Message from the Chair: Department of Geography & the Environment

It’s good to be home. Having spent the last eight years in University administration, I have returned full-time to the faculty in the Department of Geography and the Environment. A lot has happened during my absence, and I am pleased to report that the department is stronger and more vibrant than ever. The continued success of the department is a result of a shared vision among faculty and staff, with solid leadership to help the department achieve that vision. Our department has grown, and that growth has been strategic. Faculty have been hired who bring critical expertise to our select research strengths, depth to our curriculum, and who can engage students in the classroom and in the field. Andy Goetz, at the helm as department chair for nearly a decade, provided the thoughtful leadership that has brought us to where we are today. I know that I speak for the faculty and staff in expressing our sincere gratitude for his hard work.

This past year has been a busy one. The faculty published 24 articles and book chapters and gave 41 conference presentations and invited talks. Our graduate students are also actively publishing their research and presenting at conferences. Be sure to check out the list of publications and presentations in this issue of the newsletter. Our student numbers remain strong, with 51 graduate students, 104 environmental science majors, 62 geography majors, and 100 students minoring in at least one of our programs (the most popular programs are sustainability, environmental science, geographic information science, and geography). Collectively, the department offered 132 courses, totaling 2440 student enrollments and generating 10,346 credit hours of quality instruction. In addition to the traditional on-campus courses, we continued to offer courses online at both the undergraduate and graduate levels. Travel courses remain popular; this year’s Field Quarter students visited the Colorado Western Slope, the Desert Southwest, the Czech Republic, and Baja California. Faculty also offered travel courses to South Africa, England, Peru, New York City, and Hawaii. Be sure to check out our website and Facebook page for updates on departmental happenings.
In last year’s newsletter, Andy Goetz outlined portions of our strategic plan, including the addition of new faculty lines. This fall, we initiated searches for two new faculty members, one with expertise in climate change and society, and a second with research interests in one or more of the following areas of GISc: distributed sensor networks, location-based services, social networks, smart cities, cyber-infrastructure, and/or geovisualization. Interviews will be held throughout January and we hope to have the positions filled shortly thereafter. The addition of two new colleagues will bring the total number of faculty to 17!

On behalf of the department, I would like to offer a sincere thank you to all of you who have taken the time to remember us with your thoughtful and generous gifts throughout the year. Your donations make it possible for us to offer a variety of special opportunities for our students, including field equipment upgrades, special hardware and software for our computer labs, and research and travel support for graduate students and undergraduates, all of which enhance the quality educational experience of our students. Your contributions are always greatly appreciated. Thank you!

We regularly update our alumni database and enjoy hearing from you and learning about what is happening in your lives. We are extremely proud of you, and hope that you will keep in touch by visiting the alumni page on the department website. We always enjoy visiting with our former students, so should you find yourself in Denver, please don’t hesitate to stop by the department.

On behalf of the faculty, staff and students, please accept our best wishes for a happy holiday season and a peaceful, prosperous, and productive 2017.

Mike Keables
Chair
Faculty and Staff 2016-2017

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.* Transportation, urban geography and planning, economic geography.

**HELEN HAZEN, Ph.D.**
*Teaching Assistant Professor.* Environmental influences on human health, environmental conservation, international students.

**MICHAEL J. KEABLES, Ph.D.**
*Associate Professor and Chair.* Climatology, water resources, climate variability.

**KRISTOPHER KUZERA, Ph.D.**
San Diego State, University of California-Santa Barbara, 2011.  
*Teaching Assistant Professor and Internship Director.* GISScience, Remote Sensing, Statistical Analysis.

**G. THOMAS LAVANCHY, Ph.D.**
University of Denver, 2015.  
*Visiting Teaching Assistant Professor.* Human-Environment Interactions, Hydrology, Political Ecology, Latin America, GIS, West African Sahel.

**J. MICHAEL DANIELS, Ph.D.**
*Associate Professor.* Geomorphology, environmental change, soils, hydrology.

**HILLARY B. HAMANN, Ph.D.**
University of Colorado Boulder, 2002.  
*Teaching Associate Professor.* Hydrology, water resources, watershed biogeochemistry, physical geography, conservation.

**STEVEN R. HICK, M.A.**
University of Missouri, 1983.  
*Professor of the Practice,* MS-GISc online Program Director, & GTAC Director. Geographic information science, project management, cartography, criminology.

**MICHAEL W. KERWIN, Ph.D.**
*Associate Professor and Director,* Environmental Science Program. Quaternary geology, dendroclimatology.

**JING LI, Ph.D.**
George Mason University, 2012.  

**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).
Faculty continued

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

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. Professor and Director, Graduate Programs in Geography. Latin America, political ecology, development.

ERIKA TRIGOSO, Ph.D.
University of Oxford, 2011. Teaching Assistant Professor. Vulnerability and adaptation to climate change, geographic information science, Latin America.

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

TERRENCE J. TOY, Ph.D.

Emeritus Faculty

SEAN TIERNEY, Ph.D.

WILLIAM J. BRADY, JD.

MARTHA A. NAREY, Ph.D.

Adjunct Faculty

DOUGLAS R. CLARK, Ph.D.

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

JEFFERY KREEGER, MBA (Marketing)

MARTHA A. NAREY, Ph.D.
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4th Annual Crimson Classic 5k
Nicole Chauvet, Shannon Jones, Eric Boschmann, Blaise Murphy, Emilio Mateo, and Matthew Taylor

L to R: Helen Hazen, Mariam Muniru, Gunnar Solberg, Becky Dvorak, Hillary Hamann. Experiential learning at its finest: testing out Tudor Period clothing.

Student Field trip, Department of Geography, University of Denver, circa 1950’s.
DEPARTMENT UPDATES

New Additions

G. Thomas Lavanchy - Thomas is a broadly trained scholar with research interests in nature-society relationships, water resources and political ecology themes. His research projects are interdisciplinary, multi-scalar, and multi-process—requiring insights and background in the natural and social sciences. He has conducted research in the Sahel of West Africa, the Sierra de los Cuchumatanes of Guatemala, and along the southwest coast of Nicaragua.

Thomas takes great pleasure in teaching students in the classroom and in the field. He uses a variety of teaching methods to educate students on fundamental scientific principles, but his goal is to push students beyond classroom material to relate to contemporary environmental issues to their daily lives and to foster critical and analytical thinking about relationships between nature and society. He believes good scholarship, reflected in thinking and writing, to be an impetus for addressing complex challenges facing society.

In addition to thirteen years of college teaching experience, he has organized and led experiential learning trips (service learning, field courses, and internships) for students to seventeen different countries. He finds these experiential learning opportunities to be extraordinarily rewarding for himself and for his students. Thomas prefers to give students sufficient background on geographical and cultural landscapes and then allow them to 'read' the field and connect the dots between what they have read and what they see, feel, or measure. In the field, he relies upon established relationships with students to foster discussion, feedback, and learning.

Liam K. Kiniston - They say good things come to those who wait... so I guess it only follows suit to say Amazing things come to those who strive through life’s tribulations and hold onto their faith. Now I could go into the multitude of trials and misfortunes my wife and I, along with my family, have had to endure over the past several years; about getting “tested” by life on many counts to forge the metals of man. But this is not an intro to a tale about those ordeals but to share life changing and exciting news. So let’s go back to the first statement about waiting and good things. From a lot of time of trying, three unsuccessful medical interventions, and stretching hopes and faith until they were pulled taut to the point of fracture; I am exhilarated to share that my wife and I were blessed on the morning of November 16, 2016 at 8:32 am with the birth of our first child. My son Liam K. Kiniston came into this world two days early from the scheduled cesarean section delivery and has been a happy and healthy boy in loving arms ever since. He was 6 pounds 9 ounces, 19.75” in length, and head of hair that would make Samson jealous. So being this time of year it seemed fitting to not only give our eternal thanks for Thanksgiving but also smile on this magnificent gift for the Holidays. Now for New Year’s if just we could again remember what the definition of sleep was as that is now a foreign word to us; as all parents out there know. -

DEPARTMENT UPDATES, CONTINUED

Faculty Highlights

NSM Teaching Award - Eric Boschmann (Geography & the Environment)
Eric devotes tremendous time and talent to being an excellent teacher. Last year he developed a new travel course on the urban geographies of New York City, added a separate graduate student meeting to his urban landscapes course, and created new lab exercises for several geography courses. He receives top scores on his course evaluations, earns repeated praise from students, and is actively involved in advising and mentoring. Students describe him as an effective communicator who is knowledgeable and passionate about the course material.
Lund University Visit

In October Matthew Taylor, Mike Daniels, and Diane Anderson (from DU-Office of Internationalization) visited Lund University, Sweden, to discuss student exchange opportunities and other potential collaborations. Lund is one of Europe’s oldest, largest, and most prestigious universities. Founded in 1666, it now enrolls 47,000 students annually and ranks in the top 100 universities in the world. Lund has two geography departments, human and physical, with 20-40 faculty members each, and robust undergraduate, masters, and Ph.D. programs. We were warmly welcomed by Lund staff, faculty, and students, and we learned much about the extremely high quality of their programs.

Courses are taught in English by primarily Swedish faculty, and students are majority Swedish with a sizable contingent of international students. Courses offered in the Department of Physical Geography and Ecosystem Science include: The Climate System; Global Hydrology; GIS and Remote Sensing with focus on the Environment; GIS and Biodiversity; Ecosystem Modeling; Synoptic/Mesoscale Meteorology; Land Surface Processes and Landscape Dynamics. Courses taught in the Department of Human Geography include: Urban Planning; Landscape and Political Ecology; Contemporary Geography of African Development; Geographic Thought; Transdisciplinary Critical Theories of Science; Development Cooperation in Practice; Critical Urban Geography; Field Studies. These are all suitable upper-level elective courses for DU students who have completed introductory sequences in physical and human geography.

As a result of the meetings, we resolved to promote DU undergraduate student exchange to Lund through the Cherrington Global Scholars program. We also identified the potential for faculty and graduate-level exchange as a result of mutual and compatible research interests. Finally, we agreed to pursue the development of a 3+1+1 program in which a DU undergraduate student might take her first three years at DU, followed by a fourth and fifth year at Lund. The student would earn a B.S. or B.A. from DU after her fourth year, and a M.S. or M.A. from Lund after the fifth. This model has already been implemented by the departments of Biological Sciences and Gender & Women’s Studies at DU. It has the potential to appeal to students who know early in their undergraduate careers that they’re interested in graduate-level coursework and research from an internationally renowned university.

We are grateful for the hospitality of our Swedish hosts, as well as for the support of DU’s Internationalization Office. We look forward to continued collaboration with geography at Lund.

DEPARTMENT UPDATES, CONTINUED

Faculty and students in geography department study transit-oriented development

By Tamara Chapman

Eric Boschmann, left, and Andrew Goetz co-authored a new study on transit-oriented development in Denver. Photo: Wayne Armstrong

With four new light- and commuter-rail lines scheduled to debut in 2016, the Denver metropolitan area can look forward to lots of TOD in the years to come. TOD — that’s shorthand for transit-oriented development — promises mixed-use, high-density developments concentrated around bus and rail stations.

Before ground breaks on any new TODs, however, planners and developers might want to review a recent study from a faculty-student research team in DU’s Department of Geography and the Environment. Their findings challenge conventional thinking about just what kind of development prompts people to ditch their cars and hop aboard a bus or train.

“In the past,” says associate professor and study co-author Eric Boschmann, “there has been much emphasis on the planning idea that, ‘Let’s make sure that residents have access to the rail lines.’ If the [rail] lines are closer to their houses, then, the theory is, they’ll use those lines to get to work or to make personal trips.
“But what this research does is look at it the other way and ask this question: Is it more effective to make sure that rail transit is centered around workplaces?”

According to the study — co-authored by geography department chair Andrew Goetz, a nationally recognized expert on transportation infrastructure, and Gregory Kwoka, who worked on the project while a master’s student — the answer is a resounding yes. That said, Boschmann cautions, the trio’s research represents just one study of a single light-rail system. Nonetheless, study findings show that, as expected, participants who both live and work near transit stations are the most likely to use rail to commute to work. But commuters working near light rail report much stronger transit commute habits than those living near it. And that suggests that, to date, developers may have gotten TOD slightly wrong. “As residents, we see that’s what’s being built [in most Denver-area TODs]: condos or apartments with retail space for coffee shops and yoga studios,” Boschmann says. Office buildings, meanwhile, appear to be less of a priority.

The study is particularly timely given that RTD is nearing completion on its voter-approved FasTracks expansion plan, which, by project’s end, will have introduced 122 miles of new rail to Denver’s existing inventory. With those new lines come 57 new transit stops, each a potential site for TOD. What’s more, other light rail stations are candidates for revitalization, including the University station near DU. In fact, a re-imagined station is expected to play a prominent role in realizing DU’s new strategic plan, which calls for opening the campus and its resources to the larger Denver community.

The study’s other findings suggest that light rail can play a bigger-than-expected role in reducing the number of vehicle miles traveled (VMT) within an urban area. After all, transit-using commuters won’t be taking their lunch breaks to drive to a new restaurant or to the closest branch bank.

“People who commute to work by transit, half of their personal trips are by non-car mode,” Boschmann says. “So they might take the rail to work and back and then when they get home, 50 percent of their trips will be by car. But if you drive to work, 90 percent of your personal trips will be by car.”

Kwoka — who now works for the Maryland-based Wilson T. Ballard Co., a civil and structural engineering firm that consults on transportation and other projects — attributes this, in part, to the fact that commuting by rail or bus demystifies the transit experience. “Once you develop a certain comfort level with using transit, you might be more likely to use it if it takes you to a park or restaurant or someplace else you would like to go,” he explains, adding that “if work places can be concentrated closer to light rail spaces, I think it could spur some changes in personal travel behaviors as well.”

The study, which relied on data from a 2009 travel-behavior survey in the metro area, was first published at Transportation Research Part A: Policy and Practice, one of the top journals in the field. In addition, the study was reported on by CityLab, a webmagazine hosted by The Atlantic and a go-to site for urbanists.

Kwoka, Boschmann and Goetz hope that the study spurs further research into commuter behavior, noting that their findings may not apply in other markets. Even so, Goetz notes, the information should be of interest across the nation, given that light rail has been introduced to numerous metropolitan areas, even some once regarded as unlikely candidates for serious transit investment. “If you look at what is happening, there’s increasing investment in building rail in a number of cities, including some surprising choices like Dallas, Houston and Phoenix — big sprawl cities that you never thought would invest in building rail transit,” Goetz says.

As a transit proponent, Goetz is encouraged by Denver’s commitment to TOD, considering it “a sign that having access to rail transit is seen as a real positive in terms of both residential land use and employment activity.”

**DEPARTMENT UPDATES**

**Undergraduates using GIS at the Annual American Association of Geographers in San Francisco for poster presentation**

Undergraduate students Alexandra Songer (left) and Katherine Roselius (right) presented a poster at the April 2016 American Association of Geographers Annual Conference in San Francisco. Their poster, “An Analysis of Volunteer Demographics: A Community Based Research Project”, was developed from the work of a larger student group effort in Professor Boschmann’s GEOG 3410 Urban Applications of GIS course. This project was supported by DU’s Center for Community Engagement and Service Learning (CCESL).
Interterm 2016

PhD graduate, Thomas Lavanchy led a fall interterm trip to South Africa in August. This course gave students a firsthand look at the physical and cultural landscapes of South Africa. The class studied the varied natural landscapes that produce the commodities (e.g. gold, diamonds, wine, and agriculture) that have attracted the interest of outsiders for centuries and that have influenced the cultural landscapes particular to South Africa. Activities included hiking in the Central Drakensberg Mountains, a service-learning project in a Zulu community, a visit to a game park, a tour of Robben Island, a visit to a township, and explorations of several key physical and cultural sites near Cape Town.

DEPARTMENT UPDATES, CONTINUED

Field Quarter 2015

This year’s field quarter courses took students to the Grand Mesa region of Western Colorado, the Czech Republic, the Baja Peninsula in Mexico, and the geology and ecology of the Southwest region, including southern Colorado, New Mexico, and Arizona. Below are a few reflections from students.

Madeleine Meredith

From the spine-tipped teeth of the Sonoran Desert to the lush, silvery leaves of the Chaparral, field quarter taught me to read the language of my environment. Almost every day was a new adventure, which invigorated and inspired us in ways that would be unimaginable in a physical classroom. Thanks to our professor’s expertise and firsthand cultural immersion, I saw myself and my classmates rekindle our passion for learning. After 10 weeks of campfires, sleeping under the stars and late-night discussion, I’ve come to love the possibility of the road less traveled.”

Beth Ebisch

Choosing to be a part of field quarter was the best decision I have made at the University of Denver. There is no better classroom to learn about geography and environmental science than being outdoors, touching and smelling the plants you are learning about, playing on the rocks you are studying, or experiencing the cultures
you would have otherwise had to only envision from the description of a textbook. From beautiful sunrises, to breathtaking sunsets, I never felt like a day passed without sharing belly laughs, stimulating discussion, and delicious camp meals. Field quarter has re-sparked my curiosity through field work and world exploration, and I’m returning to campus with a renewed enthusiasm for learning.

Internship Program

The internship program continues to be strong, linking students in the Department of Geography and the Environment with many different organizations to provide valuable work experience in the field. Through the internship experience, our students augment their classroom education with real-world situations. Nearly all subfields of geography and environmental science lend themselves to internships including GIS, remote sensing, human-environment interactions, transportation, and urban planning. Most of our interns are paid for their work and many receive academic credit. We are always open to new internship possibilities and hope that alums and friends of DU Geography and the Environment will consider hosting an intern at your business or organization.

2016 Internships include:

- Sylvia Brady (Ph.D. student, Geography): Planning Intern – Denver Regional Council of Governments
- Alexis Bunim (B.A. student, Geography): Intern – Four Nines Technologies
- Matthew Casali (M.S. student, GISc): GIS Intern – Denver Water
- Jane Dahl (B.S. student, Environmental Science): Intern – Minnesota Department of Natural Resources
- Bianca Garcia (B.A. student, Environmental Science): Intern – Denver Office of Sustainability
- Nicholas Gilroy (M.S. student, GISc): GIS Intern - ESRI
- Adolfo Gonzalez (B.A. student, Geography): Intern – Green Corps
- Grace Kellner (M.A. student, Geography): Intern – Food and Water Watch
- Jessica Lally (B.A. student, Environmental Science): Intern – Hazon Colorado
- John Max Marno (M.S. student, GISc) – GIS Intern – Hunt Data LLC
- Kaela Martins (B.S. student, Environmental Science): Intern – Denver Arts and Venues
- Margaret Mosenthal (B.A. student, Geography): Environmental Intern – Thorne Nature Experience
- Audrey Ng (B.A. student, Environmental Science): Intern - Environment Colorado
- Jaclyn Phipps (M.S. student, GISc): GIS Intern – City of Littleton
- Stephen Rijo (M.A. student, Geography): Intern – Denver Regional Transportation District (RTD)
- Samuel Rose (B.A. student, Geography): Intern – United States Geological Survey
- Walter Scheib (M.A. student, Geography): Intern - Denver Office of Sustainability
- Amir Siraj (Ph.D. student, Geography): GIS intern- University of Michigan-Howard Hughes Medical Center
- Daniel Zimny-Schmitt (B.A. student, Environmental Science): Environmental Intern – Crescent Point Energy

FACULTY NEWS

E. Eric Boschmann

It was another great year, full of opportunities to learn from driven and curious students and a strong group of dedicated faculty colleagues. And it is always rewarding to see graduate students complete their program here. This year Joe Quintana successfully completed and defended his Master’s thesis *Crafted Places: The Use of Place in Wisconsin Craft Beer Marketing*. Not only did his work enlighten me of the landscapes of placemaking in the Wisconsin craft beer industry, but was another reminder of why we do this work at all, and the many possibilities of bridging passions and creativity with academic intellectual curiosities.

In addition to completing final touches on two research projects that have been on-going for several years, this year I began work on a new project called Older Adults Transportation Study (OATS) 2016. The research data collection phases included several focus groups in the summer, as well as a large-scale survey deployed in late autumn. This work hopes to shed some light on understanding how daily urban travel behaviors and mobility of older adults change with the life course. Preliminary findings were presented at the October 2016 *Aging & Society: Sixth Interdisciplinary Conference* hosted by Linköping University, in Norrköping, Sweden.

A walking tour of 200+ years of immigration history and neighborhood change in the Lower East Side, with Rachel, Senior Educator at the Museum at Eldridge Street.

Photography courtesy of E. Eric Boschmann
A highlight of the year was offering an interterm travel course in New York City (GEOG 3940 Geographies of New York City). Six students and I spent 6 days exploring a variety of themes of urban geography as manifest in The City.

Through on-the-ground experiences, observations, readings, and discussions, we developed an in-depth knowledge of the evolution of the US metropolis across 400 years of history. Much of our time was spent learning about immigration, neighborhood change and gentrification, cycles of economic change, tourism and culture, sustainability, public transportation, and urban design.

Mike Daniels spent much of 2016 conducting research and developing proposals related to an ongoing project with collaborators from several Czech universities and the Czech Academy of Sciences. The work focuses on soil erosion, long-term agricultural sustainability, and sedimentologic/hydrologic connectivity between hillslopes and floodplains. The work integrates stratigraphic analyses of centennial-scale changes in floodplain sedimentation rates with spatially-distributed erosion modeling. Mike and colleagues submitted proposals for continuation of this research to U.S. National Science Foundation and to the Ministry of Education of the Czech Republic. Mike presented preliminary results from the project at the Association of American Geographers annual meeting in San Francisco.

Mike continued supervising the thesis research of graduate students Blaise Murphy and Emilio Mateo. Blaise’s project investigates agriculturally-relevant soil properties from active and abandoned terraces in the Andagua Valley of southern Peru, while Emilio’s work examines hydrologic variability of alpine and subalpine channels in the San Juan Mountains, Colorado downstream from the influence of rock glaciers.

Mike remained active teaching field-based courses such as Geography of Soils and Geography of Europe: Czech Republic. He also integrated field excursions into Fundamental Geographic Perspectives, which led to fruitful discussions on the history and philosophy of geography at inspirational settings such as Red Rocks Park and City of Kunming Park, here in Denver.

Andy Goetz is enjoying his transition to being a regular professor again after 8 years serving as chair of the department. In August, he had the opportunity to attend the International Geographical Congress (IGC) in Beijing, China. The IGC is held every four years and is the major event that the International Geographical Union (IGU) conducts. Andy is the current US representative and treasurer for the IGU Commission on Transport and Geography, and he presented two research papers at the IGC. While in China, Andy was invited by Dr. Jiaoe Wang from the Institute of Geographic Sciences and Natural Resources Research in the Chinese Academy of Sciences, on a scientific excursion to experience the Beijing-Tianjin line in the Chinese high-speed rail system.

This was a great opportunity to experience and discuss high-speed rail with academic experts on the Chinese system.

Together with colleagues and PhD student Sylvia Brady, Andy completed two major research projects this year funded by the National Center for Intermodal Transportation for Economic Competitiveness: 1) Goetz, Andrew R., Andrew E.G. Jonas, and Sylvia Brady. 2016. Innovative Approaches to Improved Intermodal Transportation Infrastructure Funding and Financing through Public-Private Partnerships: A Denver Case Study.
FACULTY NEWS, CONTINUED

Hillary Hamann  It’s been a full and productive year. As always, I draw a great deal of inspiration and energy from my students and thoroughly enjoyed teaching Mountain Environments and Sustainability, Hydrology, Colorado’s Rivers, and the Environmental Systems sequence. The 2016 Hydrology class gets the award for “most immersive learners” as they waded in waist-deep water to collect streamflow data in Bear Creek.

Water has been a theme this year as I was invited to help roll out Colorado’s new Water Plan last December and then had an opportunity to chat with Governor Hickenlooper when he received the Colorado Foundation for Water Education’s Diane Hoppe Leadership Award in May. My fall FSEM class, Colorado’s Rivers, spent a beautiful Saturday planting native species along Boulder Creek to restore biodiversity with the Wildlands Restoration Volunteers. Finally, undergraduate Hayley Stuart successfully defended her ENVI thesis as she premiered her documentary film, “Hunger for Tomorrow: The Crisis of Hydro Development in Chile.” Her project was the culmination of two years of research, travel and interviews and told a compelling story about the role of social movements in hydropower development (or lack thereof) in Chile.

In March, I attended the AAG in San Francisco where I helped organize two sessions and presented ideas about teaching international field classes. I put some of our session’s tips into action in June when Dr. Helen Hazen and I took five students to England for an inaugural summer inter-term class on Health and Environment through the Ages. Based in Birmingham, we visited sites ranging from the Roman Baths in Bath to Shakespeare’s Stratford Upon Avon to investigate the changing relationship between people, their environments and their health. I was able to follow up our England adventures with a stopover in Iceland where I checked another item off my geographic life list by standing along the mid-Atlantic ridge in the rift valley of Thingvellir National Park. There was no volcanic activity during my visit, but discovering more about the landscape, history and culture in Iceland has me wanting to head back soon!
Helen Hazen has extended her focus on teaching topics related to environment and health this year, with new courses on conservation geography and social approaches to health and healthcare. She has also developed a course on protected areas for DU’s community learning extension program. In addition, she continues to teach introductory classes in human and physical geography as part of the common curriculum, and enjoys exploring new ways to make the topics relevant and engaging to non-majors. She continues to publish her research on home birth, and has begun a related edited book project that explores geographies of reproduction. Helen also works with the Colorado Geographic Alliance towards promoting geography in the grade school curriculum, and is active in providing geographic education for local schools and youth programs.

Steven Hick continues to direct GIS activities in the department, including labs, classes, advising, enrollment management, etc. This year we again topped 50 students in the online graduate GIS program and we’ve added second sections of classes so each class is now taught two times per year. The highlight of the MSGISc degree program is the completion of the capstone. I am always amazed at the depth and diversity of our student’s capstone projects. This year I supervised 20 capstone projects and I’m happy to report that the capstone abstracts are being published online at the DU Library. The GIS Certificate Program has seen continued growth and continues to be the feeder program for the graduate degree program. With rapid changes in UAV flight rules, we’ve revamped our UAV curriculum already with new classes getting off the ground in 2017 – pun intended. We’ve also introduced new courses in GIS and Disaster Management and GIS and Hydrology.

I expanded my GIS teaching horizon teaching a 3-day seminar in GIS and Transportation for the Denver Transportation Institute in January. This executive graduate program is made up of corporate executives from many national and international air, rail, trucking, shipping and port companies.

The venerable Mike Monahan retired from the Biology Department last January and I assumed his responsibilities at the University’s High Altitude Labs and Field Station near Echo Lake on Mount Evans. I’ve spent the year learning the lay of the land, reading about the history of the facility and cleaning up a bit. I take my GPS classes to the Field Station for weekend field work. This year we did a winter trip snowshoeing throughout the area in February. In the coming year, I will turn my attention to strategic planning at the facility. If you have any insight or ideas, please feel free to give me a shout!

In the interest of maintaining work-life balance, I spend my free time as Scoutmaster for Troop 79 – a relatively new troop in the Denver Area Council. This year we’ve been skiing, camping, climbing, rafting, canoeing, hiking, kayaking, cycling, and many other cool outdoor activities!

It has been a wicked busy year and there is still much ahead.

FACULTY NEWS, CONTINUED

Mike Keables

Mike spent the year in his final administrative assignment in the Ritchie School of Engineering and Computer Science. During that time, he trained the incoming dean and senior associate dean in their respective responsibilities and oversaw the completion of new Engineering and Computer Science Building. Offices, laboratories and classrooms were moved to the new space over the summer in time for the start of classes this fall. Mike has since returned to the department as a member of the faculty, where he teaches courses in meteorology and climatology and is currently serving as the department chair.

Mike Kerwin

During academic year 2015-2016, Mike Kerwin was on sabbatical in Chiang Mai, Thailand where he worked as a Scholar in Residence at the International Sustainable Development Studies Institute (ISDSI). The ISDSI is a global leader in sustainability education and has long-term connections with residents, scientists, and policy makers in Thailand and neighboring countries. At ISDSI, Mike conducted research on drought and agriculture, taught classes on tropical ecology and climate change, helped assess risk management techniques for international travel courses, and took daily Thai language classes.

Mike’s research focused on ENSO (El Nino Southern Oscillation) variability in SE Asia looking specifically at relationships between short-term drought (i.e., ENSO) and rice farming. The fall of 2015 coincided with a
“strong El Nino” in the Pacific Ocean that created extreme drought conditions across SE Asia including northern Thailand. Wildfires burned for weeks in Malaysia and Indonesia and water storage in Thai reservoirs plummeted, reaching the lowest levels in two decades. Meanwhile, dengue fever spiked as standing water provided abundant habitat for mosquito larvae.

The most impactful week of Mike’s sabbatical took place in Huay Hee, a 200-year-old Karen village located in a serene valley below Doi Pui, the highest mountain in Mae Hong Son Province (NW Thailand). The village is a textbook example of long-term sustainable agroforestry. Thirty small homes constructed from teak and bamboo dot both sides of a short single lane entry road. In total there are about 200 residents ranging in age from 88 years old to 7 months (when Mike visited). Mixed into the community is a school, church, and post office. Power is intermittently supplied to a few light bulbs in each home and the occasional TV set by small photovoltaic cells, and an even smaller mini-hydropower turbine. Water for drinking, cooking, and bathing is collected from nearby streams and mountain springs. Each home has an outhouse and bathing room where small buckets of cold water get the smell away and blood flowing.

The Karen are known as hill tribe people because they originated in what is now Tibet and have thrived in the rugged mountains connecting Thailand to Myanmar for centuries. Today there are approximately 400,000 Karen in Thailand and 5 million in Myanmar. In villages like Huay Hee, they still live completely “off the grid” using forest agriculture, weaving, and mountain rice farming to sustain their modest needs. Ecologically, their homeland contains some of the most pristine tropical forests in all of SE Asia – especially in the remote Shan State of Myanmar where decades of military rule and conflict limited exploitation and deforestation.

Mike’s hosts for the week were 62-year old Saju and his wife who warmly welcomed him into their home. Like all Karen villagers, Saju is an athlete. His pantry, workshop, pharmacy, and market are all in the same place – the steep mountain forests surrounding the village. Multiple daily hikes into this forest have left Saju with a lean, muscular body and the agility of a 20-year old gymnast.

Sleeping late, or even until the sun comes up, is not an option in Huay Hee. Individual roosters get warmed up at 4:50 am and are in full harmonic convergence ten minutes later. Then comes the smoke from the kitchen fire where rice, eggs, and vegetables are boiled for breakfast. At 4000 feet in November, it was cold in the mornings and a hot cup of coffee or tea was both a delicacy and necessity. For Mike, it also paved the way for daily, informal visits with Saju who grows his own coffee, roasts the beans, and makes a superb percolator brew over an open fire. Saju speaks some English and has a photographic memory such that any new word he encounters is permanently part of his vocabulary. He and Mike bonded over coffee and questions (half in Thai and half in English) about the local snakes, spiders, trees, and more.

Early in the week, Mike was invited to cut rice with Saju and his wife. Rice is a dry land crop but, in Thailand, is typically grown in flooded fields called a paddy to keep out weeds and improve yields. Huay Hee mostly relies upon dry rice farming in the mountains, but has a few flooded paddy fields in a tight, terraced, tributary valley. November is harvest season and the work is not for those with lower back problems. Rice is a grass and has razor sharp leaves. By November the grass has dried a little making it even more “scratchy”. A sharp, metal sickle is used to cut the stalks near the base. It seems easy, but requires strength and flexibility – especially after three hours of work. After cutting, the stalks must be laid out to dry for 3-5 days. Birds and other insects will begin to eat the precious grains and rains can cause fermentation. However, there is no choice because there is no indoor space for the drying process.
wanted to reciprocate the overwhelming feeling of warmth and kindness they had extended to him. He also had a completely new understanding of sustainable agroforestry.

Kristopher Kuzera continues to direct the Internship Program, supervising dozens of students in Geography and Environmental Science as they transition from DU into the working world. Kris is also instructing a wide variety of courses this year, including the Our Dynamic Earth sequence, Advanced Geographic Statistics, Environmental Systems Hydrology, and online Geographic Information Analysis.

This past year, Kris was recently honored by his undergraduate institution, Illinois State University, as a Distinguished Alumni in Geography and was invited back to campus in Normal, Illinois to give an invited lecture to the student body on careers in Geography after graduation. Hopefully recruiting more students to come to DU in the process!

Jing Li has had a productive year in teaching, researching and contributing services. She taught four GIS courses at different levels and served as the major advisor for four MS-GIS students. Three of them completed capstone projects and graduated in 2016. Jing enjoyed working with students on various projects through which she always learns something new. This year she learned mobile application development when working with Nick Gilroy, who was one of the MS-GIS students, to develop an iOS application for collecting cycling data from riders. In June 2016, she received a grant from the Center of Excellence for Geospatial Information Science (CEGIS) at the US Geological Survey (USGS), to support her work on using Graphics Processing Units (GPUs) to accelerate LiDAR data processing and manipulation. This project is expected to contribute to the delivery of high resolution elevation data for the United States. By receiving the grant, she is now an affiliated faculty member of CEGIS. In 2016, Jing finished her three-year term as a departmental representative to the NSM faculty committee. She also continues to work with colleagues in the department and participate in undergraduate advising to promote the minor in GIS across campus.

Becky Powell is on sabbatical during Fall and Winter Quarters; she is splitting her time between Denver and Santa Barbara, CA. During her sabbatical, Becky is expanding two current research projects that involve scaling of ecosystem processes. The first project, in collaboration with colleagues at the University of California Santa Barbara and Oregon State University, assesses the efficacy of measurements derived from thermal imaging for ecological studies in three different forested ecosystems in North America. The second project, currently funded by NSF, aims to explain the drivers of vegetation change in a tropical savanna landscape by integrating intensively sampled field data and metrics derived from satellite imagery. Recent graduate Sydney Firmin (M.A. 2016) has played an integral role in developing methods to predict tree-cover in Serengeti National Park using Landsat satellite imagery and Google Earth.

Don Sullivan The past year has been an interesting one for Don Sullivan. Don taught his usual courses during the year, including two Field Quarter classes. Several students from the 2015 Field Quarter group presented the results of research projects begun during the Field Quarter at the Spring 2016 Undergraduate Research Symposium. The 2016 Paleoenvironmental Field Methods class collected peat cores from Grand Mesa and from fens on the USFS Fraser Experimental Forest. A couple of undergraduate students have begun research projects on the new cores. The Mexico course included continued work with Tortugueros Las Playitas, a turtle conservation group in Todos Santos. We collected a great deal of new data this year, and several of the Field Quarter students will be continuing the GIS work begun several years ago on turtle nesting and reproductive success.

Don continues to focus his research in the area of paleoenvironmental change using peat and lake sediment cores to uncover evidence of climate change and its impacts on vegetation, hydrology, etc. Don finished his term as chair of the Paleoenvironmental Change Specialty Group of the American Association of Geographers in the spring, but continues as an active member of the group, co-organizing a day-long program of presentations in honor of Roger Byrne, Don’s PhD advisor at U.C. Berkeley, who retired in June.

Several former students have been in contact this year. Wayne Mayer, who took his undergraduate degree in the early 1990s dropped by the department this past fall after relocating his family to Denver from Peru. And, last summer Don and his wife, Maria, visited her family in London, England. While there, Don re-connected with Dave Anderson (BA, 1991) who is now the head of the Geography Department at Eton College. Don and Maria spent the morning with Dave and his family, and got a tour of the campus, where Dave pointed out the apartments occupied by the royal princes in recent years.

FACULTY NEWS, CONTINUED

Paul Sutton

I have spent the year working in Thailand, Australia, South Africa, and India. I co-authored a report for the Economics of Land Degradation Initiative that was sponsored by the United Nations titled: The Value of Land (http://eld-initiative/fileadmin/pdf/ELD-main-report_05_web_72dpi.pdf). This work involved mapping land degradation globally and assessing the impact of land degradation on
agriculture and ecosystem services. We estimated that land degradation in the past several decades has resulted in a loss of over 4-10 Trillion dollars per year. I also spent several weeks with the people of the Panchabhuta Conservation Foundation (http://panchabhuta.org/) in the Western Ghats of India. I am working here to help local people use arguments based on the economic value of ecosystem services to win greater control over land use decisions in their area. Luca Coscieme and I recently co-authored a paper in the journal ‘Science of the Total Environment’ titled: Accounting for ‘Land Grabbing’ from a biocapacity viewpoint (http://www.sciencedirect.com/science/article/pii/S0048969715306835). This paper explores what countries of the world are having their ‘land grabbed’ by other countries according to the relative size of their ecological footprints and national natural endowments or ‘biocapacity’.

I continue to stay in touch with several DU alumni including Amanda Weaver, Alex Muleh, Ben Tuttle, Kristina Yamamoto, Andrea Santoro, Jason Thoene, Nick Stubler, Robin Harris, Jared Long, Tilottama Ghosh, and Lisa Piscopo. I am proud to say that Amir Siraj has completed his PhD and has taken a post-doc at Notre Dame University. Qing Liu is progressing nicely with her PhD.

I am getting increasingly interested in communicating my research to the broader public and have engaged in some alternative venues of publication and outreach. I am even considering joining the 21st century and getting a facebook page and a twitter account (The horror, the horror). I provide links to some examples of my outreach efforts below. I always love to hear from former students and friends of geography so do not hesitate to send me an e-mail.

My 'modest proposal' to 'Kill All the Bees' on ABC radio in Australia.http://www.abc.net.au/radionational/programs/ockhamsrazor/a-modest-proposal-kill-all-the-bees/6501638

Companion Piece to ‘Kill All the Bees’ in ‘The Conversation’

'Planet Talk' with Vandana Shiva & Tim Jarvis at World Music and Dance Festival in Adelaide.
https://www.youtube.com/watch?v=GvlHAEp8q50&feature=youtu.be

Piece in 'The Conversation' on BBC Earth’s ‘Earth Index’

Erika Trigoso Erika and her husband Stephen welcomed the arrival of their daughter Coya in March. Dr. Trigoso taught a new class this year: Climate change and society and continues to teach one quarter of her Honors Scientific Inquiry--Natural course Global Environmental Change. In addition, she teaches her regular classes on Sustainability, Human Geography, and a FSEM seminar on Geography and Genealogy. Erika just came back from her field course Andean Landscapes: Cusco and the Inca Trail which involves completing a world famous 4-day hike to Machu Picchu. Erika service activities involved being the liaison between the department and DU’s library and also the department’s representative for the Intercultural Global Studies minor. She was also a recipient of the Joseph I. Moreland Fund for Information Literacy Programs that she plans to implement in her Sustainability classes.

Erika’s Andean Landscapes class 2016. Pic 2 is probably the highest classroom at DU. It is located at the Warmiwañusca pass, (“Dead Woman’s Pass”) at 13,828 ft.

Photography courtesy Erika Trigoso

Paul Sutton as “the Dude”
Photography courtesy Paul Sutton
Matthew Taylor and graduate students from our program made many research trips to Guatemala, Honduras, and Nicaragua to continue our research on climate change, access to natural resources, and tourism development. March saw us in Honduras climbing Montana Celaque (the highest peak in Central America) in search of trees with which to extend our climate reconstructions further south in Central America. The hike with all of the needed equipment is one of the hardest of my life. The hardship, though, was worth it and we identified many stands for sampling (any students interested?). This work wrapped our NSF-funded project looking at climate change along Central America’s dry corridor. We have submitted proposals to continue this work. June and July saw Matthew and Thomas LaVanchy back in Nicaragua conducting research on the drought and salinization of water sources along the Pacific Coast. I also conducted research on the Nicaragua Canal (funded by DU’s Center for Civic Engagement and Service Learning). In September Thomas LaVanchy and I journeyed to Sardinia to present results of our Nicaragua research. From there, I met Mike Daniels at the University of Lund to explore connections between their geography departments and ours. We look forward to inviting geographers from Lund to visit DU. In December I went to Nicaragua again with Thomas to continue our water research. Here we had a reunion with graduate students who have conducted research in the area — Nikolai Alvarado (who came up from Costa Rica on the bus), Espen Haugen (flew in from Bergen), Nico Earhart (down from Denver).

We evaluated our past work and made plans for future research with local communities. If you want to get into the field in Central America to contribute to research that will benefit local communities, please let me know.

I published several papers this year, but I am especially proud of the paper I co-authored with Diego Pons of our doctoral program. We published a paper in Geography’s flagship journal, the Annals of the Association of American Geographers. The paper summarizes our decade of climate change research in Central America and sets the agenda for future research: see, Pons, D., M. J. Taylor, D. Griffin, E. Castellanos, K.J. Anchukaitis, On the production of climate information in the high mountain forests of Guatemala, Annals of the Association of American Geographers, doi: 10.1080/24694452.2016.1235481.

Boschmann, Eric

Journal Article, Academic Journal (Published)

Daniels, James M.

Journal Article, Academic Journal (Revising to Resubmit)

Goetz, Andrew R.

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Li, Jing

Book Chapter (Final Mark-Up to Publisher)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Submitted)
Huang, Q., Li, J., & Li, Z. A Hybrid Cloud Platform Framework based on multi-sourced computing and model resources for Geosciences.
Sutton, Paul C.

Book Chapter (Published)

Book Chapter (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)
Journal Article, Professional Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Journal Article, Academic Journal (Published)

Conference Proceeding (Published)

Proceedings (Published)

Taylor, Matthew J.

Book Chapter (Accepted)

Journal Article, In-House Journal (Published)

Journal Article, Academic Journal (Accepted)
Journal Article, Academic Journal (Submitted)

Journal Article, Academic Journal (Published)

Academic/Professional Blog Contributor (Submitted)

Boschmann, Eric

Boschmann, Eric, Annual Service Learning Scholars Workshop, Center for Community Engagement & Service Learning, University of Denver. (December 2, 2015).

Daniels, James M.
Goetz, Andrew R.


Goetz, Andrew R., RMLUI annual conference, "Mobility in the Rocky Mountain West: Transportation Past, Present, and Future.," Rocky Mountain Land Use Institute, Denver. (March 10, 2016).

Hamann, Hillary B.


Hazen, Helen


Hick, Steven R.


Hick, Steven R., Hyflex online course delivery workshop, "Delivering Hyflex Courses," Daniels College of Business, University of Denver. (June 23, 2016).

Hick, Steven, Office of Teaching and Learning Hyflex Demonstration, "Hyflex Demonstration," University of Denver, University of Denver. (December 14, 2015).
Kerwin, Michael W.

Kerwin, Michael W. (Author & Presenter), Hesse, Douglas D. (Author & Presenter), Office of Teaching and Learning New Faculty Workshop Webinar, "Strategies for Promoting Academic Integrity and for Evaluating Writing," University of Denver Office of Teaching and Learning, University of Denver and Online. (August 18, 2016).


Kerwin, Michael W., 2016 Faculty Workshop, "Risk Assessment and Academic Realities in a Sole Faculty Run Field Class," International Sustainable Development Studies Institute, Chiang Mai, Thailand. (January 11, 2016).


Kerwin, Michael W., ISDSI Seminar Series, "Can Cactus Spines Be Used to Predict Future Climate Change in SE Asia?," International Sustainable Development Studies Institute, Chiang Mai, Thailand. (September 9, 2015).

Kuzera, Kristopher


Li, Jing


Powell, Rebecca L.


Sullivan, Donald G.

Sullivan, Donald G. (Author), Brown, Lauren (Author & Presenter), Undergraduate Research Symposium, "A multi-proxy climate reconstruction of the Grand Mesa, CO region from a peat core," University of Denver Honors Program, DU.


Sullivan, Donald G. (Author & Presenter), Department of Biology, Regis University, "Paleoclimate Change in Colorado," Regis University, Department of Biology, Regis University, Arvada, CO. (September 2015).

Sutton, Paul C.


Taylor, Matthew J.

Taylor, Matthew J., Resistance and Recovery How have Latin American countries recovered from state terror and the trauma of repression?, "Can we ever recover from a recurring disease?," Du Department of Anthropology, Du Department of Anthropology. (April 28, 2016).


Taylor, Matthew J., Korbel Engaged Scholarship, "‘bridging the gap’ between academics and the policy world," Sie Center, Korbel, DU, DU. (February 11, 2016).

Taylor, Matthew J., DU Teaching and Learning Week, "Back to the Basics to Ensure Engagement," DU OTL, DU Anderson Academic Commons. (February 9, 2016).

Trigoso Rubio, Erika


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).

Boschmann, E., “Determining mobility clusters and attitudes towards non-car transportation among older adults in Denver Colo.,” Professional Research Opportunities for Faculty (PROF) fund, $20,000.00. (July 1, 2013 to June 20, 2015).

J. Michael Daniels

Andrew Goetz

FACULTY RESEARCH OR INSTITUTIONAL GRANTS AND CONTRACTS
2014-2015, CONTINUED

Kris Kuzera

Jing Li

Li, J., “Building a CUDA-Based Parallel Processing Library for 3DEP”, Sponsored by US Geological Survey, Federal, $60,000.00. (September 1, 2016 to August 31, 2018).

Rebecca Powell


Matthew Taylor

Taylor, M.J., “People in the Path of the Nicaragua Canal: Working with Popol Na and Local Communities to Document Current Livelihoods to Permit a More Just Resettlement," Grant, Sponsored by Public Good Funds, Federal, $14,480.00. (June 1, 2016 – December 1, 2017).

STUDENT NEWS

Blaise Murphy, was recently featured in the University of Denver Newsroom: “Blaise has always liked digging in the dirt. As a master’s candidate in the Department of Geography & the Environment, she spent last summer in the Peruvian Andes doing exactly that. Murphy is researching the impact of land management on agricultural soils in the Andagua Valley of southern Peru. Her broad goal is to shine light on the abandonment and reconstruction of agricultural terraces and how this affects soils, either positively or negatively, for future cultivation. http://news.du.edu/digging-in-the-dirt/.”

Anna Sveinsdottir, Phd Student, was also recently featured in the University of Denver Newsroom: “As an undergraduate at the University of Iceland, Anna Sveinsdottir was interested in human-environment interactions. She initially decided to focus on studying the impacts of tourism, a path that led her to Nicaragua for fieldwork. It was in Nicaragua that she met Matthew Taylor, a DU geography professor who has been crisscrossing Latin America for 26 years, studying everything from rural electrification to water resource management. Taylor encouraged Sveinsdottir to explore issues of natural resource extraction and land tenure. http://news.du.edu/resource-extraction-and-resistance/.”

Diego Pons, PhD student, just published in North America’s flagship journal, The Annals of the American Association of Geographers (http://www.tandfonline.com/eprint/uBAkm668ZBiapeEp5GJD/full). Diego Pons is in his fourth year of our Doctoral Program
MS student, Marta Blanco-Castano, is working with MS student Laura Atkinson on a project to support faculty instructor Jing Li. “We are working with USGS under a two-year grant to develop primarily GPU functions with the CUDA parallel platform (using Python) to process LiDAR datasets, for their 3D Elevation Program (“The National Map” project). We are visiting the Lakewood offices next week to meet and greet collaborators, and look forward to publishing methods and results in a journal soon. I thought it might be worth mentioning a bit of this collaborative effort between our university and USGS (which indirectly includes partnerships with other geospatial professionals in the field across the nation) to create tools that will help collect and process high quality 3-dimensional topographic data for the U.S. All these datasets, in the end, will be available to the public via the USGS website; it is quite exciting to be involved in this ambitious project.”

Geography major Madeleine Meredith, has been hard at work on the new Geography department mural in the map room, Boettcher West, room 123.

Recent PhD graduate, Gary Lavanchy, was recently hire by the Geography department as the One Year Visiting Teaching instructor.

PhD student, Diego Pons, won the NSM Graduate Student Excellence in Research Award for 2016-2016. The award was announced at the NSM Spring Picnic in May. Other nominees from Geography were Joe Quintana for Excellence in Teaching and Grace Kellner for Excellence in Service Award.


At the same event, Sylvia Brady, PhD student, competed in the GeoBowl placing in the top six which resulted in some funding support for her presentation at the Annual meeting of the Association of American Geographers in Boston, Ma.

Graduating senior, Hayley Stuart recently completed a movie for Environmental Science thesis project entitled, “Hunger for Tomorrow”. “Hunger for Tomorrow” investigates the stories of three emblematic environmental movements in Chile that have formed in opposition to the proposal of mega hydroelectric projects. These movements have historically or currently had a unique role in determining the fate of Chile’s rivers. These movements are: the Defense of the Alto Biobío, Patagonia Without Dams, and the No Alto Maipo campaigns. The research explores how the lessons learned from past conflicts apply to Chile’s water issues today, and why it is necessary for the country to protect its natural resources.
CURRENT AND RECENT STUDENT PRESENTATIONS/PAPERS/POSTER SESSIONS

- **Sylvia Brady**- “Assessing the state of transportation and mobility in Guatemala City.” Association of American Geographers Annual Meeting, Chicago, IL (April 2015).
- **Matthew Layman**- “3D GIS in the oil and gas industry.” Association of American Geographers Annual Meeting, Chicago, IL (April 2015).
• Katy Waechter- “Classification of non-forest vegetated land cover by fusing pixel- and object-based image analysis in the lower Amazonian floodplain.” Association of American Geographers Annual Meeting, Chicago, IL (April 2015).

Congratulations to our AY 2015-2016 Graduates!

Doctoral Program

Master’s Program: Geography
Sydney Firmin
Grace Kellner
Joseph Quintana

Master’s Program: GISc
Adam Barley
Matthew Casali
Benjamin Everette
Ryan Ferriman
Edward Flynn
Thomas Fogarty
Nicholas Gilroy
Bryan Gonzales
Brandon Hamilton
Monica Hanson
Brandi Hunnicutt

Bachelor’s Program: Environmental Science
Jaclynn Dame
Winton Kingman
R Stephen Black
Alec Brazeau
Jane Dahl
Corinne Dougherty
John Engesser
Bianca Gracia
Hannah Halsted
Henry Kelly
Maxwell Krueger
Paulina Levy
Hunter Logan
Kaela Martins
Matthew McGimsey
Julia Richards
Evan Swaak
Megan Thompson
Charlotte Vetter

Bachelor’s Program: Geography
Antonia Coteus
Mariah Foley
Blake Linehan
Jessica O’Toole
Hanna Albertson
Donald Bear
Jessica Blackwell
Mark Brewer
Frances Cuomo
Hannah Green
Andrea Hall
Emma Kaplan
Augustus Kubiak
Hadley Morris
Margaret Mosenthal
Christian Nielsen
Samuel Rose
Andrew Smith
David Solberg
Graduate Joe Quintana and Eric Boschmann at spring graduation.

Photography courtesy of Joe Quintana
HAPPENINGS

Our department always looks forward to fellowship opportunities with faculty, staff, students, alumni and friends throughout the year. We welcome you to join us at any of our events.

Spring Awards Ceremony and Graduation Picnic

Once again, it was great to see the wonderful participation in our annual Spring Awards Ceremony and Graduation Picnic in June. We hold this event outside the Boettcher West building every year on the Thursday before graduation. For the first time this year, we committed to having our picnic zero waste! With help from the Office of Sustainability, compost bins were set up around the area and all plates, napkins, cups, and utensils were compostable. Guests enjoyed great catering from Roaming Buffalo BBQ, a local establishment.

The following awards were presented at this year’s spring picnic:

- Dr. Thomas M. Griffiths Memorial Award in recognition of undergraduate scholarship and independent research in Geography - Hadley Morris, Margaret Mosenthal, Christian Nielsen, and Daniel Zimny-Schmitt.
- Environmental Science Program Award in recognition of undergraduate scholarship and independent research in Environmental Science - Julia Richards
- Dr. David B. Longbrake Award for Merit in Geography in recognition of exceptional departmental service by an undergraduate student - Kaela Martins
- Dr. Robert D. Rudd Memorial Award in recognition of graduate scholarship, research and/or exceptional departmental service in Geography - Diego Pons and Sydney Firmin
- Professor Moras L. Shubert Award for outstanding accomplishment by a senior in Environmental Science - Hayley Stuart
- Dr. Laurence C. Herold Award for outstanding graduate teaching assistant in Geography - Joseph Quintana
- Alan Bryce Henry Memorial Scholarship given to undergraduate students who have demonstrated outstanding scholarship in Environmental Science - Rachel Wegner
- Paul Stanford Bernhard Memorial Scholarship for Environmental Science - Sidney Limond and Erin Glen

2016 Spring Award winners!
Photography courtesy of Eric Boschmann

COLLOQUIUM UPDATE

Throughout the quarter, the Department hosts a Colloquium series in which scholars and professionals are invited to present their work related to geography and the environment. These lectures are open to all faculty, staff, students, alumni and friends of the Department. Each lecture is held in the Boettcher Auditorium.

Colloquia presentations for 2016 include:

Adam W. Schneider, Visiting Postdoctoral Research Fellow, Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado at Boulder
If you are interested in presenting for our colloquium series please let us know.
Geog-info@du.edu
ALUMNI AND FRIENDS: SPOTLIGHTS

Class of 2012, Michael Swan, B.A. Geography, is currently the Environmental and Transportation Planner at Harry S. Truman Coordinating Council (RPC).

Sydney Firmin, Sydney graduated in August and since then has been working as a research assistant for Professor Rebecca Powell. She will be finishing in January to spend some time traveling.

Stephen Rijo, fall 2015 graduate, has recently (7-8 months) started a new role doing transportation planning with the City and County of Denver.

1971 graduate, Weezie Huntington wrote in to tell us, “I am in awe of this department! I read all the amazing things being done, and I just think it’s clear I was ahead of my time. Everything sounds so interesting!”

Erin Sevatson, 2016 graduate in MS in Geographic Information Science and a 2007 graduate of the University of Kansas with a B.A. in Geography. I am currently employed as a GIS Analyst at Antero Resources, an oil & gas company headquartered in Denver. In 2014, I did an internship with Antero that luckily turned into a full time position. I primarily work with Antero’s land team but also work with our geology, engineering, finance, pipeline and environmental groups to assure accuracy of the data depicted on Antero’s maps. In addition to work, I recently started taking engineering classes at CU-Denver with the intention of pursuing a PhD in Civil Engineering Systems with a focus on GIS & Geomatics.

J. Lorraine Babcock, 1975 graduated. Married in December 2008 and is now retired after 25 years in Accounting.

Kyle Keahey was one of the first graduates of the Environmental Science program in 1981. Kyle is a Vice President with HNTB Corporation in Austin, Texas. Kyle received his Master’s in Regional and City Planning from the University of Oklahoma and has been primarily involved in the planning, design, and implementation of transit projects in Denver (West Corridor and I-225 projects), Dallas, Houston, Aspen-Glenwood Springs, Charlotte, Salt Lake City, and San Antonio. Most recently, Kyle was the project lead for a $1.4 billion urban rail proposal in Austin that, ultimately, was not approved by voters last November. Despite the failed election, continued planning efforts continue to identify alternative mobility strategies to address Austin’s growth.

Kristen Scoppa, 2011 graduate, is currently pursuing her MS in Agriculture, Food, and the Environment at the Friedman School of Nutrition at Tufts University. She’s hoping to center her studies in community food systems, as well as, food donation and hunger relief.

ALUMNI AND FRIENDS: SPOTLIGHTS, CONTINUED

Alicia Tyson, M.S. Geographic Information Science, 2013, has been teaching as an Adjunct Instructor at Arapahoe Community College since January 2014. In November 2014, she finished work as a Research Assistant on a joint CU/USGS geomorphology project that involved digital preservation of archived hydrologic records of a river in New Mexico. This fall, Alicia will be joining the Colorado State University, Department of Geosciences PhD program as an IWATER Fellow. She will be conducting watershed and land use management research in the Colombian paramo.

Christine Johnson, B.A. Environmental Science, 1991, just celebrated her 14th year at Xcel Energy. She works in the Environmental Sciences department as an Environmental Analyst providing permitting and compliance assistance associated with the Clean Water Act for the Colorado facilities. As Project Manager, she recently completed a 5-year process to relicense their pumped-storage hydroelectric facility located near Georgetown, Colorado with the Federal Energy Regulatory Commission.

Kevin Maddoux, B.A., Environmental Science, 1997, has joined Felsburg, Holt & Ullevig (FHU) as a principal. With over 130 employees, FHU is a Colorado-based consulting firm specializing in transportation and environmental planning, traffic engineering, and transportation system design.

Katherine Williams, M.S. Geographic Information Science, 2011, is working at Schneider Electric as Product Manager for ArcFM Design and Work Products, a geospatial suite of products that extend the ArcGIS platform with functionality for Utility and Telecom providers.

Lindsey Hethcote, 2008 Environmental Science graduate, has just finished her Master’s at CATIE, Agroforestry and Sustainable Agriculture in Costa Rica. She will be traveling Nicaragua with a friend before pursuing further interests.

Natalie Knowles, DU undergraduate, has decided to pursue MSc in Biodiversity, Conservation, and Management at Oxford.

Katrina Marzetta, M.A., Geography, 2009, earned her PhD in Science Education for the University of Colorado, Denver. She was teaching in their Geography department but has changed professions and is now the Evaluation Specialist Faculty at The Evaluation Center, which is part of UCD’s School of Education and Human Development. She evaluates educational, environmental, and non-profit programs. She has had several publications coming out in the new year. Her dissertation was published, “Changing the Climate of Beliefs: A Conceptual Model of Learning Design Elements to Promote Climate Change Literacy.”
A special request from Donald Sullivan to our Alumni

Paleoenvironmental research in the Department of Geography Quaternary Research Laboratory has been used by many students, and has resulted in several graduate and undergraduate theses. Over the years facilities and equipment in the lab have been updated, and this allowed our lab to remain one of the few well-equipped paleoenvironmental labs housed in a Geography Department. However, there has been a major shortcoming in our facility—the lack of a cold room for the long term storage of sediment cores and other samples. Paleoenvironmental research relies on the collection of cores from lakes and wetlands that can be sampled over several years, as new research questions are explored, new methodologies are developed, and new students are brought into the lab. However, we lack the ability to archive the sediment cores we collect for sufficient periods to complete all sampling, as the cores eventually dry out and become unusable, or slowly oxidize. If cores become unusable, we have to return to research sites to collect new ones. If a core site has been disturbed, or if returning to a sampling site is impossible or expensive, recollecting cores may not be possible.

Recently, the Dean of Natural Sciences and Mathematics has agreed to provide space for a cold storage room, and has allocated some funds for the necessary construction. Unfortunately, the dean’s contribution is not enough to cover the entire cost of the project. We are soliciting donations to help defray the cost of constructing and equipping the new facility. Student researchers have played a vital and integral role in developing and maintaining the University of Denver’s reputation as a cutting edge institution in paleoclimate and Quaternary research. This facility will help keep the DU Quaternary Research labs at the forefront of Quaternary Research, and will provide a lasting benefit to our students. We appreciate any tax deductible donations you can make to this important project. Donors will be listed on a plaque outside the facility. Donations over $500 will receive a thank you gift (just like NPR!) of a custom-designed DU Quaternary Research Lab T-shirt. A donation of $10,000 or more will give the donor naming rights for the facility. Any donations in excess of the amount needed to complete the project will be used to help support graduate and undergraduate research projects (field expenses, new and replacement equipment, radiocarbon dates, etc). Donations can be sent directly to the Department of Geography and the Environment, or through the University’s Office of Advancement. Please indicate that the donation is for the Department of Geography and the Environment Olin Hall Cold Storage Facility.

website and link to Quaternary Research Lab Facebook: www.drdonsullivan.com

We enjoy hearing from our Alumni and welcome you to go to our Website and click on the Alumni Update Form to send us updates.

If you’d care to donate to the Geography and the Environment department, please click on the link:
http://www.du.edu/give/
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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