Welcome to the 2012 K-State Geography Alumni Newsletter, an opportunity for us to share with alumni and friends of the department the news of the past year! Reflecting on 2011, we have many reasons to be optimistic about the future of our department and the university. The administration at K-State unveiled the K-State 2025 initiative this past year, a bold plan to place the university among the Top 50 Public Research Universities over the next 15 years. The Geography Department at K-State, with its mix of outstanding teachers, scholars, and students, is well positioned to contribute to this initiative in the coming years. Once again, our faculty and students enjoyed remarkable success in the just-completed year. The two student scholarship endowed funds established in 2010 by K-State Geography alumni continued to grow as did the Geography Alumni Fund (for student support) that was established in 2009 and to which all alumni can contribute. In 2011 funds from the Geography Alumni Fund helped support the travel of undergraduate and graduate students to professional meetings and workshops. In addition to financial support, our alumni generously contribute their time and expertise, whether serving on the Geography Alumni Board, visiting in the classroom with students, or contacting the department about job and internship opportunities. One of the more visible alumni events in 2011 was the annual Geography Career Day in February. Organized this year by Tracy Brown and Jason Sweet, this annual event helps our students secure jobs, internships, and otherwise gain experience in preparing resumes and being interviewed.

Faculty Highlights: Members of the Geography faculty were again very successful in research, teaching, and professional service during 2011. As of this writing, faculty members of the department are involved in $13 million in research grants, of which $2 million is housed in the Geography Department. In the past year, faculty secured research funding from the National Science Foundation, U.S. Department of Agriculture, Kansas Department of Wildlife and Parks, Kingsbury Family Foundation, Natural Hazards Center at the University of Colorado, McCormick Taylor, Inc., and the Environmental Protection Agency. Geography faculty in 2011 were awarded a Jefferson Science Fellowship from the U.S. Department of State, appointed to editorial and scientific boards of national and international journals, named as officers in professional organizations, and served as chairs and members of scientific committees for professional meetings and conferences. In 2011, faculty of the Geography Department authored 26 refereed journal articles, book chapters, and reviews and gave 51 professional and invited research presentations, a remarkable accomplishment considering that all members of the faculty taught undergraduate and graduate courses and participated in a variety of departmental, university, and national service. As the personal summaries and highlights on the following pages attest, K-State geography faculty members are a diverse, dedicated, and highly productive group of scholars and educators.

Student Highlights: The Geography Department had a strong group of graduate students and undergraduate majors in 2011. At the end of the 2011 Fall Semester, the department counted two Post-Docs, 27 PhD students, 13 MA students, 90 geography majors, and 21 geography minors. Over 4190 students enrolled in Geography classes in 2011, continuing a trend of 4000+ students enrolled each academic year in our courses since 2003-2004.

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Three of our students were awarded their Ph.D. in 2011: Sohini Dutt, Rhett Mohler, and Mitch Stimers. Since the first doctoral students graduated in 2000, 23 students have completed the Ph.D. degree in the department. Two additional students defended their doctoral dissertations at the end of 2011 and should graduate in May 2012. Our M.A. program graduated 6 students in 2011 and 30 majors received the B.A. or B.S. degree this year. We also saw 4 students complete the Graduate Certificate in GIScience and 13 students finish the undergraduate certificate in GIS.

Our students and alumni are making a positive impact in business, industry, government, and academia. Current students have been selected for a remarkable array of awards outside the department as well as the annual departmental awards that are presented during our annual Spring GTU/Geography Banquet. You will read about some of the highlights in the pages that follow.

Staying Connected with You: In addition to our redesigned webpage (http://www.k-state.edu/geography/), the K-State Department of Geography has a Facebook page and a KSU Geography Alumni page. I hope you will check them on a regular basis to keep up with events in the department and among our alumni. On behalf of my colleagues, I want to thank our alumni, parents, students, and friends for the gifts that support our students and help meet the needs of the department. Your generosity contributes substantially to the education of our students. As always, we welcome your comments about the department and K-State. When you are visiting campus, please stop by Seaton Hall and say “hello”. Thanks to all of you for your ongoing and generous support of K-State Geography!

In closing, we remember Emeritus Professor Huber Self who passed away on 7 February 2011 at the age of 97. Huber joined the Geography Department at K-State in 1947. He retired in 1980, but remained a part of the department and valued colleague until his death. He is missed by all of us.

Faculty News

Kevin Blake: A long driving trip to the East Coast to attend a conference of the Zane Grey’s West Society last June reminded me of why I love the West. Though it was fascinating to circumnavigate Chesapeake Bay and hike down to waterfalls and up to summits in Shenandoah and Great Smoky Mountains national parks, I found myself longing for the wide-open spaces, quiet highways, and endless vistas of the American West. I suppose it is good for me to go east every few years for the reminder of what is so special about the Flint Hills and lands west, and to refresh comparisons of the western mountains with the Appalachians. I saw a tiny bit of the western mountains on the trip to Seattle for the AAG meeting last spring, but The Mountain (Rainier) was only “out” for a short stretch of the cloudy time there. My summer research in Colorado on the postcard representations of the Fourteeners offered a much better opportunity to re-connect with mountains on the trails of Rocky Mountain National Park and the cog railway up Pikes Peak. Back in Manhattan, I taught Geography of the American West, Mountain Geography, and World Regional Geography in 2011, and I am happy for the great progress my four doctoral advisees made toward graduation. Travis Smith advanced to candidacy by passing his preliminary exam, Lis Pankl presented her dissertation proposal, Jim Wells completed the defense draft of his dissertation, and Tyra Olstad defended her dissertation – congratulations to all.

Marcellus Caldas: The year of 2011 was an exciting year for me. Once more I had the opportunity to work with Dr. Elizabeth Dodd from English and Martha Smith from Biology in a study abroad to Brazil. We took 13 students to the Amazon. Different from the previous year, last year we went to two states (Amazonas and Pará), and we had the opportunity to take the students to one of the largest fluvial islands in the world, Marajo Island, that lies at the mouths of the Amazon and Tocantins rivers. This year, we are innovating again. We are taking the students to the Amazon and the Pantanal Wetlands. Being an environment
geographer allows me to take advantage of these trips to teach the students about a variety of environmental problems that now affect our planet. But my activities are not restricted to study abroad trips. I taught 5 in-class courses and two online-courses that attracted more than 100 students. This would be enough to make me busy during the whole year but again I found time to develop my research activities. I submitted three proposals for funding and I published 3 articles, one in the Environment, Development and Sustainability Journal, one in the Annals of the Association of American Geographers; and one in Environmental Research Letters. In addition, I had the opportunity to work with many colleagues from K-State, the University of Kansas, and the University of California, Santa Barbara. New years are always full of resolutions and my main resolution is to keep the same rhythm of work. Go CATS!!

Doug Goodin: Highlights for 2011 included seeing two graduate students finish (Roy Sando, MA, and Rhett Mohler, PhD), making headway on a number of existing research projects, and beginning some new and exciting collaborations. My work with anthrax and tularemia in Ukraine is still in the “ramping up” phase, but we have now gotten final approval for the project and work should begin in earnest in 2012. I plan to travel there in spring. In collaboration with some of the same members of the Ukraine team, I’m also beginning a similar project to look at anthrax in Texas and Montana. I also continue my work with hantavirus in Paraguay. The geographic scope of this project has expanded to include the Chaco, allowing my colleagues and I to consider some of the same sorts of questions we have been asking since 2004, but in a different climatic/ecological setting and with different host organisms.

In August, I travelled to the Chaco to see first-hand how semi-arid thorny scrub forest differs from subtropical rainforest. I had been there a number of times, but this was the first extended stay and the first time I really had a chance to closely study the flora and fauna. It was great fun observing the beautiful Chaco landscape and learning the tongue-twisting Guarani names for the trees and birds. I look forward to returning.

John Harrington: Lots of good stuff has happened during 2011, but I’ll start with: the pain is gone. As I turned 61, it became time to replace my osteoarthritic hips that were causing the knee and lower back pain that I had experienced for several years. The right hip was replaced just before Spring Break and the left one followed 10 weeks later in May. I’m standing taller again and comments about a bionic man have been made. Physical therapy went well [I pushed myself] and I am now building endurance for future long walks in our national parks and monuments. Another age related highlight came in Alaska when I heard “we can learn from our elders like Dr. Harrington.” Many might wonder if being labeled ‘an elder’ is a good thing. When the reference comes at the end of a meeting on coupled natural and human systems where I managed to open my big mouth and provide some (perhaps useful) comments, refers to how we can move the conversation and scholarship forward, and is delivered from an outstanding First Nations scholar from the University of Alaska, the comment was very special. And, this old guy just can’t seem to say “no.” NSF EPSCoR Program Manager is a new role that I was offered and accepted (some might say I could not refuse) early in 2011. The Kansas NSF EPSCoR office is very active and successful in getting big dollar and multi-year funding to support research and scientific infrastructure development in Kansas. My role as program manager involves helping write the annual reports that document progress for Kansas NSF EPSCoR and working to help the overall team of scientists develop an integrated approach to dealing with climate and renewable energy issues in Kansas. I am also helping coordinate educational and outreach efforts, as well as serving as a sounding board for ideas and challenges that the Program Director, Dr. Kristin Bowman-James, wants to discuss.

During 2011 I continued to educate myself about global change so that I can teach others about the latest findings and the on-going trends. In early October, I was told “you hit a home run.” I was invited to be the speaker for the 10th annual Prairie Village Community Forum and asked to talk about climate change in Kansas. Given the magnitude of the problem our global community faces, the level of misinformation that is out there (much of which
is coming from libertarian funded sources), and my goal to convey good science, I really care about doing well and communicating credible information about climate change. Even after 30 years as a professional, I can still “sweat the details” when I prepare for and then deliver a presentation. The place was packed, I got a lot of good questions, and a good number of attendees either thanked me personally and/or asked for copies of the PowerPoint slides. As I was packing up and getting ready to head to the KC airport, it was so nice to have my host provide the “out of the park” baseball analogy.

Global change is a topic where geographers are helping the science community better understand the changes and related implications. Lisa and I teamed together to write a chapter for a Sage Reference Handbook on Geography in the 21st Century, “Global Change and Geographic Thought.” In the relatively short chapter, we make the case that geographers are playing a leading role in helping move the scholarly conversation forward in multi-disciplinary areas like sustainability science, complexity, vulnerability science, scientific visualization, and land change science. It was nice to provide a reasoned argument that geographic thinking and geographers are relevant as we move down an adaptive pathway toward sustainability. I have also been thinking a lot about climate change and climate change education during the past 12 months. Our team at K-State is working nicely with colleagues from Nebraska-Lincoln to think about the challenges and search for entry points to engage citizens in constructive conversation on the nature and implications of climate change in the central Great Plains. During this past year, climatologists from the National Climatic Data Center released the new set of ‘30-year normals’ and about the same time I learned that “you can use statistics like a drunk uses a lamppost – either to lean on for support or to provide illumination.” Thirty-year normals don’t make much sense in the Great Plains, where variability can produce decadal long extremes on recurrence time scales that may be a century or longer. As a climate scientist, I continue to search for an answer to the question: What is Climatic Change? I’ve gone back to the writings from prominent mid- to late-20th Century climatologists to see if there are clues to how they would answer that question. In addition, I’ve kept pace with the growing body of scholarship on tipping points (surprises), climate system modeling studies, and empirical data from ice cores that provide evidence of rapid and major climate system changes in the past. I’ll present my thoughts in some detail in a special session on climate literacy at the AAG annual meetings in New York in late February. The tip of the iceberg is perhaps an apt analogy for the above highlights from a busy year. Good books were read, classes enabled student learning, graduate students matriculated, articles were published, and proposals for additional funding were submitted. I’m not a big contributor to social media, but I would be glad to share more; perhaps we can get together for dinner during one of my many trips away from Manhattan or we could share some conversation over lunch if you make it back to Manhattan. Several former students can attest to the joy of reconnecting at the Old Ebbert Grill in Washington DC this past year. I would love to learn more about what is happening with you. Thanks

Lisa Harrington: I wrapped up service on the Association of American Geographers Council and time as Secretary at mid-year. Over the summer I attended a week-long meeting of rural geographers (from the US, UK, Canada, and Australia) in Canada, and then another week-long rural geographers meeting in Ireland (the IGU Commission on Rural Sustainability). Sadly, no extra time there - just meeting days, but at least geographers believe in building field trips into meeting schedules. (Yay!) There have been plenty of requests for contributing to various writing and editing activities. I was very happy to be asked to contribute to an IPCC publication, but I’ve also been contributing to the Berkshire Encyclopedia of Sustainability, as an associate editor and article author.

We now have two ‘college kids.’ Ian is an art major, in his third year. His parents are encouraging a minor in geography—he’ll have 4 courses in by the end of this academic year. Colin graduated from high school last spring, and is now a freshman at KSU. Major has yet to be determined. No time over the last couple of years
for any agility—and Seamus is 10 now. Maybe I’ll return to ‘my favorite sport’ sometime again in the future. John and I will be celebrating 25 years together in June. That’s even harder to believe than having two ‘adult’ children.

**Shawn Hutchinson:** Happy New Year, students, alumni, and friends. Another busy calendar year has come and gone with many developments on the teaching and research fronts! Our growing GIScience curriculum in the department continues to be popular among the general K-State student population. As I have mentioned in previous alumni newsletters, one of our foci in expanding GIScience courses has been at the upper undergraduate and graduate levels. Dr. Goodin and I have now offered GEOG 808 Geocomputation several times now and our latest offering, GEOG 712—Internet GIS and Distributed GIServices, will be offered for the second time during the Spring 2012 semester. Our undergraduate and graduate GIS certificate programs remain strong, with 13 undergraduates and 4 graduate students completing the program requirements this past year. In conversations with various private sector employers from across the State of Kansas, I have had many representatives make the comment to me that K-State GIS students are the “cream of the crop” for their technical skills, critical thinking, and spatial analysis capabilities. This is a tribute to the dedication and hard work of our students! Keep representing!

Many of the same research projects I mentioned last year continued this year. My wife, Stacy Hutchinson (Biological & Agricultural Engineering), and I are co-PI’s for the Fort Riley Range and Training Land Assessment (RTLA) Program. Over the past year, we have been providing real, or near-real, time data and information for Fort Riley land managers using a combination of remote sensing, GIS, and Internet delivery of map, data, and geoprocessing services. After site visits from Department of Defense officials this summer, the Fort Riley RTLA program was cited as the most innovative in the country. Beginning this fall, we began work to install a distributed sensor network across the fort to record weather data and stream elevations and to display the results in real-time via GIS-based web applications. We have continued to collaborate with the department’s newest adjunct faculty member, Dr. Anne Jacquin from the Ecole d’Ingenieurs de Purpan (Toulouse, France), on studies evaluating spatiotemporal trends in vegetation at Fort Riley. In addition to expanding our military lands monitoring program into the European Union with Dr. Jacquin’s help, we also submitted a research proposal through the DoD Legacy Resources Management Program to work on several National Guard training sites. Stacy and I are also in the final year of a project funded by the Department of Defense and Department of Energy, where we are evaluating the performance of a rapid soil erosion assessment model we developed a few years ago. Model validation across seven different military installations continues and this spring and summer will be busy again with field visits across the U.S.

The Geographic Information Systems Spatial Analysis Laboratory (GISSAL) remains busy with research projects and contract service work. GISSAL has been home to three dedicated staff members, including Robert Daniels (Operations Manager), Ram Raghavan (GIS Applications Developer), and Brandon Lantz (Fort Riley Field Technician) along with a number of graduate and undergraduate students who assist with extramural research projects. This fall, GISSAL also hosted a Manhattan high school student who was interested in learning more about GIS! Graduate student Jeremy Aber keeps our growing collection of IT resources operational, updated, and responsive to clients. Beginning this spring, new graduate student Chris Morris will serve as Jeremy’s “apprentice” and try to pick up on all of his institutional knowledge before Jeremy defends his dissertation this spring/summer.

Our children Mitch (10) and Marleigh (8) are enjoying 5th and 3rd grades, respectively. Both kids are actively involved in traveling soccer and basketball teams, so most weekends are spent somewhere in Kansas or Missouri watching them compete. Sadly, our 15 year old golden retriever Matty passed away this fall after a short illness. Matty’s younger sister Mocha, a chocolate lab, is now 1 ½ years old and the center of our canine universe.
For those interested, consider “liking” the GISSAL Facebook page and following GISSAL on Twitter (@kstate_gissal).

Max Lu:  
I wish I had exotic travels to write about, but none of the trips I took last year falls in that category. There are of course many other enjoyable things to report, one of which is serving as the department’s alumni coordinator. It has been a rewarding experience to work with our dedicated alumni board members in their mission to support the department, particularly our students. The annual Geography Career Day in February and the board meeting in October have become part of our department’s tradition. The various activities sponsored by the board, such as job search help sessions and meetings/interviews with potential employers (from government agencies to engineering companies); have proved invaluable to our students. Thanks to Jason Sheeley, Jason Sweet, Tracy Brown, Will Breitkreutz, and others for keeping the best interest of our students in mind and for devoting their time and energy to make the events possible. I look forward to working with alumni in the new year.

Richard Marston: The highlight of this past year was being selected as a Jefferson Science Fellow by the National Academies as a Senior Science Advisor for the U.S. Department of State, Bureau of Intelligence and Research, Office of The Geographer and Global Issues. I have been working on issues involving potential/existing international conflict over runoff from glacier melt, and controversial proposed dams, among other duties. I am living in Washington, D.C. from August 2011-August 2012, where I can walk to the State Department every day. My son, Bryce, is a PhD student in geography at K-State now and my daughter, Brooke, is in her final semester at the University of Colorado, about to graduate with a double major in music and geography. With two friends, I climbed Mount Baldy in the San Gabriel Mountains in July and we are contemplating a rim-to-rim trip across the Grand Canyon in 2012.

Chuck Martin: Another busy year professionally is coming to a close. In addition to my normal teaching, research, and service responsibilities, I assumed the position of interim department head on 1 August of this year, filling in for Dick Marston while he is serving in Washington, D.C., as a Jefferson Science Fellow at the Department of State. My appointment lasts until 31 July 2012. The position of department head has become more complex since I last served in the role between 1997 and 1999, but I have enjoyed working with my colleagues and other department heads across the College of Arts and Sciences. I remain director of the Natural Resources and Environmental Sciences Secondary Major on campus and still serve as the lead undergraduate advisor in the department. Although I continue my work on recent floodplain sedimentation and heavy metal storage in the Lahn River basin of central Germany, this was the first year in quite some time that I did not make a trip to Germany.

My wife Sabine continues her work at the university as the Technical Assistance to Brownfields Coordinator at the Center for Hazardous Substances Research, a position that has her traveling at least one week per month. She is increasingly in demand to provide workshops and technical assistance to communities in ten states throughout the Midwest. Our children Christine and Nicholas continue to grow and prosper. Nicholas is in his senior year of high school and hopes to attend college in New England starting in August 2012. He has been accepted at the University of Vermont and at K-State, and will hear about his other applications in early April. He plans to major in mechanical or electrical engineering, and thinks he would like to eventually go into the field of aeronautical engineering. A career in geography or geology is NOT in his plans, he firmly maintains. A week-long trip at the end of July gave us the chance to visit several schools on the east coast as well as the Baseball Hall of Fame in Cooperstown, N.Y. Christine is in her last year of middle school, and can’t wait to start 9th grade in the fall and play on the high school soccer team. After watching her brother play high school soccer for four years, she’s learned a few tricks, she claims. In addition to soccer, which is practically a year-round activity for her, she spent the fall running middle school cross-country and the spring participating in track and field.
Kendra McLauchlan: They say time speeds up as you get older, and my anecdotal observations confirm this. 2011 has been really fun. In addition to keeping my research program rolling along, I am becoming more involved in scientific leadership roles. One opportunity was a short course I taught in May. Twenty graduate students, postdocs, and early-career faculty from all over the world came to Manhattan, Kansas to learn about stable isotopes in the paleorecord. I made use of Konza Prairie and the Stable Isotope Lab in Biology to teach about how this powerful new tool helps us understand water, wood, and mud. Another leadership opportunity for me is an upcoming workshop that will bring together scientists studying terrestrial ecosystems on a variety of temporal scales. This was funded by the National Science Foundation, and I am in preparation mode for that. This is in addition to planning a winter field trip to Wisconsin and gearing up to reconstruct nutrient cycling, fire history, and ecosystem development across a prairie-forest border during the past 10,000 years. Fun stuff.

Our paleoenvironment research group continued to grow as we welcomed Chris Morris and Josh Mueller as M.A. students and Joe Williams as (what we think is) the department's first postdoctoral scholar, from the U.K. The postdoctoral career stage allows for additional professional development and enrichment in the increasingly competitive academic job market. Please take the time to read their own descriptions of their research projects. Also see the attached picture from our field trip to the Niobrara chalk and shortgrass prairies in western Kansas. Note that the very small people are my kids, Micah and Isabel. They already love hunting for fossils!

Bimal Paul: The year 2011 was not much different from the previous year. One distinctive aspect of 2011 was the publication of my first book, entitled Environmental Hazards and Disasters: Contexts, Perspectives and Management. Wiley-Blackwell published this book on October 28, 2011. In addition, I published three papers in refereed journals. Two book chapters and one paper have been accepted for publication. I am very pleased to report that Mitchel Stimers, one of my Ph.D. advisees, successfully defended his dissertation in the 2011 Spring semester. Mitch and I also received a Quick Response Grant from the Hazards Center, University of Colorado at Boulder, to study the 2011 Joplin, Missouri, tornado. Since January of last year, I have been working as book review editor for The Professional Geographer.

Like the last three years, I was not able to visit my native Bangladesh in 2011. However, I did visit the UK to attend the 14th International Medical Geography Symposium (IMGS), held at Durham University, Durham, July 10-15, 2011. On the family front, our eldest daughter, Anjana, is still working at Manhattan branch of the US Celluler company. Our younger daughter, Archana, is studying nursing at St. Luke Nursing College in Kansas City, MO. Our son, Rahul, has completed three semesters at K-State. Anjali is still unemployed. Last month, my nephew, Bankim Rakshit, his wife Popy Rakshit, and their little daughter Purba came to the United States as immigrants. Bakim is a veterinary doctor and has a M.Sc. degree in animal sciences from Wageningen University, the Netherlands.

Jeff Smith: Happy New Year and I hope 2012 is filled with joy, peace, and contentment. I spent most of 2011 typing up some smaller, but enjoyable research projects. For example, after visiting Habana, Cuba, in December 2010 and January of 2011, I worked on two manuscripts related to that research trip. On top of that I presented some of my research findings at three geography conferences. On a personal note we took a family vacation to Banff and Yoho National Parks in Alberta. What a great trip.

In addition to my ongoing research, I continue to teach many of the same classes. I had a wonderful group of students in both my GEOG 201 and GEOG 620 classes during Spring 2011. It always pleases me to see some of my former students stop by my office. As I’ve always said ... if you find yourself on the K-State campus please stop by and say hello!
Selected Faculty Accomplishments

Kevin Blake:
♦ Presented “Imagining Pikes Peak as America’s Mountain” at the annual meeting of the AAG.
♦ Presented “Lighthouses in the American Landscape” at Butler Community College.
♦ Published a review of the book, In the Footsteps of Lewis & Clark by Wallace G. Lewis in the journal, Material Culture.

Marcellus Caldas:
♦ Published an article in the Environment, Development and Sustainability Journal.
♦ Published an article in the Annals of the Association of American Geographers.
♦ Published an article in the Environmental Research Letters.

Doug Goodin:

John Harrington:
♦ I served on a couple of proposal review panels for the National Science Foundation.
♦ Our MALs (Maps and Locals) research team met at the AAG in Seattle, in the H.J. Andrews Forest in Oregon, at the Univ. of California-Berkeley, and in virtual space to share ideas and develop a major proposal to the NSF Coupled Natural and Human Systems competition.
♦ I continue to serve the Kansas community of geographers by hosting the state-level competition of the National Geographic Bee and as a co-coordinator of the Kansas Geographic Alliance.

Lisa Harrington:

Shawn Hutchinson:
♦ Graduate student Zac Eddy completed his Master’s thesis, “Efficacy of Native Grassland Barriers at Limiting Prairie Dog Dispersal in Logan County, Kansas.”
Co-authored paper earned Honorable Mention Paper Award by the American Society of Agricultural and Biological Engineers.

Max Lu:
♦ Conducted a 4-day Advanced Placement Human Geography summer institute at the University of Nebraska at Omaha in June.
♦ I had a chance to drive through much of the Corn Belt while on my way to deliver an invited talk at Illinois State University. Stopping by Mark Twain’s boyhood home in Hannibal, Missouri and seeing the Mississippi River up close was also very nice.

Richard Marston:
♦ Selected by the National Academies as one of 13 Jefferson Science Fellows. Assigned to work as a Senior Science Advisor for the U.S. Department of State, Bureau of Intelligence and Research, Office of The Geographer and Global Issues.
♦ Completed 13th year as Co-Editor-in-Chief of Elsevier journal, Geomorphology.
♦ Co-authored (with former doctoral student) article published in The Professional Geographer; Published article in Encyclopedia of Snow, Ice, and Glaciers. Presented 10 papers (7 invited) at professional meetings and university seminars.

Chuck Martin:
♦ Recognized for the third time with a William Stamey Teaching Award by the College of Arts and Sciences in May 2011.
♦ Manuscript on recent heavy metal storage along Lahn River, Germany, accepted for publication in Geomorphology.
♦ Selected as Interim Head of the Geography Department for the 2011-2012 academic year.

Kendra McLauchlan:
♦ Earned funding from the National Science Foundation for workshops that merge short (decadal) and longer (millennial) scale views of ecosystem history.
♦ Significantly expanded research capacity of the Paleoenvironmental Lab with two new M.A. students, new undergraduate research assistants, and a postdoctoral scholar.
♦ Taught a special short course called Stable Isotopes in the Paleoenvironment at Kansas State University.

Bimal Paul:
♦ Working as book review editor for The Professional Geographer.
♦ Served as an external examiner of a dissertation submitted to Natural Resource Institute, University of Manitoba, Winnipeg, Canada, 2011.

Jeffrey Smith:
♦ Article on place attachment among retirees in Greensburg, Kansas, accepted for publication in the Geographical Review.
♦ I traveled to Habana, Cuba for research on cultural change along the Malecon and Prado.
♦ I presented my research findings at three conferences (AAG, GP/RM, & NCGE)
Emeritus News:

David Kromm:

2011 was a family year for Bobbie and me. In late May our son Chris married Melissa Price in Duke Gardens, which is on the campus in Durham, North Carolina. I was best man, our son Randall and grand daughters Emma and Grace provided the music, and our son David gave the reading. Our grand daughter Ella was a junior bridesmaid, and our grandson Alec was ring bearer. It gave Bobbie and me a chance to see many of our cousins. In June we drove to Michigan for another wedding, so we saw even more family. We also spent some time on our land near Gaylord in northern Michigan, explored Mackinac Island, and enjoyed three days in Baraga County in the Upper Peninsula. All our children and grand children came home to Kansas for Christmas, so we had 13 people staying over a ten-day period. At night it was wall-to-wall children. They had a great time. Bobbie and I are almost recovered.

Huber Self:

Huber Self, age 97, of Manhattan, Kansas, died Monday, February 7, 2011, at the Meadowlark Hills-Bramlage House in Manhattan.

He was born on January 24, 1914, in Kellyville, Oklahoma, the son of John Henry and Celia (Hill) Self.

Mr. Self served with the United States Navy during World War II and was honored by receiving a commendation ribbon for his laboratory research in bacteriological warfare.

A recognized authority on Kansas Geography, he is an Emeritus Professor in the Department of Geography, Kansas State University. He joined the faculty at Kansas State in 1947, moving here from Oklahoma where he had been a high school principal at Kiefer, Oklahoma for two years and an elementary school principal at Creek County. He retired from Kansas State in 1980.

Professor Self was instrumental in helping to establish a local geography club at Kansas State which became recognized as a member of the Gamma Theta Upsilon national honorary fraternity. Other professional memberships and honorary societies include the International Society for Geographers, Pi Gamma Mu, National Social Science Honor Society, and Sigma Gamma Epsilon. He is also the author or co-author of numerous professional articles and textbooks.

He gained his bachelor’s degree from Central State College in Edmond, Oklahoma, his master’s degree from Oklahoma State University, and additional graduate studies at the University of Nebraska and the Harvard University Graduate School of Design. While at Central, he majored in natural science and history and was active in the Glee Club and A Cappela Choir. Following his master’s degree he began developing his teaching and research interests: Geography of Kansas, Cartography, Geography of the Soviet Union, and physical geography.

On November 15, 1943, in Las Vegas, Nevada, he was united in marriage to the former Audyne Sultenfuss. She preceded him in death in 1993. He was also preceded in death by his parents, one daughter: Doris Conley, and by six brothers, four sisters, and one granddaughter.

He is survived by three children: Stormy Lee Kennedy and her husband George, Manhattan, KS; Daniel J. Self and his wife Pat, Geismar, LA; and Marilyn Papaz and her husband Bill of McArthur, CA. Seven grandchildren also survive along with great grandchildren.
Notable Grad Student Achievements

SCHOLARLY SUCCESS: RESEARCH EARNs GEOGRAPHY DOCTORAL STUDENT SCHOLARSHIP

MANHATTAN -- A Kansas State University doctoral student in geography has earned a $500 scholarship for her research from the Association of American Geographers' Mountain Geography Specialty Group.

Melissa Belz, Boston, was selected for the 2011 Chimborazo Student Research Grant Award from the geography group at the annual meeting of the Association of American Geographers, April 12-17, in Seattle, Wash.

The award is presented to a graduate student who proposes outstanding research that promises to support the mission of the Mountain Geography Specialty Group, which is to foster communication, promote theoretical and applied research, enhance education, and encourage service related to mountain peoples, mountain environments and their interactions.


"I'm studying the traditionally carved wooden houses found in a region of the Himalaya to understand what they mean to local people, and how and why this tradition is changing," Belz said.

To be considered for the award, Belz had to submit a proposal identifying a research problem and its significance, explain her methodology and summarize anticipated results; a brief biographical sketch; and a letter of support from her faculty adviser, Jeffrey Smith, associate professor of geography.

Belz earned a bachelor's in environmental design from the University of Massachusetts at Amherst and a master's in vernacular architecture from Oxford Brookes University in Oxford, England.

WHERE TWO RIVERS MEET: DOCTORAL STUDENT EARNS NATIONAL RECOGNITION FOR RIVER RESEARCH

MANHATTAN -- A Kansas State University doctoral student has earned national recognition for her research focusing on river environments and ways to improve stream restoration.

Katie Costigan, doctoral student in geography, Glocester, R.I., has received the first YSI Graduate Student Scholarship and Equipment Loan, which includes a $10,000 scholarship, a $1,000 travel stipend and a loan of river monitoring equipment to use for her research. The award is the first of its kind from YSI Inc., an international Ohio-based company that develops water-monitoring equipment.

Costigan received the award for her doctoral research project, "Critical Gateways in the Fluvial Ecosystem Landscape: Hydraulic, Geomorphologic and Thermal Habitat Dynamics at Confluences." The award provides her with three pieces of river monitoring equipment, including two acoustic Doppler profilers.

"It is top-of-the-line equipment," Costigan said. "I'm hoping to answer some of the questions about river confluences and to use this equipment to clear some of the controversy surrounding conflicting results in the literature."
River confluences are points where two rivers meet. Little research is available about these confluences and Costigan wants to better understand the organisms and complex environments that occur in these areas of the river. She is measuring several aspects of river confluences, including sediment load from tributary rivers, the curvature and meandering of the rivers, size of the junction where the rivers meet, thermal patterns in the rivers and river speed.

The new profiling equipment will help her measure river speed using the Doppler shift principle. By sending a signal to the river bottom and then measuring the return signal, Costigan can determine the speed of the river at different depths. One of the profilers can measure river depths as low as three inches -- a strong improvement from other current equipment, which can only obtain measurements as low as a foot in depth.

Costigan is using this equipment and other monitoring devices to study six sites where rivers merge with the Kansas River: Manhattan, Ogden, St. George, Topeka, Lawrence and Eudora.

"Understanding river confluences is very important for river restoration," Costigan said. "Because there are so many unanswered questions about river confluences, they are often overlooked in river restoration projects."

But this could change with a better understanding of environments at river confluences. Costigan hopes to use her results to develop improved models to measure river flow, sedimentation patterns and thermal patterns. That way, scientists can better predict habitat conditions.

For her research, Costigan is working under the direction of Melinda Daniels, associate professor of geography, and Richard Marston, university distinguished professor and head of the department of geography.

"As Katie's doctoral supervisor, it has been a pleasure to work with her," Daniels said. “She is doing all the right things as a Ph.D. student -- publishing, applying for external funding and extending herself to maximize her Ph.D. experience. This award is the product of her superior work ethic and the high quality of her research proposal."

The YSI award was open to graduate students all over the world. For the application, Costigan had to write a research proposal for a project that related to oceans, estuaries, rivers, lakes or laboratory settings.

"It's always nice to be recognized for your work, and the financial and equipment assistance from the award is a weight off my shoulders," she said. "I'm really excited to begin this next phase of my research."

River of help: Doctoral student receives prestigious fellowship to study quality of Prairie Band Potawatomi Nation's streams

MANHATTAN -- A change of heart in Siberia led to a nearly $100,000 fellowship for one Kansas State University graduate student and the possibility of cleaner water for many indigenous people.

Heidi Mehl, a doctoral student in geography from Lawrence, is the recipient of a nearly $100,000, three-year Science to Achieve Results -- or STAR -- fellowship from the Environmental Protection Agency. Mehl recently returned from a conference in Washington, D.C., with other STAR fellowship recipients, where they were given the tools and the confidence to begin moving forward with their work.

This fellowship will fund part of the work Mehl is doing for her dissertation, "A cultural ecology of riparian system on the Prairie Band Potawatomi Nation: Understanding stream incision, riparian function and indigenous knowledge to increase best management plan adoption."
Mehl receives tuition and stipend funding for three years, including a $5,000 equipment fund each year.

"Although the geography department does a great job of helping students by offering graduate teaching and research assistantships, this fellowship is wonderful because now I can simply focus on my research and my studying," she said.

Mehl's research will combine fluvial geomorphology, the study of river systems and related processes, and cultural ecology, the study of how cultures influence land use decisions.

In short, Mehl will focus on the relationships between riparian water quality filtering and streambed incision or down-cutting, along the Soldier Creek system on the Potawatomi Nation reservation. Mehl has been working with the Prairie Band Potawatomi Nation's stream system near Topeka to determine its water quality and how to improve it.

"Riparian vegetation serves as a filter for runoff, and removing streamside trees and grasses can lead to more nutrients, bacteria and pesticides in the water as well as bank erosion," she said. "What we don't know is how stream incision affects riparian water quality functions."

Starting in the spring and continuing for several years, Mehl will use piezometers -- tubes installed from the surface of the ground to the water table -- to measure the water level in the riparian zone and take samples to determine how water quality is influenced by riparian zones along incising river channels on the reservation. She will also interview tribal members about their land-use decisions.

Eventually, Mehl hopes to use this research and the EPA fellowship to not only earn her doctorate but to educate the public about their natural resources and to improve water quality and availability for those who desperately need it.

Her research and motivation may be impressive on their own, but even more so when one considers her original undergraduate focus: animal behavior. While studying ecology as an undergraduate, Mehl accompanied other students and professors on a trip to Siberia, where she was introduced to water quality science and how it affects indigenous communities. She immediately sought a new focus in indigenous studies with an emphasis on water quality, in which she received her master's degree at the University of Kansas before coming to K-State to pursue her doctorate in geography.

Mehl's passion for water quality shines through to her work, helping her receive the highly competitive EPA STAR fellowship, regularly awarded to students from top schools like Yale and Princeton, said Melinda Daniels, Mehl's doctoral supervisor and associate professor of geography at K-State.

Daniels said that Mehl is the only student in Kansas to receive the fellowship this year, and only the second in the university's history to receive the honor. She is Daniels' second doctoral student to receive the fellowship.

"Heidi brings a unique and powerful interdisciplinary background to her doctoral work in geography," Daniels said. "She is addressing a critical problem -- poor water quality -- in an innovative way that can be transferred from her case study to other indigenous and nonindigenous communities and will help the EPA more successfully effect water quality improvements in the region."

"Rivers are thought of as a conduit to carry waste away, but I want to help people value rivers for their ecological services and recreation," Mehl said.

The Science to Achieve Results fellowship is also an opportunity to represent her state and university, she said.
"I love Kansas, and this is a good chance to bring positive attention to the state, as well as draw attention to important issues with rivers and streams," she said. "This is an important time to focus on our water resources."

Originally from Augusta, Mehl is a graduate of Circle High School, Towanda.

**STORM SCHOLAR: NATIONAL HOLLINGS SCHOLARSHIP HELPS K-STATE STUDENT STUDY GEOGRAPHY AND WEATHER**

MANHATTAN -- Kansas State University student Nathan Owens' interest in climate and meteorology started at a young age. His family lived near the top of a high ridge just outside of Manhattan, and he was able to watch thunderstorms develop miles away and roll across the plains.

"Growing up in tornado alley and watching all those storms really got me interested in climate and weather," said Owens, a sophomore in geography with a secondary major in natural resources and environmental sciences, Wamego. "I knew I wanted to make a career out of it."

Now Owens is being honored with a 2011 Ernest F. Hollings scholarship from the National Oceanic and Atmospheric Administration, or NOAA. The national scholarship program is for students studying a discipline related to oceanic and atmospheric science and is designed to prepare students for public service careers with the administration and other science agencies or for careers as teachers and educators.

The scholarship program offers a maximum of $8,000 per year for students with two years left of undergraduate study. This year 105 students were selected as Hollings scholars.

"The Hollings is a great scholarship and a really great fit for Nathan," said James Hohenbary, K-State assistant dean for nationally competitive scholarships. "He has already had a number of relevant research experiences at K-State; and it is particularly exciting that, beyond the financial support of the award, the Hollings will also create an opportunity to add relevant internship training with NOAA or a related agency."

Hollings scholars earn a 10-week full-time, paid summer internship with the National Oceanic and Atmospheric Administration, which provides practical experience in related topics, including science, research, technology, policy, management and education.

Owens will serve his internship at an agency facility during summer 2012. To prepare for next summer's internship, he will attend an orientation session from May 29 to June 4 in Silver Spring, Md., a suburb of Washington, D.C. During orientation, scholars listen to speakers and tour National Oceanic and Atmospheric Administration facilities.

"It's a huge foot in the door," Owens said. "I'm excited for the chance to meet with professionals at the top of their field."

Owens would eventually like a career researching tornadic formation and how to improve tornado prediction and warning measures.

During his time at K-State, Owens has worked for Mary Knapp, the state climatologist and a K-State associate agronomist. Since he was a freshman, Owens has worked in K-State's Weather Data Library and helps Knapp make weather maps from precipitation data the university receives.

He has also performed research under John Harrington Jr., professor of geography. For one project, Owens helped analyze rainfall intervals between Manhattan and the Kansas community of Scandia -- a town a few
counties west of Manhattan that is located at nearly the same latitude.

For a second project, Owens helped Harrington and a graduate student interview Flint Hills farmers about their opinions on climate and whether they noticed any change.

"We wanted to see whether the perception of the climate and the actual data of the climate were closely related," Owens said.

Owens is also a member of Ichthus Campus Ministry and a youth group leader at Vineyard Community Church. He is a member of the Manhattan Ultimate Summer League, an ultimate flying disc league. He graduated from Flint Hills Christian School in 2009 and is the son of Robert and Laura Owens, Wamego.

2011 AAG Great Plains Rocky Mountains Division Student Paper/Poster Winners!
Congratulations to all students who participated in the 2011 meeting. The quality of the paper and posters was exceptional.

**Student Paper Competition Winner:** Tyra Olstad - Kansas State University; Student Paper Competition 2nd Place: Kaelin Groom - Univ. of Colorado Denver;

**Student Poster Winner:** Chuyuan Wang- Kansas State University; Student Poster Competition 2nd Place: Rhonda Fietzek-DeVries - Univ. of North Dakota

2011 REGIONAL GEOGRAPHY BOWL RESULTS
At the 2011 GPRM Division Meeting in Denver, CO, the University of Colorado Boulder took home first place, the Kansas State team came in second, and the University of Wyoming was third. In the individual rankings, Sam Smith from the University of Colorado Boulder took first place, with Ben Detrixhe of Kansas State in second. Tyra Olstad, Kansas State, & Jill Walker, University of Wyoming, tied for third place.

**GPRM Division Bowl Team Wins 2011 World Geography Bowl at the AAG national conference in Seattle, WA**

Led by undergraduate team captain and two-time State of Kansas Geography Bee winner Ben Detrixhe from Kansas State, members included Andrew Allen (University of Kansas), William Butler (Kansas State), Juul Dijkstra (University of Northern Colorado), Suzette Savoie (University of Wyoming), Mitch Stimers (Kansas State). Alternates, who also contributed to one of the highest point totals in World Geography Bowl history, were Alexa Dugan and Richard Vercoe (both from University of Wyoming).

Each participant of the winning team received a generous stipend from the GPRM and AAG, a plaque, and a National Geographic Atlas (the fancy 9th edition valued at $175!)

Bottom row, l-r: Mitch Stimers (Kansas State University), Suzette Savoie (University of Wyoming), Alexa Dugan (alternate, University of Wyoming), Dr. Casey Allen (GPRM Geobowl Coordinator, University of Colorado Denver)

Top row, l-r: Richard Vercoe (alternate, University of Wyoming), William Butler (Kansas State University), Juul Dijkstra (University of Northern Colorado), Andrew Allen (University of Kansas), Ben Detrixhe (Team Captain, Kansas State University; two-time State of Kansas Geography Bee champion).
Jeremy Aber: "Since the last alumni newsletter, the biggest news is probably that my wife Amy finished her Master’s in English with distinction and is currently teaching at KSU for the English department. I myself have been teaching at KSU as a part of the PILOTS program, for first generation college students. It’s been an interesting change of pace, and I have learned a lot about my approach to teaching in the process. Currently, I’m covering a section of World Regional Geography for PILOTS, another WRG for a general audience, and a Cartography class at ESU. It’s a heavy load, but I’ve been doing alright. Beyond the AAG national meeting, the next big thing is that I have a date set for my dissertation defense, on April 25th. Looking forward to being done with the dissertation process, but I can’t rest too long (also I need to finish writing before I get too excited!)."

Melissa Belz: Hello Alumni. I am currently a third year Ph.D. candidate and in the beginning stages of writing my dissertation. I spent several months during the summer and fall of 2011 conducting fieldwork, interviews and archival research in the Indian Himalaya. My research seeks to determine the distinguishing architectural features of the cultural landscape in Kinnaur District, Himachal Pradesh, and examine the agents of change in that remote region. I had a fantastic experience meeting the woodcarvers responsible for the iconic vernacular homes and temples, as well as interviewing the many homeowners who struggle to find wood for construction, and now commonly choose concrete. I was very fortunate to receive grants from three sources to fund my research, including the newly initiated departmental funding for doctoral research.

Now back in Manhattan, I am preparing to present my research findings at a conference in Cyprus. I introduced this research through a poster presentation on Architectural Adaptation at last year’s national AAG conference in Seattle. Now, I look forward to sharing the perspective of geography with the international community of scholars in the field of vernacular architecture.

My teaching duties were on hold last semester while I was away and I am happy to be back in the classroom teaching Human Geography to another group of Wild Cats. Thanks for your time keeping up on K-State happenings and thank you all for your support of the department.

Ryan Bergstrom: This is my fourth and final year as a doctoral student here at Kansas State. By the time you read this I will have (hopefully) defended my dissertation (December 2011), and will be hard at work on manuscripts and teaching Geography of Tourism in the spring semester. I am also in the process of applying for faculty positions relating to human-environment interactions, global change, and sustainability. I spent this past summer finalizing fieldwork in the Greater Yellowstone Ecosystem, and while the fishing was terrible (peak snowmelt did not occur until late July), I did have plenty of time to hike, ride horseback, and explore parts of the GYE I’ve never been able to in the past. I also had the opportunity to visit with locals from across my study area, and was a spectator to the annual Red Lodge Home of the Champions Rodeo, a three day event with spectacular views of the Beartooth Plateau!

My summer began as an Environmental Sciences reader in Cincinnati, OH, for the AP Exam. I was then given a tremendous opportunity to participate in the Association of American Geographers Early Career Faculty Development Workshop in Boulder, Colorado thanks to support from the department. I was also selected as one of ten U.S. delegates to the 7th Quadrennial Conference of British, Canadian, and American Rural Geographers in Manitoba in
July. Each of these experiences expanded my geographic horizons and provided me with excellent opportunities to network with peers from all around the globe. I continue to be very grateful for the opportunities our department has provided me thus far, and look forward with anticipation to the coming year as an instructor, and graduation in May 2012.

Katie Costigan: This is my second year in the Ph.D. program and since the last newsletter came out I’ve had a number of accomplishments. I received five awards and grants, attended five conferences and two workshops. I am a Co-Pi on a grant from the Kansas Department of Wildlife, Parks, and Recreation that supports my RA for this year. My first publication came out in River Research and Applications and I have a few more manuscripts in different stages of review at various journals, as well as others in development. I defended my proposal in March, 2011, and will have my comprehensive exams in January, 2012. I’ve been fortunate to have a department and adviser, Melinda Daniels, who are supportive of me and my research.

Non-academically I bought my first road bike this year, a 2011 Giant Avail 3.0. I’m signed up for the 2012 Bike MS ride in Kansas City, Kansas. Here’s to hoping 2012 is as productive and rewarding as 2011!

Tyra Olstad: "Hello again! Last year at this time, I was skiing through the snowswept sage at Fossil Butte National Monument in Wyoming; now I’m back in Manhattan, still wearing sandals. In between, I helped organize and edit the proceedings volumes for the 9th Conference on Fossil Resources and 4th Fossil Preparation and Collections Symposium (national meetings for paleontologists and public land managers), then rushed off to Colorado to start work as a Paleontology Technician for Black Canyon National Park and Curecanti National Recreation Area -- rugged and mostly unsurveyed units, both of which contain significant Mesozoic specimens. (I didn’t find any new dinosaurs, but was happy with several previously undocumented flora. And I got to spend the summer hiking around beautiful backcountry / wilderness, with time for weekend expeditions in Colorado, Utah, and Wyoming.) Upon returning to KSU in August, I began teaching a section of World Regional Geography, tutoring geography and geology, leading yoga for the Center for Nonviolence, and burrowed in and finished writing/illustrating my dissertation, "Zen of the Plains: Journeys through Parks, Prairies, and Self," which I defended in December. The spring 2012 semester should be no less busy -- between teaching a section of Physical Geography and continuing to tutor and teach yoga, I’ll be participating in one of the special sessions on Geography and the Humanities at the annual AAG meeting in February, polishing up papers/photo essays for publication, applying for jobs, and enjoying the as-yet balmy weather."

Lis Pankl: Hello everyone! I’m mid-way through my third year in the PhD program. The past year has been a busy one, including travel to Mexico City and London to conduct preliminary research for my dissertation tentatively titled, “Frida Kahlo as an Embodiment of Mexican Modernity.” I successfully presented my proposal to my committee in the fall semester and am already busy preparing for preliminary exams in the spring. I also had the opportunity to teach Geography of tourism during both the summer and winter breaks. My next two research trips include travel to New York City and Austin, TX. I look forward to completing my last course this spring and advancing to candidacy in the program.

Lianling Su: Greetings, everybody! How time flies, it is my third year for me to live in the little apple. I
like dancing, and I performed the peacock dance in the Chinese Talent Show in November last year, it was a lot of fun. I am currently in my second year of the M.A. program and hope to graduate in May. I am currently working on my thesis with Dr. Max Lu for cross-border marriage migration of Vietnamese women to China. I am looking forward to attending the AAG meeting in New York City this year.

Lisa K. Tabor: Hello all! It has been a great year, including an exciting Geographic Bee, Kansas Geographic Alliance strategic planning, graduating in May, and an excellent trip to Portland, Oregon for NCGE. I am still at KSU working on two graduate certificates, GIS and Agricultural Resources and Environmental Management. I am looking forward to another terrific year. Cheers

Carter Wang: How time flies! After this New Year, comes the last semester of my master studies here at K-State. The year of 2011 was full of pleasure, excitement, and achievements which make it so fruitful. I enjoyed teaching and interacting with my students in class. I was pleasantly surprised by winning the first prize of the student poster competition at the regional AAG meeting in Denver. I also actively participated in several research projects which was a great chance to learn and mature. Besides learning and researching, I visited a lot of places in the U.S. in my spare time, such as southern California, Chicago, Texas, Florida, the Pacific Northwest, and the Rocky Mountains...As a young geographer, I am always enthusiastic to be a traveler and it makes me broaden my horizon. Overall, it has been such a wonderful experience here with all the colleagues, students and professors, and I hope the year of 2012 will be a new productive year.

Brandon Weihs: My 3rd year of PhD schooling has been busy and productive. I have travelled to several cities attending conferences, such as Seattle, WA (AAG); Portland, OR (NCGE); Denver, CO (Regional AAG); and Mobile, AL (BGS). This summer took me to the Sangre de Cristo Range in southern Colorado, where I continued fieldwork towards my dissertation. I am particularly proud of my publications of this year, which include two articles concerning mass movement in the Journal of Chemistry and Physics of the Earth, two book chapters (in-press) in Global Land Ice Measurements from Space (GLIMS) and the Encyclopedia of Geoarchaeology, as well as a newsletter manuscript published by the University of Wyoming and National Park Service that describes our funded research in Grand Teton National Park in the summer of 2010. I am proud and excited to be teaching Cartography and Thematic Mapping for the 5th semester this spring, and I have also been appointed as a research assistant to study playa lakes in the high plains area for the next two years through the Kansas Cooperative Fish and Wildlife Unit and Division of Biology. I am looking forward to presenting my research to the faculty, finalizing my coursework, taking preliminary exams and fieldwork in the San Juan Range, CO, this summer.

Bill Wetherholt: Greetings from the Flint Hills! I am head-first into my second semester of PhD studies at K-State. I moved here from North Dakota over the summer where I was practicing “Freelance Education” at the University of North Dakota, North Dakota State University, Turtle Mountain Community College, and the Dakota Science Center. I earned my Masters from the University of North Dakota in 2008 under the tutelage of former
alumnus Brad Rundquist (2000) who was my advisor, and I also greatly enjoyed the coursework undertaken with Greg Vandeberg (2005) who appears to have ownership of the most massive dissertation shelved in the department. Both individuals spoke of the department and region with enthusiasm and I am full agreement. I am working with Lisa Harrington here on outmigration’s impact on the social fabric of rural Great Plains counties. The exact dissertation topic is still muddied, but I think I am making progress. I certainly hope Lisa thinks so! When not engaged in academia, I am an avid outdoor enthusiast. I am a contributing writer, reviewer, and photographer for Best Made Company in NYC, which is a small company offering high-end outdoor gear and has caught the eye of media outlets like The New York Times and Vogue. Aside from that I am an aspiring fisherman in desperate need of a canoe, a foodie in desperate need of a good Chinese restaurant, and a soon-to-be gardener when the winter that never was finally transitions into spring. I am both delighted and honored to be associated with this geography department and hope this newsletter reaches you well. Cheers!

**Geography Colloquia for 2011**

**Department of Geography and Gamma Theta Upsilon**

**Friday, 21 January, 3:30 pm**, 132 Seaton Hall: Dr. Richard A. Marston “K-State Geography Department Update”

**Friday, 4 February, 3:30 pm**, Big 12 Room, K-State Union: Professor Carol Harden “Framing and Re-framing Questions of Human-Environment Interactions”

**Friday, 11 February, 3:30 pm**, 132 Seaton Hall: Bob Workman “Flint Hills Discovery Center: Involving K-State”

**Friday, 18 February, 3:30 pm**, 132 Seaton Hall: Dr. Kyle Juracek “Reservoir Bottom Sediments: An Archive of Historical Human Activity and Its Environmental Effect”

**Friday, 4 March, 3:30 pm**, 132 Seaton Hall: Dr. Charles G. “Jack” Oviatt “Pleistocene Lake Bonneville as a Paleoclimate Archive”

**Friday, 9 September, 3:30 pm**, Big 12 Room, K-State Union: Associate Professor Alyson Greiner “Place Landscape, Community, and Politics in Oklahoma’s New Deal Art”

**Friday, 28 October, 3:30 pm**, 132 Seaton Hall: Dr. Kay E. Weller “Farm Adjustments to Climate Change: A Farmer Perspective”

**Friday, 11 November, 3:30 pm**, 132 Seaton Hall: Dr. Russell Graves “The Conservation Reserve Program and the Changing Kansas Agricultural Landscape”

**Student Awards:**

**Huber Self Geography Scholarship: Adam Rezner**

The Self Scholarship was established in 1981 and honors Dr. Huber Self who retired in 1980 after devoting more than 33 years of his professional life to the advancement of geography at Kansas State University. The scholarship is supported by Dr. Self, alumni, and friends of the Department of Geography. It is presented to an outstanding undergraduate geography major.
H.L. "Sy" Seyler Undergraduate GIScience Scholarship: Bryanna Pockrandt
The Seyler Scholarship was established in 2006 and honors Dr. H.L. "Sy" Seyler who retired in 2000 after devoting nearly three decades of professional service to the advancement of both geography and geographic information science at Kansas State University. The scholarship is supported by alumni and friends of the Department of Geography.

William D. Grimm Memorial Scholarship: Ben Detrixhe
The Grimm Scholarship was established in 1992 and honors William, a 1986 K-State Geography graduate who was killed in the Persian Gulf War on 31 January 1991. The scholarship is supported by the Grimm family, alumni, and friends of the Department of Geography. It is presented to an outstanding undergraduate geography major.

National Council for Geographic Education (NCGE)/Association of American Geographers Award for Excellence of Scholarship: Courtney Estes
The NCGE/AAG Award was established in 1979 is presented to the graduating senior in K-State Geography with the highest grade point average. The cash award is supported by the Department of Geography.

White Geography Graduate Teaching Assistant Excellence Award: Ryan Bergstrom
The White Award was established in 1989 and is presented to the K-State Geography graduate student selected for outstanding performance as a teaching assistant. The White Award is made possible through the generosity of Steve and Sue White.

Rumsey B. Marston Scholarship: Katie Costigan
The R.B. Marston Scholarship was established in 1986 and honors the memory of Rumsey Bissell Marston, and is supported by the Marston family, alumni, and friends of the Department of Geography. The scholarship is presented to a graduate student who writes a thesis or dissertation proposal in physical geography that involves a significant level of well-conceived fieldwork.

Graduate Student Leadership Award: Melissa Belz
The Leadership Award was established in 2002 to recognize K-State Geography graduate students for their professionalism, dedication, and leadership. The Leadership Award is supported by alumni and friends of the Department of Geography.

Mary Dobbs Outstanding Citizenship Award: Jeremy Aber
The Mary Dobbs Award was established in 2006 to honor the memory of Mary, a K-State Geography doctoral student who passed away in Fall 2006 and was awarded the Ph.D. posthumously. The Dobbs Award is presented to geography students who best exemplify the spirit of the department and a willingness to give "110 percent." The Dobbs Award is supported by alumni and friends of the Department of Geography.
Department Photos:

Jeff Smith, Jordan, Laura, Hilary at GPRM Denver

Jeff & Che

Classic Cuba Man

Rural Transportation in Cuba

Jeff at Vinales Valley Cuba

Tobacco Production in Cuba
Department Graduates:

Congratulations and best wishes!

Spring 2011

Doctor of Philosophy
Sohini Dutt
Rhett L. Mohler
Mitchel James Stimers

Master of Arts
Lisa Tabor

Bachelor of Arts
Terry Lee Iseli

Bachelor of Science
Brianna Lee Aranyos-Roberts
Tiffany Nicole Bean
Abigail Lea Beuerlein
Garrett Wade Boller
Christopher W. Calkins
Courtney Rae Estes
Kristi Ann Hernandez
Bryan Gregory Howell
Scott Michael Hubbard
Henry Curtis Huguley
Justin Martin Kerschen
Tyler Lee Litton
Randi McCarty
Callie Christine Miller
Christopher Jobman Morris
Amanda Clare Sewell
Bret Christopher Simons
Aleksandrs Robert Spangler
Kevin L. Stark
Jordan Waechter

Paige Wagner
Jason Derek Young

Fall 2011

Master of Arts
Zachary B. Eddy
Lisa Renae Hook
Thomas Roy Sando
Steven Keith Walterscheid
Iris E. Wilson

Bachelor of Arts
Garrett William McBride

Bachelor of Science
Kurtis Terry Dekat
Sarah Johanna Heinen
Courtney Rae Kohler
Brian Patrick Mulcahy
Richard Raymond Shurtz, III
Maggie Kay Stephens
Our First 23 PhD Graduates

Rhett Mohler 2011, Post Doc, Kansas State University
Sohini Dutt 2011, Non-Profit Organization “Saheli”
Mitch Stimers 2011, Cloud Community College
Jacob Sowers 2010, Department of Geography, Geology & Planning, Missouri State University
David Koch 2010, Dubuque University
Vicki Tinnon 2010, Department of Geography, University of Alabama
Ramatoulaye Ndiaye 2009, Senegal
Erik Bowles 2009, Federal Aviation Administration
Chris Laingen 2009, Eastern Illinois University
John Harty 2007, Visiting Assistant Professor, University of Wyoming
Jincheng Gao 2006, KSU Agronomy
John Jacobs 2005, location unknown
Johnny Coomansingh 2005, Div. of Social Science, Minot State University
Gregory Vandeberg 2005, Department of Geog., University of North Dakota
Holly Barcus 2001, Department of Geography, Macalester College
James Davis 2001, Department of Geology/Geography, Eastern Illinois University
Sujata Dunn 2001, Asst. Director, SW Kansas Library System
Jason Holcomb 2001, Department of Geog., Govt. & Hist., Morehead State University
Nancy Leathers 2001, USDA Animal & Plant Health Inspection Service
Luke Marzen 2001, Department of Geography, Auburn University
Shawn Hutchinson 2000, K-State Geography
Brad Rundquist 2000, Department of Geog., University of North Dakota
Thomas Schafer 2000, Department of Geosciences, Fort Hayes State University

Social Networking and Listservs

The following websites are designed to help keep current and former Students abreast of events, keep in touch with friends, and advertise employment opportunities.

- Facebook - Department of Geography
- Facebook - Geography Alumni
- Facebook - GTU Beta Psi Chapter
- Facebook - GISSAL
- Linked In - K-State Geography Alumni
- Twitter - Department of Geography (@kstate_geog)
- Twitter - GISSAL (@kstate_gissal)
- Alumni Listserv - email Dr. Jeffrey Smith to be added or removed
List of Contributors

The Geography Department Fund, William D. Grimm Memorial Scholarship, Huber Self Geography Scholarship, Rumsey Bissell Marston Scholarship, and the White Geography GTA Excellence Award (July 1, 2010 - June 30, 2011)

MISSISSIPPI RIVER DONORS
Milt and Emma Rafferty

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Shawn and Stacy Hutchinson
Steve Kale
Dick and Linda Marston
Raymond McDonald and Kay Weller
Susan and Stephen White

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David and Bobbie Kromm
Mary Ann and David Miller

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Yared Assefa Mulisa
Kevin and Diana Blake

Marcelus and Martha Caldas
Benjamin Champion
William Clark
Dennis Courville
Joseph Craine and Kendra McLauchlan
Robert and Melinda Daniels
Kevin and Kathryn Flinn
Katie Franke
Dennis and Sarah Gill
Douglas Goodin
Mike and Toni Haddock
Richard and Mary Hammel
Mark and Terry Healy
Cynthia and David Hill
Barbara Houser
Ann and David Howland
Charlene and Malcolm Hsu
Steve and Karen Hunter
Brent Jones
Mary Kirkham
Elisabeth Leipold
John and Virginia Little
Nanyan and Max Lu
Charles and Sabine Martin
Lowell and Janice May
Douglas and Joyce McKinney
Bob and Elba McManis
Ben Meade
Tod Meyn
Rhett Mohler
John Munson
Carol and Lee O'Neill
Adrienne Oliver and Randy Kuzniakowski
Bimal and Anjali Paul
John and Karen Pence
Travis and Alyson Rome
Ronald and Pamela Say
Fred and Nancy Schurle
Sy and Carolyn Seyler
Jeffrey and Kimberley Smith
Larry and Patricia Smith
Stephen and Lyla Smith
Richard and Marga Spangler
Peter and Mary Tully
Page and Nancy Twiss
Robert and Sandra Vetter
David Wall
Tazz Worcester
Kathleen Zimmerman
Arlys Zoellner
Jon Archer: It has been a tough year in the UK economy, but it was not all bad. Having been promoted to Principal Engineer at Harrison Group Environmental early last year, things have been improving slowly. We hope and plan for a prosperous 2012. Away from work, my wife and I have been getting used to our son James becoming a toddler (parents among you will know what I mean). He is a wonderful boy; please keep a look out for his application to graduate school in around 2030! Best wishes to you all from across the pond, Jon.

Sergio Camberos: I graduated with my MA in Geography in December of 2000 and have been living in South Texas (The Rio Grande Valley) since then. The name Rio Grande Valley does not lend its name to its description being that it is extremely flat for miles on end: it is more like the Rio Grande Plain. I've been teaching social studies for just over 10 years. I am currently a High School teacher and this year I am teaching Economics and AP Microeconomics to 12 graders for the first time. It's a little challenging but I do enjoy the subject. I am married to my beautiful wife Elizabeth and we have 4 wonderful children, Nick, Andrew, Alan, and Sahara. We celebrated out 5 year anniversary last year and look forward to many more. We enjoy traveling to California every summer and have visited nearly every National Park between Texas and California. Last summer we went to Sedona and I finally got to slide down the river in Slide Rock State Park amid the frigid waters and did some cliff jumping. I want to wish everyone a happy new year and hope to read stories about my fellow Geographers soon.

Mike Dulin: I've been working for the U.S. Army Corps of Engineers Kansas City District since the summer of 2009. I'm currently working as a GIS Analyst in the Geospatial Data and Survey Section where I play an active role in the Missouri River Recovery Program, which is one of our largest environmental programs concerning the Missouri River. I'm also a volunteer member of our District Emergency Response team and our National GIS Cadre (National Emergency Response Team). Given my role in emergency response, this was a very busy summer to say the least. I spent a short time in Alabama after the tornado outbreak that went through the state in late April before deploying to Joplin, Missouri, in response to the May 22nd tornado that ripped through the southern portion of the city. I was in Joplin for 30 days, where I was fortunate enough to be working with a fellow K-State grad on the GIS team. After returning from Joplin I became engaged in the Flood Fight on the Missouri River and remained involved with that until mid-September when the water finally began to recede. During the Flood Fight our GIS team became heavily involved with our Aerial Recon team where we would use a GPS enabled computer tablet to navigate and collect data during aerial levee inspections and flood damage surveys. After all that I headed down to Mexico for a week where I sat on the beach and thought very little about work.... Now my wife and I are headed to Dallas for the AT&T Cotton Bowl. GO STATE!!!!!

Courtney Estes: It has been an exciting eight months since graduating from K-State in May 2011. I spent the summer in Saratoga, Wyoming working for the United States Forest Service as a Hydrologist. It was an amazing experience to use the knowledge that I had gained from my time at K-State in a practical setting. In August I moved to Ohio to start graduate school at the University of Cincinnati. I have been lucky enough to get an opportunity to work with the Environmental
Protection Agency through a research grant that I received. The research for them, using the SUSTAIN watershed model to calculate ways that will increase water infiltration into the ground during precipitation events, will also become the research for my thesis.

**Jason P. Holcomb:** My 2011 at Morehead State began with some uncertainty, as we geography faculty knew we would be moved to yet another different department but didn’t know which one. We learned in June that we would be moved to the relatively new Department of International and Interdisciplinary Studies, which has turned out to be a good new home for us. On the personal side, Heather and I moved last January to a nice house close to campus, so I now walk to work every day! Heather began working at the local coffee shop, also within walking distance. We spent our summer in Iowa again, where I continued working on manuscripts and enjoying the sunsets that flatlanders so enjoy. We went to Kansas again to help my former custom harvesting employers in Sterling with their own wheat harvest. Heather ran the grain cart while I split my time between the combine and truck. We stopped in Manhattan on the way and visited Steve White and other friends. It is always nice to visit Manhattan, which I think I have done at least once a summer since leaving in 2000. In October I went to the Great Plains/Rocky Mountain AAG meeting in Denver, presenting about comparisons between descriptions, perceptions, and literature of the Russian Steppe and the Great Plains. This is definitely something worth further research, and so far I have not found anything that does this kind of comparison. We finished out the year at home in Iowa, where we had a warm, snow-free Christmas, quite a contrast to the seventeen or so inches of snow we had in a span of two weeks two years ago. We celebrated our third wedding anniversary in early January with a trip to Sioux Falls, where we visited a couple museums, the falls of the Big Sioux River, and the Earth Resources Observation and Science (EROS) Center.

**Christopher Henrie:** I'm still a geographer in the Geographic Standards and Criteria Branch in the Geography Division of the U.S. Census Bureau. Although I've been involved in a wide variety of projects, each associated with a unique set of responsibilities, my main task over the past 5 years has been to contribute to the development and implementation of the 2010 Census urban area delineation criteria for the U.S., Puerto Rico, and Island Areas. The journey from criteria design, through the solicitation of public comment, to its application and product development has been an overwhelming, yet rewarding experience.

Additionally, I continue to pursue my research interest in U.S. hierarchical interurban migration and growth trends as time permits.

**Chris Laingen:** A few pictures of the newest Laingen. I'm calling him "Kenny", as that's what my grandmother called my grandfather, but I'm sure in the years to come his mother will be referring to him as "KENNETH STEVEN!" a few times...

**Adam Skibbe (Adjunct GISSAL):** After my formal departure from GISSAL in the summer of 2008, I fairly seamlessly transitioned to an on-campus position with the Division of Biology. I am now the Konza LTER (Long Term Ecological Research) Information Manager, which equates at its most basic level to dealing with all things Konza LTER data… ALL things. There is research mixed in there, and despite the overall plunge in the quantity of it, there is GIS work as well. This position keeps me as busy as I can imagine being most of the year, but in a good way. In personal news my longtime girlfriend Shannon and I were married this fall in an ultra-small ceremony here in town. Hope all is well out there in Geography land; though I am not official alum I still feel like part of the family.
SENIOR FROM TOPEKA TO HELP NATIONAL GEOGRAPHIC SOCIETY WITH K-12 EDUCATION OUTREACH

MANHATTAN -- A Kansas State University student plans spend her summer exploring the National Geographic Society.

Abby Beuerlein, a senior in geography, Topeka, will serve a three-month internship with the society at its headquarters in Washington, D.C.

The society is one of the largest nonprofit scientific and educational institutions in the world. Its intern program provides qualified college juniors, seniors and master's students an opportunity to apply knowledge and techniques they have learned in the classroom, according to Richard Marston, university distinguished professor and head of the K-State department of geography.

"We've had several geography students from K-State selected as interns with the National Geographic Society in the past. This is no accident," he said. "We have high-achieving students who are motivated and talented pursue opportunities beyond the classroom. Our geography faculty endeavor to hire undergraduate students as research assistants so they can determine if they want to pursue graduate-level research toward an advanced degree."

Beuerlein is looking forward to her summer job.

"This is the first internship I've ever had, which is why I was really surprised and very honored," she said. "I couldn't be more excited that my first opportunity in the geography field will be with an organization that is so well known and respected."

Beuerlein will primarily work with the National Geographic Education Foundation's Geographic Alliance Network, a program dedicated to improving geography education at the K-12 levels.

"I didn't realize just how much grant work the society does and how important it is to their organization," she said. "I'm starting to feel the pressure though, knowing I'm going to be doing something so challenging. At the same time, I would much rather be challenged than to just run around getting coffee for people."

"It's going to be a great experience getting to go to Capitol Hill and having an impact on working to educate young people. I would really like to assist the National Geographic Society in its goal of ensuring that at least 80 percent of all 18-year-olds be geographically literate by 2025," she said.

Beuerlein is optimistic the internship will lead to future opportunities in the geography field.

"I think this internship could be a life-changing experience," she said. "I'd be thrilled if my three months with the society turned into a career with them, since it has always been a dream to work for National Geographic. If it doesn't though, I know having experience with them will be a great stepping-stone for other opportunities in the geography realm."

Marston said the National Geographic Society seeks student interns like Beuerlein who are involved in quality extracurricular activities related to the field.
Beuerlein is a member of Gamma Theta Upsilon, the international geography honor society, and Kappa Delta sorority. She received the K-State NASA Space Grant Consortium Undergraduate Fellowship in spring 2010. The daughter of Joe and Debbie Beuerlein, Topeka, she is a 2007 graduate of Hayden High School.

RESPONDING TO A NEED: PROFESSOR’S BOOK FOCUSES ON INCREASING SOCIAL, POLITICAL AND PHYSICAL COMPONENTS OF NATURAL DISASTER

MANHATTAN -- The effects of environmental disasters far exceed their physical dimensions, but no book has been available to help students fully understand these social aftershocks -- until now. Bimal Paul, a professor of geography at Kansas State University, recently wrote a book that seeks to open the door to this knowledge.

Paul's first book, "Environmental Hazards and Disasters: Contexts, Perspectives and Management," released Oct. 28, provides insight on the manifest threat to humans and their welfare as a result of natural disasters.

"There are sociocultural, political and physical components of the disaster process," Paul said. "Human and social vulnerability as well as environmental risks are explored within the comprehensive context of diverse natural hazards and disasters."

Although the book is designed as a primary text for an interdisciplinary course on environmental hazards for upper-level undergraduate and graduate students, Paul said those in the hazard response and research fields may find the book helpful as well.

"Emergency managers, planners and both public and private organizations involved in disaster response and mitigation would benefit from this book, in addition to researchers or instructors," he said.

The lack of an appropriate text for a hazard course he has taught since 2000, Geography of Natural Hazards, combined with the effects of far-reaching disasters such as the Indian Ocean tsunami in 2004 and Hurricane Katrina in 2005, provided the driving force for Paul to complete this book. Several texts are available for an introductory hazard course, but they emphasize only the physical dimensions of these hazards and reach no further, he said.

The timing of this information is also important, he added. Hazard researchers strongly believe that the number of people affected by and the damage caused by natural disasters have increased in recent decades and will only continue to increase.

"With climate change on the horizon, the number of disasters will not only be expected to increase in the near future, but their severity also will be increased," Paul said. "This book will offer an overview of the key issues related to these environmental hazards and disasters, as well as provide operational definitions and methodologies that will be useful in addressing hazard-related issues as they arise."

"Environmental Hazards and Disasters: Contexts, Perspectives and Management" will soon be available in libraries at most universities in North America, Europe and other continents. It is currently available at Amazon.com and Wiley.com.

Paul earned his doctorate from Kent State University in 1988. In addition to teaching Geography of Natural Hazards, he teaches several other geography courses at K-State. His research interests include population geography, medical geography, computer cartography, natural hazards, quantitative methods and South Asia.
THE ECOSYSTEM ENGINEER: RESEARCH LOOKS AT BEAVERS' ROLE IN RIVER RESTORATION

MANHATTAN -- When engineers restore rivers, one Kansas State University professor hopes they'll keep a smaller engineer in mind: the North American beaver.

Beavers are often called ecosystem engineers because they can radically alter stream or valley bottom ecosystems, said Melinda Daniels, an associate professor of geography who recently studied the connection between beavers and river restoration. Beaver dams create diverse river landscapes, she said, and can turn a single-thread channel stream into a meadow, pond or multichannel, free-flowing stream.

"Our argument is that the restoration target for streams with forested riparian zones has got to acknowledge the diversity brought to river systems by active beaver populations," Daniels said.

Daniels and three researchers from the University of Connecticut co-authored "The River Discontinuum: Applying Beaver Modifications to Baseline Conditions for Restoration of Forested Headwaters." The article, led by Denise Burchsted at the University of Connecticut, appears in a recent issue of BioScience, the journal of the American Institute of Biological Sciences.

While the research involves observations of several watersheds in northeastern Connecticut, the results are applicable to any forested stream, which typically have large beaver populations. Beaver populations have rebounded in recent years, Daniels said, after coming close to extinction in the early 19th century by hunters for their fur.

The ultimate goal of the research, Daniels said, is to help restore rivers in an efficient way that acknowledges ecosystem diversity and doesn't destroy it.

"A lot of rivers are in trouble and need work and restoration, but it's amazing how little we know about the systems we're trying to fix," she said. "We know they're broken, but we don't exactly know what they should look like because we know so little about how many of our river systems function."

Current restoration projects often don't consider the role of beavers as ecosystem engineers, and instead focus on creating continuous free-flowing streams, Daniels said. Such restoration can be expensive because it usually involves completely tearing down small 19th-century milldams and re-engineering an entire valley bottom.

Rather than tear down the whole milldam and radically change the surrounding ecosystem, the researchers recommend river restorers only remove part of it. This allows some ponded water to remain and mimics the role of beavers. Daniels said that in many cases if an old dam breaks and forms a gap, beavers may build their own dam to patch the gap and recreate the ecosystem that previously existed.

The researchers plan to continue river observations and collect more data to provide river restorers with insight for maintaining river ecosystem diversity.

"You can use these natural analogs to produce an ecosystem that looks a lot more like the one that was there before the colonists arrived," Daniels said. "We can restore rivers in a way that mimics the naturally diverse beaver streams, and we can save a lot of money in the process."
WILD WINDS: CHANGES IN WEATHER PATTERNS CREATING MORE SEVERE STORMS

MANHATTAN -- A Kansas State University climate expert attributes the increase in the number and severity of tornadoes and severe storms in 2011 to a change in weather patterns.

John Harrington Jr., professor of geography, is a synoptic climatologist who examines the factors behind distinctive weather events. He credits the increased tornado production this year to jet stream patterns in the upper atmosphere. The patterns have created synoptic events such as the April tornado outbreak in Alabama and recent tornado in Joplin, Mo. While these events are not unprecedented, they are significant, he said.

"To put them in all in one year, that's what has people talking about this stuff," Harrington said. "The fact that this is happening all in one year and in a relatively short time frame is unusual."

Special circumstances are necessary for the creation of tornadoes in the Great Plains, Harrington said. A humid atmosphere with moisture from the Gulf of Mexico and the right jet stream pattern coupled with surface convergence help to spawn a thunderstorm. Uplift from the jet stream helps to create the towering clouds associated with severe thunderstorms. Add a wind pattern set up with air filtering into the storm from the south at low levels, from the southwest at mid-levels and the northwest at higher levels, rotation of the thunderstorm cloud begins and its possible for a tornado to form.

"Unfortunately in terms of death and destruction, we've had too many of those events this year," Harrington said.

Forecasting tornadoes far ahead of time differs from the more advanced hurricane and weather prediction methods. The National Weather Service's Climate Prediction Center does not predict tornadoes, rather it attempts to predict jet stream patterns a month or so in the future.

In the wintertime the jet stream tends to flow above the southern United States. It migrates northward by the summertime. The area receiving the most tornadoes tends to shift with jet stream location as well. Oklahoma usually has a higher frequency of tornadoes in April, while Kansas experiences most of its tornadoes in May, Harrington said.

Synoptic patterns are different in autumn as the jet stream migrates back south, with much drier air across much of the U.S. While this does not preclude fall tornadoes from occurring, they are rare events. Connecting the surface conditions with the jet stream flow pattern helps a weather forecaster understand the likelihood for severe storms.

"That's pretty important in terms of understanding the kind of environment that will produce the necessary thunderstorms that rotate," Harrington said.

Extreme examples of weather have not been isolated to tornadoes. Heat waves, blizzards and severe storms have been increasingly more frequent or more severe according to U.S. data, Harrington said. These changes can be attributed to changes in the climate system.

The increase in severe weather events is drawing attention, he said.
"We have these good historical precedents for specific synoptic events, but they're starting to come more frequently together. That's what is very interesting, is that this weather system seems to be getting more variable."

TORNADOES, FLOODS, DROUGHTS AND MORE: GEOGRAPHER SAYS EXPECT WEATHER SEVERITY TO INCREASE

MANHATTAN -- Natural disasters like hurricanes, tornadoes and floods occur every year, but are they getting worse?

A Kansas State University expert says not yet -- but they could soon.

Bimal Paul, professor of geography at K-State, researches, among other interests, natural hazards and human-environment interactions. Although Paul does not believe that weather severity has significantly increased in recent years, he thinks that may change in the next 20 years.

"I know both the general public and scientists are divided on if there has been an increase in the severity of weather in recent years," Paul said. "Those who strongly believe that the severity of weather has increased think that global warming and associated climate change are the root cause. Although I believe that human activities have intensified global warming, manifestations of such warming are not clearly evident now. But in the long term I think they will be."

That long-term effect is a worldwide concern, Paul said, including in the United States where natural disasters have been minimal in comparison to recent international devastations like the earthquake and tsunami in Japan.

"Climate change due to global warming is projected to worsen the intensity and frequency of weather-related natural disasters, such as floods, droughts, tornadoes and hurricanes," Paul said. "The United States is likely to face increasingly violent storms as the weather warms. Climate change will cause a rise in sea level, which will have unimaginable impacts on the livelihood and long-term health of a large proportion of the population."

As the effects of climate change spread beyond nature, Paul said that they can devastate populations and even their economies.

"Climate change is likely to adversely impact economy, particularly the agricultural systems," he said. "It will worsen water scarcity, increase risks of diseases and trigger displacement due to recurring floods, storms and sea level rise. People should be prepared for an increase in frequency and severity of extreme natural events in the years to come."

FROM GEOGRAPHY TO FOREIGN POLICY: MARSTON TO SERVE AS JEFFERSON SCIENCE FELLOW

MANHATTAN -- A Kansas State University geographer will spend the 2011-2012 school year as a Jefferson Science fellow assisting the U.S. government with foreign policy.

Richard A. Marston, university distinguished professor and head of the K-State department of geography, begins his 12-month fellowship in mid-August. The Jefferson Science Fellowships allow tenured academic scientists and engineers from institutions of higher learning in the U.S. to help form and implement national foreign policy. The program is administered by the National Academies and supported through a partnership
with the science, technology and engineering academic community, professional scientific societies and the U.S. Department of State.

Marston is among 13 individuals selected for the 2011-2012 fellowship, and is the second K-State faculty member selected for the honor. Brett DePaola, professor of physics, is a 2010-2011 Jefferson Science fellow.

All Jefferson fellowships are contingent upon awardees obtaining an official U.S. government security clearance.

Marston will be assigned to a specific office at either the State Department or the U.S. Agency for International Development in Washington, D.C. His work may include extended stays at U.S. foreign embassies and involvement in missions. Fellowship assignments generally involve providing up-to-date expertise in the rapidly advancing science, technology and engineering arenas that routinely impact the policy decisions encountered by the State Department or USAID.

"I'm looking forward to plying my trade in a different way for a year in helping to solve international environmental problems," Marston said.

Highly recognized in his field, Marston teaches and conducts research in environmental geography, geomorphology, mountain geography and water resources. He is a fellow of the American Association for the Advancement of Science, the Geological Society of America, the Explorers Club and the United Kingdom's Royal Geographical Society. He served as 2005-2006 president of the Association of American Geographers, and since 1999 he has been co-editor-in-chief of Geomorphology: An International Journal of Pure and Applied Geomorphology.

He also is the recipient of the 2007 Distinguished Geosciences Alumni Award from Oregon State University, the 2004 Sterling L. "Bud" Burks Award for Outstanding Environmental Research from the Oklahoma State University Environmental Institute, and the 2003 Ronald F. Abler Distinguished Service Honors. He has served on the president's Western Water Policy Review Advisory Commission. Marston is the author of numerous journal and book publications. He has received more than $2 million in grants and contracts for his research, including funds from the National Science Foundation, Environmental Protection Agency and U.S. Geological Survey.

Following his fellowship Marston will return to K-State in September 2012, but will remain available to the State Department or USAID for short-term projects for the following five years.

Marston, a Certified Professional Hydrologist, joined K-State in 2005 and received the university's highest academic ranking of distinguished professor in 2006. He earned a bachelor's in geography-ecosystems from the University of California at Los Angeles, and a master's and doctorate in geography from Oregon State University.

More information on the Jefferson Science Fellowship program is available at http://sites.nationalacademies.org/pga/jefferson.
FROM ALL ANGLES: SPECIAL CAMERA, AVIATION COLLABORATION ALLOW FOR UNPRECEDENTED MAPPING OF KANSAS RIVER

MANHATTAN -- The Kansas River has countless habitats within its banks, but examining them has been problematic because of the river's size, which stretches 170 miles from Geary County to Wyandotte County.

The river's size is no longer a hindrance. Thanks to a special camera and a collaboration by several Kansas State University departments on the Manhattan and Salina campuses, researchers are getting a clearer image of the river's habitats than ever before.

Melinda Daniels, associate professor of geography, was awarded a grant from the National Science Foundation in August 2009 to conduct habitat assessments on the Kansas River. Daniels also received two grants from the Kansas Department of Wildlife and Parks in December 2009 for similar projects on the river: researching the effects of sand dredging and researching the effects on fish habitats by Lawrence's Bowersock Dam.

But Daniels faced some limitations with the projects.

"One of the hardest things to do is get a holistic picture of what's going on," she said. "You can't get out on the ground and measure every point on the river."

That changed with a camera and a plane.

The camera -- a high spatial resolution multispectral digital imaging camera system -- came from Kevin Price, K-State professor of agronomy and geography and director of the Ecological and Agricultural Spatial Analysis Laboratory. Price's laboratory specializes in agricultural and natural resources monitoring and analysis using geographic information systems and analysis of remotely sensed data. For his projects, Price has frequently collaborated with the department of aviation at K-State Salina.

"Some of the things I need for doing my research and collecting these types of data are a dependable source for a pilot and a plane and an aviation organization that is willing to put a hole in the bottom of its plane," Price said.

Both were available at K-State Salina, where low rates for the pilot and the plane have helped his research. As each student in the professional pilot major is required to fly a minimum of 205 hours before graduation, student pilots are available.

The aviation department helped Price by allowing a 5-inch hole in the bottom of one plane that is accessible through its floor. Price's camera, built inside a case, is mounted inside the plane and over the hole. The camera collects data in separate bands or wavelengths that can be analyzed using multispectral analysis methods similar to those used for using satellite imagery. This is an important alternative to a typical camera, where colors are merged into a single color layer.

"The low costs allow more opportunities for collecting research data because it's not breaking my budget to fly that plane," Price said.

The overflight, during which the photographing of the Kansas River took place, was in the fall. Kyle Simpson, senior in professional pilot and student flight instructor, Mulvane, was the plane's pilot. The flight path followed the Kansas River entirely and took the same route on the return trip. Price's camera collected 996 multispectral images that are currently being mosaicked together and analyzed.
Light reflectance on the river is being analyzed to determine the river's depth. Completion of this analysis will allow for a topographic map of the river to be created. The map will be especially beneficial for Daniels' project measuring the effects of Lawrence's Bowersock Dam on sediment presence in the river. Daniels is the project's co-principal investigator along with principal investigator Keith Gido, associate professor of biology. The remote sensing work will also assist with Gido and Daniels' other Kansas Department of Wildlife and Parks grant to examine the effects of sand dredging on fish habitats in the river.

A new technique used during research has the potential to make significant contributions to remote sensing.

"If we develop a good mathematical relationship between the light reflectance and depth, that's going to be a big contribution," Daniels said. "I think that's where it will go from there, using the same data set but conducting different analyses."

Meanwhile, the collaboration with K-State Salina remains strong.

"They have been extremely helpful," Price said. "I could not ask for better cooperation."

RESEARCH TACKLES EFFECTS OF DREDGING ON KANSAS FISH AND RIVER HABITATS

MANHATTAN -- Two Kansas State University professors are fishing for answers on how Kansas River dredging influences native wildlife and water resources.

Melinda Daniels, associate professor of geography, and Keith Gido, associate professor of biology, are collaborating on a project that involves habitat and fish sampling on the Kansas River, which stretches across northeast Kansas.

They are supported by a grant from the Kansas Department of Wildlife and Parks. The grant money comes from sales of state fishing and hunting licenses.

"These dollars go back to the people of Kansas because the research provides knowledge to help manage water resources throughout the state," said Daniels, who has received other funding and recognition for her research on conservation and restoration in the Kansas River basin.

Daniels is also collaborating with Craig Paukert, fisheries biologist and adjunct associate professor, on a project involving the Bowersock Dam, a hydropower dam on the Kansas River in Lawrence.

In both projects Daniels explores the non-living parts of river systems, such as water and sediment movement, while Gido and Paukert focus on fish populations. They evaluate all species of fish, with the projects' focus on rapidly declining native Kansas River fish species, such as the plains minnow, the silver chub and the shoal chub.

"These are fish that are found almost solely in Great Plains rivers," Daniels said. "If they drop out of Kansas, it is likely they would drop out pretty much everywhere."

Daniels is especially interested in the effects of dredging, which is the process of taking sand and gravel from the river bottom and pumping it up on the riverbanks. Dredged material is used in construction industries.

To help the Kansas Department of Wildlife and Parks understand how sediment removal influences the river, the researchers are looking at three active Kansas River dredge sites from Manhattan to Kansas City.
"KDWP is particularly worried about taking a lot of sediment out of the river because doing so in excess starts to cause riverbeds to cut down or incise," Daniels said. "That is a problem in the lower Kansas River in the Kansas City reaches, where water intakes have been left perched so they are no longer in the water. One of the questions we are trying to answer is how much of this bed incision may be due to sand and gravel mining."

To measure the effects of dredging, Daniels uses an acoustic Doppler instrument to detect the velocity of the water in the river and produce a map of the channel bottom topography. Because habitats and environments change seasonally, researchers map the river about once a month to understand how river flow and habitat change throughout the year.

The team has discovered that, on average, the Kansas River is about a meter and a half deep. But during certain times of year, when dredges are active, Daniels' team has detected holes as deep as 15 meters at active dredge locations.

"We're not prejudging whether dredging is a bad thing, but there is at least a temporary habitat alteration going on," she said. "We're trying to help generate information for the state agencies so that they can make decisions about how many dredges to permit, or if they should even continue permitting sand dredging."

At the Bowersock Dam in Lawrence the researchers are categorizing the surrounding habitat and observing differences in fish communities both upstream and downstream from the dam. They want to identify whether the dam is a barrier to fish movement, and if a fish passage structure in the dam would help reduce endangered species. Their findings can influence how dams are handled throughout the state.

Kansas State University is an economic development leader with nationally recognized research programs focused on clean water and air, sustainable food, renewable energy and improving the financial future of Kansans. As the state's land-grant university, K-State is committed to improving the quality of life for Kansas families.

FLOODING FRENZY: RECORD SNOWFALLS CAUSING HIGH WATERS IN GREAT PLAINS

MANHATTAN -- Summers on the Great Plains are usually characterized by a lack of water. But flooding in several states has reversed that trend -- and it might not be the last of the high waters for 2011, according to a Kansas State University geography expert.

Richard Marston, university distinguished professor and head of the department of geography, said that some mountainous states still have 200 percent of normal snowfall for this season. Spring rains have also kept the ground moist, causing subsequent runoff. This has contributed to flooding in North Dakota and along the Missouri River. More flooding also is likely along the front range of the Rocky Mountains, Marston said.

"As temperatures warm up, especially when you get warm rain on top of snow, you get a lot of runoff and melting," Marston said. "This also causes flooding in non-mountainous areas."

The Souris River, which has engulfed Minot, N.D., is similar to many other rivers in the Great Plains, Marston said. The river has a low slope that slows the speed of water. This allows for an influx of water to continually accumulate.

Flood controls and related decisions have also exacerbated the extent of damage, particularly in North Dakota. Levees are traditionally accepted as an effective method of flood control and have been implemented on a wide
scale. Attempting to control rivers through building levees has eliminated adjacent wetlands, the traditional spot for water storage during floods. It's a common issue that has had negative effects on flood control, according to Marston.

"Back in the early 1900s, the total damages for flooding in the entire country were $100,000 per year," he said. "Now it's in the billions per-year average."

Another contributing factor has been development in floodplains. Covering a natural soil surface with concrete and asphalt, combined with the same weather events, creates more runoff, Marston said. Many areas, including some in Manhattan, need to redo floodplain mapping to add at-risk areas.

The flooding has forced a series of tough decisions for the U.S. Army Corps of Engineers, the federal agency responsible for public works projects. In May floodwaters on the Mississippi River threatened the city of New Orleans. To relieve the burden on the levees around the low elevation city, the corps chose to blast a levy in rural Missouri that destroyed a small town and agricultural land. The Corps of Engineers used their system as it was designed, Marston said.

"It's a complex situation like with most human impacts on rivers," Marston said. "When we start mucking around with the connection between the river and its floodplain, things might look rosy for a period of time, but eventually you will have to pay the piper."

The flooding in North Dakota and along the Missouri River has been described by a variety of sources in the context of 100 to 500-year floods. A 100-year flood is commonly perceived as being an area that is flooded once every 100 years, Marston said. Instead, a 100-year flood means there is a 1 percent chance an area could be flooded yearly. This can cause big decisions in terms of development or future residency for areas in flood plains.

"It depends on what kind of gambler you are," Marston said. "Many times the losses from these floods are complete and devastating."

Fixing the myriad flood-related issues will involve a total effort, according to Marston. Shifting a focus from developing in floodplains and changing methods of flood controls are primary focuses, he said. Land-use planning provides an alternative to levees and dams.

"I tend to favor nonstructural approaches to flood management," Marston said. "The history of dams and levees is clear in our country. They have prevented damage from floods, but what happens when the big one occurs? The damage can be worse than it would have been without the levees."

**RESEARCH FINDS LINK BETWEEN INCREASED CROPS AND DEFORESTATION IN AMAZON, BUT ISSUE NOT SO CUT AND DRY**

**MANHATTAN -- A Kansas State University geographer is part of a research team out to prove what environmental scientists have suspected for years: Increasing the production of soybean and biofuel crops in Brazil increases deforestation in the Amazon.**

Although this cause-and-effect finding seems fairly straightforward, the issue of deforestation in the Amazon is more complex and more devastating than previously believed, said Marcelus Caldas, an assistant professor of geography at K-State.
Caldas and his colleagues at the University of Texas at Austin and Michigan State University published their findings in a recent issue of the environmental science journal, Environmental Research Letters. Their study, “Statistical confirmation of indirect land use change in the Brazilian Amazon,” looks at how mechanized agriculture in Brazil affects the country's forest in the Amazon, which is the second largest forest in the world.

Using data from 2003-2008, the team statistically linked the loss of forest area as the indirect effect of changing pastureland into space for soybean and biofuel crops in counties bordering the Amazon. Caldas, who grew up in Brazil, said this finding wasn't too surprising as most Brazilians are aware of the issue. What is shocking, however, is how much of an effect this is having on forests, he said.

"Between 2003-2008 soy production expanded in Brazil by 39,000 square kilometers," Caldas said. "Of this 39,000 square kilometers, our study shows that reducing soybean production by 10 percent in these pasture areas could decrease deforestation in heavily forested counties of the Brazilian Amazon by almost 26,000 square kilometers -- or 40 percent."

Caldas said he hopes this link between crops and deforestation will motivate Brazil's environmental policymakers to develop more dynamic agricultural regulations to slow deforestation.

Although the numbers and data back this connection, the notion that deforestation will cease completely is unlikely because of other complexities like money and livestock. Demand for Brazil's crops is high and there's a desire to produce more for buyers.

"In the international market, China is buying a lot of soybeans from Brazil," Caldas said.

The Brazilian government says soybean and sugarcane are grown largely in degraded pasture, but data from the team's work with geographic information systems, or GIS, shows that many of these crops have crept into the Brazilian savanna, a large area bordering the Amazon that's used for cattle. Consequently, this has created deforestation in the savanna, driving cattle inside the Amazon.

"Our data shows that the Amazon now has 79 million heads of cattle," Caldas said. "Fifteen years ago, it had less than 10 million. That means that there's a problem with cattle moving inside the forest."

A problem is brewing in the near future, too. As the world's population grows and buyers look for countries where food is produced less expensively, more grain crops are expected to transition to Brazil because it is a breadbasket, according to Caldas.

"Because of that, Brazil is going to say they can increase crops here because there's going to be a demand for food," he said. "So if they start to increase food production, it's all going to directly affect deforestation in the Amazon."

Funding for the team's work has come from the National Science Foundation and NASA. Caldas and his colleagues have spent more than 15 years studying Brazil's countryside.
HOW CAN ALUMNI GET INVOLVED AND SUPPORT K-STATE GEOGRAPHY?

We have been working hard to implement recommendations of the KSU Geography Alumni Board to increase the variety of ways that our alumni can interact with and support the Department of Geography.

1. To keep up with events and news in the department, take a look at the department’s web site (www.ksu.edu/geography) and click on “K-State Geography in the News” for links to multiple news releases. Also, the weekly Seaton Globe and annual Geography Alumni Newsletter are posted at our departmental website.

2. In recent years, we have hosted a reception for K-State Geography alumni, students and faculty at the AAG Annual Meeting. We will do this once again at the 2012 AAG Meeting in New York City on February 26, 2012.

3. Make a donation to support K-State Geography students and/or other department needs. You can do this by sending a check to the K-State Foundation, payable to the Foundation, but remember to add a note in the memo line of your check that the funds are to be deposited in account F26200, the Geography Foundation Account. You can mail your check to us and we will make sure it is passed along to the Foundation. Or, mail it directly to the K-State Foundation at 2323 Anderson Drive, Manhattan, KS 66502-2911. You can specify how your donation is to be used, or designate it as discretionary funds to be used where most needed. Our three biggest needs are:
   - Student scholarships: one of the existing named scholarships (see the list elsewhere in this newsletter), or make a donation to be applied to scholarships where most needed.
   - Student development: funds to travel to professional meetings where students present their research, or funds to support student participation in professional development workshops. For example, the Geography Faculty Development Workshop in Boulder, CO, is one workshop each summer that would be of great benefit to our doctoral students but carries a $1200 registration fee.
   - Funds for teaching equipment in our classrooms and labs.

4. Consider a major gift for a new specific purpose that is important to you. For instance, a $30,000 donation will support an annual $1500 student scholarship or award. A $100,000 endowment will support a $5000 annual award for outstanding faculty. A $250,000 endowment would establish a lecture series with $12,500 per year in expendable funds to pay for honoraria, publicity and expenses of guest lecturers in geography. If you would like to make an impact on the Department of Geography you can contact Tracy Robinson, Development Officer for the College of Arts and Sciences at the KSU Foundation, about opportunities and information at 785-532-7524 or tracyr@found.ksu.edu.

5. Join us at our annual Spring GTU/Geography Awards Banquet, held on or close to the campus on April 27, 2012.

6. Every February since 2008, the Geography Alumni Board has organized a Geography Career Day. Several government agencies and private firms interview a large number of students. Alumni give short presentations to all interested students on resume preparation and interview skills. Consider participating if you are in a position to hire geographers.

7. Visit the department and offer to give a department colloquium or Brown Bag Lunch seminar about your professional or travel experiences. We would love to hear about it.
Kansas State University Geography Alumni Update Form

We enjoy hearing from you, the Geography Alumni, so please take a few minutes to complete the following form, now, before you forget! Your information and comments will be included in the next Alumni Newsletter.

http://www.k-state.edu/geography/alumni/alumni_form.html

Thank you very much!