

SPRING 2025 | NEWSLETTER

MSU Department of Geography, Environment, & Spatial Sciences



For Alumni & Friends



ON THE COVER

Faculty and administrators joined MSU President Kevin M. Guskiewicz, Ph.D., on an inaugural Spartan Bus Tour as they visited Ludington State Park to learn about research on sand movement being done by the College of Social Science Coastlines & People Thematic Area under the leadership of Ethan Theuerkauf, an assistant professor with the Department. Photo: Derrick Turner, Michigan State University

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Our mission remains, as always, to advance geographic knowledge and transform lives. I hope that you embrace this mission too and encourage you to find ways to get the word out about Geography in general and MSU Geography in particular.

- Ashton Shortridge, Chair

LETTER FROM THE CHAIR:

Ashton Shortridge



Dear Spartan Geographers,

It is a pleasure to welcome you to our 2025 Spartan Geographer! Our annual newsletter is full of stories and images of our students, alumni, faculty, and staff as they navigated the world in the past year. The MSU Geography Family is chock full of explorers: they seek out the connections between places, people, and the environment and enjoy experiencing and learning about what makes every corner of our planet unique and important.

Growing our undergraduate program is a key priority. This past year we streamlined our majors and minors to make the path to graduation more straightforward for prospective Geography students. We've been doing lots of outreach to let MSU students and advisors know about these important changes, as well as about the wide range of exciting and rewarding careers that Geography offers. Did you know that recent Geography alumni have the second highest average salaries of all majors in the College of Social Science? Many of our alumni have shared their professional stories with our students; every week we spotlight several of these stories in slides we show before our classes start. If you haven't already done so, you are more than welcome to volunteer your story as well! I would also be very interested in hearing your ideas about new ways to connect our current students with our alumni.

Our faculty and students are also highly focused on research. MSU Geography scholarship is ranked in the top five nationally. From healthy communities to healthy coastlines, from drones to dunes, from geospatial AI to geopolitical dimensions of homelessness, we advance geographic knowledge in diverse and impactful ways, both here in Michigan, across the country, and around the world. We bring these advances to the classroom too, engaging our students with cutting edge approaches and findings. You'll learn about a number of our most exciting research accomplishments over the past year in these pages.

2024 marked a career milestone for my colleague Leo Zulu, who was promoted to Full Professor. Dr. Zulu was also appointed Director of MSU's nationally leading African Studies Program after serving in that role on an interim basis for two years. Congratulations, Leo!

Our mission remains, as always, to advance geographic knowledge and transform lives. I hope that you embrace this mission too and encourage you to find ways to get the word out about Geography in general and MSU Geography in particular. I greatly appreciate the hard work that Diane Huhn, our communications specialist, has put in to coordinate and produce this newsletter, and I also wish to thank my colleague, Dr. Arika Ligmann-Zielinska, for her essential efforts to obtain content, as well as all of our contributors.

Go Green, and Go Geography!

Ashton Shortridge





Students are getting hands-on experience flying Unoccupied Aerial Systems (UAS) in GEO 490/829, a new course launched last fall by Assistant Professor Erin Bunting titled *Collection and Analysis of Drone Imagery*. Photo by Jackie Belden Hawthorne, College of Social Science.

Pictured (left to right): Apichaya Thaneerat, Vincent Ogweno, Alanna Post, Erin Bunting, and Leo Baldiga.

Open now! Order by March 28.

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JOIN OUR CELEBRATION AT AAG IN

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Appetizers provided • All are welcome!

THURSDAY MARCH 27
6:00-10:00 PM
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Share Your Updates With Us

We hope you find this newsletter informative and interesting. One way you can help keep it that way is to send us news about yourself. Share news about your career, family, or other things with your fellow alumni. Send an email to geo@msu.edu or a letter and we will insert it into the next issue of the newsletter. Thanks for helping make the newsletter even better.



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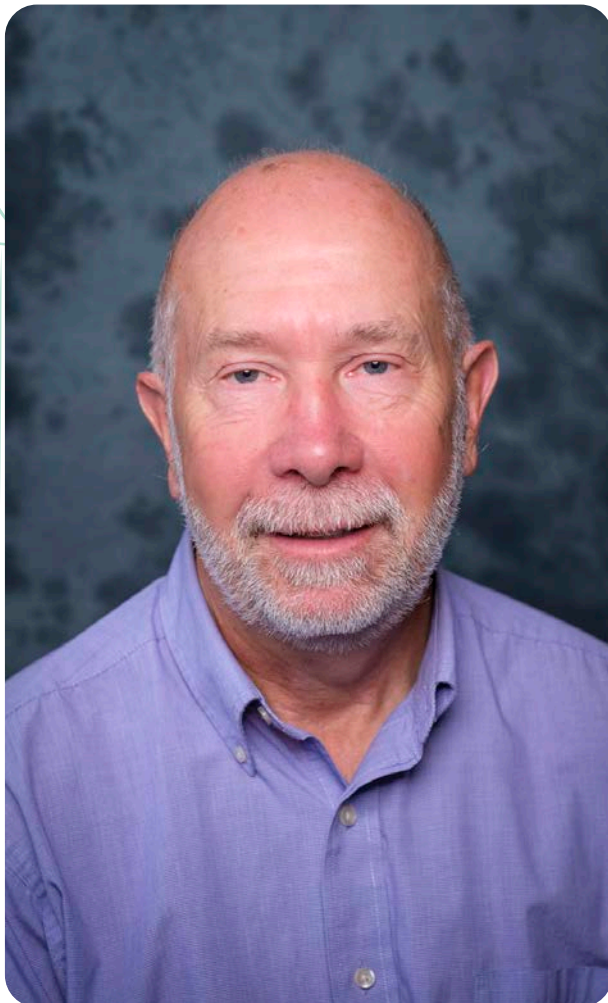
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FACULTY FOCUS:

Randall Schaetzl

UNIVERSITY DISTINGUISHED PROFESSOR

I've started my phased-in retirement plan at MSU by going to half-time status as of summer, 2024. This plan has freed up his fall semesters from teaching, opening more time for fieldwork and travel. My first year at MSU was 1987.

My last graduate student, Chris Baish, will get his Ph.D. in the spring. Chris has had a great "run" recently, netting a Dissertation Completion Fellowship from the College of Social Science, the Pete Birkeland Soil-Geomorphology Award from the Geological Society of America, and the Advancing Pedology Award from the Soil Science Society of America. Both of the latter two awards are nationally competed.

The big news on the research front comes from the Houghton Lake Basin in northern Lower Michigan, where my team and I have been working on glacial history since 2017. No one had ever studied the glacial geology of this area – a literal backwater - before. Well, "backwater" actually does seem appropriate, as this area was home to a massive glacial lake – Glacial

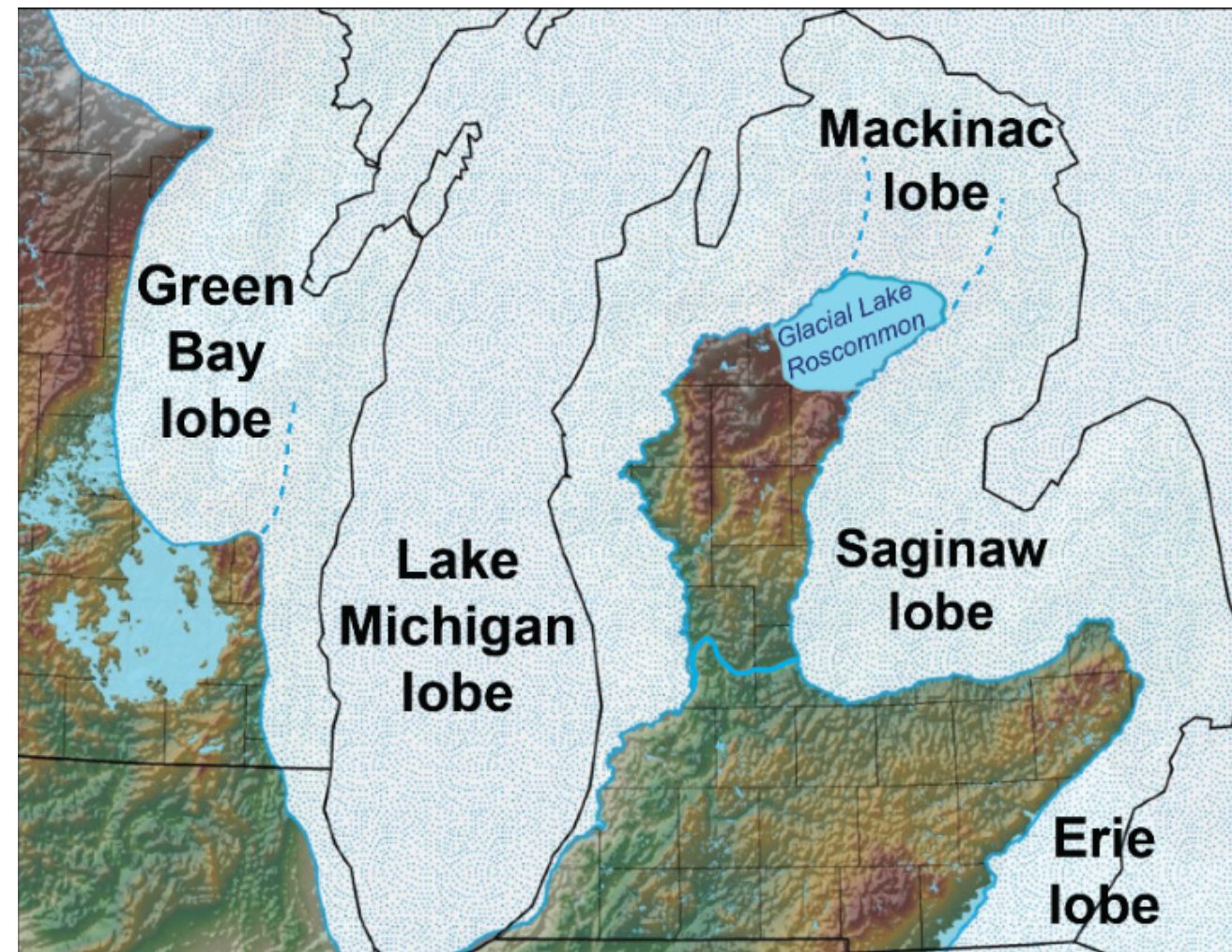


Figure 1

Lake Roscommon – during the last glaciation. This research was the first to document the existence of a Mackinac Lobe of the Laurentide Ice Sheet and the first to document this lake. Our work on the Mackinac Lobe indicates that it started to advance into this area about 40,000 years ago (Figure 1). For the next 20+ thousand years, it slowly moved across the landscape near Houghton and Higgins Lakes, forming large, gravelly ridges that today host a number of productive gravel excavations. All the while, the ice front was grounded in Glacial Lake Roscommon, forming deltas near to the ice margin and causing clay-rich sediment to settle out in the deep water. All of the lakes in north-central Lower Michigan are simply remnants of Glacial Lake Roscommon.

It's fascinating to think that in the postglacial landscape, all but one of the lakes in northern Lower Michigan was completely dry! The deepest lake in the area – Higgins – did not completely dry up but could have been as much as 50 feet lower. While coring the sediment in Higgins Lake, we drilled into a buried soil with moss on top of it, some 40 feet below the modern lake surface. Water began to fill Higgins Lake, and sediment started to bury the soil about 9000 years ago, at about the same time that many of the sand dunes in Michigan were becoming stable. Yes, Michigan was a MUCH drier place from about 12,000 to 9500 years ago! Lakes were dry, sand

dunes were everywhere. But then, slowly, the climate got wetter, lake levels rose, and swamps became prevalent.

My wife, Julie Brixie, continues her career in Michigan's House of Representatives. She's now in her fourth term. Our children are now all married and living with their spouses at their homes in Michigan. So now starts the countdown for another grandchild...!

Wishing everyone the best; feel free to reach out. I'd love to hear from you.



FACULTY FOCUS:

Arika Ligmann-Zielinska

ASSOCIATE CHAIR

It feels like ages since I've connected here. In 2022 and 2023, I took a sabbatical leave to work with a group of researchers from Adam Mickiewicz University in Poznan, Poland, on a project that assessed and evaluated an index of geodiversity for three geographically distinct Polish national parks. These parks, located in Poland's northwestern, central-eastern, and southwestern regions, have unique features. The most northern one, Wolinski National Park, is part of a Wolin island located in the coastal region of the Baltic Sea bordering Germany. The park is renowned for its unique, picturesque, forested moraines and sea cliffs, not unlike the ones we can find along the Lake Michigan coastline. The Roztocze National Park, on the other hand, is part of a range of mild hills known for its unique forest biodiversity. The third park is part of the Sudety Mountains – one of the oldest mountain ranges in Europe, which started forming during the Precambrian era.

All three parks have a rich and complex geological history that makes them an excellent subject for studying geodiversity – evaluating the variety of the abiotic (physical) forms, materials, and processes that are part of the Earth system. Geodiversity is uniquely geographic! Just like ecosystem biodiversity that focuses on the richness of living organisms, geodiversity studies the richness of terrestrial components like landforms (geomorphology), soils,



microclimate, land cover, hydrography, lithology (rocks), and relief energy that measures the effects of elevation.

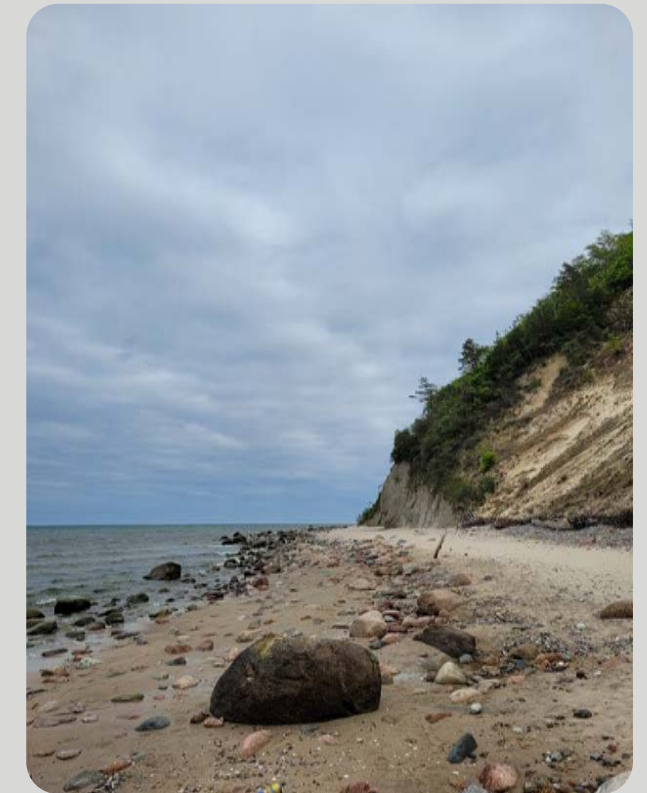
Geodiversity, as a field of study, is multifaceted. In our project, we concentrated on developing an index that assigns a composite geodiversity score to watersheds—our spatial unit of analysis. My role in the team was implementing the index, conducting simulations to generate geodiversity index maps, and evaluating their variability due to the numerous uncertainties in defining



▲ Karkonoski National Park, Poland. Photo by Alicja Najwer.

and measuring the components. These maps have been utilized by the natural resource management of park agencies, demonstrating the practical application of our research.

In 2023, I assumed the role of Associate Chair in the Department. This experience has been invaluable since it allowed me to contribute to administrative activities like promoting our undergraduate program, organizing competitions to champion geographic discipline, and assisting the Chair in everyday work. Being an associate chair has given me a unique perspective on the Department's functions and day-to-day activities.



▲ Wolinski National Park, Poland. Photo by Alicja Najwer.

When I'm not immersed in my academic pursuits, I'm totally hooked on audio books. They are a great way to make chores more bearable. I spend hours exploring various genres, including popular science books, with my most recent read delving into the artificial intelligence revolution. It's fascinating to contemplate how AI will shape academia and our personal lives the next time I write for our newsletter.

▼ Karkonoski National Park, Poland. Photo by Alicja Najwer.



UNDERSTANDING ECOLOGICAL CLIMATE:

Kyla Dahlin

ASSOCIATE PROFESSOR

When we think about climate, we often imagine broad, global patterns—temperature, rainfall, and atmospheric pressure. But there's another layer to the climate that impacts plants and animals directly: **ecological climate**. This refers to the air space from the tops of trees down to the forest floor, where organisms experience temperature and humidity that can differ from what we see in traditional climate models.

The ecological climate can provide a crucial buffer for forest dwellers, helping them avoid extreme temperatures or humidity swings. Yet, despite its importance, ecological climate isn't usually included in climate models. This creates a gap in our understanding of how forests and their inhabitants will fare as the climate continues to change and how forest management practices might influence these shifts.

My latest NSF project is working to fill this gap. By studying how forest canopy structure affects ecological climate, my group, along with colleagues at Colorado State University, the US National Center for Atmospheric Research, and the University of British Columbia, are taking a closer look at how different forest types might offer protection from climate extremes. The project uses data from the National Ecological Observatory Network (NEON) to evaluate whether complex forest canopies can provide an effective buffer against climate stress. These findings could play a major role in understanding how forests, as natural climate solutions, can help mitigate the effects of climate change.

At its core, this project asks a big question: How do forests, in all their diversity, influence the local climate experienced by plants and animals? And, just as importantly, how do these influences scale up to affect the regional climate?

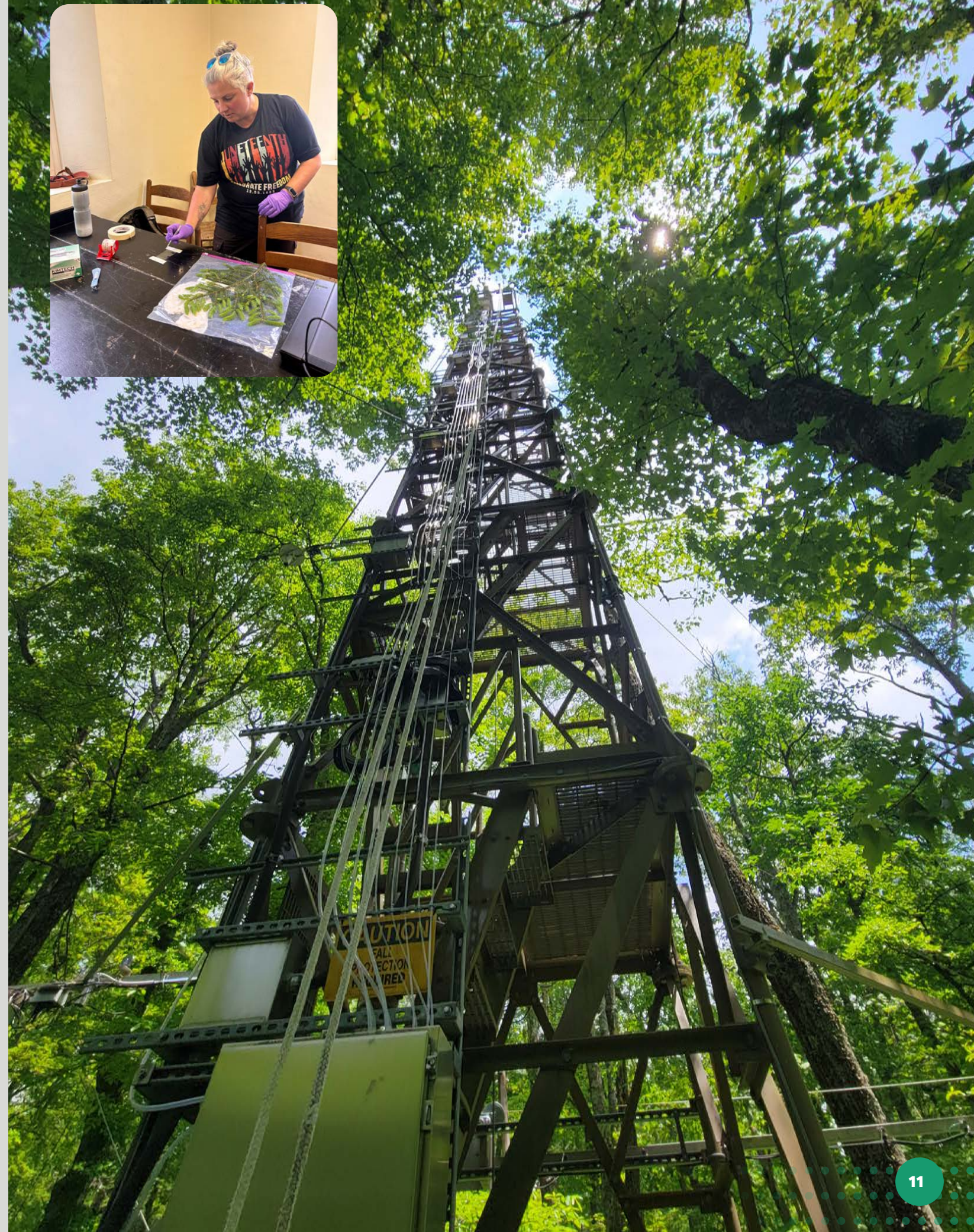
The project involves studying forests along a latitudinal transect stretching from Florida to New Hampshire. By looking at both short-term and long-term data, our goal is to piece together how forest structure and function influence not only the local climate but also regional weather patterns. The aim is to create a more comprehensive understanding of how forests shape ecological climate and, ultimately, how forest management might be leveraged to help mitigate climate change.

The results of this work will fill an important gap in the science of ecological modeling. By understanding how forests regulate climate on multiple scales, the research will not only inform forest management strategies but also provide new tools and insights for educators and researchers. The project aims to change the way we think about forests—not just as carbon sinks but as powerful buffers against the extremes of climate change.



Right: Looking up at the NEON eddy covariance tower at Mountain Lake Biological Station in western Virginia. Eddy covariance towers measure temperature, precipitation, wind speed, carbon dioxide concentrations, and more.

Inset: Kyla Dahlin measuring leaf properties from a canopy sample.



At its core, this project asks a big question: How do forests, in all their diversity, influence the local climate experienced by plants and animals? And, just as importantly, how do these influences scale up to affect the regional climate?

FACULTY FOCUS:

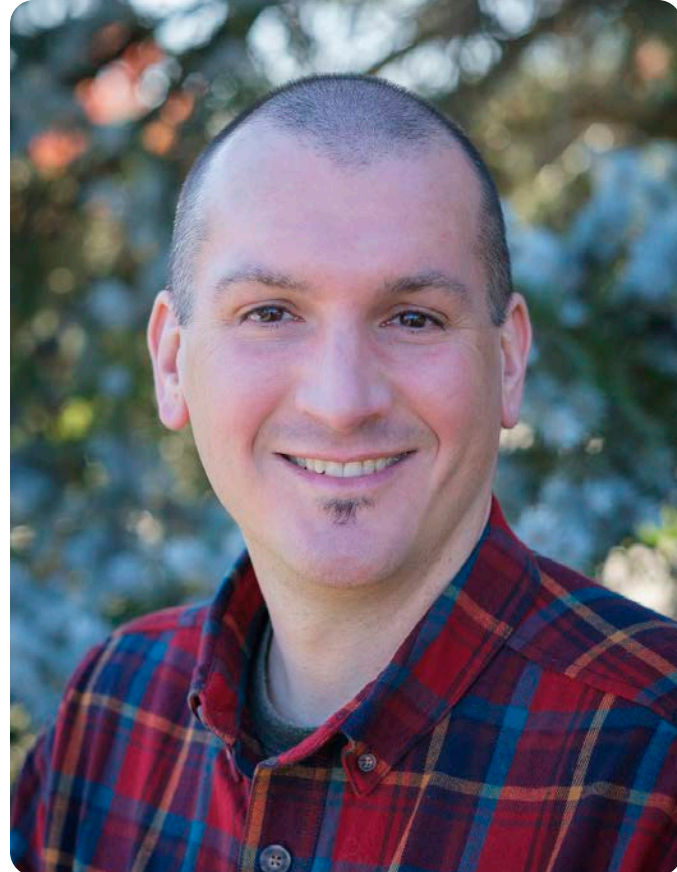
Ryan Shadbolt

SENIOR ACADEMIC SPECIALIST - ADVISOR

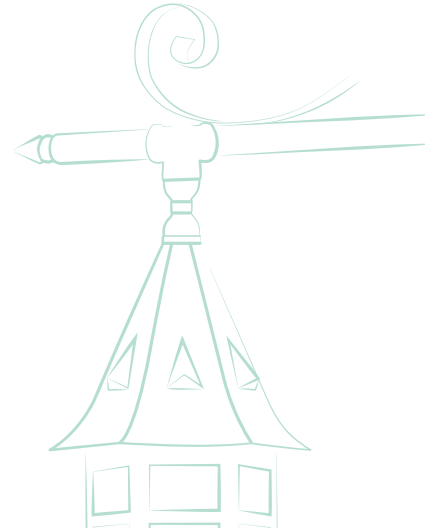
Time flies when (and where) you are having fun! In my last entry, five years ago, I was just getting settled in as Academic Specialist - Advisor for GEO. I was incredibly fortunate to have Gary Schnakenberg's mentorship during my first year. Since 2019, our students, staff, and faculty endured a once-in-a-lifetime pandemic and campus violence. I am proud of the resilience I have witnessed from fellow Spartans. Also, since 2019, I have shared the gospel of geography by teaching over 5000 student-credit-hours spanning GEO203 (Introduction to Meteorology), GEO363 (Quantitative Methods for Geographers), GEO405 (Weather Analysis and Forecasting), GEO429 (Programming with Spatial Data), GEO480 (Undergraduate Seminar in Geography), ISS205 (Big Ideas in Social Science), ISS310 (People and Environment), and ISS315 (Global Diversity and Interdependence). We also facilitated over 100 internship experiences for credit and awarded 140 primary undergraduate degrees!

Given my appointment's foci on teaching and advising, I do not participate in research or publish much these days. However, I was recently invited to share an article in *The Geographic Bulletin* highlighting the value of field experiences. I am grateful for that opportunity to honor the legacy of my dear friend and mentor, Professor Jay Harman, and to share a few details of his trips to Great Smoky Mountains National Park, of which I was fortunate to participate in several (<https://gammathetaupsilon.org/the-geographical-bulletin/2020s/volume62-2/B/article7.pdf>).

In my time as Chair of our Curriculum Committee, we introduced changes to our courses and academic programs to make GEO more visible and competitive. As Chair of our Awards Committee, we successfully nominated students, staff, and faculty for both internal and external awards, many of which are highlighted each year in this newsletter. For 2022-23, I was personally selected as a Walter and Pauline Adams Academy Fellow for Instructional Excellence and Innovation. In 2024, I was promoted to Senior Academic Specialist - Advisor. As I write this entry near the end of 2024, I am preparing a new course for Spring 2025 titled GEO103 (Introduction to Climate Change Studies). I first taught this course content during my time at Northland College and am thrilled to now share such a valuable course with MSU undergraduate students!



Beyond academia, I continue to perform around the region as a singer-songwriter and spend time surrounded by nature whenever possible. My kiddo (Scout) is thriving in kindergarten, and our family life is full of after-school activities. In particular, my spouse (Kerry) and I are now involved as Den Leaders for the East Lansing Cub Scout Pack 180. Contact me if you have an elementary-age child who would like to get involved in scouting. Our pack welcomes children of all genders. Best wishes of health and happiness to each of you.



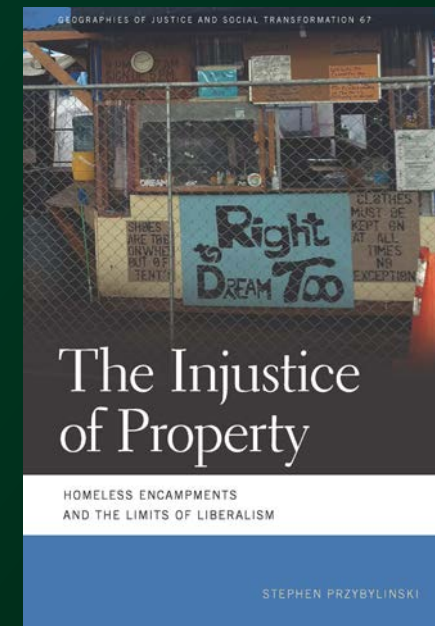
FACULTY FOCUS:

Stephen Przybylinski

ASSISTANT PROFESSOR

It has been a busy but incredible first few years at MSU Geography. Since joining the Geography Department in the Fall of 2022, I have taught a handful of new courses: Geo 113 (Intro to Economic Geography), Geo 336 (Geography of Europe), Geo 413 (Urban Geography), Geo 441 (Cultural Geography), and Geo 813 (Urban and Economic Geography), in addition to ISS courses. I particularly enjoyed working with graduate students in the urban seminar as it was an excellent space through which to get to know our graduate student's interests and work with them to move toward their research goals.

In 2024, I was busy finishing up my first monograph, *The Injustice of Property: Homeless Encampments and the Limits of Liberalism*. The book details the everyday struggles of unhoused people living in sanctioned and self-managed homeless encampments in the city of Portland, Oregon. The primary argument the book makes is that the challenges facing these types of self-managed encampments concerning land uses and property rights illustrate the very limitations of property's foundational role in shaping political liberalism more broadly. In relation to homelessness, I argue that without correcting for



the everyday ways in which property enables injustices for unhoused and precariously housed people, our ability to mitigate homelessness will ultimately fail. The book will be published by the University of Georgia Press in their Geographies of Justice and Social

Transformations series and is due out in July of 2025. I couldn't be more excited to share it with the world.

This past year I was also able to spend some time back in the field. I was back in Portland interviewing unhoused people residing in the city's new mass encampments, as well as city staff who have facilitated this new mode of



shelter services. One publication came out of this process, published in *Urban Geography*, that I was also fortunate enough to workshop at the Urban Affairs Association meeting in New York last April. A second publication about how Portland has historically managed unhoused or precariously housed populations came out in *Antipode* based on archival work I did there over the last year as well.

Finally, along with my colleague John Kuk in political science at MSU, I was awarded funding from the Institute for Public Policy and Social Research to examine the rate of student homelessness and reasons for housing instability among undergraduates and graduates at MSU. We will field our survey in late January of this year and hope to interview students about their experiences with housing instability at the end of the spring term. I am happy to be doing research based in the very local community of MSU and will have results to share by Summer 2025!



MSU Faculty and administrators joined MSU President Kevin M. Guskiewicz, Ph.D., on an inaugural Spartan Bus Tour as they visited locations throughout Michigan to build community connections and strengthen the university's commitment to education, research, outreach and extension. Photo: Derrick Turner, Michigan State University

method to predict which beaches are likely to return once lake level falls. The State of Michigan will be able to use this information to help guide coastal policy and management actions.

Similarly, Theuerkauf along with Environmental Geography major Layni Wyns, assessed shore armoring (e.g., seawalls) along the Lake Michigan coast of Michigan to document changes in armoring related to rising water levels. Overall, the coast became nearly 5 times more armored from 2014 to 2021, with the majority of this armoring occurring in southwestern Lower Michigan. Theuerkauf, along with Coastlines and People thematic area and GEO colleagues Drs. Bunting and Mack published a series of papers on how the public perceives coastal hazards, management efforts, and how data are used in coastal management. These studies were the culmination of a three-year National Science Foundation project aimed at building a community-based coastal change monitoring program using drones.

Finally, the Thematic Area capped off an eventful year by having the opportunity to lead a field trip stop at Ludington State Park for the inaugural Spartan Bus Tour. Here, Dr. Theuerkauf and his lab shared details of their coastal research projects and how they benefit Michiganders and other residents of the Great Lakes Region.



Ethan Theuerkauf and MSU President Kevin M. Guskiewicz discuss MSU research on sand movement being done in part at Ludington State Park. Photo: Nick Schrader, Michigan State University

RESEARCH IN ACTION:
Coastlines & People

Researchers within the Coastlines and People Thematic Area spent 2024 furthering their relationships with coastal decision-makers, conducting cutting-edge research on beach recovery and coastal management, and sharing their work with the MSU President and other MSU leaders and faculty on the Spartan Bus Tour. The thematic area, led by Dr. Ethan Theuerkauf in the Department of Geography, Environment, and Spatial Sciences, is a College of Social Science initiative aimed at conducting people-centric coastal research within the State of Michigan, the Great Lakes region, and beyond. Theuerkauf's Lab (MSU Coastal Processes and Geomorphology) has partnered with Michigan's Coastal Management Program (within the Office of Environment, Great Lakes, and Energy)

to both conduct research studies of coastal erosion and transport and to provide technical guidance and support to the program's coastal resilience efforts.

One of the research studies that Theuerkauf's lab worked on in 2024 focused on predicting beach recovery after recent high Lake Michigan water levels. Widespread erosion and loss of beaches and dunes were documented during record high water levels in 2020, but little was known about whether beaches would return once lake levels fell. By using a combination of drones, remotely controlled boats with sonars, historical coastal change data, and publicly available wave and water level data, Theuerkauf's team was able to develop a



Spartan Geographer and coastal geomorphologist Ethan Theuerkauf is partnering with Michigan Department of Environment, Great Lakes and Energy's (EGLE) Michigan Coastal Management Program (MCMP) to inform coastal management decision making along Michigan's coastlines, particularly along Ludington's 28-mile coastline. Photo: Derrick Turner, Michigan State University

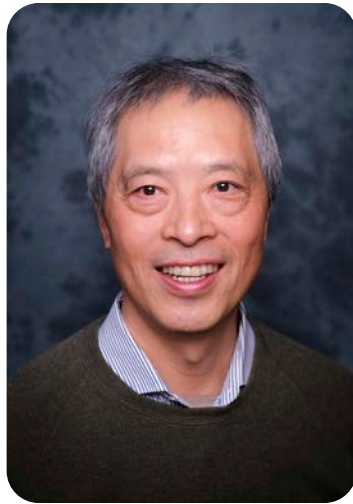


During the rising water levels, rapid and high-magnitude erosion was reported throughout the Great Lakes region. Since these events had a direct impact on Michiganders, understanding what happens in coastal systems during these changing water levels became imperative, and we kept this idea at the forefront."

- Ethan Theuerkauf

FOR MORE INFORMATION
 Visit the [MSU Coastal Processes and Geomorphology Lab](#).

HONORS & AWARDS



Jiquan Chen ▲

Jiquan Chen earns American Association of Geographers Distinguished Scholarship Award

We are proud to announce that Professor Jiquan Chen has received the 2025 American Association of Geographers (AAG) Distinguished Scholarship Award in recognition of his transformative impact on geography and environmental science. With over 600 publications and more than \$30 million in research funding, Dr. Chen has made significant advances in understanding global ecosystems and the interactions between humans and nature. His groundbreaking SESometry framework has provided a new approach to measuring and analyzing the socioecological impacts of climate change, influencing both policy and scientific research worldwide.

A fellow of both the American Association for the Advancement of Science and the Ecological Society of America, Dr. Chen's contributions have reshaped landscape ecology and sustainable resource management. Through his leadership at Michigan State University's Landscape Ecology and Ecosystem Science Lab, he has also mentored the next generation of scholars, extending his influence across the field. His achievements reflect an unwavering commitment to scientific innovation and the pursuit of sustainable solutions to global challenges.

Dr. Chen will be presented with this award at the 2025 AAG Annual Meeting scheduled to take place in Detroit from March 24-28, 2025.



David Roy ▲

David Roy makes list of Most Highly Cited Researchers for sixth recurring year

Dr. David Roy, Director of the Center for Global Change and Earth Observations and professor of Geography, was named to the list of most highly cited researchers in the world for a sixth consecutive year.

The Highly Cited Researchers List compiled by Clarivate Analytics identifies individuals from across the globe who have demonstrated significant and broad influence in their chosen field or fields of research over the past decade.

According to the report, this list is drawn from the highly cited papers that rank in the top 1% by citations for field and publication year in Clarivate's Web of Science citation index. Of the world's population of scientists and social scientists, highly cited researchers are 1 in 1000, with 6,636 highly cited researchers worldwide in 2024.

Dr. Roy's research interests include the development of remote-sensing and advanced computing methods to integrate satellite sensor data to map and characterize terrestrial global change, big satellite data processing, and the causes and consequences of land cover and land use change.

Emilio Moran and team earn Distinguished Partner Award

Congratulations to Emilio Moran, a John A. Hannah Distinguished Professor, for receiving a 2024 Distinguished Partnership Award for International Community Engagement at the University Engagement and Research Awards ceremony. Moran and MSU colleagues Maria Claudia Lopez Perez and Rachel Mourão earned the award for their work on the Energy Convergence for Off-Grid Amazonian Communities project. The project, funded by the National Science Foundation and the C.S. Mott Foundation, works in partnership with the Laboratory of Renewable Energy at the Universidade Federal do Oeste Pará, Brazil.

The researchers fostered community engagement through citizen science, participatory workshops, surveys, observations, and interactions with community members. Additionally, they provided training on technical installation and maintenance. "Each community now owns and governs a sustainable energy system co-designed to align with its values, needs, and local ecological characteristics. They are no longer in the dark," said Moran.

The Distinguished Partnership Awards are presented by MSU University Outreach and Engagement, which recognize and celebrate engaged university-community collaborations that have the potential to address large-scale problems and challenging societal issues. They are jointly conferred on a faculty recipient and their community partner(s) and come with a shared stipend of \$1,500.

Trailer for a documentary about the work Moran and team are conducting to bring sustainable energy to the Amazon region. Watch the full documentary from Brown Hat Media on Vimeo at vimeo.com/davewasinger/msubrazil



Emilio Moran ▲



Jieun Lee ▲

Geography Alumna earns American Association of Geographers Diversity and Inclusion Award

We are proud to announce that Alumna Dr. Jieun Lee has received the 2025 American Association of Geographers (AAG) Diversity and Inclusion Award in recognition of her deep and sustained commitment to increasing diversity and equity in geography at the departmental, institutional, and national levels. Dr. Lee earned her Ph.D. in Urban and Economic Geography from MSU in 2014 and currently serves as an Associate Professor of Geography, GIS, and Sustainability at the University of Northern Colorado. The AAG is explicitly recognizing Dr. Lee for empowering foreign-born women working in U.S. academic institutions in geography and the geospatial sciences. Dr. Lee played a leadership role in creating the Golden Compass program, which provides a safe and supportive environment for international women scholars to share their experiences, build networks, and receive mentoring. Building on the early success of an inaugural workshop, she secured grant funding from the National Science Foundation, in partnership with the Association of American Geographers and the University of Consortium for Geographic Information Science (UCGIS), to expand the reach and impact of the program over the next four years. Her visionary initiative is putting inclusive excellence into practice and opening new leadership opportunities for diverse scholars in the discipline.

Besides her work on the Golden Compass program, Dr. Lee researches the intersections of geography, equity, and education, contributing to broader discussions on fostering more inclusive academic environments. She has also demonstrated leadership in promoting diversity, equity, and inclusion at her home institution as a Faculty Senator on the faculty welfare committee and as a Diversity, Equity, and Inclusion Fellow.

Dr. Lee will be presented with this award at the 2025 AAG Annual Meeting scheduled to take place in Detroit from March 24-28, 2025.





Christopher Baish ▲

Christopher Baish wins prestigious Birkland Award

Christopher Baish, a Ph.D. candidate, was selected as the 2024 recipient of the Peter Birkeland Soil Geomorphology Award bestowed by the Geological Society of America's (GSA) Quaternary Geology and Geomorphology Division. Dr. Birkeland is widely known as one of the founders of the field of soil geomorphology and authored the first three textbooks on the subject. The Birkeland Award is presented annually to a graduate student for their work on a soil geomorphology topic.

Baish's research proposal was entitled "Advancing and rewriting the theory of clay mobilization in forest soils: The role of Fe and organic acids." In this project, Baish used new data (field and lab) to expand on his previous work, which challenged the long-held notion that acidification alone drives clay migration processes in soils. In giving this award, the GSA acknowledged the potential scholarly contributions of the project and that it has "significant scientific and societal interest." As part of the award, Baish received funding for additional field and laboratory work, as well as travel to this year's Annual Meeting of the GSA in Anaheim, CA, where his talk was a featured presentation.

Jiquan Chen awarded Scientific Achievement Award by International Union of Forest Research Organizations

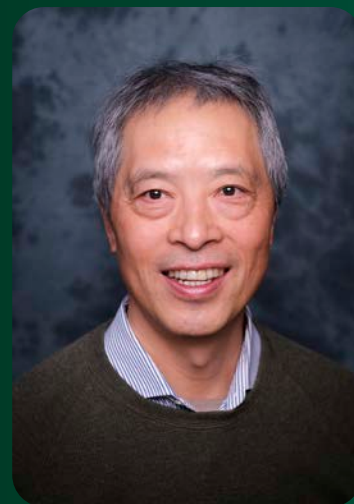
Jiquan Chen received a Scientific Achievement Award from the International Union of Forest Research Organizations (IUFRO). Through various awards, IUFRO honors those who advance science and promote international cooperation in all fields of research related to forestry. The Scientific Achievement Award is the highest honor bestowed by IUFRO every five years and is presented for research results published in scientific journals, proceedings of scientific meetings or books, or appropriate patents or other relevant evidence that demonstrates the importance of the scientific or technical achievement to the advancement of regional or world forestry or forest research.

Dr. Chen is a professor of Geography in the MSU Department of Geography, Environment, and Spatial Sciences and the Center for Global Change and Earth Observations. He obtained his Ph.D. in Ecosystem Analysis at the University of Washington, Seattle. Dr. Chen was awarded the William J. Beal Outstanding Faculty Award by MSU in 2020 and served as a Fulbright Global Scholar during 2021-2022.

Dr. Chen is a distinguished scholar in landscape ecology and ecosystem science, focusing on forested landscapes. He has made significant contributions to international scholarship through his groundbreaking research on edge effects in fragmented landscapes, biosphere-atmosphere exchanges in carbon and water in terrestrial ecosystems, and the dynamics of social-environmental systems (SES).

The Scientific Achievement Award was presented to Dr. Chen at the XXVI IUFRO World Congress held in Stockholm, Sweden, from June 23-29, 2024.

For more information about the Scientific Achievement Award, click [here](#).



Jiquan Chen ▲

Ellis Adjei Adams



MSU Geography, Environment, and Spatial Sciences alum Ellis Adjei Adams was honored this past year by Notre Dame University at one of its home football games as an All-Faculty Team honoree.

Adams is an associate professor of geography and environmental policy at the Keough School of Global Affairs at the University of Notre Dame. Adams' work examines the social, political, institutional, and governance dimensions of environmental and natural resources, particularly water. Trained as a human environmental geographer with expertise bridging the natural and social sciences, he is broadly interested in nature-society relations. His research to date has primarily focused on understanding human-water interactions in different urban contexts in the Global South.

"It is unconscionable that billions sacrifice their lives, dignity, health, and voice because they cannot access safe water and a healthy environment," Adams said. "It has been immensely satisfying to work with students, faculty, and staff using their passions to help Notre Dame rise to the most urgent environmental challenges of today. It is only by joining forces together that we can make the world a better place, one research question at a time, and help Notre Dame take leadership in the environment and sustainability space."

Click [here](#) to learn more about Ellis' work.



Ellis Adams joined by his family as he receives a special football in honor of his work from John T. McGreevy, Provost of the University of Notre Dame.

2024 GEO-GTU AWARDS



Marjorie and Lawrence Sommers Geography Graduate Fellowship for International Research & Travel Mehmet Eroğlu

The Marjorie and Lawrence Sommers Geography Graduate Fellowship is awarded annually to Master's or Ph.D. students to support international research and travel within the next 12 months. Congratulations to Mehmet Eroğlu, the 2024 recipient of this award.



Mehmet Eroğlu and Laurie Sommers



Kylie Hunter and Ryan Shadbolt



Katie Brown, Amber Pearson, and Ashton Shortridge



Randy Shaetzel and Christopher Baish



Meicheng Shen and Kyla Dahlin

James Potchen Awards in Geography for Graduate and Undergraduate Students (Undergraduate and Graduate Student of the Year) | Kylie Hunter and Katie Brown

The E. James Potchen Award was established in 2008 by Harm de Blij to fund yearly cash awards for one outstanding graduate and one undergraduate student who has demonstrated exceptional leadership and service to the Department of Geography, Environment, and Spatial Sciences. The students will have shown remarkable professionalism and leadership skills in activities within both the department and the campus community. The recipients for 2024 were Kylie Hunter (Undergraduate Student of the Year) and Katie Brown (Graduate Student of the Year).

Michael A. Graff Dissertation Completion Award | Christopher Baish and Meicheng Shen

Graduate students at the Ph.D. level in Geography who have successfully defended their proposals are eligible to apply for this award. The award is meant to provide financial support towards completion of their dissertation research. Congratulations to our 2024 recipients, Chris Baish and Meicheng Shen.



Jessica Davis and Ryan Shadbolt

College of Social Science Outstanding Senior in Geography Jessica Davis

The Department of Geography, Environment, and Spatial Sciences at Michigan State University proudly announces that Jessica Davis was named the 2024 MSU College of Social Science Outstanding Senior in Geography.

Owen Gregg Endowment for Global Climate Change Research Xin Lan

The Owen Gregg Endowment was established in 2012 to support global climate change science research in the MSU Department of Geography. Undergraduate majors or graduate students in Geography pursuing studies that make significant progress toward understanding climate change, its causes, and impacts are eligible to apply. Congratulations to our 2024 recipient, Xin Lan.



Lifeng Luo and Xin Lan



Geography Awareness Week Geovisualization Competition

The Department of Geography, Environment, and Spatial Sciences held a Geovisualization Competition in 2024 in honor of Geography Awareness Week. This new competition encouraged Spartans to create infographics on the theme 'Geography: Your Passport to a Global Career' to highlight the practical aspects and value of geography as a discipline worth pursuing.

Entrants were encouraged to utilize graphics to inspire and motivate by shedding light on the diverse job prospects available after graduation with a degree in geography and its subfields, including, but not limited to, GIS, remote sensing, physical, economic, and human geography.

The first-place winner was Geography major Theresa "Tessie" Braga-Henebry, with an entry titled "Geography: Your Passport to a Global Career." The second-place winner was Political Science major Liam Conner, with an entry titled "Where Will Geography Take Me."

Winners' graphics are displayed in the Geography Building and will be utilized to help promote geography as an important and diverse discipline, offering students a wide range of rewarding career opportunities anywhere in the world. Winners also had their choice of MSU Geography apparel offered by the Department.

The competition was one of the activities that helped the Department celebrate Geography Awareness Week in 2024. Established by a presidential proclamation more than a quarter century ago, Geography Awareness Week is celebrated each third week of November. This public awareness program encourages citizens, young and old, to think and learn about the significance of place and how we affect and are affected by it.

Congratulations, Tessa and Liam! The Department thanks all of the entrants for their time, effort, and outstanding infographics!

The first-place winner was Geography major Tessie Braga-Henebry, with an entry entitled "Geography: Your Passport to a Global Career."

The second-place winner was Political Science major Liam Conner, with an entry entitled "Where Will Geography Take Me."



Isabelle Ernest and Ryan Shadbolt

The de Blij Scholars MacKenzie Brady and Isabelle Ernest

Instituted in 2013 by Harm de Blij and supported by other major donors, the de Blij Scholars awards scholarships to promising first-year students who choose to major in Geography at Michigan State University. Congratulations to our 2024 de Blij Scholars, MacKenzie Brady and Isabelle Ernest.



Henri Radosevich, Tessie Braga-Henebry, and Xin Lan

2024 Gamma Theta Upsilon Initiates

Congratulations to our 2024 Gamma Theta Upsilon members: Theresa "Tessie" Braga-Henebry, Xiumin "Mia" Cai, Xin Lan, and Henri Radosevich. Gamma Theta Upsilon (GTU) is an international honor society in geography. Gamma Theta Upsilon was founded in 1928 and became a national organization in 1931. Members of GTU have met academic requirements and share a background and interest in geography. GTU chapter activities support geography knowledge and awareness.



GRADUATE NEWS



LEO BALDIGA

I am now in my second year of the Ph.D. program at MSU and have been enjoying exploring a variety of topics related to technology, agrarian change, and resource management. Last year, I spent my summer in central Thailand, researching the drivers of aquaculture-associated land use change in partnership with Kasetsart University. It was very exciting to combine our insights from remote sensing analysis with qualitative methods and learn the stories from farmers on the ground. I am very excited to present this work on aquaculture at the upcoming American Association of Geographers conference in March as part of a panel on 'Agro-industrial transformation and crises.' I will also be presenting participatory mapping work from this project at MARE – The Centre for Maritime Research in Amsterdam this upcoming June as part of a panel discussion entitled "The Coastal Squeeze: Environments, livelihoods, and aquarian change in India and Thailand".

In Thailand, I also led two workshops on survey questionnaire design and mobile data collection in 2024, which aimed to equip participants with the necessary skills to create, code, and implement surveys using XLS forms and KoboToolbox. The first was in June, co-hosted by Kasetsart University's departments of Fisheries Management and Agricultural Economics and had 50 participants, and the second was in December, co-hosted by the Thai Department of Fisheries (DOF) and the Southeast Asian Fisheries Development Center (SEAFDEC) and had 30 participants.

I recently had the honor of leading a workshop on Drone Data Collection and Processing for Digital Humanities and delivering a guest lecture titled "Counter-Mapping the Mekong: Beyond 'Inter'disciplinary" at Duke Kunshan University. In the workshop, students learned the fundamentals of drone data collection, including flight planning and photogrammetry,

processing techniques such as image-stitching and 3D modeling, and practical applications in mapping archaeological sites and documenting cultural landscapes. In my talk, I highlighted the power of participatory mapping as a tool for empowering local communities in the rapidly changing Mekong region. We examined how community-based cartography can challenge traditional top-down mapping practices, fostering equitable resource management through both analog and digital methods.

I have also started a project that looks into the impacts of novel technologies for smart farming and digitalization on agrarian livelihoods in Thailand, specifically agriculture spray drones. Over the past 5 years, drones have taken off in Thailand as the primary method of applying agrochemical inputs, which has huge ramifications for the labor usage, occupational safety, sustainability, and productivity of farming. I will be continuing to explore the economic, environmental, and policy dimensions of drone adoption this upcoming summer.



Next summer, I will return to Istanbul to spend several months conducting fieldwork, gathering data for my dissertation proposal defense, and the final stages of my research.

On a personal level, I have been balancing my Ph.D. while raising two kids, both born after I started the program—no small feat! Between research, writing, and the chaos of life, I am managing to make it all work. Safe to say, there's a whole lot of mom's determination driving me through it all!



GRADUATE NEWS



BRENNAN PASCAL STANDEL

I am a master's student nearing my final months at MSU. I have spent my time here focusing on reforestation efforts in the Senegalese Sahel. I explored how pastoralist communities perceive and engage with the Great Green Wall (GGW). While the GGW aims to combat desertification, its implementation has often overlooked the needs of pastoralists, favoring sedentary farming. My research critically examines these exclusionary practices through a political ecology lens, revealing how colonial-era environmental narratives continue to shape land management policies.

This summer, thanks in part to Department funding and the Claffey Meyer Fund, I was able to conduct fieldwork in the Ferlo Region in collaboration with WeForest. I gathered data through ninety surveys, thirty semi-structured interviews, and three focus groups across three villages. My research focused on two key questions: How do pastoralists utilize non-timber forest products, and what challenges limit their participation in reforestation-linked economies? Additionally, how do they perceive the quantity and diversity of fodder available in reforested plots compared to surrounding areas?

By highlighting these overlooked perspectives, I hope to contribute to a more inclusive approach to environmental restoration in the Sahel, offering insights for policymakers and development practitioners working on the GGW and similar projects. I will be presenting at this year's American Association of Geographers Annual Meeting, and I hope to see you all there. Once I graduate this spring, I hope to work in international development, inshallah.



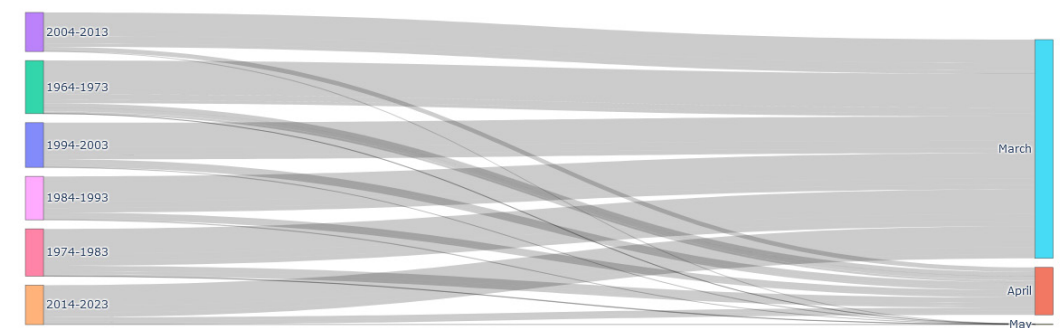
VINCENT OGWENO

I am a Ph.D. student and my work integrates remote sensing, climate data analysis, and machine learning to address critical environmental challenges. My research is broadly structured around two key themes: climate variability impacts in the Great Lakes region and precision cropland mapping in Sub-Saharan Africa.

In collaboration with the Great Lakes Integrated Sciences and Assessments (GLISA) under the guidance of Professor Andresen, I focus on spring and summertime freeze categorization to assess the frequency, duration, and spatial patterns of freezing events that impact agriculture in the Great Lakes region. By leveraging high-resolution ERA5-Land climate reanalysis data, I analyze diurnal variations in radiation fluxes, temperature anomalies, and atmospheric conditions preceding freeze events. The goal is to develop an early warning framework that aids regional farmers in implementing adaptive strategies for frost protection.

My research also advances self-supervised machine learning models for remote sensing applications, particularly in monitoring vegetation dynamics in Mount Kenya's high-altitude ecosystems and cropland scenarios in Homa Bay County, Kenya. Under the guidance of Dr. Nathan

Freeze Event Transitions by Decade, Month, and Severity



Moore, I employ high-resolution PlanetScope imagery combined with machine learning-driven classification approaches to differentiate complex multi-cropping systems in fragmented agricultural landscapes.

My work contributes to scalable GeoAI methodologies for land cover mapping, climate change impact assessment, and yield prediction—critical components in improving food security and

climate resilience. Through my interdisciplinary expertise, I aim to enhance precision agriculture, inform climate adaptation policies, and provide actionable insights into sustainable land management in climate-vulnerable regions.

GRADUATE NEWS



RICHARD J. LLOYD

In support of my goal to conduct fieldwork this upcoming summer in Phnom Penh, Cambodia, I am happy to report that I was awarded the Delia Koo Global Student Scholarship. Broadly, my research focuses on identifying if the confluence of current flood and dengue virus mitigation policies in the capital city suggest future resiliency to worsening climate change conditions. Specifically, I am interested in communicating the voices who live there: from Khmer who have eyewitnessed recent flooding events to the epidemiological concerns. Additionally, my research is interested in identifying those development actors invested in realizing actionable health system policies.

Although I have travelled to Cambodia four times prior to entering the Geography program at MSU, my interest during those previous visits was largely centered on language education. It was during my last trip in 2018 that I became concerned about future habitability in both the country and across Southeast Asia. With previous college experiences, I was able to be welcomed into the Graduate program as a human geographer and I thank my advisors, faculty, staff, and several students for their encouragement. However, I would be remiss not to acknowledge the kind-heartedness of the Khmer monks, priests, students, and other acquaintances and friends met along the run of the Tonlé Sap.

CLUBS & COMMITTEES

GEOGRAPHY GRADUATE GROUP (TRIPLE-G)

The Geography Graduate Group (Triple-G) actively participated in departmental activities over the past year such as coffee hours, colloquiums, and Quidders presentations. Many graduate students continue to contribute to department and university governance by serving on various committees and boards, including (but not limited to) the Council of Graduate Students, the Graduate Employees Union (GEU), Supporting Women in Geography (SWIG), and the department's Space Force Committee. These dedicated members of Triple-G ensure that the graduate community stays informed about important news and events. Updates were provided to the student community at least once a month through hybrid meetings.

Throughout the year, multiple changes to the graduate program were planned or implemented at various levels. Triple-G has remained committed to advocating for and supporting all graduate students, ensuring their voices are heard and their concerns addressed. We have actively engaged in meaningful dialogue with the department, fostering a constructive and welcoming environment while working to uphold the well-being and interests of our student community. With the support of our Graduate Program Director, Dr. Elizabeth Mack, we initiated regular meetings to strengthen communication between faculty and the graduate community. Additionally, Triple-G supported graduate students by covering the costs of printing research posters for the American Geophysical Union conference and the departmental poster competition, using funds accumulated from dues over the years.

Beyond their academic and service commitments, Triple-G members have organized numerous social events throughout the semester. From Halloween parties and movie nights to volunteering events and impromptu social hours, building a float for the homecoming parade, and organizing AAG-related events, these activities have helped foster a strong and engaged graduate community.

We will try our best to support and protect graduate students, develop and grow as an organization, and keep the atmosphere of support and comradery in our favorite basement.

SUPPORTING WOMEN IN GEOGRAPHY

Supporting Women in Geography (SWIG) promotes the participation of women in geography and geospatial sciences, providing opportunities for women and supporters of women to come together for academic, professional, and personal support. During Geography Awareness Week 2024, SWIG invited students, staff, and faculty to celebrate the geographical diversity represented in the department by placing a dot sticker on a world map on the location they call home. As we move into 2025, SWIG looks forward to connecting with women in geography from MSU and beyond at a SWIG-sponsored AAG event – stay tuned for more details! For more details about getting involved in SWIG, please visit the [SWIG campus labs page](#).



CLUBS & COMMITTEES



SPOTLIGHT ON INCLUSIVITY: EMBRACING COMMUNITY ENGAGEMENT

Over the past year, our committee has continued to strengthen its commitment to fostering an inclusive and diverse geography community. Through various initiatives, we've brought together faculty, students, alumni, and friends of the department to celebrate and discuss the importance of such topics in education and society. Whether it's through thought-provoking film screenings, volunteer work, or ongoing dialogue, our collective efforts have highlighted the ways we can support and learn from each other.

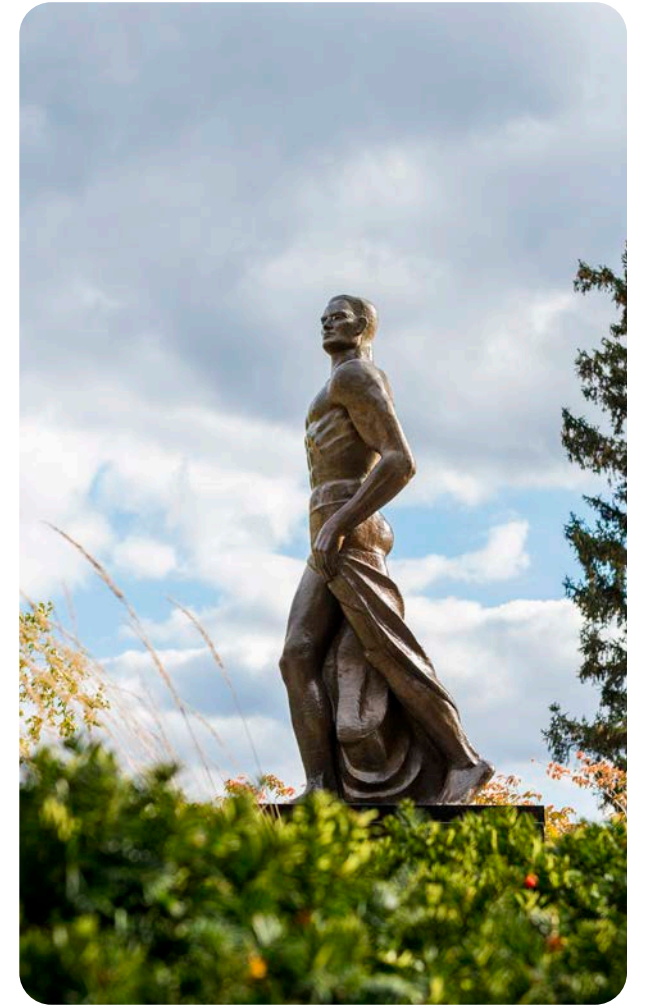
One of the key events this year was organized during Geography Awareness Week. Led by committee members Katie Brown, Madison Moore, Erin Bunting, Nathan Moore and Sandy Marquart-Pyatt, the committee curated a unique film festival focused on themes of geography, diversity, and social justice. Held within the Geography Department, the event attracted a dozen attendees who engaged in meaningful discussions about the intersection of geography and issues such as migration, global inequalities, and the impacts of environmental change on marginalized communities.

Following the film festival, the committee organized a volunteer event with a local homeless shelter, where they prepared and served an evening meal for residents. This event not only brought the department together to help those in need but also underscored the broader mission of our community to support and advocate for vulnerable populations.

In addition to these special events, the committee has a long-standing

history of organizing community-building initiatives. From casual coffee hours that encourage informal exchanges of ideas to reading groups and webinars that dive deeper into topics related to diversity, equity, and inclusion, the committee continues to offer spaces where everyone—students, alumni, faculty, and staff—can come together to learn and grow. These events provide opportunities to discuss current issues, share experiences, and reflect on how we can create a more inclusive academic environment for all.

As we look ahead, the committee remains committed to building on this important work. The diverse voices within our community inspire us to continue advocating for greater representation, understanding, and equity. By continuing to organize meaningful events and fostering inclusive dialogue, we hope to deepen the connections within our department and with our broader community, empowering everyone to make a positive impact on the world.



SPARTAN GEOGRAPHER ENCOURAGES FELLOW GRADUATES TO REMAIN EVERGREEN DURING COMMENCEMENT SPEECH

Joseph Allen

Like many students at Michigan State, Joseph 'Joey' Allen has always favored the color green, but it carries an even more special meaning to him four years later. Hailing from Plano, Texas, he discovered that in a state like Michigan in which the warmer sunny seasons can pass by in a flash, it was especially important to take time in his everyday life to find the bright spots, like evergreen trees, which hold onto their foliage 365 days a year.

"With so many people affected by the seasons we experience here, I think that the evergreens are important to seeing that there's always life even in the darkest hours," he explained.

This year's commencement theme is Evergreen; the idea of holding on to one's 'greenery' throughout life and everything we do. Evergreens are resilient and successful, displaying life even in the harshest, coldest winters. Spartans embody these traits; they are evergreens in a sea of gray that come together and an army of support for each other long after graduation.

An Urban and Regional Planning and Economic Geography major, Joey has always held a passion for construction and city planning. But when it came time to decide on a college, he struggled to find a school that held its own program for urban planning, not just a major within an architecture or engineering school.

"Our School of Planning, Design and Construction being part of the College of Social Science really jumped out at me," he said. "I was pleasantly surprised to see how much advocacy and public policy was automatically weaved into the learning because of the college we were in."

Despite the excitement, Joey's first year at MSU was slightly marred by the COVID-19 pandemic and the necessity of taking classes fully online in his first year. But he found instant support from the college when he joined the Social Science Scholars program and its director, Dr. John Waller.

"Dr. Waller was one of the first friendly faces I got to meet here, and was just so instrumental in making me feel like this was my home," he said. "The program made me feel like once I got to campus my sophomore year, I was already going to know people and have a good time."

Joey describes Dr. Waller (pictured right) as an inspiration, and someone who will always advocate for his students as they discover their interests and passions. Another mentor within the Scholars program is Mike Morrow, a College of Social Science alum and community mentor with the program who functions as someone students can reach out to for



◀ *John Waller, Director of the MSU College of Social Science Scholars Program with Joey Allen. Joey cited Dr. Waller as a supportive presence while the COVID-19 pandemic required students to take classes online during his first year at MSU.*

"Especially coming off of our virtual COVID year, you learn how much these little college groups will mean to you for the rest of your life, and how those people impact you," he said.

Even with a trove of happy memories to carry away from his college experience, Joey doesn't shy away from discussing some of the more difficult aspects of the past four years. He talks about a particularly dark time during his senior year when he was struggling to find motivation and feeling unsure about his post-college plans.

"When I was experiencing this, I talked with a lot of different people, some of which were also going through dark moments in their lives," he said. "What I realized is you can always commiserate, talk about how bad your life is and you feel like there's no way out ... But the things that can motivate you are the ability to see your friends succeed, and that they're able to dig themselves out of holes, find their purpose and stick with it."

Joey again brought up the idea of being evergreen. "That's exactly what I needed to see and hear from them, is that we can be miserable together. We can experience those winters in our lives without dwelling on them."

One thing Joey will definitely speak on at commencement is the ability of his fellow graduates, as social scientists, to change the world for the better. This group of students have witnessed firsthand the political strife, economic struggles, and decline of environmental policy that is the reality of our everyday lives. But who better to fix these issues than a group that has spent the last four years learning about the ways in which we can transform the human experience?

"We're in a period of history where I think a lot of people are tired of seeing the same things happen over and over, and feel like we've regressed from a lot of the advancements we've seen socially," Joey said. "We're seeing violence, injustice, conflict, and different perspectives that feel like they can never be combined. That feeling is very scary to our generation. I think it's super important to say as social scientists, we can impact change in unique and creative ways. We can still talk about those issues with hope for a solution. Believing that we don't have any impact is just as dangerous."

everything from career advice to a listening ear. "He cares so deeply about everyone he's paired with," Joey said. "He's always interested in how he can find connections for us and how his past experiences might relate to what we're going through." Even through some of his lowest lows the past few years, Mike was someone Joey felt he could always rely on.

The Scholars program also gave Joey his first opportunity to travel abroad. He went as part of the group to the United Kingdom, and came home with memories he'll hold on to for a lifetime.

"Bonding with that specific group of scholars was life-changing," he said. "It felt like the first time I was truly an independent young adult. Getting to go and travel and have those experiences with people that you really care about ... it taught me a lot about friendship and trusting one another."

Another organization that had a big impact on Joey's college career was Mock Trial. Making new friends, even meeting his future partner, and being able to represent his school at competitions and being a part of success is something Joey lists as one of his favorite parts of his time at Michigan State."



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"It felt like the first time I was truly an independent young adult. Getting to go and travel and have those experiences with people that you really care about ... it taught me a lot about friendship and trusting one another.

CELEBRATING OUR GRADUATES:

Graduate Degrees Conferred

Anthony Bowman, M.S., (Dr. Kyla Dahlin),
“Drivers of 3-D Canopy Functional Diversity
in a Temperate Forest: Mapping Function with
Hyperspectral and Lidar Remote Sensing”

Qianlin Chen, M.S., (Dr. Guo Chen), “A Critical
Analysis of Hainan’s Urban Resilience in the
Context of COVID-19”

Nidhi Kalani, M.S.-B (Dr. Igor Vojnovic), non-
thesis master’s

Savar Khamidjonov, M.S., (Dr. Jiaguo Qi),
“Geospatial Technologies for Conservation
Agriculture in Arid Environment: A Case Study
of Urtachirchik District, Tashkent Province,
Uzbekistan”

Jessie Pink, M.S.-B, (Dr. Elizabeth Mack), non-
thesis master’s

Raven Mitchell, Ph.D., (Dr. Fritz Nelson),
“Periglacial Facies and Altitudinal Trends in
Alaska and the Appalachian Highlands”

CarLee Stimpfel, M.S., (Dr. Ethan Theuerkauf),
“Mapping Annual to Decadal Geomorphic
Changes of a River Mouth Bar to Evaluate the
Role of these Landforms in Altering Littoral
Sediment Budgets”

Rui Zhang, Ph.D., (Dr. Arika Ligmann-Zielinska),
“Toward Resilient Communities – Vulnerability
Assessments of Coupled Human and Natural
Systems”

Teng Zhang, Ph.D., (Dr. Ashton Shortridge
and Siddharth Chandra), “Unsafe Space: Spatial
Analysis of the Indonesian Mass Killings in East
Java”

Undergraduate Commencement

SPRING & SUMMER GRADUATES:

Joseph Allen | BS Economic Geography

Loralei Berry | BS Environmental Geography

Juli Bissonette | BS Economic Geography

Brooke Cibor | Minor in Geographic Information
Science

Audrey Cloft | BS Environmental Geography

Jessica Davis | BS Environmental Geography and
Geographic Information Science

Jenna Drew | BS Environmental Geography

Jack Fischer | BS Economic Geography + Minor in
Geographic Information Science

Aidan Garbarino | BS Economic Geography

Chakata Hart | Minor in Geographic Information
Science

Luke Hurley | BS Geographic Information Science

Jayli Husband | BS Environmental Geography and
BA Human Geography + Minor in Climate Science

Gus Jensen | BS Environmental Geography
+ Minors in Climate Science and Geographic
Information Science

Corinthian Martorana | Minor in Geographic
Information Science

Trinity Maturen | Minor in Geographic Information
Science

Seth Mrazik | BS Geographic Information Science

Zoe Naylor | Minor in Geographic Information
Science

Nikki Nguyen | Minor in Geographic Information
Science

Marlena Olson | BS Geographic Information
Science

Gregory Phelan | BA Human Geography

David Saval | BS Geographic Information Science

Mary Silverman | Minor in Geography

Avery Swickard | Minor in Geographic Information
Science

Jack Taylor | BS Geographic Information Science

Parker Thomas | Minor in Geography

Courtney Thompson | Minor in Geographic
Information Science

Susan Toppen | Minor in Geographic Information
Science

Siqi Wang | BS in Geographic Information Science

Gabby Wells | Minor in Geographic Information
Science

Alexis Zimmerman | BS Environmental Geography

FALL GRADUATES:

Josie Caldwell | Minor in Geographic Information
Science

Jack Dantzer | BS Environmental Geography +
Minor in Geographic Information Science

Craig Douponce | Minor in Geographic Information
Science

Logan Lawler | BS Geographic Information
Science and BA Human Geography + Minor in
Climate Science

Welcome our newest
Spartan Geography
Alumni!

ONGEO-PROFESSIONAL:

Exciting Growth and Opportunities with onGEO's Professional Certificate Programs

By Dr. Yi Shi

We are excited to share the latest updates on onGEO's professional certificate programs! While our flagship [Professional GIS Certificate](#) continues to grow steadily, we're proud to celebrate the success of our newest offering, the [Professional Geospatial Data Analytics & Visualization \(GDAV\) Certificate](#), launched in January 2024.

The GDAV certificate is tailored for professionals seeking to elevate their geospatial technology skills and stay ahead in this dynamic field. Whether you're looking to advance in your current career, explore new opportunities, or feed your geographic curiosity, this program provides valuable, marketable expertise in geospatial data analytics and visualization.

Flexible Program Structure

The GDAV certificate comprises four core courses, all delivered online in convenient 7-week sessions:

- [Cartography \(CART\)](#)
- [Geovisualization: Temporal and Interactive Mapping \(GTIM\)](#)
- [Python and ArcPy Geoprocessing \(PAPG\)](#)
- [Spatial Statistics \(SPST\)](#)

These courses cover essential topics like map design, spatial data analytics, geoprocessing, and interactive mapping. With hands-on online labs, students gain practical experience and build confidence in using geospatial technologies. The program is also designed for flexibility, allowing participants to complete it in as little as two semesters (one course at a time) or faster by taking multiple courses concurrently.

A Head Start for GIS Certificate Earners

If you've previously earned the Professional GIS Certificate, here's great news: the Cartography (CART) course is shared between the two programs. This means GIS Certificate alumni can earn the GDAV certificate by completing just three additional courses.

Strong Early Success

The GDAV program has already seen tremendous success, with strong enrollments in 2024 and many who have already completed the program to earn their Certificate.

Looking Ahead to 2025

With momentum building and marketing efforts expanding, we anticipate continued strong enrollment for the GDAV Certificate in 2025. Whether you're seeking to enhance your technical skills, pivot into a new career, or stay competitive in the ever-evolving geospatial field, the GDAV Certificate offers a flexible and effective pathway to success.

Stay tuned for more updates, and feel free to reach out if you have questions (ongeo@msu.edu) or are ready to take the next step in your professional journey.

OnDemand Courses Take Flight

By Ava Gawel

In 2024, OnGEO and RS&GIS launched a new format of online course experience: [OnDemand](#) courses. These self-paced classes, ranging from one to seven-plus weeks in length, are designed for a broad audience, including professionals, neogeographers, and lifelong learners. Participants can enroll at any time, with each course focusing on a single topic, such as Interpreting Wetlands, Maps & Apps, StoryMaps, Using LiDAR Imagery, Google Earth Engine, GIS Field Data Collection, and more.

Our first OnDemand offering, [Interpreting Wetlands & Deepwater Habitats from Aerial Imagery](#), is now open for registration. Developed by Bob Goodwin, Dr. David P. Lusch, and the RS&GIS staff, this course aims to teach participants how to interpret and classify wetlands and deepwater habitats using geo-referenced aerial or high-resolution satellite imagery.

This course has already attracted professionals in wetland-related fields, including Water Resource Scientists and Wetland Inspectors, who find the course applicable to their line of work.

Check our OnDemand offerings periodically through 2025, as new courses will be added and they come [online](#).

7-WEEK, NON-CREDIT, ONLINE PROFESSIONAL DEVELOPMENT COURSE

Interpreting Wetlands & Deepwater Habitats From Aerial Imagery

Learn How To:

- Correctly identify wetland and deepwater classes
- Classify and extract wetland features using GIS
- Obtain aerial imagery and other ancillary data

\$500

NO APPLICATION AVAILABLE ON DEMAND REGISTER TODAY!

RS&GIS

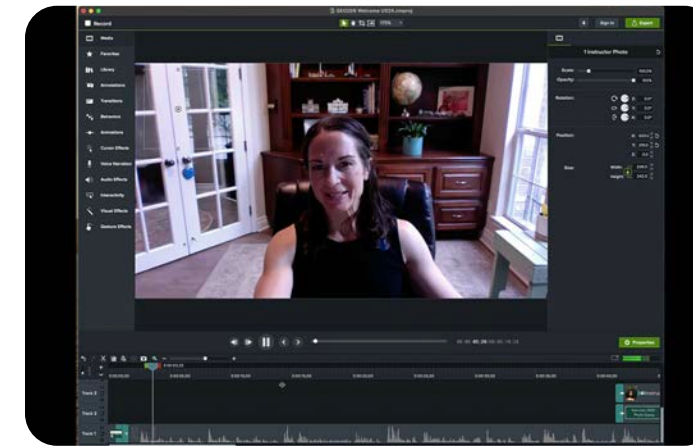
OnGEO OnDemand

Department of Geography, Environment, and Spatial Sciences MICHIGAN STATE UNIVERSITY

ONGEO-UNDERGRADUATE:

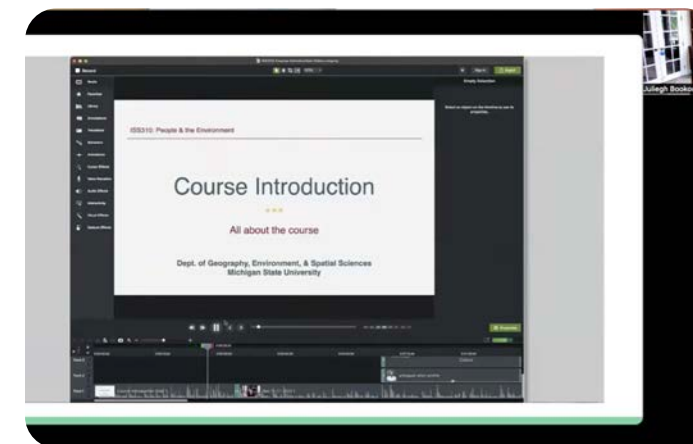
Set It and Forget It? Creating More Sustainable Online Courses

By Juliegh Bookout



In 2007, when I joined the Department of Geography, our online offerings were modest: just four courses—People & the Environment, World Regional Geography, Physical Geography, and the Geography of the United States & Canada. Back then, online teaching was straightforward. Course content was fresh, students marveled at the convenience of taking classes in their pajamas, and my role focused on keeping materials up to date, troubleshooting quizzes, and guiding graduate students through the basics of online instruction.

Fast forward to today, and that landscape has been transformed. The Department now offers 14 online courses, of which I oversee the maintenance and instruction of six. The world of online teaching and learning has grown more complex, shaped by new technologies, evolving student expectations, and even the pandemic. As our offerings expanded, so did the challenges of maintaining quality across all courses. In response, the onGEO team has adapted by leveraging tools like OneDrive for document sharing and Keynote and Camtasia for presentation and video editing to create materials that are engaging, effective, and easier to update.



In June of 2024, I had the opportunity to share my insights at **MSU's EdTech Summit** in a talk titled "Building an Online Course that Lasts – How to Set It and Forget It!" My presentation emphasized the importance of working smarter up front, with strategies like scripting lectures, recording them slide by slide, and adopting a less is more approach. This includes creating shorter lessons and modular units that make courses easier to update and more digestible for students. I also shared some practical advice like the concept of being mindful, not timeful, encouraging course/video content creators to give more thought to how they reference time and the timing of events and data to avoid instantly dating a video.

As online teaching and learning continue to evolve, we need to be intentional about how we build our courses. Students expect online courses to feel fresh and relevant, and that means finding ways to keep materials current without starting from scratch every semester. By focusing on thoughtful design and smart strategies upfront, onGEO aims to meet 'students' expectations while making courses that are sustainable for the long term. I am also happy to have had the opportunity to share our experiences at the EdTech Summit and to reinforce the value of innovation and adaptability in online course design.

Revamping our Geospatial Technology Courses

By Beth Weisenborn

My primary project this past year has been to integrate the fully online and in-person versions of our 200- and 300-level geospatial technology courses. This project is a joint effort between the Department's Geospatial Technologies faculty and onGEO, with Dr. Erin Bunting leading content creation while I work on production.

In addition to aligning topics covered within geospatial technology courses, we are intentionally designing the courses for multiple modes of delivery and increased learner accessibility. This includes incorporating more real-world case studies that feature the work of faculty, staff, and alumni, and ensuring the hands-on (lab) components mesh effectively with the lessons. We are also focusing on making connections between the content covered and related GEO Majors, Minors, and subsequent courses.

It's been reinvigorating to re-imagine these courses, and we are beginning to see the first fruits of our effort. Remote Sensing of the Environment (GEO 324) and GIS (GEO 325) were re-launched in 2024; Introduction to Geographic Information (GEO 221 and GEO 221 Lab) is scheduled for re-launch in 2025, with more courses to follow.

2024 was an interesting, transitional year at RS&GIS. Erin Bunting stepped down as director to pursue tenure in the Department, while Bob Goodwin took the reins as the interim director while we started the search for a leader. Our search culminated in the hiring of Dr. Phillippe "Phil" Wernette. Phil spent time at RS&GIS as a GIS/ Programmer technician in 2012-13 and we are thrilled to have him back. He brings a wealth of knowledge and experience back to RS&GIS, primarily in the areas of coastal geomorphology, machine learning and computer vision, aquatic remote sensing, geophysics, and spatial ecology. His goal is to help RS&GIS strive to positively impact people's lives and the environment by understanding how past and present come together to impact the future, with a particular focus on what makes the Great Lakes region unique: the Great Lakes.

As is always the case at RS&GIS, our work in 2024 was highly varied, including projects in health care, agriculture, environmental contamination and more. One of our new projects is a collaboration with IMPART Alliance, an organization at Michigan State University focused on building up the direct care worker (DCW) industry in Michigan. Our part of this \$25 million grant-funded project is developing GIS products to help IMPART with worker recruitment, characterizing opportunities for both workers and employers, and describing the impact IMPART is having on the industry. We are doing this through a combination of GIS analysis and web mapping application development.

Another interesting project is a collaboration with the Iowa State University Geospatial Laboratory for Soil Informatics (GLSI). For this project we are building a state of the art soil data viewer using data created by GLSI that will assist farmers and other stakeholders in making management decisions. This work is being completed using ArcGIS Experience Builder, the newest web development environment in the Esri ArcGIS suite.

Along with Erin Bunting, RS&GIS was awarded a Project GREEN grant aimed at estimating fruit abundance in vineyards. During the summer, our staff was busy collecting SLAM lidar data (with our new GeoSLAM lidar unit!) and multi-spectral drone imagery, counting grapes on the vine, and generally having a great time in the field. The next phase of the project is to build AI/ML programs that isolate and quantify grapes to help vineyard operators determine yield.

As always, drone data collection was a big part of our year and we were lucky enough to be able to obtain a 5th generation multi-spectral sensor – a MicaSense RedEdge-P Dual sensor. This sensor, which is available for research projects, is a 10-band, dual-camera sensor whose spectral bands can be sharpened using an additional panchromatic band. Exciting times on the drone front indeed!

2025 looks like it will be a busy year as well and we can't wait to see what comes next, particularly research that Phil will be heading involving the Great Lakes!

▼ Phil Wernette Bob Goodwin ►



OnGEO offers Professional Certificates in Geographic Information Systems and Geospatial Data Analytics & Visualization

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Department of Geography,
Environment, and Spatial Sciences
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JOIN OUR CELEBRATION AT AAG IN DETROIT

FIREBIRD TAVERN | THURSDAY MARCH 27 | 6-10 PM

ALL ARE WELCOME! Appetizers Cash Bar

THURSDAY MARCH 27, 2025 6:00-10:00 PM



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Department of Geography,
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Location



Questions? Email geo@msu.edu

MSU Geography at AAG Detroit

Each Spring, thousands of geographers from around the world gather to share research, educational information, and discuss policy initiatives at the American Association of Geographers (AAG) annual conference: [AAG Annual Meeting 2025](#). The conference is so large that it rotates among select locations in the United States with meeting space large enough for the group. This year, the conference will be held in downtown Detroit at Huntington Place from March 24-March 28. Past conferences have taken place in New Orleans, San Francisco, Washington D.C., Chicago and Boston. The conference uses multiple means of sharing the state of science in the discipline ranging from workshops, poster presentations, paper presentations, and panel discussions. The scope of research presented at the conference demonstrates the breadth of topics and methods investigated by geographers. Examples of the type of presentations that one can find at this conference include: "Climate Research in Geography", "Waste(d) Ecologies and Toxic Geographies", Spatializing Uncertainty: Critical Geographies of Insurance", and "Account for Space 1: Following money and power across financial infrastructures".

Many of the sessions at the conference are sponsored by one of the specialty groups that represent groups of researchers and educators interested in a particular topic. There are over 80 AAG specialty groups ([Full List of AAG Specialty Groups](#)), each of which has a meeting at the annual conference. Examples of some of these specialty groups include Biogeography, Economic Geography, Human Dimensions of Global Change, and Geographic Information Science & Systems. These groups are a wonderful way for early career scholars to develop professional networks and leadership skills. Several geography departments also host receptions for alumni and friends at the conference. The MSU department is no exception; a reception will be held at the Firebird Tavern on Thursday, March 27 and we hope to see you there.

The department has a long history of involvement in the AAG. Professor emeritus Judy M. Olson served as AAG president between 1995-1996. Professor emeritus Julie Winkler served as AAG president between 2013-2014. The department also has several AAG Fellows, who are people that have made significant contributions to advancing geography. The list of MSU AAG fellows include Joe T. Darden (2018), Julie Winkler (2020), and Judy Olson (2021).

At the conference in Detroit, several members of the department will be participating in panels, paper and poster sessions, and workshops. At right is a list of activity by students and faculty in the department in alphabetical order.

Leo Baldiga

Panelist: Agro-industrial transformation and crises

Katie Brown

Paper Presentation: Residents changing perceptions of gentrification across time and their mental health in Detroit, MI"

Session Organizer: Exploring Rural-Urban Health Disparities.

Guo Chen

Lead Organizer, chair, and introducer, AAG Detroit Symposium Celebrating Book "How to Foster Diversity, Equity, Inclusion and Justice in Geography" Plenary, Thursday 3/27

Lead Organizer and co-chair, AAG Detroit Symposium Celebrating Book "How to Foster Diversity, Equity, Inclusion and Justice in Geography" Author Conversation I, Thursday 3/27

Organizer and chair, AAG Detroit Symposium Celebrating Book "How to Foster Diversity, Equity, Inclusion and Justice in Geography" Author Conversation II, Thursday 3/27

Co-organizer and panelist, Publishing in Geography, Wednesday, 3/26

Co-organizer and introducer, Dialogues on Global Waste Geographies, Thursday 3/27

Jiquan Chen

Paper presentation: "Silk Road Cities through the Lens of Urban-Rural Continuum: Concept, Evidence and Modeling", will take place in the session "Land Use and Social Issues"

Joe Darden

Webinar: Detroit After Bankruptcy: Were There Measurable Changes in the Quality of Life of the Residents?"

Black Geographies Specialty Group Plenary Session: "Honoring Black Geographers: Past, Present, and Future of the Field

AAG Detroit Symposium Celebrating the Book, "How to Foster Diversity, Equity, Inclusion and Justice in Geography" (E Elgar 2024) Plenary

Mehmet Eroğlu

Paper Presentation: Mining Their Own Business: Everyday Power Struggles Between Informal Miners and State Officials in Turkey

Paper Presentation: Blurred Lines Underground: Entanglements of Formal and Informal Mining in Turkey

Panel Presentation: Transforming Global Drug Economies: Responsive Geographic Research and Repair in the Face of Criminalization and Corporatization

Organized Session: Revisiting Labor Geography: Reflections and Future Pathways

Organized Session: Drugs: Past and Present Geographies

Sue Grady

Paper Presentation: Children's Blood Lead Levels in Detroit: A Medical Geography Assessment

Geoffrey Henebry

Paper presentation: Henebry GM, MA Tomaszewska, Sirodoev, A Schvab. 2025. Rapid characterization of cropland seasonality through leveraging high cadence time series. This talk will be presented in the session: *Advancing agricultural monitoring through remote sensing*

Yousef Khajavigodellou

Paper session: "Transboundary River Basin Water Diplomacy 1: Navigating Water Scarcity and Geopolitical Tensions"

Panel session: "Transboundary River Basin Water Diplomacy 2: Advancing the Water-Energy-Food Nexus"

Xin Lan

Virtual Paper Presentation: Process-Guided Deep Learning Models for Predicting Lake Temperature Profiles

Arika Ligmann-Zielinska

Paper Presentation: Global Sensitivity Analysis for Improved Understanding of Mechanisms Underlying Spatial Simulation Models of Coupled Human and Natural Systems

Authors: Arika Ligmann-Zielinska, Michigan State University Department of Geography, Environment, and Spatial Sciences; Piotr Jankowski, San Diego State

University Department of Geography

Session: AAG 2025 Symposium on Spatial AI & Data Science for Sustainability: Advances & Approaches in Coupled Human and Natural Systems Science

Hyunseo Park

Paper Presentation: Determinants of Demographic Shifts Pre-to-Post-COVID-19 in the San Francisco Bay Area: Session: Human Mobility, Vulnerable Population, and Homelessness Studies: Exploring Spatiotemporal Changes, Socio-Environmental Impacts, and GeoAI Applications III

Ryan Shadbolt

Virtual Panel March 25, 2025: The Importance of Early Career Mentorship

Poster Presentation March 27, 2025: Geography Education Poster Presentation

Panel Presentation March 28, 2025: Charting New Paths: Amplifying Voices of Emerging Pathway Student

Panel Presentation March 28, 2025: Future Leaders in Action: Insights from Award-Winning GIS Pathway Students

Brennan Pascal Standel

Paper Presentation: Fodder, Fruit, and Forests: A Political Ecology Examination of Senegalese Pastoral Perspectives

Ethan Theuerkauf

Mapping social trails along Pictured Rocks National Lakeshore using Apple Lidar" in the "General Geomorphology Paper Session.

Vasya Tolmanov

Paper presentation: Quantitative Analysis of Soil Moisture and Temperature Effects on Active Layer Formation in Kuparuk Basin, Northern Alaska, Session: Linkage of permafrost, land cover, and landform in cold regions

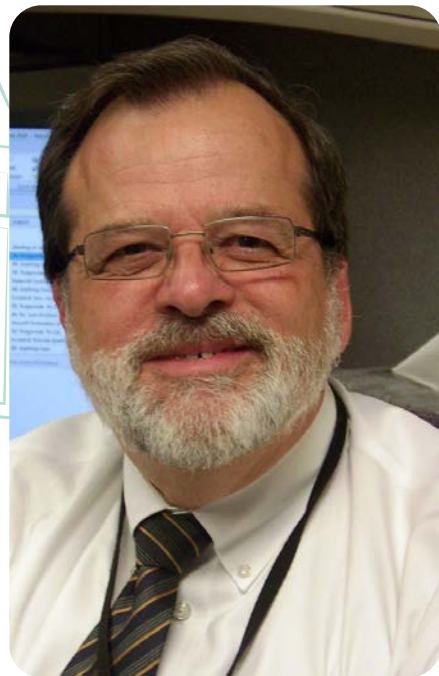
Angelique Willis

Paper Presentation: Investigating the Association Between Geological Features and Chemical Contamination in Georgia's Private Wells

Jeffrey Wilson

Author Meets Critic: Jeffrey Wilson and Bambi Kramer's *We Live Here: Detroit Eviction Defense and the Battle for Housing Justice*

RETIREMENTS



DAD JOKE EXPERT AND FRIEND TO ALL:
Richard Harlow



The Department wishes long-time instructor Rich Harlow a very happy and well-deserved retirement! With a wealth of experience in land preservation via tax incentives, taxation of farmland and open space, and local zoning and planning, Rich worked for the Michigan Department of Agriculture and Rural Development as the manager for the Qualified Forest Program and before that was the manager for the Farmland and Open Space Preservation Program for 27 years. Before working with the state, he worked in various planning positions, including being the planning director for Meridian Township, Michigan, a planner at the Lima Allen County Regional Planning Commission in Ohio, and a planner in Xenia, Ohio.

Students enjoyed the enthusiasm and passion Rich brought to his courses at MSU for more than 28 years, most notably ISS 315: Global Diversity and Interdependence. Rich is affectionately known for his mastery of the “dad joke,” always bringing a fun and interesting variety of snacks from all over the world to class, and being one of the nicest people on campus (and anywhere else for that matter). We hope Rich won’t be a stranger since we miss him already!



Rich Harlow taking the opportunity to share one of his beloved “dad jokes” before cutting into a cake celebrating his well-deserved retirement after serving as an instructor with the Department for more than 28 years.

GEOCamp 2024



GEOCamp 2024 welcome several new Spartan Geographers and included some familiar faces as we opened the annual event to all current graduate students. After checking in at Camp Wa Wa Sum, our new students met with Grad Program Director Elizabeth Mack to get acquainted. Students enjoyed connecting with each other and the surroundings while some took the opportunity to float down the beautiful Au Sable River. Day two kicked off with a visit to Hartwick Pines State Park for an explorations of Nature-Society interactions. The group also headed to Traverse City for a discussion of a variety of economic geography themes. The final day featured an exciting drone demonstration by Erin Bunting before the group headed back to East Lansing in time for an enjoyable Department-wide picnic at Patriarche Park as we welcomed the start of a new academic year.



(Left to Right) Dillon Haller, Angelique Willis, Katie Brown, Memet Eroglu, Courtney Ross, Alanna Post, Apichaya Thaneerat; (Back) Rachel Lau and Chris Baish.

IN MEMORIAM:

Richard Santer

Richard Arthur Santer, Ph.D. Emeritus Professor of Geography, Ferris State University passed away September 21, 2024. He was an educator, author, and family man who served his country, his community, and his Lord.

He was born and raised in Detroit, Michigan, the fifth of five children to Arthur and Hazel and was preceded in death by each of his siblings and their spouses. He graduated from Redford High School where he and his brother were track stars then entered Michigan State Normal College (now Eastern Michigan University) on academic probation, graduating with his undergraduate degree in 1959. He went on to earn his master's degree from EMU then Ph.D. from Michigan State University in 1970.

After being a Junior ROTC cadet in high school, enrolling in ROTC in college, and receiving an under-height waiver, he received a regular Army commission for four years active duty at Ft. Carson, Colorado. He served in a missile command that included stateside responses to the Berlin Wall and Cuban Missile Crises. At the conclusion of his commission, he opted to focus on "waging peace, not war" and turned his attention to education.

Teaching geography at Roosevelt High School in Wyandotte, Michigan was his first stop before a 27-year career at Ferris State where he initiated the first Michigan Geography course. His Ph.D. dissertation was an in-depth study of Jackson, Michigan. As a professor he followed that with publication of textbooks including Michigan: Heart of the Great Lakes in 1977 and Geography of Michigan and the Great Lakes Basin in 1993. He also wrote the Michigan sections of the World Book and Academic American Encyclopedias. Though he was honored by FSU and the Michigan Association of Governing Boards as a Distinguished Professor and formally taught thousands of students, he was a teacher in all situations and never missed the opportunity to share his wisdom and knowledge with those he encountered.

His family brought him great joy. He married Ruth (Boyce) in Tecumseh, Michigan in 1959, three days before moving to Colorado for military service. Together they worked and sacrificed for one another, established homes in 16 different places, grew gardens, spent retirement winters in Florida, and traveled all 50 states of the US plus Canada, England, New Zealand, and Australia. They celebrated 65 years of marriage just three weeks before his death-65 years of love, commitment, and dedication to each other.

Rich brought together all aspects of his life in service to his community as a member of the Green Township Planning and Mecosta County Zoning Boards. He was a member of the American Legion and Sons of the American Revolution along with several associations tied to geography and education. He was a Trustee of the Historical Society of Michigan that in 2018 presented him with the History Hero Award. He served as Chairman of the



1984 Ferris Centennial Task Force and in that role left an impact on the University and community in the way of sculptures, writings, and dedication of a nature preserve that would be named in his honor upon his retirement from FSU in 1996. Through MSU Extension his generosity has contributed to a community garden on the site of his great-grandfather's namesake school in northwest Detroit. And in a more spirited and enduring sense of community, he was a forever fan of the Tigers, Lions, Spartans, and Bulldogs.

His greatest passion was for the State of Michigan and the correct representation of its borders. From a twelfth-grade term paper on Isle Royale to publications in 2023 at age 86, he was determined to set the record straight and properly document the precious resources for which we are responsible. He tirelessly wrote, endlessly explained, and repeatedly petitioned government officials and publishers to define and represent the State of Michigan with its land and water boundaries including over 300 named islands- especially showing Isle Royale and getting it in the right place.

He felt an exceptionally strong connection to Woodbridge N. Ferris, founder of the University and Governor of Michigan whom he physically portrayed in the Centennial celebration and who personally taught his father in the early 1900s. He headed the task force for the printing of Mr. Ferris' unpublished autobiography and gathered several collections of his writings and wisdom. Richard Santer strived daily to live Mr. Ferris' mission "to make the world better"-so may you.

Memorial contributions may be made to the Ferris State University Dr. Richard and Ruth Santer Scholarship Endowment, the Historical Society of Michigan, or the Ferris State University Dr. Richard and Ruth Santer Nature Preserve Endowment.

ALUMNI CONNECTIONS:

Alumni Advisory Board

MSU Students, Colleagues, and Alumni, the Alumni Advisory Board is here to help advise, mentor, and continue to support our students. If you are interested in joining our Advisory Board, speak at one of our meetings, or would like to know how you can continue to support MSU Geo, please reach out to Ashton Shortridge (ashton@msu.edu) or Diane Huhn (huhndian@msu.edu) from the Department or the current Chair of the Advisory Board, Mike Cousins (cousinsrm@gmail.com).

Submit Your Alumni Career Spotlight

Help the Department of Geography, Environment, and Spatial Sciences promote the discipline of Geography! By completing a brief questionnaire about your experiences at MSU and your current and past professional activities, you can make a difference in helping current and prospective students explore the vast number of career paths available to them with a degree in Geography. See the sample Alumni Career Spotlight below and use the link to connect with us so we can share your knowledge, experience and advice with Undergraduate students at MSU!

Department of Geography,
Environment, and Spatial Sciences
MICHIGAN STATE UNIVERSITY

I design and maintain GIS applications and solutions. I leverage my spatial data analysis and programming expertise to create and develop global mapping and environmental interface applications. These are custom tools for solving real-world problems and optimizing decisions for business, government, and organizations. I have honed my skills in GIS development, and today, I consider myself a professional in the field.

EZEQUIEL MUSSAMBE
GIS Developer & Analyst
Hydrosimulatics
Haslett, Michigan
B.S. in GIS and Cartography, Class of '19
www.linkedin.com/in/ezequiel-mussambe-089b51127

**ALUMNI CAREER SPOTLIGHT:
Spartan Geographers in Action**

[Click here to complete a brief MSU GEO Alumni Career Spotlight Questionnaire!](#)

ALUMNI NEWS



R. MICHAEL COUSINS | B.S. '07

Hello Spartan Geographers! 2024 was a great year for me personally and I'm looking forward to crushing it in 2025.

Professionally, I am a Partner and the GIS Practice Leader at OHM Advisors, where I oversee all GIS operations and 15 GIS team members (with a few MSU Geo alums). This year, OHM GIS won a few more Project of the Year Awards from APWA & MRWA for developing a highly customized ArcGIS Experience for advanced analytics for asset management. Kudos to fellow MSU Geo Alum Paul McCord for developing that epic application.

Being named to The Oakland County Executive's Oakland Together 40 Under 40 Program in 2024 was a great experience. I got to meet and network with some really great people, doing really great things in the community. If you are eligible, I highly encourage all of you to apply to programs like the 40 Under 40!

If you are a student (kudos for reading this), get involved with the MSU Geography Club & GTU, any professional organization, and join your local user groups! Connections are key, and they make for easy points with your certifications, like the GISP! Upon graduation, please make sure to also stay connected with our Alumni Advisory Board.

P.S. – If you have any ideas or thoughts regarding how we, the MSU Geo Alumni Advisory Board, can get involved, assist you with advice/support, further advance our Alumni outreach, events we can hold throughout the year, etc., PLEASE contact me. Also, please make sure to join our MSU Geo Alumni & Friends groups on Facebook & LinkedIn, where you can stay connected with what we are doing. Cheers & Go Green!

R. Michael Cousins, GISP | OHM Advisors | Michael.Cousins@ohm-advisors.com

Please link up with me on LinkedIn: <https://www.linkedin.com/in/GIS-Mike/>

OWEN GREGG | B.A. '64

I feel bad that I missed last year's Spartan Geographer. No big excuses, except we were in the process of selling our Florida residence and moving back to Minnesota after almost 24 years "down south." We had never sold our Minnesota townhouse on Lake Minnetonka, so we had no problems finding a place to live. We sold just in time, 3 months before two hurricanes hit Clearwater Beach and did extensive damage. We were very lucky in that regard.

In the last two years, I had two grandkids graduate from college. Annabel received her master's in environmental policy from NYU and is now working for the New York State Department of Forestry. She's in charge of orchestrating the planting of 10,000,000 trees in New York. Grandson Josh received his B.S. in business from North Dakota State and is now selling cars in Fargo, North Dakota.

I'm still pretty healthy. I have very fond memories of MSU and the Geography Department. It was in 2018 that Dr. Arbogast arranged for Bill Weir from CNN to speak on our campus and teach a class. Bill has been seen most recently interviewing victims of the Los Angeles area fires. A great guy. The photo here was taken during his visit to MSU at a president's reception at Cowles House.

I am still very proud of the Owen Gregg Climate Change Research Endowment. More timely than ever in this political age.



PHIL HATHAWAY | M.A. '70

It is inspiring to remain associated with the discipline. Admittedly, it has been relegated too often to answering trivia questions as when asked by returning "Stan" traveler friends to name three cities in Uzbekistan (only summoned two). In 2024, I have continued my commitment to our local river, the Shiawassee. The work is focused on advancing environmental progress and water trail improvements. It fell to me to design, fund and lead construction of two kayak launches at a YMCA youth day camp. There, water paddling and water ecology education gain favor with the youngsters' experiences on the vast acreage with two miles of river frontage. To continue, it is my task to correct voids in this 88-mile National Water Trail. One, in the implementation phase, is for a \$230,000 removal of an abandoned causeway—I am already a tired project manager. The imposing structure adversely affects paddle-throughs, safety, macroinvertebrate dynamics and running water fisheries, including the tasty walleye. These are rewarding times.

▲ In Manhattan, with my lifetime friend Becca Benner, a climate change administrator at the Nature Conservancy, and me wearing a T-shirt that rarely fails to roust another geographer wherever it is worn.

DAVE & BOBBIE KROMM | M.A. '64 | PH.D. '67

2024 was a year of graduations. Bobbie and I graduated into feeling we are old. Our granddaughter Grace was awarded her Ph.D. in neuroscience by Cambridge University in England. Our oldest granddaughter, Emma, and her husband, Jamie, graduated from Yale Law School, and one of our younger granddaughters, Ella, completed her B.A. at Wellesley College. Bobbie and I were able to attend Emma, Jamie, and Ella's ceremonies. Cambridge's ceremony was live-streamed, so we saw Grace be given her Ph.D. on our computer.

Bobbie and I explored places in Kansas northeast of us for our anniversary and birthday celebrations in September. A fun adventure in 2024 involved Bobbie and I taking a day trip to new places in northeast Kansas for our 64th wedding anniversary on September 17. We explored the Joe Tinker (of Tinker to Evers to Chance fame) park in his birthplace of Muscotah (population 167). One feature of the park is the largest baseball in Kansas. More distant travels were to a granddaughter's graduation from Wellesley College and the graduation of another granddaughter and her husband from Yale University Law School. We were not able to fly to England for the Ph.D. graduation from Cambridge University for another granddaughter. She is in Harvard Medical School now. One grandson is a junior at North Carolina State University, and another is a sophomore at Harvard. Our intention is to be able to attend both of their graduations.



▲ The largest baseball in Kansas.

THANK YOU

To all who contributed to the various Geography Department funds and scholarships. We are making continued efforts to increase our departmental contributions to enhance our programs and benefit students. Please consider donating to one of the funds listed below.

Please specify desired fund and make checks payable to Michigan State University.

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Geography Building
673 Auditorium Rd, Rm 116
East Lansing, MI 48824

You may make a credit card donation online at: geo.msu.edu/about/donate.html

E. James Potchen Awards in Geography for Graduate and Undergraduate Students

Established in 2008 by Harm de Blij to fund yearly cash awards for outstanding graduate and undergraduate students based on GPA, progress towards degrees, and other quality indicators such as fieldwork and research.

Geography at MSU Fund

Established in 2001 to promote the MSU Department of Geography, including related advertising, fundraising, travel, and similar expenses.

Geographic Field Experience Fund

Established in 2001 to fund student field experiences, including field trips, primary data collection, course-related field experience, transportation, and lodging expenses.

Geographic Literacy Fund

Established by Harm de Blij, this fund promotes the field of geography to students.

GTU/Geography Endowment Fund

Established in 1999 by Robert and Dorthy Thomas to fund geography-related student activities.

Harold A. “Duke” Winters Scholarship

To support graduate study in geography at MSU.

Ian Matley Memorial Fund

Established to bring guest speakers to campus to enrich the geographic education of students and faculty.

Jay R. Harman Undergraduate Scholarship in Geography

To support undergraduate study in geography at MSU.

Marjorie & Lawrence Sommers Geography Graduate Fellowship for International Research and Travel

A graduate fellowship to be awarded yearly for masters or Ph.D. students to support international research and travel.

Michael A. Graff Dissertation Completion Award

Established by Michael Graff to provide doctoral students with additional resources for travel, data collection, materials, supplies and equipment to complete research for dissertation projects.

Owen Gregg Endowment for Global Climate Change Research

Established in 2012 to support global climate change science research in the Department of Geography.

The de Blij Geography Scholars Endowment

Established in 2013 as a scholarship to be awarded to incoming freshmen who choose to major in geography.



Photo by Leo Baldiga. ▶

Spartan Geographer

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Geography Building
673 Auditorium Rd, Rm 116
East Lansing, MI 48824

GIVING INFORMATION

For more information on how to support students and programs at MSU Geography, Environment, and Spatial Sciences, please contact:

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Senior Director of Development,
College of Social Science
actripp@msu.edu



Department of Geography,
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OUR SCIENCE **TRANSFORMS THE HUMAN EXPERIENCE**
AND INSPIRES LEADERS