As student enrollment reaches 10-year high, program sets priorities for the future

Message from J. Christopher Brown, Director

Classes at KU are well underway, but the sense of excitement at the start of a new semester is still in the air, along with a recent hint of fall weather. Interest in our major continues to grow, evidenced by a 10-year high of 228 declared majors. We begin this year ready to begin tackling a number of priorities identified in our recent strategic planning process and an external review of our program, and I want to share a few of those priorities here.

Through promoting inter-disciplinary team teaching, we’ll put professors from different disciplines across the University together in the classroom. This will allow them to engage with students and each other on the ways interdisciplinary understanding of environmental issues leads to more effective action to solve environmental problems. Several of our students are back fresh from an unforgettable study abroad experience in India, and we’ll be providing students with even more international exposure in coming years. Our outstanding faculty, from across campus, continue to distinguish themselves in both individual and interdisciplinary research, and environmental studies will lead in efforts to hire new faculty in “clusters” to build new teams of researchers from diverse units on campus. Finally, we’ll be moving forward with plans to improve the way we prepare students for productive environmental careers. It will be a priority to help students see earlier on in the major the various paths they can take toward developing their environmental career. We’ll continue to support undergraduate research experiences and encourage student engagement in interdisciplinary environmental research.

Read on and you’ll see a program catalyzing the kinds of personal, institutional, local, and global connections required to build teams of students and researchers focused on addressing environmental challenges.
Medicinal plant research focuses on native Great Plains species

Faculty member Kelly Kindscher (joint appointment with Kansas Biological Survey) is co-leading a first-of-its-kind effort with Barbara Timmermann, Chair of the Department of Medicinal Chemistry, to study the medicinal properties of plants native to Kansas and the Great Plains.

The Native Medicinal Plant Research Program, now beginning its second year, is funded primarily by a five-year, $5 million grant from Heartland Plant Innovations, a private Kansas company that received startup funding from the Kansas Bioscience Authority. The grantor’s goal is to identify medicinal compounds that could be used in new herbal remedies, as well as health-care, food, cosmetics, pharmaceuticals or veterinary products.

The multifaceted project involves historical ethnobotany; plant collection and testing; and outreach and education. Both Kindscher and Timmermann have hired several full-time staff members for the project. Two environmental studies students, Jason Hering, senior from Hutchinson, and Greg Beverlin, senior from Paola, as well as Kim Scherman, a Eudora junior in English and journalism, work as undergraduate research assistants.

The program is truly interdisciplinary. In addition to Kelly’s expertise in ethnobotany and Barbara’s in medicinal chemistry, staff members and graduate student researchers bring backgrounds in field botany, medical anthropology, journalism, geography, sociology and nutrition. Medicinal testing involves not only chemists but also laboratory biologists at the
Kindscher’s goal is to collect and study all of the most important medicinal plants in Kansas and the Great Plains during the course of the project. A primary basis for choosing plants to collect are two of his previously published books, Medicinal Wild Plants of the Prairie and Edible Wild Plants of the Prairie. These and other sources guide field botanists in collecting specific parts of particular plants — root, leaves, whole plants or flowers — believed to have potential medicinal value. Plant material is then dried, ground and sent to the medicinal chemistry lab in the Multidisciplinary Research Building on west campus for testing.

KU’s medicinal chemistry and biological testing labs house state-of-the-art equipment. All plants collected are put through specific biological assays to test for antioxidant capacity, wound healing and anti-inflammatory capacity. Testing for a specific type of anticancer activity is done in collaboration with the KU Medical Center.

Since the project is in the very early stages and testing of plant material is a multistage process that takes time, definitive information on the medicinal value of any particular plant is not expected until sometime next year.

For more information on the Native Medicinal Plant Research Program, visit www.nativeplants.ku.edu.
undergraduate research engagement

Environmental Studies supports talented and motivated undergraduate students who engage in research projects. Students work closely with a faculty supervisor, and at the end of an academic year, present their research and findings before other faculty and students.

Here is a list of research topics and corresponding advisors for the Fall 2009 and Spring 2010 research symposia.

**fall 2009:**
Janie Chen, “All-American Boy meets Green Girl”
Simran Sethi

Ryan Callihan, “Reservoir Sedimentation, Riparian Buffers, and GIS Solutions”
Kelly Kindscher

**spring 2010:**
Ali Abdulhussain, “Recycle for a Better Life.”
Kelly Kindscher

Katie Beall, “Environmental Refugees.”
Karl Brooks

Lydia Gibson, “Brownfields to Greenspace.”
Dorothy Daley

Bobby Grace, “Electronic Waste Exportation and the U.S.”
Dorothy Daley

Chris Brown

Shane Johnston, “Environmental Toxics.”
Shannon O’Lear

Kimberly Tate, “Herbal Pet Medications and Cosmetics.”
Kelly Kindscher

Margaret Tran, “Community Gardening.”
Kelly Kindscher
In memoriam: Jessica Roark, alumnus of Environmental Studies

Jessica Roark, alumnus in Environmental Studies, passed away on Sunday, August 22nd. As a student, she excelled at academics, despite the struggles she faced with an extremely rare form of cancer called adenoid cystic carcinoma. She was featured twice as part of the KU Graduation Stories series - once for her initial degree in Environmental Studies in 2009, and for a second degree in civil engineering. She studied abroad in Hong Kong and was about to pursue a PhD in environmental science at Purdue University.

Moreover, she was a passionate, bright individual who cared deeply about the environment. Jessica was truly an inspirational figure, and she will be missed by all who encountered her.

More information about Jessica and her life story is available at www.jessicaroark.org. In lieu of flowers, her family and friends request that donations be made to the Adenoid Cystic Carcinoma Research Foundation (A.C.C.R.F.) at www.ACCRF.org or the American Cancer Society.

Ruben P. Zadigan Scholarship recipients

Thanks to the generous bequest of Environmental Studies donor Ruben P. Zadigan, the Program awards scholarships to students who demonstrate outstanding academic achievement and self-initiative.

This academic year, students embarking on the India Study Abroad trip received awards to help cover the expenses of their studies. The following students won scholarships: Kristina Beverlin, Brandy Fogg, Melissa Forester, Jason Hering, Monica Melhem, Hayley Mallen.

In addition, the following students received scholarships to fund individual undergraduate research projects, for which they will work closely with a faculty supervisor, and give a presentation at the end of the Fall 2010 or Spring 2011 semester. Lauren Ashman, Jessica Blythe, James Decker, and Jacquelyn Murdock.

Environs student group kicks off another year with new committees

Founded in 1985, Environs is a KU student organization that promotes environmental awareness and encourages sound environmental practices within the university and in the community of Lawrence. Environs is composed of a variety of five committees so that students can focus on issues that interest them most. The committees this year are:

- Environmental Preservation: a grass roots committee performing regular trail maintenance, planning benefit shows, and working with the center for sustainability.
- Resource Conservation: working with energy and waste conservation and transportation issues.
- Creative Hands: demonstrating environmental interest through the arts.
- Outreach and Education: spreading the word to youth in Lawrence about important environmental issues.
- Local Food: improving accessibility and knowledge about local food issues in the Lawrence community and on the KU campus. Recruiting volunteers to work on the KU Student Farm.

Environmental Studies major named a KU Woman of Distinction

Stephanie Farve, senior pursuing a B.S. in Environmental Studies, is featured in the 2010-2011 KU Women of Distinction Calendar. She is an active member of the Wetlands Preservation Organization, and has served as president of the First Nations Student Association. This past summer she completed an internship for Native Students in Washington, D.C. Congratulations to Stephanie!
Dr. Shannon O’Lear publishes book on Environmental Politics

The cover of Shannon O’Lear’s new book, Environmental Politics: Scale and Power, isn’t what you might expect to see on an academic book. The photograph shows two cows picking through a pile of garbage on a city street. Judging by the foreign script on a sign in the picture, the setting is somewhere in India. It’s a colorful image, but it’s disturbing. Why not show cows in their “natural” setting, say, in a Kansas pasture? Who let these cows out on the street? Why are they eating garbage? Actually, the cover is symbolic of what the book aims to achieve. It gets us out of our comfort zone in thinking about environmental issues and challenges us to reconsider how we think about these issues. Why do we tend to think of climate change as a global phenomenon instead of something we experience (and might contend with) locally? Is food security achieved at a national scale, or are there other spatial scales we should be mindful of when we make choices about how we nourish our bodies? We tend not to discuss what happens to our garbage, but everyone seems to know about recycling...or do they?

The book draws from courses that Dr. O’Lear has taught on Environmental Policy, Environmental Geopolitics, International Conflicts, and even introductory Human Geography. It starts by asking the questions: What exactly is the environment, anyway? Is there any part of the world that is untouched by human actions in one way or another? The book draws on the idea of the Anthropocene which maintains that we have entered a new geologic era characterized by irreversible, human-induced changes to the planet. It isn’t about reversing the effects of our actions but about understanding how we might adapt. Through each chapter, Dr. O’Lear book argues that our lives and actions are so closely intertwined with the environment that it is difficult to separate ourselves from “the” environment whether we are talking about climate change or the toxins that build up in our bodies as a result of our contemporary lifestyle.

Dr. O’Lear uses the topic of each chapter to look at how our understanding of environmental issues is shaped by various types of power – economic, political, ideological or military – and tends to be limited in terms of the spatial scale at which we think about these issues. Why do we tend to think of climate change as a global phenomenon instead of something we experience (and might contend with) locally? Is food security achieved at a national scale, or are there other spatial scales we should be mindful of when we make choices about how we nourish our bodies? We tend not to discuss what happens to our garbage, but everyone seems to know about recycling...or do they?

Students who have taken courses with Dr. O’Lear will find familiar and new material in this book. Non-geographers will gain an appreciation of why geographers think spatially to solve problems. People who drink bottled water, eat microwaved popcorn, who are confused by carbon offset schemes or who are hoping for a diamond ring will find something interesting in this book.

Karl Brooks takes position as regional EPA administrator

This past spring, Professor Karl Brooks, Associate Professor of Environmental Studies and History, was appointed by President Obama as the EPA administrator for Region 7, based in Kansas City, Kansas. Dr. Brooks will be taking a leave of absence from the University during his appointment. In May 2010, Dr. Brooks received recognition for service and teaching by the Center for Teaching Excellence. He was nominated by students Greg Beverlin and Kimberly Hernandez.

Sara Gregg, visiting assistant professor, to teach Environmental Law

While Karl Brooks is taking a leave of absence, Dr. Sara Gregg will take over teaching his courses for Environmental Studies. Most recently, Dr. Gregg was a postdoctoral fellow at the Woodrow Wilson Presidential Library in Staunton, Virginia. Her academic work focuses on the intersections between the environment and agriculture in federal policy. She has a book coming out with Yale next month entitled Managing the Mountains: Land Use Planning, the New Deal, and the Creation of a Federal Landscape in Appalachia. A warm welcome aboard to Dr. Gregg!
Environmental Studies Faculty leading interdisciplinary research on biofuels and climate change

Environmental Studies Faculty members are involved in a massive research endeavor in which 60 scientists will collaborate for five years on global climate change and renewable energy research. The Climate Change and Renewable Energy project, funded by Kansas NSF EPSCoR, weaves together research on climate change with research targeting solutions for a cleaner environment through the latest advances in renewable energy sources. The project is a multi-institutional, multi-sector effort linking four universities: University of Kansas, Kansas State University, Wichita State University and Haskell Indian Nations University. Also participating are three Kansas-based companies. Abengoa Bioenergy, MGP Ingredients and Nanoscale; and two companies outside the state: ADM (Illinois) and Netcrystals (California). Scientists representing many disciplines—agronomy, anthropology, biology, chemistry, computer science, economics, engineering, geography, mathematics, microbiology, physics and sociology—are working together on four interrelated research initiatives led by five team leaders. One of those teams, “Farmers’ Land-Use Decisions,” is led by Dietrich Earnhart (Economics), and includes Jane Gibson (Anthropology), Stacey White (Urban Planning), Chris Brown (Geography and Environmental Studies), Eric Hanley (Sociology), Johan Feddema and Steve Egbert (Geography), Val Smith (Ecology & Evolutionary Biology), and Belinda Sturm (Civil, Architectural and Environmental Engineering).

In collaboration with the Kansas Biological Survey, Prof. Earnhart’s research group is developing web-based geographic information services to allow researchers, and eventually the public, to explore and visualize data related to the project. This display shows agricultural land-use, irrigation activity, and the location of biofuel plants (planned and existing) across the state.
Environmental Studies Colloquia Series

Environmental Studies collaborates with other units to co-sponsor the visits of a variety of scholars to campus. In addition to presenting at colloquia, visitors often meet with undergraduate and graduate classes. Here’s a list of events we helped to sponsor last year:

- **Howard Butler;** Hobu, Inc; “Open Source Software Development: Leading the Tribe Instead of Following the Herd.” Part of the GIS@KU GIS Day 2009 event. Sponsored by several other departments across campus, including: KU Transportation Research Institute, Geography, Institute for Policy and Social Research (IPSR), KU Libraries GIS and Scholar Services, etc. For a complete listing and summary of this event, visit [http://www2.ku.edu/~kugis/gisday/2009/index.shtml](http://www2.ku.edu/~kugis/gisday/2009/index.shtml)
- **Chris Cuomo;** University of Georgia; “Climate Change, Indigenous Knowledge & Scientific Methods.” C-CHANGE Fall 2009 Colloquium Series. NSF C-CHANGE IGERT Program, The Commons, IPSR.
- **Siddappa Setty;** Ashoka Trust for Research in Ecology and the Environment (ATREE); “Biodiversity, Conservation and Livelihood.” Anthropology, Geography, Center for Global International Studies, Biodiversity Institute.
- **Mauricio Herrera-Rodriguez;** Universidad de Costa Rica; “Water Management in Costa Rica: Sustainable Development beyond the Nobel Prize(s).” Center of Latin American Studies.
- **Robert Sack;** University of Wisconsin-Madison; “Facing ‘the gap’ in Geographical Theory: What It Tells Us About Self, Society, and Nature.” Hall Center for Humanities, Geography
- **Riley Dunlap;** Oklahoma State University; “The Denial of Climate Change: Sources, Strategies & Impacts.” C-CHANGE Spring 2010 Colloquium Series. NSF C-CHANGE IGERT, Center for Remote Sensing of Ice Sheets, The Commons, IPSR.
- **Nancy Langston;** University of Wisconsin-Madison; “The Struggle for a Healthy Environment: the Legacies of Rachel Carson and Earth Day.” Earth Day 2010 Lecture. Environs, Center for Sustainability
- **Adrian Hawkins,** Colorado State University; **Mark Carey,** Washington & Lee University; “Climate and Human History in the Southern Hemisphere: From Antarctica to the Andes to Easter Island.” Hall Center Symposium. Center of Latin American Studies, History, Geography.
- **Ivette Perfecto,** University of Michigan; **John Vandermeer,** University of Michigan; **Angus Wright,** California State University-Sacramento; “Nature’s Matrix: Linking Agriculture, Conservation and Food Sovereignty” and “Dialogue in the Round.” NSF C-CHANGE IGERT Program, The Commons, IPSR.
Alumni return to campus, meet with current undergraduates

This past year, two prominent alumni returned to campus to speak with current Environmental Studies undergraduates about environmental career paths and options. The events were great opportunities to learn how KU grads embarked on environmental careers, the importance of their training, and what their environmental studies major and time at KU meant to them. Warren Bird, Shering Plough Corporation, visited August 2009 to discuss his work in global environmental auditing practices. Bird was a founding member of the Environs student organization. He spoke about his path after graduating in 1986, and about the steps he took to obtain his current position as Senior Manager in the Global Compliance and Business Practices group at Shering Plough.

At the end of the Fall 2009 semester, Tom Reid, consultant with 5 Capitals Environmental and Management Consulting, spoke with students about his work in the area of green building and environmental projects in the Middle East. He talked about work projects involving overseeing sustainable building practices and incorporating environmental protection measures into new development projects.

Both events were hosted by Environs and the Environmental Studies Program. If you are an alumnus, currently employed in an environmentally related career capacity, and are in the area, we’d love to welcome you back to meet our students at similar events! Just contact the office at (785) 864-8902 and tell us when you’d like to come!

Staff changes at Environmental Studies

After four years as administrative associate for the program, Kim Le will be leaving to take a job teaching English abroad. Samantha Reinblatt, previously administrative associate for the Mathematics department, will be taking the reins at the office.

“Through many changes over the years, Kim has been there for all of us to keep the program moving, attending to student and faculty needs as they arise, scheduling classes cross-listed with three departments, among lots of other tasks! She has done all this with exceptional dedication and a steady professionalism that has benefitted everyone involved in the program. Kim, thank you!”

-- Chris Brown, director

Samantha Reinblatt is originally from Montreal, Quebec, Canada, but has been living in the United States for the last 20 years. She is a graduate from KU and majored in Communication Studies. Samantha has been working in the administrative field for almost 10 years and thoroughly enjoys working with people and being a part of the university community. Outside from work, Samantha is very active and enjoys participating in a lot of activities such as dancing, biking, swimming, cooking, crafts, and piano. She is really looking forward to meeting everyone from the program and working with you starting September 8th!

In addition, Lydia Gibson, former student internship coordinator, graduated this past May. Jacki Murdock, senior in Environmental Studies, will take over this position and oversee the Internship program. Welcome aboard to Jacki and Samantha!
Environmental Studies launches new study abroad program to India

Author: Geetanjali Tiwari, Program Director

After a productive scouting trip to India last summer, I took 11 undergraduate students for a six-week study abroad trip to the jungles of south India this summer. Along with Lisa Rausch, graduate teaching assistant for the two courses (Field Ecology and Environmental Issues in India), the dozen of us met in Bangalore and travelled to several protected areas in the mountains from the Eastern to the Western Ghats in the states of Karnataka, Kerala and Tamil Nadu. We hiked in diverse forests from the open dry deciduous to dense evergreen to the high altitude shola forests and even sacred forests. The students saw wild elephants, gaur (a local Indian bison with white stockings), hundreds of cheetal (spotted deer), Nilgiri Tahr (an ungulate that lives on cliffs), the Giant Malabar Squirrels, Lion-tailed Macaques, and much more all in its natural habitat. In each area we were guided and educated by a wide range of local experts: they ranged from illiterate people of the Soliga tribe to senior scientists in renowned non-governmental organizations (such as ATREE, NCF, SACONH, IISc, FRLHT). Our teachers were both brilliant and dedicated conservationists. Equally diverse were the accommodations that we stayed in: a beautiful campground, comfortable hotels, dorms with bunk beds, a forest lodge deep inside a Tiger Reserve, and even a home-stay in a village.

The variety of experiences the students had included: watching how tribal people convert the worst weed of India (Lantana camara) into furniture, partaking in cooking a traditional meal under a tamarind tree, venerating a 2000 year-old sacred tree, dancing with the Soliga, hugging camp elephants and watching each mahout bathe their elephant, visiting village schools, bringing breakfast to an anti-poaching squad deep inside a forest, and eating wild dates and savoring wild honey.

This was the first time for ten of the 11 students to visit India; the only student who had been to India multiple times said that this was his favorite trip. I believe that each student had enriching experiences. On the following pages are some excerpts from the papers that the students wrote that illustrate their intellectual, ecological, and personal growth in South India.
“I spent six weeks in Southern India. Six, in fact, of the most meaningful weeks of my entire life. There mainly to study field ecology and environmental issues, the whole experience encompassed so much more than that. Not only did I travel and bond with an amazing group of people whom I’m sure will all be lifelong friends, I also plunged headfirst into a wonderfully different culture I previously knew absolutely nothing about. Some mornings I woke up to the upbeat hustle of a massively crowded city, while others I arose to mist rising from the serene jungle floor. I witnessed the work of life-changing non-government organizations and learned from some of the most brilliant and esteemed minds in the country. I took tea with people kind enough to bring those they’ve never met into their home, and walked through the villages of the Soliga, the people of the bamboo.” – Bradley Barton

“The relationships we made with the tribal peoples were beautiful but brief. The relationships we made with the conservationists and organization representatives were more long-lived and inspirational. It was amazing to see organizations like ATREE make a difference.” – Monica Melhem

“While in India, I learned from three organizations, NCF, SACONH and ATREE, the need to address environmental and conservation issues locally with solutions appropriate to each place. Sometimes solving environmental problems requires a creative approach. It requires sensitivity to the needs of the local community and an understanding how the people are part of the environment.

Conservation efforts that are made without sensitivity to the human element will not be a success. The groups we studied with in India during the University of Kansas Study Abroad program offered models of conservation that placed the role of community and respect for life at the heart of the their work. The work these groups are doing is done with an attitude of reciprocity. Scientists and NGO workers educate local communities about conservation issues and local people share with them their local ecological knowledge. I agree with Kavitha at ATREE that education is the key to transform our ecological problems.” – Melissa Forester
“I had applied for the brand new Environmental Studies Study Abroad program for the Summer of 2010 in India during the early winter months of 2010. Then, India’s exotic flora and fauna existed to me merely in books, pictures, and movies. Only after being accepted into the program and having a few meetings with the group of students and instructors who would also be on the trip, did the enormity of the task I was about to undertake set in. I was to travel out of the country (United States) for the first time, survive with almost none of the amenities I had grown accustomed to throughout my life, participate in educational field work/studies, and all the while remain open, enthusiastic, and accepting towards the sights, sounds, and smells of India.

What seemed, at the time, to be one of the biggest and most difficult challenges I had ever faced became the most rewarding, fun, and eye opening experience of my entire life.”

– Andrew Pierce
Environmental Studies Leads the University of Kansas-Mongolia Initiative

The University of Kansas (KU)-Mongolia Initiative is an informal group of faculty who met first in 2009 to share their expertise and interest in issues related to developing closer ties with people and institutions in Mongolia. Chris Brown (Geography and Director of Environmental Studies) called the group together to gauge faculty and University interest in the Initiative and in developing proposals for closer KU-Mongolia ties.

Members of the Initiative established the following as guides to develop links between KU and Mongolian institutions:

- There is strong interest in fostering partnerships among local people, governmental/non-governmental organizations, and private industry in Mongolia to identify and mitigate the social and environmental effects of issues including, but not limited to, mining, the growing fossil trade, and climate change.
- KU faculty would like to assist in collaborative efforts that enhance the technological infrastructure and knowledge base of Mongolian research and training institutions (geochemical analyses, quantitative/qualitative social science research methods, geographic information systems, mapping, satellite remote sensing) to address any number of environmental issues in the region.
- The Initiative promises to foster collaborative/interdisciplinary work among KU faculty and between KU and Mongolian faculty/institutions. It is also hoped that increased contact would allow for new opportunities for KU students and faculty, including Study Abroad and international collaborative research grant-funded work.

John Kennedy (Political Science), Dave Fowle (Geology) and Dr. Brown won seed funding for the initiative from The Commons at KU and International Programs. This past summer, Dr. Brown and Battsetseg Serj, a Ph.D. student in American Studies and Mongolian native, travelled to Mongolia to meet with people interested in participating in the KU-Mongolia initiative. During their two-week stay in Ulaanbaatar, Mongolia, Dr. Brown and Battsetseg visited environmental and human rights NGO leaders, federal government education officials, and researchers and administrators from the National University of Mongolia and the University of the Humanities. This academic year, Dr. Kennedy plans to follow up with his own visit to Ulaanbaatar to speak with interested parties about plans to seek foundation funding for an interdisciplinary environmental studies research center housed in Ulaanbaatar. The goal of the center would be to assist Mongolian academic institutions with curriculum development in Environmental Studies, increase participatory forms of research involving local communities in Mongolia, and help translate research findings into policy development related to addressing environmental issues of concern to Mongolians.
igert fellows abroad

Graduate fellows study effects of climate change in Mexico and Greenland

C-CHANGE (Climate Change, Humans, and Nature in the Global Environment) is a National Science Foundation Integrative Graduate Education and Research Training (IGERT) program in interdisciplinary climate change studies at the University of Kansas. The C-CHANGE program is for PhD students in the social sciences, natural sciences, and engineering who are interested in understanding the human causes and consequences of climate change and in developing strategies for responding to these changes. In the past year, the focus of the program has been on global environmental changes in two graduate Environmental Studies seminars with international travel components.

In Fall 2009, the C-CHANGE seminar, “Climates & Borders: Monarch Butterflies & Local Economies in Mexico,” examined the cross-border migration between the US and Mexico of Monarch butterflies (Danaus plexippus) and other species with the goal of understanding the ecological, geographic, social, and political policy factors that shape the migration in the United States and Mexico. During the semester, before traveling to Mexico, C-CHANGE fellows worked on several interdisciplinary projects associated with the migration. Following the seminar, in January, C-CHANGE faculty and fellows followed the Monarch migration to Mexico. Beginning in Mexico City the group met with KU PhD in Geography, Enrique Martínez Meyer, who is now an associate in the Institute of Biology at the National Autonomous University of Mexico (UNAM) to visit his field study of the Volcano Rabbit [teporingo or zacatuche (Romerolagus diazi)]. They also met with officials from the Mexican federal biodiversity authority (CONABIO), and other UNAM scientists. Then the group traveled to the state of Michoacán where they visited the butterfly sanctuaries in El Rosario and Sierra Chincua. The class ended their tour in Morelia where they met with several members of the Center for the Investigation of Ecosystems at the Morelia branch of UNAM.
In Spring 2010, the C-CHANGE seminar, “Climate Change in Greenland and the Arctic,” examined the how the Greenland ice sheets have responded to climate change since the last glacial maximum, introducing C-CHANGE fellows to tools and techniques used to reconstruct the chronology of past ice margin locations, and providing an overview of how climate and ice sheet models used to reconstruct the past can enable scientists to predict future changes. Following the semester, in June, C-CHANGE faculty and fellows flew from New York to Kangerlussuaq, Greenland, with the U.S. Air National Guard, which provides logistical support for NSF polar research teams. In Greenland, the C-CHANGE group met several research teams studying different aspects climate dynamics in Greenland: Asa Rennermalm (Rutgers) and Birgit Hagedorn (University of Washington), a team of hydrologists measuring the volume and velocity of glacial meltwater; glaciologists lead by Joel Harper (University of Montana) and Neil Humphreys (University of Wyoming) looking to find out what’s beneath the ice sheet; Ecologist Eric Post’s graduate students, Mike Avery and Jeff Kerby from Penn State University studying herbivore-environment interactions, and engineer Eggert Gudmundsson who hosted our visit to the Sondrestrom Upper Atmospheric Research Facility in Kangerlussuaq. International science policy was the topic when the group met with United States Ambassador to Denmark, Laurie S. Fulton, and National Science Foundation representative, Simon Stephenson, who were in Greenland meeting with government representatives to discuss the place of science in Greenland’s economic development plans.

The C-CHANGE program is a collaboration among the following institutions:

- University of Kansas (KU) Institute for Policy & Social Research (IPSR)
- KU Center for Remote Sensing of Ice Sheets (CReSIS)
- KU Biodiversity Institute (BI)
- Haskell Indian Nations University
- National Autonomous University of Mexico
- University of Copenhagen
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