

PANTHER GEOGRAPHY

LETTER FROM THE CHAIR

Our winter weather has been quite an adventure this year in Wisconsin! I suspect many were wondering if we were going to sneak through the entire season with little difficulty. At least that is what seemed likely, up to even as late as early January. Then, during the last week of January we were hit by a major snow storm that cancelled classes for a day. This was followed in short order by an exceptionally cold (lows around -23°F at my house in Shorewood) and windy two days, with dangerous wind chills, that not only cancelled classes, but closed the campus for two days. Following the extreme cold, we had several days with highs in the mid- to upper 40s. Two weeks later, we again had a major snow storm leading to another day's classes canceled. As I write this, we're in the midst of April snow. Spring seems like a long way off (though our forecast still suggests it could come a bit early)!



In departmental news, I am pleased to report that this year ten of our graduate students will be presenting papers at the Association of American Geographers' Annual meeting in Washington, DC (April 3rd-7th). We also were privileged to welcome a distinguished geographer to campus in March. Prof. Julie Winkler (Michigan State University) gave the Spring 2019 Harold and Florence Mayer lecture on March 15th. Other recent news includes: 1) Prof. Anne Bonds has been invited to be the keynote speaker at the Midwest Undergraduate Geography Symposium (MUGS) being held at the University of Wisconsin-Madison. MUGS is an academic forum where undergraduate geographers present research as well as meet and learn from other geographers in the region; 2) Prof. Rina Ghose received the 2018 Distinguished Community Scholar Award from Citizen Science GIS; 3) Prof. Alison Donnelly's research team is using satellite data, in situ observations, and lab analysis to study the contribution of shrubs to forest phenology with a goal of better understand carbon budgets; and 4) Profs. Anna Mansson McGinty and Kristin Sziarto, in collaboration with other campus colleagues, are using a Center for 21st Century grant to further their Muslim Milwaukee Project, a multi-stage demographic and ethnographic project exploring the complexity of Muslim identities in the city. This spring, they will deepen community involvement through participation in visiting artist Salam Yousry's Choir Project.

I invite you to read about our many other noteworthy achievements in the rest of this newsletter! Also, please share your own news! We appreciate your continued support.

A handwritten signature in black ink that reads "Mark".

Mark D. Schwartz
Chair, Department of Geography

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College of Letters & Science

IN HONOR OF GLEN FREDLUND



As of this August, Glen Fredlund will join the ranks of the UWM Department of Geography's Emeritus faculty. As much as we will miss him, we are delighted to wish him well as he transitions to retirement.

Glen is currently our longest-serving faculty member, having begun his UWM career in 1990. A native of Louisiana, Glen received his bachelor's and master's degrees in the Department of Geography and Anthropology at Louisiana State University. He went on to receive his PhD in Interdepartmental Quaternary Studies from the Departments of Geology, Geography, and Systematics and Ecology at the University of Kansas, focusing his research on the paleoecology of grasslands.

Over the years, and often in collaboration with UWM students, Glen has produced a rich and highly regarded body of scholarship on the pollen and soils of the Quaternary period, as well as the cultural history and anthropology of the U.S. West. Among his most influential publications have been articles on phytolith assemblages in the North American Great Plains and Southern High Plains, analyzing grassland soils in states from South

Dakota to New Mexico. This work has contributed to our broad interdisciplinary understanding of the historical dynamics of grassland ecosystems, including the dynamics of changing climate. His wide-ranging archaeological research – often in collaboration with his wife Linea – has also addressed topics closer to his roots in anthropology, such as the maps of Cheyenne Scout John Crazy Mule and the use of infra-red photography for recording painted rock art.

Most readers probably know Glen best through his dedicated teaching and mentoring. Many encountered Glen through his popular Conservation of Natural Resources class, which played a major role in shaping his own interests in environmental protection, policy, and politics. One of his goals was to challenge students to look beyond their cultural “blindness” when critically reflecting on environmental problems and solutions. Others remember his Geography of Soils class, which featured hands-on field trips to several parts of Wisconsin, or his Biogeography class. In addition, Glen has advised numerous master's and PhD students, several of whom have gone on to prominent positions of leadership in academia, government, and non-profit organizations.

Finally, Glen is well-known to many of our alums through his service, both as the longstanding Director of the Conservation and Environmental Science program at UWM and in a number of other capacities. Under Glen's leadership since 2005, the CES major has grown from a small interdisciplinary program to one of the most popular majors in the College of Letters and Science. This is a testament not only to Glen's exceptional administrative skills, but also to his extraordinary dedication to mentoring undergraduates. Other service has focused on the protection of wildlife; Glen has been a leader in making the UWM campus a safer place for birds, and beyond the campus he has served on the board of the Western Great Lakes Bat Observatory. Glen may be known

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for his quip, “No one ever told me I’d have to work with people!” but his gift for building and nurturing social networks on and beyond campus will be one of his lasting legacies.

Glen’s abiding passion for the environment has left a tremendous mark on the field of Quaternary studies, on the UWM campus, on the surrounding community, and on generations of students. We have invited a few of these students, as well as other colleagues, to share their memories and reflections of Glen’s career with us.

Glen, we wish you the very best!

Angie Doucette
MS, 2013

Dear Glen, my professor, my advisor, my mentor, my friend. Thank you for taking a chance on me and inspiring me to ask questions. You taught me the joy in knowledge and the ability to learn something new at every turn. I always appreciated our car rides to and from Madison (including pit stops for sundaes and six packs) and the interesting history you’d share of my new home in Wisconsin. I always felt like we were on an adventure. Your love for your profession was obvious - no matter the day or time, you always had a moment to listen. As a Teaching Assistant, I quickly learned how cherished you were for your warmth and genuine desire to help your students succeed. In your retirement, I wish you days full of dog snuggles and South Dakota sun. Congratulations.

Mark D. Schwartz
Distinguished Professor of Geography, UWM

Glen Fredlund and I have known each other for quite some time. We were both in graduate school in the Geography Department at the University of Kansas during the early Holocene (or was that the late Pleistocene?). Glen has always seemed to have an inherent tendency to reject authority (probably caused by his exposure at an early age to the 1960s), so his long service as Geography Undergraduate Program Chair as well as Director of the Conservation and Environmental Science Program seems more than a bit ironic to me. Without a doubt, his strong commitment to serving students accounts for Glen overcoming his natural inclination and embracing these administrative roles, and that dedication will constitute the central part of his legacy as a professor in our department. I feel privileged to have Glen as a friend and colleague and wish him all the best for a long and enjoyable retirement.



EVENT RECAP

GIS DAY 2018

GIS Day 2018 at UW-Milwaukee was a great success with more than 200 participants including a well-balanced mix of students, faculty, professionals, and community members. GIS Day is an international event, which is celebrated annually at UWM under the sponsorship of the UWM GIS Council, as well as several UWM departments and local businesses. The day-long event took place on Wednesday, November 14th, 2018, and was packed full of activities that showcased applications of GIS among a diverse array of topics.

This year, attendees were offered several opportunities to enhance their GIS knowledge including a Keynote Speaker, 6 Ignite Spatial talks, 6 hands-on workshops, tours of the American Geographical Society Library (AGSL), a student project competition and day-long accessibility to several vendor tables. The three morning workshops were: 1) Intermediate Python Scripting for ArcGIS 10, 2) Introduction to GIS, or 3) ArcCollector.

Judging for the UWM Student GIS Project competition commenced mid-morning, and awards were given to three exceptional contestants. For Best Graduate Student/GIS Certificate Student Project:

- 1st Place (\$300): Sue Borchardt, “Annual Historical Precipitation Maps: 1980-2014, Wisconsin”
- 2nd Place, (\$200): Chenxi Lin, “A Spatially Adaptive Variogram for Measuring Spatial Variability from Remote Sensing Imagery”
- Honorable Mention, (\$150): Trevor Iglinski, “Detecting Forest Disturbance Using Landsat Imagery”



climatology, regional climate change, and climate scenario development and evaluation. Current and past research topics include heavy precipitation, nocturnal thunderstorms, low-level wind maxima, airflow within midlatitude cyclones, wildland fire risk, and the possible impacts of potential future climate change particularly on agriculture. Much of Professor Winkler's research has focused on the Central Plains and Great Lakes region of the United States. She is also a past president of the American Association of Geographers (AAG) and Fellow of the American Meteorological Society (AMS).



The invigorating Keynote presentation, “The Area Disadvantage Index: Using geographic information science to construct and share metrics of neighborhood disadvantage in the clinical setting,” was given by Dr. William R. Buckingham of the Applied Population Laboratory at UW-Madison.

Six presenters from a variety of organizations, both academic and professional, braved the stage to share their work within the confines of the Ignite Spatial format, which allows only 5 minutes, 20 slides and 15 seconds per slide, to make for succinct, informative and often amusing pitches.

Late in the day, attendees had the option of attending one of three afternoon workshops: 1) Advanced Python, 2) Census Data and Tools for GIS, and 3) ArcGIS Online Story Mapping taught by Kate Madison (UWM) and Sue Borchardt (UWM) for all skill levels.

Donna Genzmer, Director of the Cartography and GIS Center at UWM, chaired UWM's GIS Day 2018. The GIS Club contributed to the planning and marketing of the event and provided staff support. We invite you to participate in, and financially support, GIS Day 2019, November 20, 2019. More information can be found at: uwm.edu/gis-council/gisday/.

Harold and Florence Mayer Lecture

The Department was pleased to welcome distinguished geographer Julie Winkler of Michigan State University to deliver our spring semester Harold and Florence Mayer Lecture on Friday, March 15th. The presentation, entitled “The Complexities of Climate Change—Examples from Agriculture and Natural Resources,” highlighted the impacts and challenges of studying climate change in relation to these two important systems.

Professor Winkler is interested in many aspects of geography and climatology including synoptic and applied



HONORS, PRESENTATIONS, AND PUBLICATIONS

Susan Borchardt has received the 2018 Damon Anderson Memorial Scholarship and was spotlighted by Wisconsin Land Information Association on their website. Damon Anderson was an alumnus from UWM Department of Geography.

Sohyung Lim has received a runner-up award in the 2019 Graduate Student Paper Competition by the American Association of Geographers Asian Geography Specialty Group.

Sohyung Lim and **Gainbi Park** were awarded the Distinguished Dissertation Fellowship by UWM Graduate School, and they were selected as recipients of the 2019 Korean Geographic Society Student Paper Award organized by the Korea-America Association of Geospatial and Environmental Sciences and the Korean Geographic Society.

Wei Xu will join the Center for Demography of Health and Aging at the UW-Madison as a post-doctoral research associate in July, 2019. He is working on a project that looks at the effects of place of birth on late-life health and mortality risk.

Nick Schuelke has accepted a non-tenure-track appointment as a Lecturer in the Department of Geography at Central Washington University for the 2019-20 academic year.

Anne Bonds served as the keynote speaker at the Midwest Undergraduate Geography Symposium (MUGS) held at the University of Wisconsin-Madison on April 27th.

Alison Donnelly delivered a lecture as part of the UWM Planetarium Astro Break series, entitled “Trees and shrubs from space.” Donnelly, graduate student Chloe Rehberg, and Erica Young from Biological Sciences were featured on WUWM radio with environmental correspondent Susan Bence for their research on shrubs.

Donna Genzmer was interviewed on Wisconsin Public Radio’s “The Larry Meiller Show.” She served as lead organizer of UWM’s annual GIS Day, and with PhD student Sue Borchardt, participated in Learn Deep Milwaukee’s “Collab Lab 24: Maps as a Point of Engagement: How can we use maps and spatial data to engage students in issues that matter to them?” She also participated in a panel on the integration of GIS in K-12 schools at the Wisconsin Land Information Association annual meeting.

Rina Ghose was an invited fellow at the Community Geography workshop hosted by the University of Georgia and is serving as Vice Chair of the AAG Socialist and Critical Geography specialty group. As part of the Embodied Text of Regional Indigenous Languages group (with Lane Hall, Lisa Moline, Margaret Noodin), she received a C21 Collaboratory Grant. Ghose was a keynote speaker and distinguished community scholar in the Citizen Science GIS program at the Univ. of Central Florida.

Ryan Holifield delivered a guest lecture for the University of Indiana Department of Geography, based on collaborative research with Katie Williams (PhD, 2015) on stakeholder participation at Great Lakes Areas of Concern.

Anna Mansson McGinty and **Kristin Sziarto** received a C21 Collaboratory Grant (with Caroline Seymour-Jorn) for the Muslim Milwaukee Project. The grant supported a collaboration with Egyptian musician and theater director Salam Yousry, who facilitated a version of his international Choir Project at UWM.

Mark D. Schwartz was selected as one of 13 members of the 2019 class of AAG Fellows. He will also receive this year’s Lifetime Achievement Award from the AAG Climate Specialty Group. Schwartz lectured on “Phenology in a Changing Climate” at the UWM Library as part of the “Master Chat” series.

Pan, F., W. Choi, and J. Choi, “Effects of Urban Imperviousness Scenarios on Model-Simulated Storm Flow,” *Environmental Monitoring and Assessment*, 2018.

Han, W.S., Graham, J., S. Choung, E. Park, **W. Choi,** and Y.S. Kim, “Local-Scale Variability in Groundwater Resources: Cedar Creek Watershed, Wisconsin, U.S.A,” *Journal of Hydro-environment Research*, vol. 20, pp. 38-51, 2018.

Choi, W., “Climate Change and Nighttime Heat Stress: Tales of Two Cities in the US Midwest,” *Journal of Climate Research*, vol. 3, no. 3, pp. 197-210, 2018.

Pan, F., Choi, W., “A Conceptual Modeling Framework for Hydrologic Ecosystem Services.” *Hydrology* 2019, 6, 14.

Pan, F., Choi, W., “Impacts of Climate Change and Urban Expansion on Hydrologic Ecosystem Services in the Milwaukee River Basin,” *Climate*, 2019, 7(4), 59.

ALUMNI UPDATES



Nicholas L. Padilla
PhD, 2017

I received an offer to join the Department of Geography at Western Michigan University as an instructor during the summer of 2017, so my family and I packed up our house and moved to Kalamazoo, Michigan, in August of 2017. It was a frantic first year as we adjusted to life in our new home, the kids adjusted to new schools, and I adjusted to the new demands of a teaching-intensive position. It was a challenging year, but we all survived. Now, I am happy to share that my position has been converted to a tenure-track position, and I began my first year as an assistant professor in the fall 2018 semester.

I have taught a number of courses on the geography of Mexico and the Caribbean, South America, the United States and Canada, Europe, Human Geography, and Introduction to Geospatial Technologies. I also have a study abroad course to the Ecuadorian Amazon scheduled for the summer of 2019. I will lead students on a number of hikes through the Amazon forest with indigenous guides to experience how indigenous people experience and know the forest around them. These hikes usually include seeing, tasting, hearing, and touching the forest to better understand the Amazon from the perspective of an indigenous person. I am looking forward to introducing our students to the Amazon Forest as Quichua people know it.

I was incredibly fortunate during my years at UWM. First, I had the opportunity to teach a number of courses in a variety of settings for the department. I began my time at Western ready to teach my four courses because I had the experience teaching large and small courses, managing teaching assistants, and developing course materials. Second, my advisor, Kristin Sziarto, has constantly emphasized the

importance of teaching in our work. Kristin included me in the course development process immediately, and she even included me on a research project with Linda McCarthy on developing critical thinking skills in students. Finally, I spent three semesters advising undergraduate students as they enrolled in the Department of Geography. Collectively, these experiences have prepared me to teach and manage a large teaching load as well as support our undergraduate and graduate students as they work to complete their studies here at Western Michigan University.

My research with indigenous social movements in Colombia continues to develop, while I am still publishing results from my dissertation. I have also been working on more pedagogical research with Kristin Sziarto that examines how students learn indigenous geographies through study abroad experiences. Kristin and I will present the preliminary results of this project on a panel at the annual meeting of the American Association of Geographers. I have also been invited to contribute to a major grant application to train indigenous communities to deploy drones and remotely-sensed imagery in order to monitor their territories. My colleagues and I are interested in how unmanned aerial vehicles can offer an affordable – and safer – technique for native communities to manage their lands. I look forward to learning more about the potential impacts and benefits of native communities utilizing drones.

I was recently reflecting on how much my situation has changed since I joined the Department of Geography at UWM during the fall 2009 semester. My partner and I were incredibly excited to move back home to Wisconsin for my doctoral program, and I was anxious to begin my work. Today, we are relieved that my path through academia has been relatively smooth. We appreciate the opportunities our family has had because of the nature of academic work. For example, our children have spent more than a year of their lives living and traveling outside the United States (and will spend a month in the Amazon Forest this year!). I look forward to the challenges and exciting opportunities that are ahead. I remain grateful for my time at UWM as well as the support the faculty have consistently offered me over the years.

Share Your Updates!

We'd love to hear what you are doing since graduating from the geography program.
Send updates to Ryan Holifield @
holifiel@uwm.edu



**Margaret Pettygrove
PhD, 2016**

Following the completion of my PhD in May 2016, I took a position doing GIS analysis and data management as a contractor for the U.S. Forest Service in Vallejo, California (in the San Francisco Bay Area).

Initially my work for the Forest Service focused on developing

and managing spatial data for the agency’s response to tree mortality in California. While I continue to serve as data manager for the agency’s regional tree mortality mitigation efforts, I now also analyze, map, and manage data for a variety of forest health projects. These include research comparing different kinds of forest disturbance monitoring data (involving both aerial image interpretation and field data collection), mapping areas of tree mortality and hazard tree removal near active wildfires, and a climate change vulnerability assessment for forest infrastructure and recreation. Although this work diverges from the topics of my dissertation research, I am enjoying learning more about the intersections of land management and GIS, and it has allowed me to deepen my understanding of geospatial analysis and visualization tools by applying them to unfamiliar arenas. It has also been a great opportunity for immersive learning about “real world” institutional GIS practices (perhaps an inadvertent GIS and Society case study?)

Throughout this time, I have continued to engage with my interests in geographies of urban food and agriculture as I work to publish from my dissertation research. In progress are papers on networks in urban food organizing and on the use of Supplemental Nutrition Assistance Program (SNAP) data to model urban food procurement patterns. Most recently, in 2018, I published an article, co-authored with Rina Ghose, in a special issue of *Annals of the American Association of Geographers*.

In non-work news, I am enjoying the return to California (along with husband and fellow UWM Geography alum, Nick Gates). We live not far from where I grew up, and are discovering the unique joys (and challenges) of Bay Area life. I am finding time to garden, volunteer with a local organization doing legal observation, and teach myself how to tile a bathroom. Although the climate here suits me better, I think often about Milwaukee and the folks in the Geography Department. I am grateful to have spent several years there among supportive faculty and students, and for the relationships formed that keep me connected from afar.

**Phil Reeder
PhD, 1992**

An international team of researchers, including Duquesne University’s professor Dr. Philip Reeder, discovered the burial site of "Anne Frank of Lithuania" and her family.



**Matt Rudman
BA, 2016**

Matt was featured on Wisconsin Public Radio on November 14, 2018. He coordinates a harvesting effort to collect excess fruit and veg and distribute to people in need.

**Peter Strand
MS, 2006**

Peter Strand, Land Information Officer for Eau Claire County, is the newly elected President of the Wisconsin Land Information Association.

**Tom Winter
MA, 1989**

Tom is spearheading the Milwaukee County Transit System NEXT initiative, proposals for changes in the Milwaukee bus system. <https://www.ridemcts.com/programs/mcts-next>.

**Sandra Zupan
PhD, 2010**

Sandra works at the University of Chicago as an Assistant Director of National Fellowships and Undergraduate Research for the College Center for Research and Fellowships. Prior to joining the staff at University of Chicago, Sandra taught undergraduate courses in human geography, environment, and urban studies at Temple University and the University of Kentucky.





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