Message from the Chair: Department of Geography & the Environment Setting New Standards of Excellence

I am very happy to report to all of our students, alumni, and friends that the Department of Geography & the Environment has enjoyed a highly successful year. In autumn 2014, we set a record for the number of undergraduate majors in our department. We now have 80 students majoring in Geography and 139 students majoring in Environmental Science, for a grand total of 219 undergraduate majors. In addition, we have 111 students who are pursuing a minor in Sustainability, Geography, Environmental Science, Geographical Information Science, or Geology. Altogether, student interest in geography, the environment, and related fields is very strong. Part of the reason for the increased student interest comes from the extremely high quality of instruction from our faculty, and the broad range of courses and programs that we offer. Our field quarter program continues to be a major success, with courses this year visiting the Grand Mesa region of western Colorado, the Mount Evans Field Station, western New Mexico and eastern Arizona, the Czech Republic, and the Baja Peninsula in Mexico. Other field courses visited Peru, Nicaragua, and the Florida Keys, as well as numerous classes that included field trips throughout Denver and Colorado. Our blend of intensive classroom and laboratory studies together with extensive field work provides our students with a very distinctive educational experience.

Department faculty have continued to excel in both teaching and research. Dr. Rebecca Powell and Dr. Eric Boschmann were both awarded tenure and promoted to the rank of associate professor this past year in recognition of their outstanding teaching, research, and service contributions. Dr. Mike Daniels received two major grant awards from the National Science Foundation and the Fulbright Scholar Program in support of his research project in the Czech Republic. Dr. Matthew Taylor was awarded external funding on two grant projects from the National Science Foundation and the National Geographic Society for his work in Guatemala and Honduras. Matthew also had an article published in the very prestigious journal Science. Under the direction of Dr. Paul Sutton, PhD student Amir Siraj was the lead author on a paper also published in Science, a remarkable accomplishment for a graduate student. Dr. Becky Powell continued work on a previously-awarded research grant from the National Science Foundation (NSF). And most recently, Dr. Jing Li received the Outstanding Junior Faculty Award from the Division of Natural Sciences and Mathematics (NSM), and Dr. Hillary Hamann received a NSM Olin Faculty Development grant to attend and participate in the Colorado Water Leaders Program. Overall, department faculty members published 29 peer-reviewed journal articles, books, or book chapters, and presented 35 papers or lectures to professional groups over the last year. Please take a look inside this newsletter for more information about our teaching and research activities over the past year.

We welcomed two new faculty lecturers this year—Dr. Helen Hazen and Dr. Kris Kuzera. Helen joins us after teaching at Macalester College in St. Paul, Minnesota. Kris had a visiting position at DU for one year in 2012-13 and last year had a visiting teaching appointment at the Air Force Academy. Both Helen and Kris will be teaching the Our Dynamic Earth sequence, People Places Landscapes, and Sustainability & Human Society this year, and Kris will be serving as our new internship director.
We are also saying good-bye to two faculty members—Dr. Paul Sutton and Dr. Russell Fielding. Paul is taking a leave of absence to explore a faculty position at the University of South Australia in Adelaide where he will be starting in March 2015. Paul has been a faculty member here since 1999, and has contributed greatly to the growth of our educational programs, especially the MS-GISc program. He has also been a prolific researcher, having published over 60 peer-reviewed journal articles, books, and book chapters on research areas including urbanization, spatial demography, geographic research methods, and carrying capacity using recent developments in remote sensing (empirical measurements), geographic information science (analytical capability), and the inferential potential of statistics (theory). His 1997 multi-authored article in *Nature* on valuing ecosystem services has been cited nearly 13,000 times. Russell has been a lecturer in the department since 2011, and left this year for a tenure-track position at the University of the South in Sewanee, Tennessee. In addition to teaching introductory courses such as Our Dynamic Earth, Sustainability & Human Society, and People Places Landscapes, Russell taught a large number of field courses to places including Denmark, the Faroe Islands, the Florida Keys, Greenland, Iceland, and Norway. Russell also served as the department internship director, and was successful in identifying over 150 internship opportunities for our students. We will miss both Paul and Russell, and we wish them the best of success in their new positions.

The department invited University of Denver History Professor Susan Schulten for the 4th annual Laurance C. Herold Memorial lecture on May 22, 2014. Dr. Schulten is a geographical historian, and author of two books, *The Geographical Imagination in America, 1880-1950* and *Mapping the Nation: History and Cartography in Nineteenth-Century America*. Dr. Schulten’s Herold lecture presentation "After the Gold Rush: The Origins of the Colorado Territory and the University of Denver" was part of the University’s sesquicentennial celebration of its founding in 1864. Dr. Schulten painted a vivid picture of events that influenced the founding of the Colorado Territory and the University of Denver, especially the key role played by territorial governor and DU founder John Evans. It was a pleasure to host Dr. Schulten at our department, and witness her deep appreciation for the use of maps in research and teaching. We also enjoyed visits from many other scholars throughout the world who presented their research at our colloquium series (see inside newsletter for a complete list of speakers), thanks in part to the Marsico Visiting Scholars program.

I want to extend a special thanks to all of you who have taken the time to remember us with your thoughtful gifts to the Geography and Environmental Science fund over the past year. Your donations make it possible for us to offer new and exciting programs to our students, provide financial assistance to our graduate and undergraduate students to support their research expenses and to attend conferences to present their research, maintain and replace much needed lab and field equipment, and allow us to support our technological needs. At the request of the Herold family, we created the Laurance C. Herold Memorial fund in support of student field research, and I am grateful to all of you who have supported this fund in Larry’s honor. Your contributions are always greatly appreciated.

We regularly update our alumni database and enjoy learning about what is happening in your lives. Please take a minute to help us keep informed of your activities by visiting the alumni page on the department website (http://www.du.edu/nsm/departments/geography/alumni-update-form.html). We are also interested in what you would like to see included in the newsletter and welcome your input. As always, we extend an open invitation for you to visit the department should you find yourself in the metro area. We annually hold a Kick-Off Fiesta in September and a Graduation Picnic in early June for faculty, staff, students, families, alumni, and “friends of geography.” Please feel free to join us for future alumni events that we will be hosting.

On behalf of the faculty, staff and students, please accept our best wishes for a happy holiday season and a peaceful, prosperous, and productive 2015.

Andy Goetz
Chair
Faculty and Staff
2014-2015

Faculty

E. ERIC BOSCHMANN, Ph.D.
Ohio State University, 2008. Associate Professor. Urban geography, economic geography, commuting, mixed methods, GIS.

ANDREW R. GOETZ, Ph.D.
Ohio State University, 1987. Professor and Chair. Transportation, urban geography and planning, economic geography.

HELEN HAZEN, Ph.D.
University of Minnesota-Twin Cities, 2006. Lecturer, Environmental influences on human health, environmental conservation, international students

MICHAEL J. KEABLES, Ph.D.
University of Wisconsin-Madison, 1986. Associate Professor and Interim Dean, Daniel Felix Ritchie School of Engineering and Computer Sciences. Climatology, water resources, climate variability.

KRISTOPHER KUZERA, Ph.D.
San Diego State, University of California-Santa Barbara, 2011. Lecturer and Internship Director. GIScience, Remote Sensing, Statistical Analysis

REBECCA L. POWELL, Ph.D.
University of California-Santa Barbara, 2005. Associate Professor. Human-environment interaction, natural resource management, remote sensing, statistics, land use/land cover, geographic information science (GiSc).

J. MICHAEL DANIELS, Ph.D.

HILLARY B. HAMANN, Ph.D.
University of Colorado Boulder, 2002. Senior Lecturer. Hydrology, water resources, watershed biogeochemistry, physical geography, conservation

STEVEN R. HICK, M.A.
University of Missouri, 1983. Lecturer, MS-GIsc online Program Director, & GTAC Director. Geographic information science, project management, cartography, criminology.

MICHAEL W. KERWIN, Ph.D.
University of Colorado, 2000. Associate Professor and Director, Environmental Science Program. Quaternary geology, dendroclimatology.

JING LI, Ph.D.

DONALD G. SULLIVAN, Ph.D.
University of California at Berkeley, 1989. Associate Professor and Director, Environmental Sustainability LLC. Quaternary studies, biogeography, environmental change.
Faculty continued

PAUL C. SUTTON, Ph.D.
University of California-Santa Barbara, 1999. Professor and MSGISc residential Program Director. Geographic information science, ecological economics, human-environment interaction, population geography.

MATTHEW J. TAYLOR, Ph.D.
Arizona State University, 2003. Associate Professor and Director, Graduate Programs in Geography. Latin America, political ecology, development.

ERIKA TRIGOSO, Ph.D.

Visit our faculty’s personal pages (http://www.du.edu/nsm/departments/geography/index.html) to find out more about their research interests, projects, presentations, and publications

Emeritus Faculty

DAVID B. LONGBRAKE, Ph.D.
University of Iowa, 1972. Urban Geography, Urban and regional planning, quantitative methods, GPS, GIS.

TERRENCE J. TOY, Ph.D.

Adjunct Faculty

JOSEPH K. BERRY, Ph.D.

MARIA CAFFREY, Ph.D.
University of Tennessee, Knoxville, 2011 Palaeoclimatology, Meteorology, Future Anthropogenic Climate Change.

DOUGLAS R. CLARK, Ph.D.

ANDREA GELFU SO GOETZ, J.D.

JEFFERY KREEGER, MBA (Marketing)

MICHELLE MORAN-TAYLOR, Ph.D.
Arizona State University, 2003. Director, International LLC. Gender and international migration.

SEAN TIERNEY, Ph.D.
University of Denver, 2010. New energy and the energy transition, city/nature nexus, urban resiliency in response to globalization, transportation

MARTHA A. NAREY, Ph.D.
Staff

AMANDA O’CONNOR, B.A., Social Work, Longwood University, 2006. Assistant to the Chair.


SELAM HABTEAB, Work Study

The Department of Geography and the Environment
University of Denver
Boettcher West, Room 120
2050 E. Iliff Avenue
Denver, CO 80208
Phone: 303-871-2513
Fax: 303-871-2201
E-mail: geog-info@du.edu

Hands-on learning in Bear Creek with GEOL 3540 Hydrology students (photo courtesy Hillary Hamann)

Field Quarter students and Mike Daniels in the forest outside the town of Most, Czech Republic (photo courtesy Larkin McCormack)

Field Quarter students at the Gila Cliff Dwellings (photo courtesy Larkin McCormack)

Hillary Hamann joined faculty, staff and students within NSM for this year’s Crimson Classic 5K in September
DEPARTMENT UPDATES

New Additions and Departures

Russell Fielding accepted a tenure-line assistant professor position at the University of the South in Sewanee, Tennessee. He began his new position this fall. We thank Russell for his three years of service in the department, including an excellent job in teaching and in directing our internship program.

With goodbyes comes welcomes as we are excited to introduce two new lecturers to our faculty. Helen Hazen has joined the department after teaching for seven years at Macalester College in St. Paul, Minnesota. Her areas of expertise include health and environment as well as environmental conservation. Helen will be teaching several of our introductory undergraduate courses including Our Dynamic Earth, People, Places, and Landscapes, and Sustainability & Human Society. Kris Kuzera rejoined the faculty after having taught in our department during the 2012-2013 academic year. His areas of expertise include remote sensing, GIS, and statistical analysis. In addition to teaching some of the introductory undergraduate courses, Kris is also serving as the internship director. We are happy to have both Helen and Kris join our department.

Faculty Highlights

This summer, Eric Boschmann and Becky Powell were promoted to the rank of Associate Professor. We congratulate their many accomplishments and thank them for their contributions to the department and university.

Mike Daniels is currently on a year-long sabbatical conducting research in the Czech Republic. Last February he received news that he was awarded a US Fulbright Scholar Award in support of his research on the topic of “Soils, sediments, and the legacy of medieval agriculture in Czech pluzina landscapes”. Read more about the work Mike is doing in the Czech Republic under our Faculty News section.

Jing Li was the winner of the Division of Natural Sciences and Mathematics 2013-2014 Outstanding Junior Faculty award announced at this year’s Awards Ceremony and Reception. The award is based on outstanding performance in research, teaching, and service by a junior faculty member.

Matthew Taylor co-authored an article published in Science in January titled “Drug Policy as Conservation Policy: Narco-Deforestation”. The article focuses on the violent and environmental consequences of drug-related deforestation in Guatemala. Dr. Taylor and other researchers from the United States and Germany propose re-strategizing the war on drugs. They stress that the current focus on the supply side and interdiction policies force drug smugglers into increasingly remote regions to smuggle their product; these remote regions contain Central America’s last swaths of biodiverse forests. Thus, they conclude that current drug policy is also a conservation policy. This team of researchers is just at the beginning phases of delving deeply into the multiple drivers of deforestation in this region and are looking for ways to involve more undergraduate and graduate students in this research. You can read the entire article at http://raisg.socioambiental.org/system/files/Science-2014-McSweeney-489-90.pdf (Summary contribution by Nancy Sasaki)

Welcome Chancellor Chopp and New University Initiatives

Rebecca Chopp began her position as the 18th chancellor of the University of Denver in September. She spent much of the fall conducting a listening tour across campus, meeting with students, faculty, staff, alumni, and community members to learn more about the university and the vision for the future. The chancellor recently announced that one of her first initiatives is to begin implementing several of the recommendations from committees and reports that were conducted last year. One strategy to begin this work is through four newly developed task forces. The task forces include (1) Equity, Diversity, and Inclusive Excellence, (2) Student Access and Support, (3) Professional Development for Faculty and Staff, and (4) Expanding Sustainability on Campus. Dr. Becky Powell has been appointed co-chair of the Task Force for Expanding Sustainability on Campus. Learn more about our new Chancellor and university initiatives at http://www.du.edu/chancellor/

Meet our new Post-doctoral Fellow, Jennifer-Grace Ewa (contribution by Jennifer-Grace Ewa)

Jennifer-Grace Ewa is the new IRISE Post-doctoral Fellow in the Provision of Open Space. Her research focuses on underrepresented communities and their relationship with space and the outdoors. She is housed in both law and geography and will study the various spatial, temporal, cultural, socio-economical, psychological, and legal barriers to space. Cities everywhere are attempting to be more inclusive with regard to open space; park equity has become the main land use focus for cities from LA to New York City. However, in order to truly be inclusive we must first understand underrepresented communities and their relationship with space. She is working on papers, conference abstracts, and finalizing her IRB paperwork. Jennifer-Grace will co-teach a law and land-use class next semester. She loves dogs, cooking, reading, running, and nature-focused design.

(photo courtesy Jennifer-Grace Ewa)
Ph.D. student, Amir Siraj, published in *Science*

In March, Ph.D. student, Amir Siraj, was lead author on an article published in *Science*, titled “Altitudinal Changes in Malaria Incidence in Highlands of Ethiopia and Colombia.” You can find the article at [http://www.sciencemag.org/content/343/6175/1154.full](http://www.sciencemag.org/content/343/6175/1154.full). Amir shared some information with us on this great accomplishment.

On “Altitudinal Changes in Malaria Incidence in Highlands of Ethiopia and Colombia” *(contribution by Amir Siraj)*

Mounting scientific evidence has proved climate change to be “unequivocal”. Thus, most works related to climate change are focusing on its potential impacts. One of these potential impacts deals with the effect on biological processes behind the spread of infectious diseases such as malaria and dengue fever, major diseases with global significance.

In theory, warming climate is expected to affect areas at the fringe of malaria transmission by encroaching into those areas that used to be ‘too cold’ for the disease transmission. However, the empirical evidence to support this has been a source of heated global debate, fueled by the effect of non-climatic factors such as control intervention and demographic shifts on the number of cases or disease incidence rate.

Our study circumvented this problem by considering a measure that was not affected by the year to year number of cases, by considering the spatial spread of the disease and the change in that spread from year to year. We looked at the movement of the ‘center of gravity’ of the disease along elevation gradient. The study proved this movement of the ‘disease’s center of gravity’ was related to inter-annual changes in the mean temperature in the study area even after controlling for major interventions. During warm years the median elevation (and other quantiles indeed) went up in altitude while in colder years the median altitude went down. This suggested warming climate would shift the range of the disease to higher altitudes.

Our team includes senior researchers in the field of theoretical ecology and epidemiology, including Prof. Mercedes Pascual, a 2011 Marsico visiting scholar with the Department of Geography and Environment, who is based at University of Michigan’s Ecology and Evolutionary Biology; and Prof. Menno Bouma of London School of Hygiene and Tropical Medicine. With confirmed-cases data from Ethiopia and Colombia, unique in their temporal and spatial resolution provided by the respective Departments of Health, our team worked together throughout the data analysis and preparing the manuscript to publish this important research.

*Geography students use unmanned aerial vehicle to explore development in Nicaragua* By Jack Etkin *(originally appeared in University of Denver magazine)*

Associate geography Professor Matthew Taylor, who began taking students to Nicaragua in 2005 to study issues related to development, made his latest trip there in December. Taylor and his students brought along a new teaching tool: an unmanned aerial vehicle (UAV), this one a quadcopter whose four propellers are controlled remotely by a hand-held radio transmitter.

Before the 10-day class, Taylor and several graduate students tested the device for several weeks almost daily in the courtyard outside the Boettcher Center, sometimes with unintended results.

“We did crash one,” Taylor says. “One of the propellers flew off.”

Taylor was able to obtain funding for a new UAV, which cost about $800 for both the UAV and the camera to mount on it. But after the mishap on campus, Taylor and his students in his Nicaragua: Development Dilemmas class were leery of sending the UAV beyond 2,000 feet above ground for fear it might spiral out of control and land in the ocean. The camera is waterproof but not the vehicle itself. Nonetheless, the UAV enhanced the trip to Nicaragua’s Southern Pacific Coast, where Taylor and his students studied an area that has undergone development as tourism has increased.

“They’re studying landscape and livelihood change related to the increase in tourism in the area from multiple perspectives,” Taylor says, “from the perspectives of the locals, the investors and also not-for-profit organizations. What happens to the locals, basically, is the big question.”

Many of those locals are fishermen, whose equipment consists of nets and small boats with old, limited outboard motors. The boats’ range is only about six miles offshore, and since gasoline is a major expense, the consequences of a trip that doesn’t yield a good catch can be harsh.

The fishermen rely on what Taylor termed “accumulated knowledge” that is time-tested but not foolproof to determine the fishing conditions on a given day. Depending on the species being sought, Taylor says, “the relationships between water clarity and fish abundance” are crucial. And water clarity can be determined accurately by a UAV and camera.

“What we’re trying to do is make it easier for fishermen to earn a living,” Taylor says. “Water clarity is something fishermen can use as an indicator of what type of fish are available, and our purpose, given the increase in tourism, is to provide fishermen with as much information as possible so that they can make economic gains because of this new market. If they’re spending less on getting their fish, their profit increases. I don’t think we got high enough with this instrument to give power to the fisherman and to be of benefit to them, so we would just need a different instrument. But it works.”

That also was the conclusion when observing land cover, which, for example, would include spotting increases in the likes of trees, pastures and condominiums.

“The land cover impacts infiltration rates of rainfall and also impacts evaporation rates of moisture in the soil,” Taylor says. “The bigger question is how is land cover changing, and therefore, how does that impact recharge to the aquifer?”
DEPARTMENT UPDATES, CONTINUED

The UAV used on the recent trip approached a height of 2,000 feet. The capabilities of the device when used for the first time in Nicaragua were explored on the journey, which was about logistics as much as any particular research questions.

“The broad question was basically, ‘How can this technology benefit local lives?’ Taylor says, “with subsequent questions like, ‘Can we determine water quality with the technology?’ or ‘Can we help local fishermen in other ways?’ Those questions were categorically answered in the affirmative. We can, and will, be able to assist.”

Student research project examines fishing practices in the Caribbean

By Sawyer D’Argonne (originally appeared in University of Denver magazine)

While most students were home enjoying their summer vacations and unwinding before the school year kicks into gear, University of Denver senior Jill Hamilton was below the Caribbean Sea, hanging out with fish and seeking solutions to their declining numbers.

The environmental science and strategic communications major was one of 44 undergraduate students to receive a DU grant to spend the summer engaged in research. Hamilton studied the interaction of marine industries and reef management in Nevis, a small island in the Caribbean. She spent the summer doing research dives into the reef surrounding the island, conducting interviews with fishermen and government officials and coming up with solutions to create more sustainable fishing habits on the island.

The main focus of Hamilton’s study was the negative effects of overfishing on the reefs and fish populations surrounding the island. Fishermen, knowingly sidestepping government regulations, have begun fishing in reefs just off the coast of Nevis, where fish populations have been all but decimated. As a result, the ocean is returning fewer—and considerably smaller—fish to the island, as well as destroying the reef, an integral part of the island’s culture and economy.

“I would go down to the docks in the morning and talk to the fishermen as they got off their boats. That was really interesting because they were very candid, real people who have been using resources from the ocean since they were born,” Hamilton says. “Their parents had been using the resources; they had fishermen going back in their family for generations. A lot of people said that their parents, and previous generations, viewed the ocean as this endless resource, and they recognize now that it’s not. The new generation is more educated and realizes that there’s a problem.”

While regulations on fishing locations, size of fish and fishing practices are all in place, the real problem is a government that lacks the resources to enforce the laws, Hamilton says. The issue becomes even more complex as the economic and cultural significance of the reef begins to veil the growing ecological issues in the region.

“A lot of fishermen have been fishing the same spot for years and years, taking the fish straight to the shore, to their stand on the street, and selling them in the same spot for many years, and to the same customers,” Hamilton says. “There are a lot of cultural aspects of changing people’s ways that get really mixed into this problem as well.”

With an ineffective protection system in place and fishermen who are unable to afford vessels to fish in deeper, more fertile waters, other steps must be taken. Hamilton supports introducing a marine park that would investigate breeding habits and where the fish are living. Staffers would determine the most crucial areas for the rejuvenation of fish populations, while also providing alternative fishing locations, a tactic that has had success in other regions.

“If a management plan is created that will incorporate everyone’s needs to the best extent possible, and communicates these needs and educates people on why this would work, then I think there’s a huge possibility of it working,” Hamilton says.

Hamilton’s enthusiasm for the project stems from her interest in resource management, as well as her love of scuba diving, which she developed while learning to dive for a coral reef ecology class trip to Cozumel, Mexico, in her sophomore year. She plans to continue her work in natural resource management after graduating in November, citing the Nevis project as a major motivator.

“I hope to go to grad school for natural resource management, possibly with a marine focus,” Hamilton says. “I would love to have the experience of working on a marine research team. This was my first taste of research. The summer research grants and the [University’s Partners in Scholarship research grants] really provide undergraduate students with the opportunity to have their first taste of independent research.”
DEPARTMENT UPDATES, CONTINUED

Field Quarter 2014

We asked students to reflect on their field quarter experience. Below is some of what they shared:

Phoebe Coburn
Field Quarter is an exceptional experiential learning program. Each course and each professor is unique and taught me their own unique and valuable lessons. During the first course with Don, I felt we weren't treated as students to be lectured at, but rather needed assistant researchers. On both of his trips, Don gave us the opportunity to see what a career in research entails. No one more passionate or dedicated than Don could have been picked to do the job.

Though Mike Kerwin pushed me to my academic limit, he didn’t need to because he inspired me to push myself more. His infectious energy made all the students enthusiastic to be on our journey throughout the Southwest. He made me believe I can succeed at any career I choose to pursue, and prepared me for that as well. He is an absolutely invaluable professor who truly changed my life and I hope I will always know him as a teacher and a friend.

No teacher has taught me how to question the world more than Mike Daniels. His unique teaching style forces students to ask questions and attempt to develop an answer on our own before asking for or looking up the answer. He taught me how to always strive for more knowledge and how to make the world my own classroom without the crutch of an institution. Mike also became a close friend of mine and all the other students – he cared about each of us as individuals and treated us as equals.

Lastly, each student on the trip became a teacher to me as well. My twelve classmates became my co-workers and my family. Camping and cooking together everyday taught the group successful communication skills and compassion towards one another for the well being of the whole group. Traveling in Europe with a dozen other people is no small feat, but we performed without fault. By the time we arrived in Mexico, group conflicts, though rare, were handled in a mature and successful manner with every group member involved in the solution.

Though I have undoubtedly loved my time in both the International Studies and Geography departments at DU, no class has defined my time at DU as much as Field Quarter. Because of Field Quarter, I am proud to be graduating from DU this spring and I now know that I couldn’t have picked a better school.

Sumner Van Brunt
I had no idea what to expect from Field Quarter before it started, and it turned out to be an incredible adventure that surpassed my expectations. It was an experience that combined the adventure of study abroad without the loneliness that at times comes with it, with the comfort of being with fellow DU friends and professors without the routine of being on campus. I had a moment in Baja when we were driving somewhere and Don was speaking on the radio about the surrounding environment and I realized I was experiencing the most exceptional way to learn. It was like when a teacher puts on an educational movie to aid with learning, except instead of watching it this time I was in the movie. If I had learned about an arroyo in a classroom and then a few years later happened to be in one, I probably wouldn’t think to myself “oh, I’m in an arroyo.” But learning what an arroyo is while I was in one, that will stick with me forever. Field Quarter was the best academic experience I have ever had because I was living what I was learning.

Chelsea Warren
An average female California sea lion is 6 feet. I know this because when one swam beneath me on an island outside of Espiritu Santo, I could not help but notice that the large mammal beneath me was taller and a lot more graceful than myself. This was not the main attraction though, and my student peers up ahead waved underwater to come hither. Though interacting mostly only with 13 other individuals for 11 weeks means picking up on everything from body language cues to someone pulling out a new shirt 20 days into Baja, I knew the main reason why we were here: sea lion pups. Field Quarter is full of people running toward the insects, reptiles, and arachnids that scare our peers. Baja was no exception. We run toward the crazy: scorpions hanging out near the kitchen, camping on sandstone bluffs that are 300 feet above the crashing surf, and the occasional tarantulas found under the tent. Field quarter is based on experiential learning, which to me means that I get to grant my inner inquisitive, nerdy self the pleasure of being a proper student. I get to use a walkie-talkie and ask my professor to explain what is happening outside my window. I get to see a baby turtle touch the sea for the first time in Baja, see the earth ripped opened by open pit mining North of Prague, and get to fall asleep under the Milky Way each night. Being on Field Quarter means getting to do what any environmental science major wants to do, truly embrace the world as my classroom.

Interterm 2014

The department led three interterm trips this academic year. During both the summer and winter interterms, Matthew Taylor took students to Nicaragua to understand the rapid changes taking place in the Pacific Coast region. Russell Fielding led a trip to the Florida Keys during the summer interterm. The focus of the trip was on the biogeography of the region, environmental protection, and the effects of tourism and development on natural island ecosystems.
FACULTY NEWS

News from E. Eric Boschmann

This year I had research papers appear in both journals of the Association of American Geographers: one in *The Professional Geographer* with former graduate student Emily Cubbon (Sanschagrin), and one in the *Annals of the Association of American Geographers* with a colleague-friend at University of North Dakota, Michael Niedzielski.

Certainly the highlight of this year was a 5-month sabbatical trip across Latin America with my wife, Jennifer. We traveled over 16,000 miles by airplane, train, boat, motor coach, city bus, subway, kayak, bicycle, taxi, tuk tuk, walking, and running. Our time was spent in Guatemala (7 weeks); passing through El Salvador and Honduras; Nicaragua (1 week); Costa Rica (2 nights); Peru (10 days); Paraguay (1 month); Buenos Aires, Argentina (6 weeks); and a long afternoon in Colonia, Uruguay.

After studying Spanish for 6 weeks, we traveled through Central America and into South America. In addition to future lectures, I thought about how these travels might connect back to the students at DU immediately. One way I fostered this was through my “analog blog.” My office at DU is across from the BW124 classroom, where students are often waiting in the hallway to enter their next class. What better way to capture their geographic imaginations than by posting photos from my travels? Each week during Fall Quarter 2014 I sent back a photograph from our travels, with some textual interpretation, and had it printed and pasted to my office door and surrounding walls. [Thanks Will and Amanda for helping with this!]

One primary research project during sabbatical was to begin collecting information about Asunción, Paraguay. It is the only remaining capital city or major city of South America not yet profiled in the “City Profiles” series of the *Cities* journal. In the coming months I will compile my findings into an article for this series.

Finally, sabbatical was also a time of rejuvenation, where I worked to recover the lost joy of reading. Charles Mann’s *1491* served somewhat as a travel guide through the Americas while John Urry’s *The Tourist Gaze* helped make (academic) sense of the tourism we encountered. On the contemplative life, I read some Parker Palmer, Richard Rohr, and Thomas Merton, and Pico Iyer’s *The Art of Stillness*. Novels included Dan Brown’s *Inferno*, J.M. Coetzee’s *Disgrace*, and am still working through Edward Rutherford’s *New York: A Novel*. Up next: the new books from Anne Lamott and Naomi Klein.

Mike Daniels had a busy and productive year teaching, conducting research, and serving the department, university, and discipline. He taught courses in geomorphology, soils, natural hazards, introductory human geography, and the history/philosophy of geographic thought. He developed a fresh perspective on teaching that he incorporated into all his classes by studying the works of scholars in progressive and critical pedagogy such as John Dewey, Maria Montessori, and Paolo Friere. He exhorted his students to take the reins of their own education and to push themselves to discover their own truths as they seek to build a more sustainable future for themselves, their communities, and their planet. And he was reminded of the difficulty of doing this by one astute student who responded: "But Professor Daniels, we don't know anything about soils yet!" :)”

In the research arena, Mike had a productive year. He published articles in *Geomorphology*, and *Arctic, Antarctic, and Alpine Research*. Both papers resulted from collaborations with graduate students who have since moved on to successful careers in hydrologic consulting and water resource management. He developed a new research project that has been funded by the National Science Foundation to examine long-term (centennial timescale) patterns of soil erosion and floodplain sedimentation in agricultural landscapes of southern Bohemia which date to the early Medieval era. This work will be conducted during the coming year in collaboration with colleagues at Czech Agricultural University, Czech Technical University, and the Czech Academy of Sciences. Mike also received a Fulbright Research Scholar award to support his stay in Czech Republic during his 2015 sabbatical. He is living with his wife Jane and their two children in Prague, trying his best to confront the nearly impenetrable intricacies of the Czech language (with some success, he is pleased to report). Finally, Mike is working with colleagues at the Wisconsin Geological Survey on a book manuscript focused on the geomorphology and agricultural legacy of the Driftless Area of southwestern Wisconsin. He has been inspired in this effort by studying the works of Aldo Leopold and Wendell Berry. And while conducting fieldwork in southern Czech Republic he has been frequently reminded of the similarities between the landscapes of these two different regions, both with rich geological, ecological, and agricultural heritage, but expressing very different historical and social trajectories.

Mike continued to serve on the editorial board of *Geomorphology*. He reviewed manuscripts for *Geomorphology, Natural Hazards*, and *Journal of Hydrology*. He reviewed research proposals for National Science Foundation. And he served on numerous departmental, divisional, and university committees including Honors Council and two departmental tenure and promotion committees.
Andy Goetz is in his seventh year as chair of the department, and enjoys hearing from alumni and colleagues from around the world. In August, Andy had the opportunity to teach in a summer school program at Aalto University in Helsinki, Finland, and then traveled to Poland for the International Geographical Union (IGU) conference in Krakow. Andy was happy to finish a co-edited book (with colleague Lucy Budd of Loughborough University, UK) on The Geographies of Air Transport published by Ashgate (www.ashgate.com/isbn/9781409453314). DU Geography alum Sean Tierney (PhD, 2010) contributed a chapter on the geography of US air transport for this volume.

On the home front, Andy’s son Alex graduated from high school last May, and is now attending the University of California-Berkeley. What is his major? Environmental Science!

The past year was a full one for Dr. Hillary Hamann. When the last newsletter came out, she was travelling through Peru with Dr. Erika Trigoso and 10 students studying Andean Landscapes. When the class ended, Hillary continued south to Chile and the northern part of the Patagonia region where she utilized a DU Internationalization Grant to examine sustainability issues related to a proposed dam project (later rejected by the Chilean Government) and the creation of a new national park. Several close encounters with Andean Condors and herds of Guanacos were an added bonus. Shortly after returning, Hillary travelled to Florida to co-present a seminar at the International Center for Academic Integrity’s annual conference with Dr. Mike Kerwin. Class rosters were full and Hillary had a wonderful time sharing her experiences with students in Environmental Systems, Mountain Environments & Sustainability, Hydrology, and Colorado’s Rivers. In the midst of the busy year, Hillary managed to find time to continue her volunteer work as a crew leader with the Wildlands Restoration Volunteers, to train for and run her first two half-marathons, and to feed herself and her husband from her garden all summer long.

Helen Hazen has just joined the department from Macalester College in St. Paul, Minnesota. She has very much enjoyed teaching ‘Our Dynamic Earth’ and ‘People, Places and Landscapes’ this semester and is looking forward to teaching further classes over the coming year. Helen continues to pursue her research interests in environmental conservation and health, with several projects in progress. She is currently working to finalize three articles on home birth and sense of place, based on fieldwork in Minnesota last summer.

Steven Hick continues to direct GIS in the department, including labs, classes, advising, enrollment management, etc. This year saw our fifth and largest cohort of online MSGISc students graduate, and enrollments and interest in the online graduate degree program continue to grow steadily. The GIS Certificate Program has seen continued growth and continues to be the feeder program for the graduate degree program.

The world of online GIS learning continues to demand much time and energy. Setting up the technical infrastructure has been a major time investment as we prepare for the next planned phases of GIS education in the 21st century. I served on the University’s Learning Management System Committee as we explored other learning management systems on the market and this academic year we began our migration to the Canvas learning management system. Collaborative learning centers in the GIS lab will be the theme of the next proposal to go out the door and I am actively working on partnerships to move into the geospatial intelligence community. We also now own a fixed-wing unmanned aerial vehicle (UAV). We taught the first UAV GIS class in the country this past summer and we have several graduate students with interest in the use of UAVs in a range of spatial applications. It has been a busy year and there is still much work ahead.

Mike Keables continues in his role as interim dean of the Daniel Felix Ritchie School of Engineering and Computer Science. During the past year, Mike has been actively involved in the design and construction of a new building for the Ritchie School which is presently under construction and scheduled to open in Fall 2016. The 130,000 sq ft building will be one of the premier engineering facilities in the western United States. Mike has also been actively seeking external funding to support the Ritchie School, raising over $4M in gifts toward the new building and for scholarships for undergraduate students. An active search for a permanent dean is underway, and Mike hopes to return to the department next year. In the mean time, he continues to teach his favorite course, Environmental Systems: Weather and Climate to students on campus and online.
FACULTY NEWS, CONTINUED

For the second consecutive year, historic flooding disrupted Mike Kerwin’s September field geology and ecology class. This year the flooding was caused by the remnants of a Pacific Hurricane, Odile, which was a large category 3 storm that hit Cabo San Lucas Mexico on September 14, 2014. Over the next five days, the storm slowly tracked north along the Baja Peninsula before moving into the SW USA where it stalled, resulting in nearly nine inches of rain over parts of Arizona and New Mexico. Each year, Mike teaches part of his class (The Geology and Ecology of the Southwest) at the Southwestern Research Station (SWRS) in the Chiricahua Mountains of SE Arizona. At the SWRS, his class has an opportunity to examine plant biodiversity and conduct research on how recent climate changes have impacted regional ecosystems. The students also investigate re-vegetation following wildfire. Since 2002, more than four million acres of ponderosa pine ecosystems have burned in Arizona including 279,000 acres in the Chiricahua Mountains. The heavy rainfall from the remnants of Hurricane Odile caused widespread debris flows and flooding below the burned out areas of the Chiricahua. Fortunately the SWRS was spared the worst of the flooding, but still lost power and Internet for nearly a week while repairs were made. More significantly the access road to the SWRS along Cave Creek was washed out in two places and closed indefinitely by the National Forest Service. Despite these “challenges” Mike was able to get his class of 13 students into the Research Station using a back road where the students enjoyed being “stranded” in one of the most beautiful and ecologically diverse places in the USA.

Away from the classroom, Mike remained active in academic integrity and climate change research. At DU, Mike is the Faculty Director of the Honor Code and co-chair of the University’s Academic Integrity Board. In 2014, he also began a three-year appointment as an executive board member for the International Center for Academic Integrity (ICAI). The ICAI Board met in February to discuss opportunities to promote integrity beyond the classroom and outside of USA colleges and universities. The discussion was fascinating given that the committee membership includes experts from Australia, Canada, Egypt, and the United Arab Emirates. Mike utilizes these leadership positions to conduct research and advocate for the educational benefits of academic integrity. In February, he presented a paper at an international academic integrity conference (with Geography Professor Hillary Hamann) that compared how students write in 2014 compared to the pre-internet era. Their results suggest that today’s students - “nurtured on Wikipedia” - use the Internet in a way that makes plagiarism more prevalent. However, their research also showed that schools with a strong Honor Code have less plagiarism and also produce better writers.

In January 2014, Mike was invited back to Colorado College (his Alma mater) to be recognized as an Aficionado by the Southwest Studies Program. As part of this event, Mike delivered a lunchtime lecture to faculty, staff, students, and community members of Colorado College and Colorado Springs. The lecture focused on Mike’s current research – Drought and Climate Change in Colorado’s Front Range. For details on Mike’s drought research and the Aficionado’s lecture, you can listen to a KRCC public radio interview that was conducted as part of the event: http://krcc.org/post/specter-megadrought-interview-dr-michael-w-kerwin.

Kristopher Kuzera returns to the Department of Geography and the Environment after a year teaching in the Department of Economics and Geosciences at the US Air Force Academy in Colorado Springs. At USAFA, Kris taught Introductory and Advanced Remote Sensing courses to Air Force cadets, as well as supervised several student projects, including mudslide potential following the Waldo Canyon fire and Ips beetle infestation using Unmanned Aerial Vehicles. In the spring semester, Kris received the Geosciences Instructor of the Semester award at the Academy.

Kris will serve as the Internship Program Director and teach courses on natural hazards and cultural landscapes. He continues to conduct research on the effects of climate change and infectious disease, and is currently exploring spatial research on the geography of the craft beer industry. In July, Kris and his wife Barbara welcomed their newborn son Oskar into the world, and already have plans to turn him into a world-class geographer!

Jing Li has had a good and rewarding year with teaching, research and services. She taught Introduction to GIS, GIS Database Design, Geographic Information Analysis and Advanced GIS. She is enjoying engaging students in the classroom as well as working with students on their independent projects. Being the contact of GIS minor, she has been actively working with Academic Advising to promote the minor across different divisions of the university.

In term of research productivity, Jing submitted grant proposals to the DU PROF program, the UCAR/NCAR Unidata, US Geological Survey and the National Science Foundation. Her recent work on 3D spatiotemporal data visualization and modeling has been published in Computer, Environment and Urban Systems. She also gave presentations on using Graphics Processing Units (GPU) to improve the efficiency of geocomputation for a few professional conferences such as AAG annual meeting. She was also invited to give a guest lecture on the same topic at Wuhan University during the past summer.

Jing continues to serve on the Board of Directors of AAG Cyber-infrastructure group as well as the Rocky Mountain URISA. In addition to serving on professional communities, she served as the judge of State level of Geographic Bee where she met future geographers!
Becky Powell maintains a number of research projects that characterize the ecological properties of land cover using a variety of remote sensing data. She works with graduate students and other collaborators on studies ranging in location from the Amazon floodplain to East Africa to the Great Plains and temperate forests of North America. She is also part of an NSF-funded project investigating thermal controls on ecosystem metabolism and function, and how these processes scale from leaves to canopies to regions. This past fall, Becky was thrilled to have a record number of students in the introductory Remote Sensing course. She is excited by the growing undergraduate interest in Geographic Information Science, and is committed to growing that program here in our Department. Becky also remains very active in the University Sustainability Council, which she co-chairs with Mollie Doerner, MS-GIS candidate. She teaches two undergraduate courses that examine concepts of sustainability through the lens of the University of Denver’s commitment to the public good. She currently serves as co-chair (along with Chad King, director of the DU Center for Sustainability) of the Chancellor’s Task Force on “ Cultivating a Sustainable Community.”

Don Sullivan continues his research on the climate history of the western US, with field and lab work in the Wet Mountains, Sawatch Range, and on Grand Mesa. He continues to teach in the Field Quarter, taking students to Mexico for the 15th straight year as part of the FQ.

From the desk of Dr. Paul Sutton - I enjoyed teaching my courses in Population Geography, Statistics, Ecological Economics and my First year Seminar this year. I have written letters for several outstanding undergraduate students who are applying for prestigious programs such as the Harry Truman Scholarship. These students include Lily Montessano, Chris Chang, and Nick Stubler. One of my PhD students (Amir Siraj) published a paper in the prestigious journal Science (https://www.sciencemag.org/content/343/6175/1154.full). My other PhD student (Qing Liu) is working with Chris Elvidge and others at NOAA to develop an open source web site that enables the use of nighttime imagery from the DMSP OLS and VIIRS nighttime satellite image archives for a broader array of social and physical scientists. I am also working on a paper with alumna Amanda Weaver who is currently faculty at University of Colorado - Denver. I have published a paper with my most recent PhD student, Joseph Hoover and we are working on a couple more. Joe Hoover is now part of an NSF funded team at the University of New Mexico who are working on public health issues and spatial epidemiology. I am still in contact with many alumni (Tilottama Ghosh, Andrea Santoro, Alex Muleh, Ben Tuttle, and Amanda Weaver to name a few). I have also been publishing ongoing research with several of my former grad students including Ben Tuttle and Tiloo Ghosh. Most of the aforementioned papers can be found on my google scholar site (https://www.sciencemag.org/content/343/6175/1154.full). I will be taking a leave of absence from the University of Denver to explore a position as Head of the Discipline: Environmental and Geospatial Science which is housed within the School of Natural and Built Environments at the University of South Australia in Adelaide, Australia.

Erika Trigoso was happy to continue with her busy teaching load for the past the year including Global Environmental Change I, Geography and Genealogy, People, Places & Landscapes, Sustainability & Human Society, and Intro to Geographic Information Systems. Dr. Trigoso and her husband, Stephen are also enjoying a more sustainable life with their up and running solar panels. They are quite excited. She is also researching the vibrant craft beer industry in Denver in collaboration to H.G. Parsa from Hospitality Management. She is investigating success factors for microbreweries and brewpubs in Denver.

Dr. Trigoso also started working with a 3D projector for GEC I and she is really happy about the prospects for utilizing those in other classes, she started a collection of geography related 3D DVD and 3D diagrams with content related to a diversity of lectures, and she is more than happy to share. In addition, Dr. Trigoso is also discussing new inter-term travel courses with some of her restless colleagues, stayed tuned!

In the 2014 calendar year Matthew Taylor spent as much time away from the office as possible! This is not to say that he ignored his teaching here on campus, but to say that he loves to get into the field with students and alum. Starting in January, Matthew and doctoral student Nikolai Alvarado presented papers at an international conference in Panama. They took time to explore the Canal Zone and beaches of Panama. The paper that Nikolai presented at that conference has since been published in the Journal of Latin American Geography. In March, Matthew and doctoral student Diego Pons journeyed to some of Guatemala’s most remote mountaintops in search of old fir trees with which to reconstruct past climate. That research, too, has been published recently in Climate Dynamics. In that exploration, we were accompanied by men with guns who lay claim to this “National” protected area! While there, we think we discovered a new fir — as I write Diego is in Guatemala conducting DNA analysis of firs from three different regions of Guatemala that have previously been classified as the same tree. If we make a new discovery, we propose a new name – Abies ponsiti! June saw Matthew back in Gigante, Nicaragua with graduate students Thomas Gary Lavanchy, Nikolai Alvarado, and Nico Earhart. We all continued our research there. Indeed, the research by Thomas and I into control of water resources there was just published in the International Journal of Water Resources Development. We also installed several weather stations to begin to better understand recharge of aquifers there. We also spent plenty of time in the water studying the wave dynamics. July saw Matthew back in Guatemala conducting research in the General Archives of Central America searching for references to climate change in colonial documents. Back to Nicaragua in October to investigate the politics and discourse surrounding the impending construction of a Canal through Nicaragua — right at the point where all of our research has taken place over the last ten years — exciting times indeed. In November I returned to Guatemala on our NSF and National Geographic funded research to sample more trees in the high Cuchumatanes and also to lay the groundwork for the first ever Central America Dendroecological Fieldweek (NSF funded), which we will lead in March 2015. A DU undergraduate student, Mackenzie Boli, has been invited to participate in this field week. December a crew of DU folk were back in Nicaragua exploring the coast. Several alum popped in to say hello and to join in on the Gigante wave. So, in short, if you want to get into the field and have a yearning to explore and learn, let me know.
Eric Boschmann

J. Michael Daniels

Russell Fielding

Andrew Goetz

Jing Li
Yang, C., Sun, M., Xia, J., Li, J., Liu, K., Huang, Q., & Gui, Z. (2014). Chapter 12 How to Test Cloud Services? In Chaowei Yang & Qunying Huang (Eds.), *Spatial Cloud Computing: A Practical Approach*. (pp. 201-222). Taylor & Francis, CRC.
FACULTY PUBLICATIONS 2013-2014, CONTINUED


Li, J., Li, Z., Huang, Q., Sun, M., & Liu, K. (2014). Chapter 9 Cloud-Enabled Climate@Home. In Chaowei Yang, Qunying Huang, Zhenlong Li, Chen Xu, & Kai Liu (Eds.), Spatial Cloud Computing: A Practical Approach. (pp. 143-160). Taylor & Francis, CRC.


Rebecca Powell

Paul Sutton
(http://www.sciencedirect.com/science/article/pii/S0959378014000685)


(http://www.sciencedirect.com/science/article/pii/S0143622814001210)

Luca Coscieme, Federico M. Pulselli, Nadia Marchettini, Paul C. Sutton, Sharolyn Anderson, Sharlynn Sweeney, Energy and ecosystem services: A national biogeographical assessment, Ecosystem Services, Volume 7, March 2014, Pages 152-159, ISSN 2212-0416,
(http://www.sciencedirect.com/science/article/pii/S2212041613000892)

Matthew Taylor


Eric Boschmann


J. Michael Daniels


Russell Fielding


Andrew Goetz


Goetz, A. R., Ratner, K., "Using a Typological Approach for Transit-Oriented Development and Impacts on Travel Behavior in Denver," National Center for Intermodal Transportation and Economic Competitiveness, Mississippi State University, Starkville, Mississippi. (November 1, 2013).

Goetz, A. R., "Innovative Approaches to Improved Intermodal Transportation Infrastructure Funding and Financing through Public-Private Partnerships," National Center for Intermodal Transportation and Economic Competitiveness, Mississippi State University, Starkville, Mississippi. (October 31, 2013).

Hillary Hamann


Steve Hick


Mike Kerwin

Kerwin, M. W., "Who is the DU undergraduate?," Office of Teaching and Learning New Faculty Orientation, DU Office of Teaching and Learning, University of Denver and Online. (July 23, 2014).
Kerwin, M. W., Olson, K., "DU's Honor Code: Update to Faculty Senate," Faculty Senate, University of Denver Faculty Senate, University of Denver and Online. (April 25, 2014).

Jing Li

Rebecca Powell

Don Sullivan

Paul Sutton
Sutton, P. C., "Alone in the Void: Getting Real about the fragile and tenuous nature of modern civilization," Distinguished Speaker Series, Barbara Hardy Institute, University of South Australia.
FACULTY PRESENTATIONS 2013-2014, CONTINUED


Matthew Taylor


Taylor, M. J., Pons Gandini, D., "Climate Change and Dendrochronology in Guatemala," Colloquium presentation at Universidad del Valle, Guatemala, Universidad del Valle, Guatemala, Guatemala City, Guatemala. (March 12, 2014).


Eric Boschmann

Boschmann, E., "Internationalizing urban geographic teaching and research: From Guatemala to Buenos Aires," Faculty/Curriculum Development Grant (Internationalization), $3,000.00. (July 1, 2014 - June 30, 2015).

J. Michael Daniels


Daniels, J. M., U.S.--Czech Fulbright Research Scholar Award to conduct sabbatical research at Czech Agricultural University in Prague

Andrew Goetz


Hillary Hamann


Jing Li

Li, J., "Travel Grant for Wuhan University International Forum for Interdisciplinary Sciences and Engineering," Sponsored by Wuhan University, Foreign/international entity, $1,500.00. (June 13, 2014 - June 15, 2014). Travel grant to attend the conference.
Rebecca Powell


Powell, R.L., "Land and resource use on the Amazon floodplain under evolving management systems and environmental change: Fish, forests, cattle, and settlements. Sponsored by NASA Land-Cover/Land-Use Change. (April 2012 - March 2015).

Matthew Taylor


Taylor, M. J., "Climate Change and Sustainability in Guatemala: Using Spanish Colonial Documents to Verify Climate Reconstructions and to Document Human Responses to Climate Change," Professional Research Opportunities for Faculty—PROF (DU), $16,460.00, Submitted: January 15, 2014, Awarded: May 1, 2014. (June 1, 2014 - October 2, 2015).

Taylor, M. J., Quigley, M., "Mitigation of environment and socioeconomic consequences of water scarcity in rural landscape conversion," Public Good Fund Grant (CCESL), $9,500.00, Submitted: March 1, 2014, Awarded: May 1, 2014. (June 1, 2014 - June 1, 2015).

Taylor, M. J., "Looking for Old Wood in Colonial Buildings to reconstruct Climate in Guatemala," Faculty Research Fund—FRF (DU), $3,000.00, Submitted: April 1, 2013, Awarded: June 1, 2013. (June 30, 2013 - June 1, 2014).

Taylor, M. J., "Creating a Public Web-Based GIS for Rural Nicaragua," Public Good Fund Grant (CCESL), $9,000.00, Submitted: March 1, 2013, Awarded: May 1, 2013. (June 1, 2013 - June 1, 2014). Creating a Public Web-Based GIS for Rural Nicaragua

STUDENT NEWS

Nikolai Alvarado, Ph.D. Student was the recipient of several awards this year. He received the Graduate International Grant (GIG) from the University of Denver for the purpose of international service learning in Nicaragua. He also received the University of Denver’s Graduate Studies Doctoral Fellowship for Inclusive Engagement Award. The 2nd World Small-Scale Fisheries Congress awarded him with a grant to present his research results at their conference in Merida, Mexico in September. Nikolai also published the results of his MA thesis, titled “¿Del mar quién es dueño? Artisanal Fisheries, Tourism Development and the Struggles Over Access to Marine Resources in Playa Gigante, Nicaragua,” in the Journal of Latin American Geography.

Ph.D. Student, Gary Lavanchy received two awards in support of his research in Nicaragua which include the Association of American Geographers Dissertation Research Grant and the Geological Society of American Research Grant.

At the meeting of the Nordic Association of Development Studies in Tromsø it was announced that Ph.D. Student, Anna Sveindsdottir’s MSc thesis was awarded the distinction of the most outstanding MSc thesis with development studies delivered at a Norwegian University in 2014.

M.S. online student, James White was accepted as a student ambassador for EcoFlight’s 2014 Flight Across America program which took place in Aspen. He joined students from around Colorado to fly over wild lands in Colorado, Utah, and Wyoming as well as meet with experts and state elected officials regarding wilderness initiatives.

Graduate Students Grace Kellner, Meghan Mooney, Diego Pons, and Sylvia Brady attended the joint regional meeting of the Rocky Mountain/Great Plains and Southwest Association of American Geographers in Albuquerque, NM from October 23-25, 2014. The group won first place in the team Geobowl competition with Sylvia Brady placing in the top six individual scorers. Meghan Mooney won third place in the paper presentation and Diego Pons won second place in the poster presentation.


M.A. Student, Stephen Rijo was recently awarded a fellowship with BikeDenver that will run until December 2015 and is funded by the Boulder-based national bike advocacy organization PeopleForBikes. This fellowship added Steve to BikeDenver’s part-time staff as the Business Network Coordinator where he will conduct business outreach to garner local support around the bicycle, improved cycling infrastructure, and other related topics. Steve is excited to work for BikeDenver and believes this work will dovetail nicely with his MA thesis research on the economic impacts of improved cycling infrastructure in Denver.

M.A. Student, Walter Scheib is currently a research intern in the Denver Mayor’s Office of Sustainability. As part of a small team, he conducts various research projects that help Denver meet its 2020 Sustainability Goals and also allow the city to continue serving as a national model for city-level sustainability initiatives.

November 19th was International GIS Day and M.S. online student, Erin Sevatson celebrated in Dubai, UAE! Her picture was included on ESRI’s buzzfeed showing geogeeks around the world. [http://www.buzzfeed.com/esri/39-geogeeks-who-ruled-instagram-on-gisday-pchv](http://www.buzzfeed.com/esri/39-geogeeks-who-ruled-instagram-on-gisday-pchv)

New and returning graduate students attended the annual Graduate Student Fall Retreat at the field station on Mount Evans in September. The retreat serves as an opportunity to welcome new graduate students as well as provide information and advice. It is also an opportunity for all graduate students to come together after the summer and welcome in the new academic year.
ADDITIONAL CURRENT AND RECENT STUDENT PRESENTATIONS/PAPERS


- **Sylvia Brady**- “Mobility and Sustainable Transportation in Latin America: Successes, Failures, and Diffusion of Ideas.” Great Plains Rocky Mountain Annual Meeting Student Paper Competition (October, 2014).


- **Meghan Mooney**- “Using Qualitative GIS and Sketch Mapping to Assess Individual Walking Behavior, Perceptions, and Experiences.” Rocky Mountain Annual Meeting Student Paper Competition (October, 2014).

- **Meghan Mooney**- “Pedestrian Mobility in Denver, Colorado.” Association of American Geographers Annual Meeting, Tampa, FL (April 2014).

- **Diego Pons**- “Projected Prevalence of Malaria in Alta Verapaz, Guatemala for the years 2020 and 2050 using Global Circulation Models and Ecological Niches.” With S. Neeley, Rocky Mountain Annual Meeting Student Poster Competition (October, 2014).


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Stay up to date on student accomplishments, department news and events by visiting [http://www.du.edu/nsm/departments/geography/newsandevents.html](http://www.du.edu/nsm/departments/geography/newsandevents.html)
Congratulations to our AY 2013-2014 Graduates!

**Doctoral Program**
- Sharon Gable
- Joseph Hoover

**Master’s Program: Geography**
- Taylor Hafley
- Jeffrey Honke
- Aaron Zettler-mann

**Master’s Program: GISc**
- Zachary Adams (online)
- Zachary Ancona (online)
- Nashwa Bolling
- Ashley Burns (online)
- Jean Davidson (online)
- Richard Joseph (online)
- James McAndrew
- Jennifer Muha (online)
- Jeffrey Orlowski (online)
- Laura Pernice (online)
- Megan Ross (online)
- Jennifer Todd (online)

**Bachelor’s Program: Environmental Science**
- William Adicoff
- Samantha Allen
- Olivia Anton
- Cameron Bentley
- Jaclyn Best
- Sydney DeMars
- Nhat Do
- Alexandra Goldberg
- Jill Hamilton
- James Howe
- Erin Husi
- Jessica Jortberg
- Ellen Mango
- Jacob Maas (double major with Geography)
- Jared Mazurek (double major with Geography)
- Blake Minor
- Lily Montesano
- Paige Mullen
- Matt Reimann
- Taylor Schutte
- William Summitt
- Bergen Tjossem
- Sean Toriumi
- Mika Ulmet
- Laura Waksman
- Jewell Wilson
- Samantha Winsett

**Bachelor’s Program: Geography**
- Chris Boutilier
- Ellen Claussen
- Katie Collins
- Mollie Doerner
- Matthew Farrell
- Jillian Feiger
- Lanna Giauque
- Amelia Hahn
- Tracy Ostrofsky
- Kaitlyn O’Sullivan
- Shayleen Ottman
- Kathryn Saphire
- Jedidiah Sash
- Nichole Schmitt
- Hadley Siegel
- Devon Wallis
We have enjoyed many opportunities to gather with faculty, staff, students, alumni, and friends this year.

In **February**, members of the department participated in DU’s **Zero Waste Hockey Game**. Positioned at locations throughout Magness Arena, our goal was to help fans correctly dispose of their waste in proper receptacles in order to divert as much waste from the landfill as possible. The Center for Sustainability has a goal of diverting an average of 80% of game waste from hockey games away from the landfill to recycling or composting (find out more about the Center for Sustainability at [www.du.edu/sustainability](http://www.du.edu/sustainability)).

This year’s **Colorado Geographic Bee** was held in Sturm hall on **Friday, April 4, 2014**. Several of our faculty and graduate students volunteered as judges, score keepers, and photographer for the event. Dr. Andrei Kutateladze, Dean of the Division of Natural Sciences and Mathematics gave the welcome and final round moderator was Greg Dobbs, longtime ABC News correspondent and host of “Colorado State of Mind”. For the third year in a row, Pranit Nanda, an eighth grader at Aurora Quest K-8, finished in first place. Pranit went on to finish fourth in the National Geographic Bee.

In **May** we held our annual bowling competition, the **Keables Kup**! The competition was strong, but Ph.D. student Gary Lavanchy managed to take home first place and the coveted kup.

We welcomed **June** with our **Spring Awards Ceremony and Graduation Picnic**, complete with burgers, hotdogs, bratwursts, and great company. We recognized the many accomplishments of faculty and students from the last year, celebrated our graduating students, and presented the following 2013-2014 awards:

- **Matthew Farrell, Lanna Giauque, and Nicole Schmitt**- Dr. Thomas M. Griffiths Memorial Award: In recognition of undergraduate scholarship and independent research in Geography
- **Bergen Tjossem**- Environmental Science Program Award: In recognition of outstanding scholarship and research in Environmental Science
- **Selam Tesfazion**- David B. Longbrake Award for Merit in Geography: In recognition of exceptional departmental service
- **Taylor Hafley and Amir Siraj**- Dr. Robert D. Rudd Memorial Award: In recognition of graduate scholarship, research, and/or exceptional departmental service in Geography
- **Laura Waksman**- Professor Moras L. Shubert Award: In recognition of outstanding accomplishment by a senior in Environmental Science
- **Brett Sherman**- Alan Bryce Henry Memorial Scholarship: Given to an undergraduate student who has demonstrated outstanding scholarship in Environmental Science
- **Matthew Layman and Katrina Waechter**- Dr. Laurance C. Herold Award: In recognition of Outstanding Graduate Teaching Assistant

In **October**, the **Welcome Back Fall Fiesta** provided a festive start to the academic year with the taco and ice cream food trucks.

We wrapped up the year on **November 11** with our inaugural **Breakfast at the Boettch**! All of our majors, minors, and graduate students were invited to a breakfast of bagels, fruit, coffee, and juice. The morning of the breakfast happened to occur during November’s record-breaking arctic cold so attendance was modest, but those who did attend enjoyed the morning treat and conversations during the final week of classes during the fall quarter.
If you are interested in presenting for our colloquium series please let us know.

Geog-info@du.edu
ALUMNI AND FRIENDS: SPOTLIGHTS

Adjunct faculty member, Joseph Berry continues to present papers and keynotes around the state. Additionally, the Beyond Mapping Compilation Series of Beyond Mapping columns in GeoWorld over the past 25 years is nearly complete (http://www.innovativegis.com/basis/BeyondMappingSeries/) with nearly 1000 pages and more than 750 figures providing a comprehensive and longitudinal perspective of the underlying concepts, considerations, issues and evolutionary development of modern geotechnology. He is completing a reorganization of the Chronological Listing of columns into Applications, Operations and Interactive listings that organizes this tsunami of information into relevant groupings to match readers’ interests. Completion of a combined Index is next.

Douglas Clark, Ph.D., works as a Physical and Social Scientist for the U.S. Bureau of Reclamation (USBR). He received his graduate degrees in Geography from the University of Denver and has taught classes in the department from time to time. At the Bureau of Reclamation during the 2014 calendar year Doug has been involved in a variety of Research and Development projects:

- An electronic survey evaluating the various methods Reclamation uses to communicate with and receive feedback from constituents, partners, and the public. These methods include face to face meetings, phone calls, emails, webinars, websites, video teleconferencing, and social media.
- An electronic survey to understand how USBR administrators, scientists, and engineers manage disputes over science when they impede water allocations. This effort and an associated literature review will result in a Directives and Standards Manual for managing disputes of this type in 2015. Collaborative learning processes have emerged as the most promising approaches for management of disputes over science—superior to other techniques such as direct discussions, peer review panels, public education, and adaptive management.
- A development effort to evaluate potential uses of unmanned aerial systems to gather geospatial data. See: http://rmgsc.cr.usgs.gov/UAS/WA_BORRiverSedimentMonitoring.shtml Doug has been involved in a DOI task force to develop a Departmental road map for UAS implementation. He analyzed electronic survey data and found that UAS would be useful for frequently acquiring data over small areas such as reservoirs and water infrastructure.

Class of 2009, Jeff La Frenierre, M.A. Geography, completed his Ph.D. (Geography) at Ohio State University, and is currently Assistant Professor of Geography and Environmental Studies at Gustavus Adolphus College in St. Peter, MN. He states “If I couldn’t get back at DU, then a small liberal arts geography department was just my speed.”

After graduating in June 2013, Sustainability minor Natasha Hilton accepted a position at Urban Land Institute (ULI) in Washington, D.C., where she now works with Advisory Services program.

Tilottama Ghosh, Ph.D. Geography, 2010, was a co-author along with Professor Paul Sutton on an article titled “Using Nighttime Satellite Imagery as a Proxy Measure of Human Well-Being.” The article was published in Sustainability in November, 2013. You can find the article at http://www.mdpi.com/2071-1050/5/12/4988/htm.

Class of 2014, Jeffrey Honke, M.A. Geography is continuing to work with the USGS Geosciences and Environmental Change science center in Denver. His thesis work on the Snowmass Ice Age Fossil site has been published in articles found in the current Quaternary Research volume dedicated to the world class fossil discovery. He is currently working on the paleo-desert wetland deposits in the Mojave Desert.

This fall, Ellen Mango, B.A. Environmental Science and Geography, 2014, and Jessica Markowitz, B.A. Environmental Science, 2013 hiked to Everest Base Camp. Ellen stated “The landscape is ridiculous and so exciting. It was incredible and a little bit scary. It was kind of an eerie/spiritual experience. Jessi Markowitz and I hiked in in the late afternoon after all the tour groups had left and we were the only people there. The sun was setting and you just find yourself standing in the middle of this glacier with the most massive peaks in the world surrounding you. You can hear the ice fall creaking, see avalanches and rock slides happening in every direction, and look at all the prayer flags and memorials of deceased climbers. I have such a huge respect for those mountains it was so humbling. Thinking about how that place came to be and how it continues to evolve is so mind boggling!”
ALUMNI AND FRIENDS: SPOTLIGHTS, CONTINUED

Christian Steinbarth, B.A. Geography, 2012, completed his MS degree in International Development Studies with a focus on social enterprise and entrepreneurship in post-conflict contexts from the University of Amsterdam. Christian now lives in Monrovia, Liberia. He states, “I’m currently designing/planning/lobbying-for a social enterprise special economic zone. Essentially, a geographically delimited area where I’ve implemented policy that makes a business/investment climate that is favorable and competitive; relative to that outside the zone and regionally in West Africa as well. Contrary to the traditional special economic zone (SEZ) model, however, the focus is on social impact rather than personal wealth generation. ie. human capital capacity development, scalable employment generation, small-holder farmer inclusion, inclusion of marginalized groups in formal economic activity etc.”

This year’s ESRI User Conference, held in San Diego in July, brought out many of our alumni!

CALLING ALL ALUMNI

We would love to hear from you!

Go to our website and click on the Alumni Update Form to send us updates
Thank you to our Contributors!

The Geography & the Environment Department faculty, staff, and students would like to express our sincere appreciation and gratitude to the following alumni and friends for their financial contributions to support the department this year:

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University of Denver
Department of Geography and the Environment
Boettcher West, Room 120
2050 East Iliff Avenue
Denver, Colorado 80208
303-871-2513
Geog-info@du.edu
http://www.du.edu/nsm/departments/geography/index.html