and selected officials at North Carolina environmental NGO's and local governments. The second paper, scheduled to mail in November 2003, will discuss

measures of sustainability in North Carolina.

Anyone may subscribe to the CEP Environmental Policy Papers by sending a request to cep@unc.edu or by calling the CEP at (919) 966-9922. The papers are also available on the CEP web site, www.cep.unc.edu, under the Outreach and Public Service section.

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The CEP thanks these individuals for their generous support.

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