

THE UNIVERSITY OF ALABAMA

DEPARTMENT OF GEOGRAPHY



ANNUAL NEWSLETTER 2023

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Message from the Chair

Dear friends,

Welcome to the University of Alabama, Department of Geography 2022-2023 academic year newsletter. This past year was full of changes including a big one for me as the new chair of the department beginning in August 2021. I am honored to be serving an amazing department following ten years of leadership by Douglas Sherman as chair. The last decade has been one of tremendous growth both in terms of number of faculty and students and research productivity for our department. I am excited to share this newsletter detailing some of the changes including accolades and achievements of our students, faculty, and staff over the past year. Among the highlights:

We continue to enroll top-caliber students in our graduate program and now have over 20 MS and 21 Ph.D. students, over half of which are supported by university fellowships or research grant funding secured by faculty members.

After several decades of collaboratively managing the Environmental Science BS degree. The program will now formally be administered solely by the geography department. This brings our total undergraduate enrollment to well over 200 students.

We are very excited to have been awarded two Dean's postdoctoral scholar positions by the college. These positions are designed to eventually transition to permanent faculty positions and we were able to hire two exemplary candidates- Dr. Leah Mungai and Dr. Changzhen Wang.

Now that international travel is somewhat back to normal, our faculty members continue to offer some of the most popular study abroad programs at UA, including in Belize, Costa Rica, Ireland, Italy, and Mexico.

We successfully established a new support fund for the department- the "Department of Geography Commitment to Diversity, Equity, and Inclusion Endowed Support Fund", which will help support a variety of DEI-oriented goals of the department.

We were awarded the Dean's Diversity Award for 2021-2022. The award is given to a department that has demonstrated a commitment to Diversity. Citations for the award included successfully hiring two diversity post-doctoral fellows and the recent establishment of the endowed DEI Support Fund". The Dean's Award will be used to help support a series of speakers and events focused on celebrating the scholarship of Dr. Wilson throughout the 2023-2024 academic year.

Lastly, we are saddened to report the loss of two of our retired faculty Dr. Bobby Wilson in August 2021 and Dr. Hobson Bryan in August 2022. They will both be missed by their colleagues and former students.



Professor Matthew Therrell
Chair, Department of Geography

DEPARTMENT NEWS : 2022 - 2023



Dr. Sagy Cohen

The 2022-2023 academic year has been hectic and exciting. The Cooperative Institute for Research to Operations in Hydrology ([CIROH](#)) was awarded to the University of Alabama (as the lead of a consortium of over 25 academic institutions and private companies) in the summer of 2022. I was invited to serve as the Deputy Director of CIROH and officially commenced that role at the start of this academic year. I was also awarded a large research grant through [CIROH](#) to advance flood remote sensing of and parameterization of river channels within the NOAA Office of Water Predictions/National Water Center (NWC) flood forecasting frameworks. Prof. Honxing Liu is a Co-PI on this project. Prof. Liu was recently awarded a NASA grant, on which I'm a Co-PI, to provide field measurements of streamflow and water quality for the, recently launched, SWOT satellite.

We welcomed four new graduate research assistants at the Surface Dynamics Modeling Lab ([SDML](#)) this year:

- Monica Stone (Ph.D.): Bankfull Discharge Estimation Using Novel Datasets
- Reihaneh Zarrabi (Ph.D.): Channel Morphology and Roughness Estimation
- Parvaneh Nikrou (Ph.D.): Hydraulic Simulation of Floods Across Scales and Regions
- Riley Mcdermott (MS): Channel Shape Estimation using Novel Datasets

They join Nishani Moragoda (Ph.D.) and Sera May (MS), both in the final year of their studies, and two undergraduate research assistants (Katie Bendall and Kiley Price).

We will also welcome two new postdocs to our group in May:

- Dr. Dan Tina: Remote sensing of flood inundation (will work in Prof. Liu lab)
- Dr. Anupal Baruah: Hydraulic model evaluation framework

Key publications this academic year from SDML including Nishani's papers in *Earth-Science Reviews* (IF: 12.0) and (accepted after minor revisions) *Water Resources Research* (IF: 6.1), my papers in *Water Resources Research* (IF: 6.1) and *Remote Sensing* (IF: 5.3), and co-authored paper (with a large international group) at *Journal of Great Lakes Research* (IF: 3.0). We presented our research at several conferences this year including the *American Geophysical Union Fall Meeting* (Chicago, IL), *Global Flood Partnership Annual Conference* (Leeds, UK), *CSDMS Annual Conference* (Boulder, CO), *Alabama Water Resources Conference* (Orange Beach, AL), and the *Alabama Water Institute Symposium* (Tuscaloosa, AL).

This summer will be a busy one. I am leading the organization of the CIROH Training and Developers Conference (May in Salt Lake City, UT), co-organizing the Global Flood Partnership Annual Conference (September in Singapore), and UA-lead organizer and research theme lead of the 2023 NWC Summer Institute (June-July in Tuscaloosa, AL).

DEPARTMENT NEWS : 2022 - 2023

Dr. Jason Senkbeil

Jason Senkbeil is a climatologist/meteorologist with primary research interests in atmospheric hazards and applied climatology. Specifically, Dr. Senkbeil hopes to improve the ways in which we communicate severe weather information so that people better understand their risk and take appropriate actions. He and his coauthors published two articles in Spring 2022 in The Bulletin of The American Meteorological Society. These articles came from continued work on his NOAA Vortex SE Grant, "Geospatial Threat Personalization and its Influence on Warning Risk Perception and Protective Actions." Results show that many people do not have a good understanding of radar imagery and many also do not have adequate background knowledge about climatological tornado characteristics despite having extensive tornado experience. Ongoing research investigates how robust these results are when participants are asked to map their perceptions of climatological tornado characteristics. Hopefully, these findings can be disseminated across the weather enterprise to produce targeted messaging campaigns and inform communication strategies before future tornado outbreaks. He looks forward to the upcoming year and many climatology and atmospheric hazards projects that are in progress with graduate students. In his spare time, he enjoys coaching high school sports, jogging, biking, hiking, kayaking, or just relaxing outside.



Professor Justin Hart



Justin Hart is Professor and Director of the Environmental Science Program. Justin also directs the Forest Dynamics Laboratory (FDL). The primary mission of the FDL is to provide science-based solutions to pressing forest management issues. This goal is accomplished through applied research, outreach with an emphasis on practitioners, professional and civic service efforts, and instruction of courses that include state-of-the-art information, hands-on learning, and professionalization opportunities for students. The lab has ongoing research projects that will allow for the development of silvicultural prescriptions that are based on natural patterns of stand development and disturbance. Current projects are based in Alabama and Tennessee.

DEPARTMENT NEWS : 2022 - 2023



Dr. Nicholas Magliocca

“The Human-Environment Interactions Modeling & Analysis (HEIMA) Lab has been busy this year with three ongoing, externally-funded projects and numerous related student projects. One area of active research focuses on the co-evolution of counterdrug interdiction efforts and narco-trafficking networks. An NSF project funded through the Disrupting Illicit Supply Networks (DISN) program is integrating spatial optimization of counterdrug interdiction asset locations with and agent-based modeling of narco-trafficking spatial dynamics, which is being integrated into a GIS-based decision-support systems.

A NASA project funded through the Land-Cover Land-Use Change (LCLUC) project is attempting to causally attribute and quantify land-use change associated with impacts of narco-trafficking’s presence in and around three major protected areas in Central America’s Mesoamerican Biological Corridor. Related student projects include the integration and interoperability of diverse data sources to triangulate the location and timing of narco-trafficking activities, and leveraging geospatial machine learning models to identify turbulent wakes of potential drug trafficking vessels delivering shipments to the Pacific coast.

A second area of active research is related to climate-smart and sustainable agriculture practices in the Deep South. A part of an NSF-funded Innovation at the Nexus of Food-Energy-Water Systems (INFEWS) project, surveys and interviews are being collected to understanding the technology adoption and climate adaptation decisions of producers in Alabama’s Black Belt region, which are informing the development of a regional-scale agent-based model of producer adaptation and resource use. Related project include perceptual mapping of adaptation opportunities and barriers, food-energy-water nexus analysis of future land-use change scenarios, and potential for more circular economic practices to increase agricultural sustainability.

The HEIMA lab collectively published 10 peer-reviewed articles in journals including from Ecology & Society, Landscape & Urban Planning, Current Opinion in Environmental Sustainability, Agriculture, and IISE Transactions. Dr. Magliocca also received the College of Arts & Science Leadership Board Faculty Fellowship and the UA President’s Faculty Research Award.”



Professor Luoheng Han

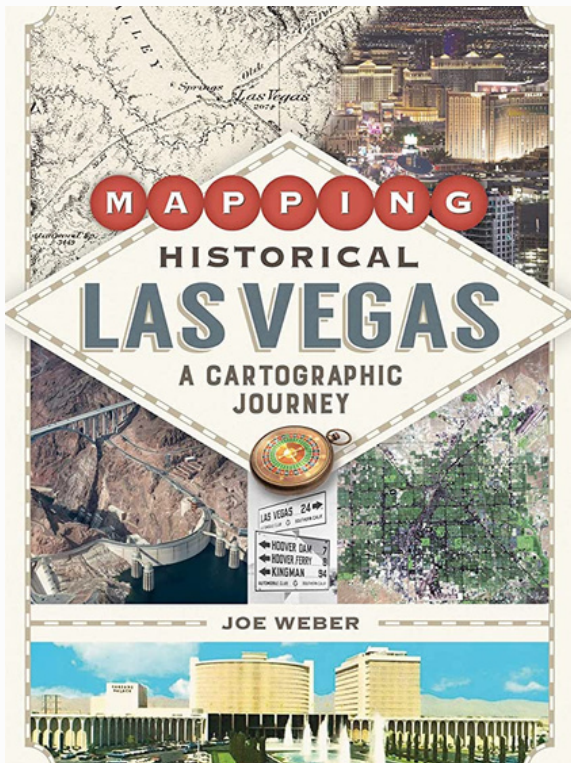
Luoheng Han continued his administrative role as Senior Associate Provost for Academic Affairs this past year. He was named Interim Dean of Honors College, so he took on a dual role last year. His last Master’s student graduated in the Spring of 2021. He looks forward to continuing to serve our students.

DEPARTMENT NEWS : 2022 - 2023



Professor Joe Weber

"It has been a busy year for me. In the Fall 2021 semester, I taught my 100th college course and marked the occasion by spending much of 2022 teaching new courses, including urban geography, the geography of America's public lands, and taking over map and air photo interpretation after Craig Remington retired. Two of my students, Melissa Meyer and Ben Hand, finished their master's theses in Spring 2023 and received department awards along the way. A highlight of the year for me was when my book *Mapping Historical Las Vegas: A Cartographic Journey* finally came out. This was the culmination of many years of work in historical GIS devoted to the greatest city in the world. Another highlight of the year was receiving the SEDAAG Research Honors Award. I have been active in promoting the geographic study of protected areas such as national parks, forests, historic sites, wilderness, and similar protected areas around the world. As part of these efforts, I co-edited a special issue of *Southeastern Geographer* on the changing geography of protected places, and recently completed a term as the chair of the Protected Areas Specialty Group of the AAG, a relatively new group devoted to these wonderful places. I am happy to turn it over to a new generation of officers. I am continuing to serve as book review editor for *Southeastern Geographer*, a rewarding job though I wish I had the time to read all those books!"



DEPARTMENT NEWS : 2022 - 2023



Dr. Jared D. Margules

" This year I worked to complete the full draft of my book manuscript, *The Succulent Subject: a political ecology of plants, desire, and illicit trade*, which I submitted to the University of Minnesota Press in May. Based on reviews received over the summer, I will be revising the book through the Fall; it is planned to appear in the Fall 2023 UMP catalogue. In the Spring of 2022, I was on ASPIRE teaching leave and held a Landhaus Fellowship at the Rachel Carson Center for Environment and Society (RCC) in Munich, Germany. The RCC is an internationally-recognized center for study and research in the environmental humanities and is affiliated with Ludwig Maximillians Universität München (LMU), one of the oldest Universities in Europe. From January to May,

I lived in residence with 9 other researchers from around the world in the old family house of the Herrmannsdorfer Landwerkstätten (an agroecological organic farm) on the outskirts of Munich in rural Bavaria. There, I worked to complete my book manuscript, presented in the lunchtime colloquium series at the RCC and participated in weekly workshops of works-in-progress with the RCC's visiting researchers, Ph.D. students, and other Landhaus Fellows. This was a fantastic experience and in addition to getting to live on a working farm and wake up to a view of the alps every morning (and subsist on fresh bread, cheese, vegetables, and meat raised and grown there!) I regularly traveled to Munich to meet and interact with a diverse group of scholars at the world's largest center dedicated to the environmental humanities.

This year's other research highlights included publishing an open-access, peer-reviewed article in the *Journal of Political Ecology* with four current and former UA Geography Undergraduate and Graduate students based on our reading of new work on abolition ecologies during the Fall 2021 semester in our class on Political Ecology. In continuing to develop my research program on illegal wildlife trade, I held stakeholder knowledge workshops on illegal poaching of the Venus flytrap with support from the BAND Foundation and completed a collaborative research project drawing on over 450 surveys of cactus and succulent collectors and their perspectives on illegal plant trade. This was also a 'big year' for illegal plant trade attention in the media. As a result, in the past year, I served as an expert witness to the United States in a major succulent poaching case, and I have been interviewed by and/or had my research discussed in a number of media outlets including *The Guardian* and *Vox*. I am also consulting with production teams working on plant trade features or series that will appear later this year or next, including media pieces by *VICE News*, *PBS*, and *BBC Science*. "



DEPARTMENT NEWS : 2022 -2023



Dr. Matthew LaFevor

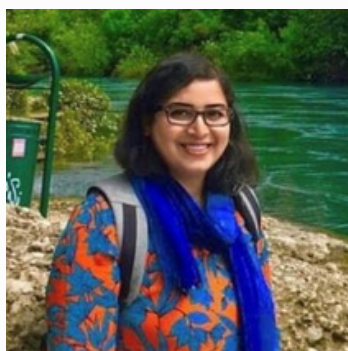
From May 11 to 21, Dr. LaFevor and six UA students traveled to Mexico to study abroad in mountain environments. The program was funded by a US State Department/Jenkins Foundation grant (100K Strong in the Americas) awarded to Drs. LaFevor, Pawloski, and Young.



Students in Puebla, Mexico: (left to right) John (Nieco) Herrington, Sonali Albus, Luke Skaff, Josiah Gleason, Liam Tucker, and Abi Brewer.



Students exploring the alpine grasslands of Mexico's Izta-Popo National Park and Protected Area.



Two new Instructors joined the Department of Geography in Fall 2022

Dr. Nitasha Sharma works on Tourism Geography and Cultural Studies.

Dr. Rafiq Islam works on Applied Climatology and South Asian Monsoon Climate





DEPARTMENT NEWS : 2022 - 2023

2022-2023 Colloquium Series

8-September, 2022: Leah Mungai, Dept. of Geography, University of Alabama

Topic: *Modeling Spatiotemporal Patterns of Land Use/Land Cover Change in Central Malawi Using a Neural Network Model*

22-September, 2022: Katherine L. Chiou, Dept. of Anthropology, University of Alabama

Topic: *Pepper Tales: The Story of Chili Peppers in the Americas*

6-October, 2022: Changzhen Wang, Dept. of Geography, University of Alabama

Topic: *Spatial Network Optimization Methods and GIS Applications in Public Health*

13-October, 2022: Nick Magliocca, Dept. of Geography, University of Alabama

Topic: *Making the Hidden Visible: Accelerated Land-use Change and Degradation Caused by Narcotrafficking in and Around Central America's Protected Areas*

27-October, 2022: Eric Shook, Dept. of Geography, Environment, and Society, University of Minnesota

Topic: *Advancing geospatial education and research: A computational approach*

11-November, 2022: Erle Ellis, Dept. of Geography and Environmental Systems, University of Maryland, Baltimore County

Topic: *Deepening the Anthropocene: Reculturing Nature, Sharing the Planet*

17-November, 2022: Jennifer Devine, Dept. of Geography, Texas State University

Topic: *Geographies of Migration and Insecurity at the US-Mexican Border*

The '*Helen Crow Mills and John Carroll Mills Lecture Series*' was held on **April 13th, 2023** at 3:00 pm where **Dr. Kathleen O'Reilly** from Texas A&M University and an alumna of the Department of Geography, University of Alabama presented her research on safe sanitation for women in urban India.

MAP LIBRARY UPDATES



Eric Courchesne

Geospatial Services Manager,
GIS Graduate Certificate Manager

"In terms of community outreach projects, we've completed the first phase of Joe Minter's African Village in America website: africanvillage.ua.edu. It's a two-year project that included over half a dozen departments and centers on campus, multiple institutions, and numerous faculty and graduate students, all led by us in the Geography Department (me specifically). The project is being featured right now in the Royal Academy for the Arts in London and will be featured in June at the Ackland Museum in Chapel Hill, NC. When we started this project it was featured in the New York Times and Birmingham Times, and currently, UAs Strategic Communications office is drafting the second press release, which should go out sometime in April. It will also be featured digitally in one of Strat Comm's intra-university communications.

The project is important, as it highlights Joe Minter's work, a predominantly civil rights sculpture artist, and does so in a unique way. The site includes drone imagery, interviews, a digital collection, and a 3D walking tour of his property. It's an important digital archive for a site that will not last, and an important step for not only sharing his work and message globally, but also as a precursor to getting some of his pieces placed in the Smithsonian, and other museums, at a later date. A [website exhibiting his work](#) was recently published.

<https://news.ua.edu/2023/04/ua-created-digital-exhibition-of-alabama-artist-publicly-available/>

Some new people involved since the press release was last published are:

Jeremiah Stager, Office of Archeological Research

Sara-Maria Sorentino, Gender and Race Studies

Jasmin Howard, History Department (History Post-Doc)

John Mulligan, Rice University

The UA departments involved are as follows: *Geography, Art & Art History, Office of Archeological Research, Gender and Race Studies, History, Paul R. Jones Collection of American Art & Alabama Digital Humanities Center* in addition to: *Souls Grown Deep, Rice University, Shelton State Community College*

The collaboration with Shelton State and the other student interns from across the country, funded by the Graduate Strategic Partnerships Initiative in the UA Graduate School, has been covered here (see for more details):

<https://art.ua.edu/news/art-and-art-history-interns-help-preserve-joe-minters-african-village-in-america/> .

Glimpses from the field

UA in Ireland: Geography of Europe: In June 2022 eleven brave undergraduates embarked on the inaugural Geography of Ireland Study Abroad Program with me and graduate assistant Melissa Meyer who did a phenomenal job keeping us all straight! The program, originally planned for 2021, had to be canceled due to COVID but returned in full force for 2022. As a native of Ireland, I have always wanted to share my culture with students and designed this program to immerse each participant in all things Irish, past, and present, and through readings, field visits, excursions and exposure to the Irish people and culture develop an understanding of the complexity, interdisciplinarity, and interconnections that exist in Ireland and throughout the global community. Ireland with its long history of occupation, colonization, invasion, emigration, and immigration, together with its diverse geology, geomorphology, culture, history, and heritage is an ideal location to study the intricacies of human-earth relationships in a dynamic modern setting.



Mary Wallace Pitts
Instructor

The 6-credit hour 18-day class started in Dublin and worked its way south and west ending up on Aran Mor, a Gaelic-speaking island off the coast of Clare. Along the route, students hiked through mountains and valleys, along cliffs, and into caves, swam in the Irish Sea and the Atlantic Ocean, traveled by bus, coach, boat and bicycle and sampled Irish food, music, and culture. Accommodations ranged from tourist-class hotels to private bed and breakfasts to glamping pods overlooking the Wild Atlantic Way on the Aran islands. Trips and excursions included the Cliffs of Moher, Alliwee Caves, Aran Islands, Trinity College, Book of Kells, Dublin Castle; Irish Heritage Center; Kylemore Abbey, Tintern Abbey, Connemara National Park, Raven Nature Reserve, Wicklow Mountains National Park, and the Guinness Storehouse.

Typical days started early and ended late but were full of new experiences, challenges, and adventures. Sometimes perhaps a little overwhelming - after all there are only so many historic sites, incredible landscapes, and strange Irish dishes that anyone can take - but through it all students demonstrated the utmost respect for the Irish people, culture, and for each other. They gracefully navigated all the hurdles that come with traveling in a strange land with new people in close quarters and impressed me with their sense of adventure, lack of fear, and openness. The only minor "rebellion" arose when our trusty bus driver deigned to take a mandatory day off leaving us in the hands of a capable but verbose replacement who NEVER stopped talking, usually relaying stories that involved red-haired Irish heroes! That day students learned first-hand what the Irish mean when they refer to "the gift of the gab." I suspect that had our preferred driver not returned there would have been mutiny!!

As an instructor, the experience was incredibly rewarding. The level of engagement and active learning I saw in this class surpasses anything I have observed in a traditional classroom setting. Students' final projects ranged from geology to a visual ethnography, from an annotated Spotify playlist to a daily video journal, from a short story inspired by characters encountered on the way to a food journal detailing and ranking each meal. Students' journal reflections were honest, humbling, and eye-opening and have sent me back for year two of this program - scheduled for June 2023. This year Melissa and I have fifteen students coming with us leaving a waiting list that sadly, we could not accommodate.... but there's always 2024!!

Watershed Management Planning GY-385 – Interim Experiential Course offered May 2023:

After a break of 4 years, this course is back again in May 2023. Initially inspired by a Watershed Management Plan for the North River this course focuses on exposing students to the various public agencies and private entities involved in the creation and implementation of Watershed Management Plans. Through field visits, data collection, and interactions with professionals in the field students will learn data collection techniques and protocol, understand land use issues related to water management, and draft a watershed management plan. The course includes 7 days in the field in Tuscaloosa and surrounding counties and includes canoeing in North River, a city-led tour of Lake Tuscaloosa, stream gaging, fish seining, stream sediment risk assessment, and an index of biotic integrity (IBI) survey completed in conjunction with the Geological Survey of Alabama. Other field days include field trips with the Alabama Forestry Commission, the Alabama Aquatic Biodiversity Center and a visit to a local farm demonstrating agricultural best management practices.



Hook Peninsula and lighthouse, Co. Wexford
Fossil-rich carboniferous limestone



Alliwee Cave, Co. Clare, Karst landscape



Cycling on Aran Mor – Gaeltacht island



The Burren, limestone plateau, Co. Clare



Collecting macroinvertebrates in Lake Tuscaloosa



Students build a dirt-road sediment detention pit
bmp for sediment control in Fayette County

2022-2023

Outstanding Student Award Winners

Outstanding Graduate Research, Ph.D. – [Rutchie Pathak](#)

Outstanding Graduate Research, MS – [Melissa Mayer](#)

Outstanding Graduate Teaching Award – [Noah Howie](#)

Chair's Award – [Ashleigh Price](#)

Outstanding Undergraduate Geography Major Award – [Lexie Thornton](#)

Outstanding Undergraduate Geography Major Award – [Benjamin Hand](#)

Outstanding Undergraduate Environmental Science Award – [Rosey White](#)

David C. Weaver Memorial Award – [Davis Goode](#)

David C. Weaver Memorial Award – [Penelope Mitchell](#)

David C. Weaver Memorial Award – [Nishani Moragoda](#)

Outstanding Geography Alumni Award – [David C. Dooley](#)



Dr. Wanyun "Abby" Shao
 Assistant Professor
 Department of Geography

FACULTY SPOTLIGHT

Wanyun "Abby" Shao

I am broadly trained as a human-environment geographer in hazards and disasters research, Geographic Information System, and quantitative social science methods. My research is focused on the intersection of natural hazards, community vulnerability, and risk decision making. My research transcends the traditional disciplinary boundary. I collaborate with scientists from a wide range of fields including civil engineering, sociology, political science, computer science, and communication. I am currently funded by several research grants from the United States Army Corps of Engineers (USACE), National Oceanic Atmospheric Administration (NOAA), and the Department of the Treasury (USDT). These funded projects aim to understand

stakeholder and public risk perceptions, risk communication, and risk decision-making about water-related hazards (e.g., flood, drought, and sea level rise), as well as community vulnerability and resilience to these hazards.

My current Ph.D. students are supported by these grants. Specifically, funded by the USACE, Evan Cass is conducting research on compound flood risk communication between stakeholders (emergency managers, weather forecasters, elected officials) and the public in three coastal cities of the southeastern U.S.: Houston, TX; Mobile, AL; Savannah, GA. We use mixed methods in this project. They include focus group meetings, content analysis, survey research, and statistical analysis. Supported by a project funded by NOAA through the Cooperative Institute for Research to Operations in Hydrology (CIROH), Hemal Dey is focused on a comprehensive assessment of flood risk considering both flood susceptibility and social vulnerability in the Southeastern U.S. by applying advanced Machine Learning methods. Through another CIROH project, Fatema Nourin is working with a multidisciplinary team consisting of civil engineers, biologists, ecologists, and stakeholder engagement professionals. We attempt to integrate stakeholders' local knowledge into ecological and hydrological models quantifying the effects of nature-based solutions on flood risk reduction in Mobile, AL. Munjurul Haque is focused on the USDT-funded project to quantify community vulnerability and resilience to coastal environmental stressors in Mobile Bay by engaging stakeholders. Particularly, we survey local stakeholders to select and weigh relevant variables that constitute a comprehensive index to represent social vulnerability and community resilience respectively.

In addition to these aforementioned research grants, I am a co-PI for a newly funded National Science Foundation Research Trainee (NRT) project. In this project, my main responsibility is to work with other principal investigators in physical geography, civil engineering, computer science, and education to design a comprehensive and interdisciplinary curriculum. This curriculum will train graduate students in multiple fields such as hydrological sciences, data science, artificial intelligence (AI), machine learning (ML), and decision science. These graduate trainees will also learn how to effectively translate research advances to water system operations by participating in study tours, mock operational forecasting, practical labs, roundtable discussions, experiential learning, internships, team building and professional development.

The overarching goal of my research is to integrate the three primary components including hazards, vulnerability, and risk decision making into a comprehensive multifaceted framework of community resilience to hazards.

GRADUATE STUDENT SPOTLIGHT (PH.D.)



Ruchie Pathak

I'm a third-year Ph.D. candidate working with Dr. Nicholas Magliocca in the Laboratory for Human-Environment Interactions Modeling and Analysis (HEIMA). I joined UA in the Spring of 2021 and have been working since as a graduate research assistant on an NSF-funded project investigating the impacts of the food-energy-water (FEW) systems of transitioning from rain-fed to irrigation-fed (RF-to-IF) agriculture in Alabama. Before joining this department, I graduated with a master's degree in Environment and Natural Resources, specializing in Environmental Social Sciences, from the Ohio State University. I also have another master's degree in Natural Resource Management from India, where I'm originally from. Here at UA, for my dissertation, I'm focusing on understanding the diffusion and adoption of climate-smart agricultural (CSA) practices by farmers in the Black Belt region of Alabama.

Using the diffusion of innovation (DOI) framework in combination with approaches like perception/perceptual geography and social network analysis, my study aims to examine the multiple factors- biophysical, economic, social, spatial, and institutional/political, influencing farmers' adoption choices. Further, using GIS, I also investigate the spatial differences in perceptions and adoption rates of such practices across farmer types and geographic regions. Currently, I'm in the data collection stage of my research. I'm using a mixed-methods approach to collect primary data on farmers' perspectives, motivations, challenges faced, and vision for the future of farming in their area.

For over a year now, Dr. Magliocca and I have been working with two community-based organizations - Alabama Sustainable Agriculture Network (ASAN) and Deep South Food Alliance (DSFA), to find opportunities for academic-community partnerships and enhance engagement with stakeholders in their networks. As part of this engagement process, I have also attended several farmer conferences, training workshops, and demonstration events to develop and build relationships with these farmers. Additionally, between Fall 2021-Spring 2022, I was part of UA's inaugural Emerging Community Engagement Scholars (ECES) program, which helped me familiarize myself with the fundamentals of community engagement and provided helpful strategies for leading a community-engaged scholarship project. As part of this program, I also received a small seed funding to develop my study further and be able to carry out the required fieldwork. A big takeaway from this project was learning to be patient with the community. Often as researchers, we are on strict timelines, but it takes time and continuous effort to build trust with the community to ensure their proper representation. Having now developed a few connections, I hope only to continue building and fostering new and existing relationships over the next few years.

Further, parts of my research have been presented at conferences such as the Alabama Water Resources Conference (ALWRC) of 2021 and 2022, held at Orange Beach, Alabama, and the American Association of Geographers (AAG) Annual Meeting of 2022 (virtual) and of 2023 held in Denver, Colorado. I also recently published an article related to a part of my dissertation; you can check it out at: <https://www.mdpi.com/2077-0472/12/12/2105>



Drip irrigation + plastic mulch on-farm installation event
in Perry County



Small Farm Resource Workshop Held at Selma

GRADUATE STUDENT SPOTLIGHT (M.S)

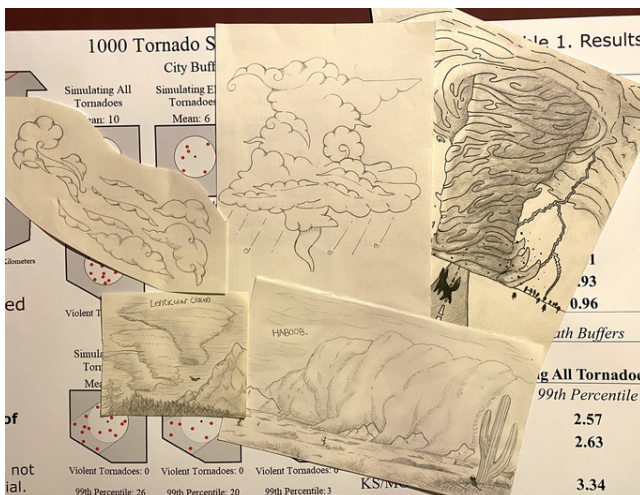


Cooper Corey

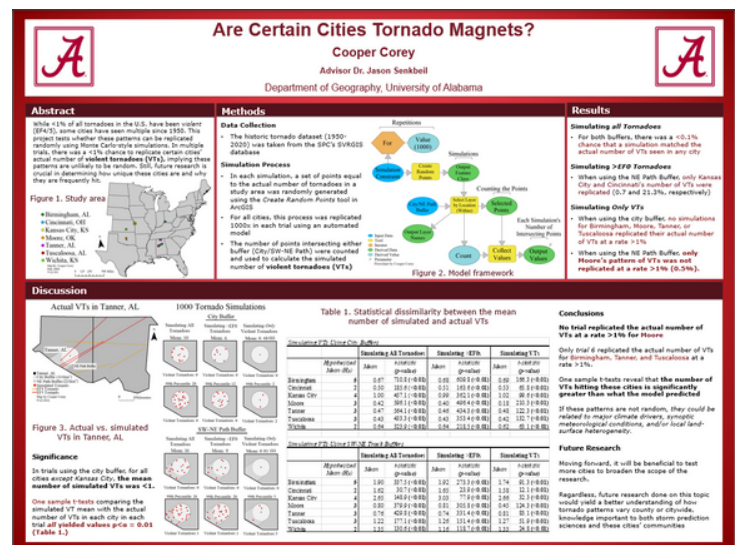
My interest in the field of geography stems from my fascination with the Earth's temperamental and complex climate. Because of this fascination, most of my previous research projects have fallen into the field of severe climatology. My thesis work examines small-scale, spatiotemporal tornado patterns across regions of the Eastern U.S. and if these trends are random or related to major climate drivers. In the future, I wouldn't mind continuing this research, as there remain several unanswered questions for potential projects. However, I am also interested in studying climatological hazards from the framework of human geography, specifically with regard to human health.

After my graduation, I hope to continue my journey in academia to obtain a doctorate in geography. If I achieve this goal, I'd like to stick to a career that allows me to conduct research in climatology. Since my undergraduate studies, I have always been passionate about research, especially when the results have the potential to help at-risk communities. Now, I feel as though this passion has only strengthened since I began my master's at UA. Being here has also allowed me to attend several geography conferences to present my work. I'm grateful for that, as it gave me ample opportunity to meet and discuss with my fellow geographers.

Geography is a diverse field filled with a multitude of different subdisciplines. Because of this, I've found that everyone's exact definition of the study is different. To me, geography is both the lens through which we study and interpret the world around us in addition to how it affects and influences us. I believe that geography holds a tight grip on humanity, especially in the way of our cultures. Like many others in my field, my allure to atmospheric hazards comes from earlier experiences with severe weather. This intrigue extends to other aspects of my life aside from my research interests, like into my hobby of traditional art. Although some atmospheric systems can be deadly, I see beauty in many forms of weather, particularly in clouds. Admittedly, it's difficult to capture this aesthetic on paper, but I do try. That said, my passion for climatology is certainly a dominant part of my life, and I'm sure it will follow me through my career as a researcher and scientist.



Weather art



SEDAAG poster

UNDERGRADUATE STUDENT SPOTLIGHT



Lexie Thornton

I am from Vernon, Connecticut, and graduated from UA a semester early this past December with a 4.0 overall GPA. I earned a Bachelor of Science in Geography and a minor in Geology. I am currently working as an intern for the Geological Survey of Alabama, where I complete stream-crossing evaluation sheets to see if there are restoration projects that need to be completed on culverts around Alabama. I started working for the organization in August of 2022, and have already completed the sites in Big Canoe Creek and Locust Fork. The new site location that I recently started working on is the Buttahatchee River. There are 51 watersheds that we are evaluating, but there are over 100,000 coordinated site locations within the watersheds that we are trying to complete. The other intern I work with, Jack Robinson, and I have completed almost two-thousand sites within 6 months of work. There are other individuals across the state who are also completing these surveys, but it is going to take some time before they are all surveyed.

When not working you can find me at the gym, outside laying in the sun, reading a book, planting plants, spending time with family and friends, or near any water body. Back home in Connecticut, I live across the street from a lake that serves as my summer sanctuary and winter ice rink. I live a very active lifestyle but enjoy finding times of peace and relaxation. Some of my interests include watching sports, meal prepping, journaling, traveling, and photography. I danced for 16 years, played softball for 12 years, and played volleyball and football in high school. I have recently taken interest in succulents, cooking, and hiking.

When I discovered that I was graduating early, I had no idea what my next step was going to be. It was suggested to me by Mrs. Mary Pitts that I would be a great candidate for the Accelerated Master's Program. I knew I wanted to continue my education, and I thought it could be the perfect next step. Unfortunately, I was not accepted into the program, and as someone who is a planner by nature, it threw me for a loop. I was given very wise advice by Mrs. Pitts that I needed to "become comfortable in being uncomfortable" when it comes to situations not going according to plan. From that point on I have been doing just that. I decided to use this Spring semester as a working semester and apply for graduate school here at the university for the fall 2023 semester. I am extremely honored to say that not only was I accepted, but I was also offered a Graduate Council Fellowship. I was really hard on myself after not being accepted into the AMP program, but it was the process of "becoming comfortable in the uncomfortable" that really pushed me to apply again. I am extremely grateful for this opportunity and look forward to starting my new academic journey.

When I started applying to graduate school, I initially thought that I just wanted to get my Master of Science, but after talking with my graduate advisor, Dr. Emily Elliot, I saw that there were more possibilities for me to expand my education. My current aspiration is to complete my Masters and Ph.D. at the same time, while also completing my GIS certification. My aspirations are quite lofty, but I am hopeful that my determination, work ethic, and support system of family and professors will help guide me in achieving my goals.





My time in the Geography and Geology departments has been filled with nothing short of amazing professors and internship opportunities. I was originally an Environmental Engineering major, but after taking a geography class with Dr. Kevin Curtin during my freshman year I decided to switch my major. From that point on I knew I made the right decision switching because I have enjoyed every class that I have taken, even the ones that have challenged me more than I ever expected.

Dr. Kevin Curtin took me under his wing when applying for the AMP program and graduate school. He helped to guide me through the application process and assisted me in getting into contact with the right people. I couldn't have done either application without his help. Dr. Sagy Cohen taught me that I am capable of working in a GIS profession and has inspired me to get my certification. He also recommended me to Dr. Yuehan Lu for my very first internship. Mrs. Mary Pitts helped me to figure out my next steps outside of the classroom and provided a wonderful base of knowledge that helped me through my upper-level courses inside the classroom. Attending her course in Ireland was a highlight of my college career because I was able to see concepts from the classroom carry over into the real world. These three professors went above and beyond for me in my journey in undergraduate and graduate school, and I am forever grateful for their help.

In the geology department I wanted to thank Dr. Geoffrey Tick for letting me conduct undergraduate research in his saltwater intrusion lab, Dr. Yuehan Lu for providing me with my first internship experience, and Dr. Lisa Davis for suggesting my name to the GSA for my current internship. The opportunities and support I have received from both of these departments and the faculty within them are unmatched. I am extremely grateful and honored to have had the privilege to learn from all of them.



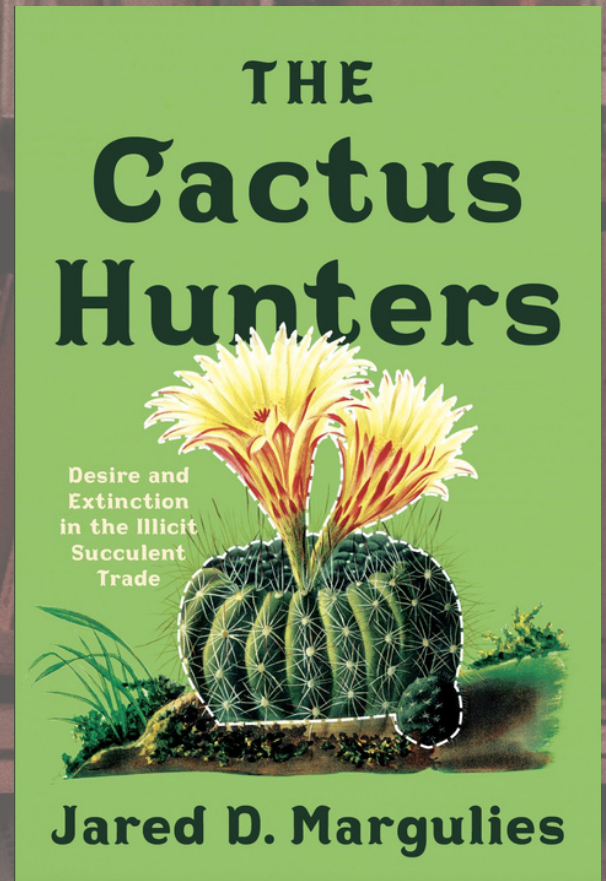
Department bookshelf

The Cactus Hunters: Desire and Extinction in the Illicit Succulent Trade

by Jared D. Margulies

Cactus and succulent plants are a global phenomenon with unrivaled botanical popularity. Despite their iconic status, they are also some of the world's most threatened species, inclusive of animals or plants. Perhaps strangest of all, it is some of the plants' most ardent lovers—cactus and succulent collectors—who many conservationists blame for threatening succulent species with extinction. In *The Cactus Hunters*, Jared Margulies delves into the world of global cactus and succulent collecting to explore how and why some of the most passionate lovers of these plants engage in their illicit trade and what underpins their demand. Margulies investigates the apparent contradictions between the forms of care avid collectors extend to plants, and the activities collectors knowingly and unknowingly are entangled in through chains of illicit acquisition. Drawing on multispecies geographic research across four continents with collectors and cactus smugglers, law enforcement agents and conservationists, Margulies complicates common narratives of what motivates illegal succulent trade and their demand. Evading simple distinctions between heroes and villains, Margulies analyzes what binds rather than separates collection and conservationist urges, and what can be done to prevent species extinctions.

The Cactus Hunters is a political ecology of desire, an analysis of the uneven global dynamics of environmental change that exceeds matters of political economy alone by recognizing that the unconscious plays a fundamental role in shaping human-environmental relations. Ranging in its setting from 'cacto-exploration' trips in Brazil to collectors' greenhouses in Europe to following the trail of the world's most infamous succulent smuggler across the United States, Mexico, and South Korea, Margulies analyzes how desire shapes species pathways towards forms of flourishing and diminution. Building on theoretical insights from across political ecology, psychoanalytic geographies, green criminology, and environmental politics, Margulies develops a psychoanalytic accounting of species extinction, conservation, and more-than-human care by centering desire as central to his analysis of illicit plant economies. Through the concept of the production of desire, Margulies examines how illicit plant trade shares an entwined history with contemporary efforts to prevent plant extinctions and entanglements of the environment with the psyche. Rather than frame collection and conservation as opposing urges, across eight chapters Margulies connects processes of illicit commodification and biodiversity conservation through their shared anxieties, desires, and drives expressed in efforts to preserve, sustain, and possess nonhuman nature. In dispelling popular myths about illegal wildlife trades, Margulies argues there are important lessons to be learned about species flourishing through attention to the unconscious. Ultimately, he asks, what motivates desire for close encounters with these wondrous, beloved species, and what is required to ensure their flourishing into the future?

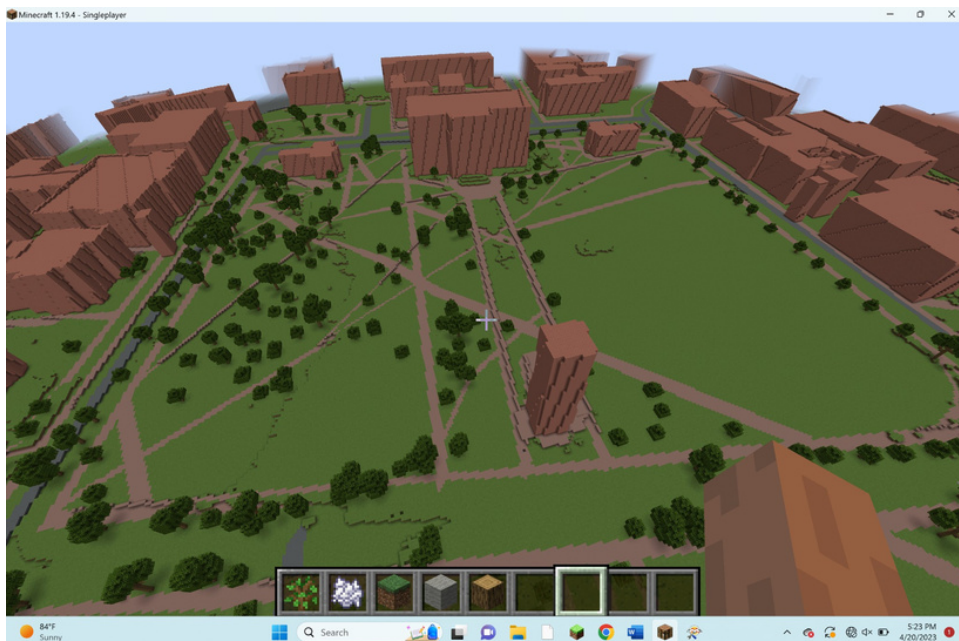




CLUB GEOGRAPHY NEWS

- Katie Bendall (Ex-President, Club Geography)

This academic year in Club Geography, we have been exploring unique ways to engage with our community at UA. One of our most exciting projects has been developing a digital 3D scale model of our campus in the popular sandbox game, Minecraft, using FME, a powerful data integration tool. Using FME, we were able to merge data from various sources, including aerial images and topographic maps, to create a highly detailed and accurate representation of our campus. This project allowed us to not only showcase the beauty of our campus but also demonstrate the potential of GIS tools to students who are less familiar with them. The Minecraft world is available for personal download on our Instagram account, @uaclubgeography.



In addition to our Minecraft project, we held several other events and activities throughout the year. We organized tailgates in the fall, volunteered at the arboretum to help eradicate weeds and maintain the beauty of our natural surroundings, and hosted a Thanksgiving potluck to bring our community together and celebrate the end of a successful semester. Overall, this year has been a busy and exciting one for Club Geography. We are thrilled to have had the opportunity to explore new technologies and engage with our community meaningfully. We look forward to continuing our work and making even greater contributions in the future under our new President, Parker King, and Vice President, Mollee Starr.



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