Friends of the Environmental Studies Program,

Greetings! I hope this newsletter gives you a sense of the immense energy and excitement there is surrounding the work we are doing at KU to be the leader in interdisciplinary environmental work. I invite you to read on about how new faculty, courses, graduate programs, and conferences are helping us now and in the coming years to reach an entirely new range of students and others through environmental studies.

Our alumni are keeping in touch with us in greater numbers each year, and the news items they share are models of the way forward for our students who are actively envisioning their own environmental careers. We have redesigned our internship program to encourage deeper levels of learning among our students, and both students and supervisors are already enjoying a streamlined online application and reporting process. Our program welcomes back one group of students from their study abroad in India and prepares to send off another group this summer to Freiburg, Germany.

Finally, it’s a major goal of ours to ensure that our students continue to have the kind of learning experiences that help them graduate as leaders in the environmental arena. An important way to reach that goal is to contribute in any way you can to the “Far Above” KU Capital Campaign. It takes teamwork to solve the pressing environmental challenges of our time, and we are delighted to have you on our team.

J. Christopher Brown, Director
Engaged Learning

GLOBAL ENVIRONMENT

EVRN 140 & 142 - Global Environment I and II, surveys the foundations of environmental understanding and the process of scientific discovery from perspectives that combine the principles and methodologies of the humanities, physical, life and social sciences.

Co-taught by professors of History, Sociology, and Geography, Global Environment is designed for students who are interested in the interdisciplinary nature of Environmental Studies. Key topics include the history of environmental systems and life on earth, the discovery of biotic evolution, ecological change, and climate change.

FIELD ECOLOGY

EVRN 460 - Field Ecology uses the outdoors as a living laboratory. It provides practical experience in the characterization of a diversity of ecosystem types: lakes, streams, forests, and prairies. The course is writing intensive, and designed specifically for Environmental Studies majors.

LEARNING PATHWAYS

Environmental systems, and our understanding of the problems and issues associated with them, are ever changing. The Environmental Studies Program has developed pathways to explore emerging areas of environmental scholarship. Pathways are thematic areas of that match the environmental expertise of our faculty, with a list of accompanying courses.

For more information, visit: esp.ku.edu/pathways

RESEARCH

Undergraduate research in environmental studies involves an intellectual and educational collaboration between students and faculty members. These research experiences can be highly varied and may be initiated by students who seek out an experience related to their chosen learning pathway, or through faculty solicitation for help with a specific research project.

For more information, visit: esp.ku.edu/research
This 6-week study abroad program is conducted in the Western Ghat mountains of southern India, in the states of Karnataka, Kerala, and Tamil Nadu. A major theme of the program is conservation biology: a multidisciplinary field that addresses challenges created by the collision of modern population growth with natural habitat, wildlife, and the lifestyles of forests dwelling peoples that have coexisted with their natural communities for thousands of years.

The Soliga community is one such forest dwelling community that the students interact with and learn from. Students in the program stay in field research stations in or near National Parks and Sanctuaries; are instructed by local conservationists and scientists; and visit villages and agricultural areas to learn how people interact with their rich landscape. Aside from its rich cultural history, South India is home to several species not found anywhere else in the world. Following is a sample journal entry from the trip:

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**June 25 - Tamil Nadu, India**

With a chill in the air, this morning began with chai and spectacular views. We sat out on the porch of our mountain top bungalow ("Jewel House") sipping chai with blankets draped around our shoulders to fight off the early crisp morning breezes. This was perhaps the most beautiful morning of the trip, which allowed us to forgive the 6am wake up. After a quick breakfast of lemon rice and black gram (lentils), we set off for a hike.

Our guides were Ezekiel, a former resident and current caretaker of the Fellowship property, and his assistant George. Some of us were hesitant to hike again after the previous day’s 6 mile adventure, but we made the ascent to Tharisana Parai (Vision Rock) none the less. The trek was mostly vertical and we struggled to keep our footing along the wet path.

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"The ascent up the hill was like something out of a National Geographic special. Lizards and skinks by the dozens ran for the safety of loose rocks as they felt the presence of humans coming. Frogs leapt for the safety of small pools of water. Grass Jewel, Common Tiger and Emigrant butterflies were being tossed about by the strong winds as if they were the shuttlecocks in a game of badminton."

— Kristina Beverlin
The winding path, under fallen limbs and up muddy, vertical stretches, took 45 minutes. The views from Vision Rock made the slips and trips of the journey completely worth it. Nearly a dozen waterfalls, endemic palm trees, billowing clouds obscuring mountaintops, and our bungalow could all be seen from this vantage point. We took turns taking pictures of the beautiful view, including several obligatory group shots. These were taken between multiple cameras and at different angles, with varying degrees of group attentiveness.

We slid our way back down from Vision Rock to the bungalow only to be greeted with another amazing sight—an endangered Lion-Tailed Macaque. This rare monkey species is found only in the Western Ghats and its numbers are dwindling. It is nearly all black except for its signature fringe of white surrounding its face. After learning about this amazing species, we were extremely excited to see a specimen in the wild—especially when that sighting only required looking off our porch.

On wobbly legs we made our way down from the mountain. We all enjoyed the stay, but looked forward to the comforts of our field station. We cut our hike-time down by 2 hours on the way down and were much better at fording the small river along the way. Midway through the hike we stopped for a cookie break that rejuvenated our tired bodies. It is absolutely amazing what a Vanilla Wafer look-alike can do for trip morale. We quickly made it back to the bus where we dug up several more snack varieties. All was right with the world.

The bus seats never felt so good as they did on that trip back to the field station. Along the way, we made a quick pit stop along at Dohnavur Fellowship, the organization responsible for carrying on Amy Carmichael’s legacy and maintaining the buildings at the top of the mountain we visited. We were given several copies of Amy’s classic nature hits including the spellbinding “Shadow and Coolness” and the party fave “March on in Strength, My Soul.” We’re all pretty excited to bump to them on the ride back to Bangalore in the coming days.

— Chris Rice
Improving Environmental Health in Guatemala

by Karen Lewis

I am currently researching community education models in developing countries for the purpose of improving personal health and environmentally conscious land use. Specifically, my current work will be used in a Guatemalan community comprised of indigenous Ch’orti Mayans to supplement a water quality project designed by Engineers Without Borders-USA, Sunflower State Professionals. This community is poor by Guatemalan standards and exists economically through a mix of subsistence agriculture on exhausted land and seasonal employment working on distant plantations. The land they occupy is not really suitable for their traditional livelihood and additional stresses caused by overpopulation and deforestation of surrounding lands impact their access to water on a daily basis. In addition, years of civil war and class bigotry in this region have taken their toll on the ability of many individuals to trust outsiders and have broken the physiological sense of community that is necessary for the success of a larger group.

A very promising model that I will be recommending and personalizing for this community is called “Community Health Clubs” which have recently had success in Ethiopia. This education method creates a comfortable social environment where the women of the community learn new practices from a local facilitator in small group settings with their neighbors over the course of a year.

The success of this method appears to come largely from the camaraderie created through group meetings. While implementing new ideas designed to improve their family’s health and immediate environment, health clubs also reinforce positive relationships between neighbors that will help promote overall kinship. The women I have come in contact with recognize and want to address the health issues that cause their families to become ill and I believe this method will help them learn from each other to impact this common problem while improving environmental conditions.

To date I have visited this community twice: once as part of a Study Abroad Sustainable Development program and most recently as part of my research. The nearest town to the aldea (village) where we visited is a mix of growing commerce and local markets. In the aldea itself, is interesting to note how western technology and culture has infiltrated the lives of people who struggle for basic necessities. The water is often contaminated, there is barely enough food stored to get through a year, and few pit toilets. At the same time, cheap Chinese made goods ranging from flip-flops to blankets are crowding out locally made products and pay per minute cell phones and satellite dishes bring the outside world to indigenous peoples faster than they can assess it.

Despite this, I have been overwhelmed by the consideration and hospitality I have received from the people I have met in the aldea. Although they have so little, they are insistent on sharing it and have always greeted me warmly. Most of the individuals speak Spanish and although my skills are minimal, they have always been very tolerant with my bad grammar during our conversations and willing to answer my questions and show me their homes.
This research project could not have been possible without the encouragement of so many professors and fellow students that I have encountered here at KU and I am grateful for the support of the Environmental Studies Program in particular. Professor Brown always is willing to listen to my ideas and offer subtle guidance; Professor Hagen encourages my desire to explore options beyond my immediate surroundings; and one graduate student reminds me often that being a serious student does not mean fun should be discarded.

—Karen Lewis

Every professor and GTA I have encountered in this program has been eager to share their knowledge and been patient with my questions. They have helped me develop thoughts into ideas through asking questions that forced re-examination. Without their numerous recommendations and the Zadigan Scholarship, I would not have been able to make that January study abroad visit to Guatemala which initiated my desire to do additional research in this topic, and then receive an Undergraduate Research Grant this summer. Additionally, the interdisciplinary structure of the Environmental Studies Program and its exploration of multiple disciplines has exposed me to new methods and expectations that I might otherwise have missed out on.

Now that my undergraduate career is almost complete, the research I have been doing makes me want to learn more about indigenous cultures and their land use practices so that I can help find and promote better resource use in our own society. I am interested in resource conservation education and will be looking for positions that allow me to expand on my undergraduate research experience.
by Angie Unrein

Over the course of this summer, I’ve had the opportunity to intern with the NASA DEVELOP National Program at the NASA Langley Research Center in Hampton, Virginia. DEVELOP is an interdisciplinary research program that operates under the NASA Applied Sciences Program that seeks to bridge the gap between NASA Earth Observations and society.

Student interns at different DEVELOP nodes work on teams to study a particular NASA application area (Water & Oceans, Agriculture, Disasters, Ecological Forecasting, Health & Air Quality, and Climate & Weather, and Technology) at a specific site. My team and I actually worked on two projects over the summer term: Rwanda Agriculture and Rwanda Energy.

For the Rwanda Agriculture project, we used NASA EOS to quantify soil erosion throughout Western Rwanda. For the Rwanda Energy project, we determined potential sites for solar panels throughout the entire Republic, using data from the NASA Suomi NPP, Terra, and Aqua Satellites. We partnered with the Rwandan government and Embassy, as well as the World Bank and the AfriPop Project for both projects.

Interning at a NASA center has been a humbling experience – I’m lucky to have had the opportunity to work here, especially compared to other potential interns that are far more qualified to be here than I am. Both Environmental Studies and Geology faculty (I’m a double major) have been incredibly supportive, whether writing recommendation letters or even just answering questions about the projects I’m working on here.

Working with NASA, my interest in remote sensing has definitely been piqued. Right now, I’m planning on taking some time off from school post graduation, but when I do go to grad school, I’m thinking of going into some type of remote sensing field working with water resources.
Professional Science Masters
PSM in Environmental Assessment

ABOUT THE PROGRAM

KU’s environmental studies program, offered through the College of Liberal Arts and Sciences, has developed a Professional Science Masters in Environmental Assessment for those in or pursuing roles that address a range of environmental issues.

By its nature, environmental assessment is highly interdisciplinary, drawing upon natural or physical science training, project management experience and communications skills. Those in the field of environmental assessment identify possible environmental effects of a project or program, propose measures to decrease adverse effects and predict those effects.

The content of courses and the overall curriculum is based upon best practices as defined by the National Professional Science Master’s Association (NPSMA). This program can be completed in its entirety at the KU Edwards Campus.

CORE COURSES
12 credit hours
PMGT 833: Project Management Fundamentals
ENTR 701: Entrepreneurship - Starting Your Own Business
PSM 882: Finances for the Professional
COMS 730: Writing & Speaking for Decision Makers or
COMS 811: Managerial Communication

CONCENTRATION
12 credit hours
EVRN 616: Environmental Impact Assessment
EVRN 620: Environmental Politics and Policy
EVRN 538: Environmental Soil Physics and Chemicals
EVRN 611: Water Quality, Land Use, and Watershed Ecosystems

ELECTIVES
6 credit hours
EVRN 510: Advanced Environmental Apps in Geospatial Techniques
EVRN 656: Ecosystem Ecology
GEOL 751: Geology – Physical & Transport Hydrogeology
EVRN 730: Environmental Toxicology
BIOS 714: Biostatistics - Fundamental Biostatistics I
EVRN 745: Environmental Data Analysis and Statistics
EVRN 535: Soil Geography

PRACTICA
3 credit hours
EVRN 815: Professional Science Masters Capstone

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84 Ed Hubert, B.A. ’84, M.S. Engineering Management ’84, is the Vice President & Principal Environmental Scientist for Geotechnical Services, Inc. He sits on the boards of the Environmental Excellence Business Network, Kansas Alliance for Watersheds & Streams, and Alliance of Hazardous Materials Professionals.

86 Thomas Rickert, B.A. ’86, is the Deputy Director of Transportation in Kane County, IL and the Executive Director of the Kane Kendall Council of Mayors. He plans and programs transportation projects. He also chairs the Bicycle & Pedestrian Task Force for the Chicago region.

87 Kirk Larson, B.A. ’87, has worked in asbestos removal safety inspections, pesticide field research, analytical laboratories, and as a hazardous waste manager. He currently works for the University of Kansas doing hazardous waste management for the department of Environment, Health & Safety.

92 Kris Craven, B.A. ’92, M.S. Atmospheric & Oceanic Sciences ’99, is the senior meteorologist at the National Weather Service in Topeka, Kansas.

93 Greg Beilfuss, B.G.S ’93, is the State and Community Outdoor Recreation Planner for the Indiana Department of Natural Resources. He is the lead author of the Indiana Statewide Outdoor Recreation Plan. He also serves as a NWCF Type II wildland firefighter.

Teri Leahy, B.G.S. ’93, is a Graduate Coordinator for the Physics and Astronomy Department at the University of Kansas and is pursuing her Master’s Degree in Counseling from MidAmerica Nazarene.

94 Robert Freeman, B.A. ’94, is a Construction/Quality Control Manager for Tetra Tech Inc. and a Site Manager for Military fuel systems construction and repair.

95 Ryan Tompkins, B.A. ’95, M.A. Urban Planning ’00, is the Manager of Sales and Leasing at Hunt Midwest, a real estate development and mining company.

96 Dena Sampel, B.A. ’96, is an Environmental Health Specialist with Riverside County, California, Dena also obtained her REHS (Registered Environmental Health Specialist) six years ago with a focus on retail food facilities in Riverside County.

97 Judd Moritz, B.S. ’97, is the Director of Utility Solutions at EnerNOC, Inc. His work as a sustainable energy professional focuses on energy efficiency and demand response.

Caroline Valenti, B.A. ’97, has worked as an Environmental Engineer, a Project Manager/Environmental Specialist, and as a science teacher in Chicago.

98 Kelley Catlin, B.A. ’98, B.A. Geography ’98, J.D. ’05, is an attorney with EPA Region 7. She previously served as a community forestry volunteer in Nepal as a Peace Corps member.

Regina Danison, B.A. ’98, is the Environmental Program Manager at the Raleigh-Durham International Airport where she is responsible for permitting, storm water sampling, air quality compliance, soil contamination cleanup, recycling, sustainability, and regulation compliance.

Jason Franks, B.S. ’98, B.S. Biology ’98, is the Field Services/DOT/Health and Safety Manager for Aquterra Environmental Solutions, Inc., an environmental engineering and consulting firm.

Amy Glovan, B.A. ’98, is a research scientist at the Southwest Research Institute, Geosciences and Engineering Division in San Antonio, TX.

99 Laura Flemming Smith, B.S. ’99, J.D. ’02, is the Assistant District Attorney in Johnson County, Kansas.

04 Richard Friesner, B.S. ’04, M.S. Environmental Science ’06, is the Program Director for the Washington Youth Summit on the Environment at George Mason University where he is completing the Environmental Science and Public Policy doctoral program. His dissertation is about adaptive management in the Chesapeake Bay watershed.

Amy HammonTree, B.A. ’04, B.A. Biology ’04, M.A. Environmental Management ’07, is an environmental scientist with a consulting firm. She is involved in the permitting of energy facilities, primarily wind and solar.

06 Lona Tenpas, B.G.S. ’06, M.Ed. in Adolescent Education, ’11, works as a Biology and Physics professor at Southwest High School in Minneapolis, Minnesota.

07 Javier Ahumada, B.G.S. ’07, works as an Environmental Scientist III with the Kansas Department of Health and Environment. He
oversees all air performance testing and air quality sampling from stationary sources in Kansas.

Alexis Brickner, B.S. ’07, M.S. Ecology ’13, manages riparian and wetland restoration projects for the Coos Watershed Association in Coos Bay, Oregon. She has also conducted plant conservation research in Oregon, completed a riparian restoration internship with the Student Conservation Association in Colorado, and developed an integrated pest management plan for the Lawrence Parks & Recreation Horticulture Department.

Jami Joelle Nielsen, B.G.S. ’07, works as the Program Assistant for the Environmental Studies Program at University of California, Santa Barbara and has recently received a grant from the Santa Barbara Arts Collaborative to curate a “No-Waste Community Art Exhibit.” Her eco-artwork can be viewed at jamijoelle.com. She has also worked with Channel Islands Restoration, removing non-native Arundo Donax cane from waterways in Central California, helping to restore endangered steelhead trout populations.

Andrea Goodwin, B.A. ’08, J.D. ’11, works as an attorney in Portland, Oregon.

Jennifer Holladay, B.G.S. ’08, works as a Research Assistant at the Kansas Biological Survey, where she had previously interned with the Applied Science and Technology for Reservoir Assessment program.

Matt Petrie, B.S. ’08, M.A. Geography ’10, is a PhD candidate in Biology at the University of New Mexico. His work focuses on characterizing the variability in ecologically-significant precipitation during the summer monsoon.

Jennifer Kongs, B.A. ’09, B.A. Geography ’09, works as the Managing Editor of Mother Earth News magazine, where she had previously completed an internship.

Lydia Gibson, B.A. ’10, B.A. Political Science ’10, B.A. Spanish ’10, M.U.P. ’12, works as a Project Manager at Missouri Organic Recycling. She also works with the Rock Chalk Recycle initiative, a comprehensive waste-diversion program at all University of Kansas home athletic events.

Jamie Schwartz, B.S. ’10, works for the Kansas Division of Emergency Management where she manages the state database for hazardous material spills and conducts vulnerability assessments at chemical facilities. Previously, she served as the Project Manager for the Kansas Army Ammunition Plant and the Schilling Air Force Base Atlas Missile Silo remediation sites. Both sites had soil and groundwater contamination due to past use by the U.S. Department of Defense. Her work responsibilities included providing regulatory oversight of field work, regulatory approval of all work plans and remedial reports, and representing the State of Kansas at technical project planning meetings, coordination meetings, and public meetings.

Taylor Schaack, B.A. ’11, B.A. Film and Media Studies ’11, works as the Environment, Health & Safety Specialist at Diodes FabTech, Inc.

Jessica Brooks, B.A. ’12, is a Master of Science candidate and National Science Foundation Graduate Research Fellow at the Yale School of Forestry and Environmental Studies, specializing in water resources science and management.

Margaret Gathunguri, B.S. ’12, B.S. Geography ’12, serves in the Peace Corps. She was a research assistant for the Institute of Policy and Social Research and a Hydrological Technician at the USGS-Kansas Water Science Center. She also studied abroad with Living Routes program in South India.

Nicole Niehues, B.S. ’12, attends the University of California, Davis where she is pursuing a master’s degree in the Soils and Biogeochemistry Graduate Group. She researches the effects of various no-till management systems on greenhouse gas emissions from Napa Valley vineyard soils.
ABOUT US

The University of Kansas Environmental Studies Program, established in 1971, is one of the oldest environmental studies programs in the country. It is an interdisciplinary program, offering talent and resources from diverse areas of expertise. The program provides students with the tools they need to investigate environmental phenomena, including anything from soil sampling and freshwater ecology to policy-making and social science.

Whether you are a current student in our program, a person interested in majoring in Environmental Studies, or simply a curious individual, we are happy to have you visit us. We encourage you to come by the office or explore our website for more information about academic opportunities, program news, and upcoming events.

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