

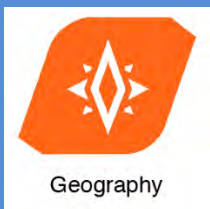


DEPARTMENT OF  
**GEOGRAPHY**

College of Arts and Sciences

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# Geography Newsletter

May 2025

## Fires & Floods

March and April 2025 brought fierce weather to Oklahoma. On March 14, wind-whipped wildfires tore through the state, burning over 400 homes and forcing thousands to flee—nearly 100 were lost near Stillwater alone. A few weeks later, April became the wettest month on record for the state, with Oklahoma City drenched by 12.55 inches of rain, Tulsa by 10.99, and Stillwater got more than twice its average. Floods, hail, and tornadoes followed. As the spring semester wrapped up, many were still picking up the pieces—but the outpouring of help and long-needed rain brought signs of hope.

## Important upcoming dates:

Fri, May 9th (4:30pm) Graduate Hooding at Gallagher-Iba Arena

Sat, May 10 – (9:00am) CAS Commencement at Gallagher-Iba Arena

Wed, May 14 – Final Grade postings due by noon

Mon, Jun 9 – Summer (8-week) Classes Begin

Wed, Aug 6 – Final Grade postings due by noon

Mon, Aug 11 – Annual Planning Conference (SU 460)

Mon, Aug 18 – Fall Semester Classes Begins

## **Congratulations to the Class of 2025!**

### **Bachelor of Arts, Geography**

Abby Morey

### **Bachelor of Science, Geography**

Sydney Shearer

### **Bachelor of Science, Geospatial Information Science**

Everett Bonine

### **Bachelor of Arts, Global Studies**

Annisa Clark

Lauren Jameson (**Honors**)

Manon Mowery

Suzuna Piccolo

### **Certificate in Geographic Information Systems**

Everett Bonine

Sydney Shearer

Tristian Lea Williams

### **Master of Science, Geography**

Emma (Riddle) Lokhande

Chloe Taylor

### **Master of Science, Environmental Science (Advisor Thomas Lavanchy)**

Great Igiekhumhe

Lauren McIntosh

Katie Yokum



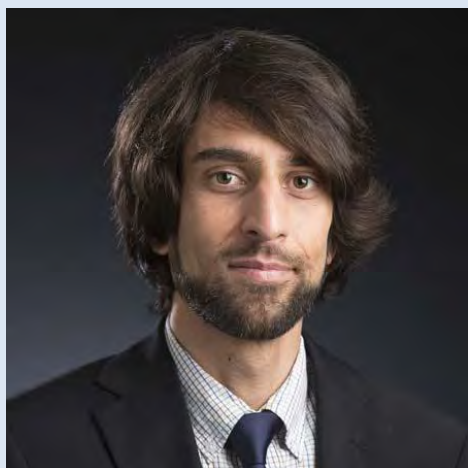
Left to right: Emma Riddle Lokhande, Katie Yokum, Lauren McIntosh, Dr. Lavanchy, Chloe Taylor, Great Igiekhumhe.

## Geography Ph.D. Candidates Honored



Geography Ph.D. candidates and their mentors were recognized at the **Graduate College's Doctoral Candidacy Celebration** on February 12 in the Student Union Ballroom. The event honored students from across the university who have advanced to candidacy. Pictured from left to right are Ehsan Foroutan, Dr. Tao Hu, Dr. Hamed Gholizadeh, Ny Aina Rakotoarivony, and Wenqi Liu. Congratulations to all PhD candidates who have completed their coursework, comprehensive exams, and have successfully defended their dissertation proposals!

## Dr. Gholizadeh Leading Large Federal Grant Project



Dr. Hamed Gholizadeh, Associate Professor, has secured a NASA research award totaling \$731,344. Leading the project as principal investigator, He will direct a three-year study, running from February 1, 2025, to January 31, 2028, which explores how grassland biodiversity responds to land management practices such as prescribed fire and livestock grazing.

The project, known as HI-GRASS (Holistic Investigation of Grassland Systems Across Scales), brings together an interdisciplinary team that includes Dr. Benedicte Bachelot from OSU's Department of Plant Biology, Ecology, and Evolution, and Drs. Nicholas McMillan, Ran Wang, and John Gamon from the University of Nebraska–Lincoln. The team is integrating hyperspectral remote sensing with approaches from microbial ecology, movement ecology, and landscape science to gain a deeper understanding of grassland systems. Research will be conducted at both the Tallgrass Prairie Preserve in Oklahoma and the Nebraska Sandhills. The project will provide hands-on research opportunities for OSU undergraduate and graduate students, offering experience with environmental data, remote sensing technology, and ecological fieldwork.

This project underscores the Department's commitment to impactful, interdisciplinary research and the training of future scientists. The Department commends Dr. Gholizadeh and the HI-GRASS team on this significant accomplishment. You may access the official University press release with the QR code at right or via this link: <http://bit.ly/3GQuoLq>





## K-12 Outreach

### Elementary Outreach

On March 5th, **Katelyn Cooke** again hit the road to represent OSU Geography at McCloud Intermediate School's Annual Career Day. Katelyn spoke with STEM students about careers in geography and hosted several rounds of Geo-Jeopardy! The students had fun and were excited to share their work!



### High School Outreach: Junior Day

On Saturday, April 26th, several geography faculty and graduate students welcomed hundreds of high schoolers and their families to the OSU Student Union for a recruiting event put on by the College of Arts & Sciences.



The event allows future students to learn about majors, minors, and certificates offered across the College. Our Department's table was popular! Thank you to **Yao Xue**, **Don Colley**, and **Erin Templeton** for giving a Saturday to help get the word out about Geography to dozens of families.



## GIS Day at the Capitol



On March 5, **Dr. Tao Hu** and graduate students **Ehsan Foroutan** and **Smriti Shrestha** represented the Department of Geography at the 31st Annual GIS Day at the Oklahoma State Capitol. Held on the Second Floor Rotunda, the event was organized by the State Geographic Information Council and brought together professionals, students, and government agencies to showcase the applications of geospatial technologies. OSU Geography's presence highlighted ongoing research and student engagement in GIS and spatial analysis.



## Pizza & Geospatial Connections



Left to right: Erica Rule, Merelin Dubon-Pena, William Duncan, Dr. Zhou, & Maelynn Nelson.

On March 7, the Department hosted “Pizza with Geospatial Students” in the new Geography Student Lounge—a lunchtime gathering aimed at building community among undergraduate GIS students. Ten students attended, along with faculty **Dr. Jon Comer**, **Michael Larson**, and **Dr. Yuting Zhou**.

The group shared experiences, asked questions, and discussed the possibility of launching a geospatial student club and organizing a GIS Day event on campus. Special thanks to **Barbara Goodnight** for coordinating the pizza and room arrangements. The event was well received!

## **Presentations at the 2025 Meeting of the American Association of Geographers in Detroit, March 24-28**

**Jonathan C. Comer** and **Ofuje B Amune**, "Assessing the spatial and spatiotemporal pattern of COVID-19 cases and deaths in Oklahoma," *Research Using Spatial Statistics and Processes*.

**Ehsan Foroutan**, **Tao Hu**, and Ziqi Li, "Revealing Key Factors of Heat-related Illnesses using Geospatial Explainable AI (GeoXAI) Model," *John Odland SAM Student Paper Competition II*.

Ehsan was second runner-up in the **John Odland Student Paper Award** by the Spatial Analysis and Modeling (SAM) Specialty Group. Odland was an Indiana University economic geographer (1970-2007) who studied migration, labor markets, and spatial modeling. He taught courses on quantitative modeling, population geography and GIS.



**Alyson Greiner**, "Tracking Ellen Churchill Semple through the Southern Appalachians," *History of Geography 2: Contexts and Temporalities*.

**Tao Hu**, Taiping Liu, Venkat Sai Divyacharan Jarugumalli, and **Ehsan Foroutan**, "'FAIR Principles in Workflows: An AI-Enhanced GIScience Workflow Management System (WfMS) for Reproducible and Replicable Studies.'" *Open Science in Geography I - Tools and Approaches*.

**Thomas LaVanchy**, "A hydro-centric pathway for sustainable tourism development," *Tourism in Transition*.

**Rebecca A. Sheehan** and **Kimberly Johnson Maier**, "The Ethics of Primitive Technologies: The Frontier Myth and Literary Tourism at the Ingalls Homestead in Desmet, South Dakota, USA," *Material Culture and Geography II*.



## Presentations at the 2025 Meeting of the American Association of Geographers in Detroit, cont.

**Hongbo Yu**, "GIS for Routing Decisions to Reduce Livestock Disease Exposure Risk," *Transportation Geographies*.

**Lixiaona Yu and Tao Hu**, "Understanding health-seeking mobility patterns" (poster) *Human Geography*.



(Left) Also presenting in the *Open Science in Geography I - Tools and Approaches* session was OSU Geography alumnus **Matt Haffner** (PhD, 2018) who is currently an Associate Professor at the University of Wisconsin–Eau Claire.

(Below) The **1985 AAG** was also in Detroit and well-attended by OSU geographers. Pictured from left are **Dick Hecock, Colin Hegarty, John Rooney, Steve Stadler, and George Carney**. Thank you, Mike Larson and Rory Hill for sending the 1985 photo.



## 2024-25 STUDENT AWARDS

The Department held its Annual Awards Ceremony in the Social Sciences and Humanities Auditorium on Tuesday April 22.



(Left) **Meagan Oages** was awarded the **Alyson L. Greiner Undergraduate Scholarship**. A Junior majoring in Global Studies with a minor in Korean, Meagan is one of OSU's first students to earn a Korean minor. Meagan plans to study abroad at Yonsei University in Seoul, where she will enhance her Korean language skills and gain valuable international experience.

(Right) The **Stephen W. Tweedie Travel Scholarship** was presented to self-styled "desert rat," **Katelyn Cooke** who plans to visit Joshua Tree National Park during Fall Break in 2025. Katelyn is currently in her second year of the PhD program in Geography. She plans to share her experiences with her Physical Geography students on her return.



## 2024-25 STUDENT AWARDS, cont.

The **Robert E. Norris Conference Travel Award** is made to graduate students to defray the costs of travel to present their research at professional conferences. Seven awards were made. Recipients included **Daniel Aderotoye, Blessing Ankrah, Sheyda Azinmoghaddam, Sadril Khan, Sylvia Mensah, Ny Aina Rakotoarivony, and Smriti Shrestha.**

Ph.D. student **Saiful Islam**, is the 2024-25 recipient of the **Robert E. Norris Memorial Scholarship**, awarded to the department's top first-year graduate student. Saiful holds degrees from SUST in Bangladesh and Lund University in Sweden. Since joining OSU in Fall 2024, he has made remarkable progress on his dissertation, focusing on modeling invasive plant species using geospatial technologies.



**Smriti Shrestha** is the 2024-25 recipient of the **Jerry Croft and Family Award for Geographic Education**. Smriti earned her bachelor's degree from Kathmandu University. Her passions are teaching and public service. She intends to build geography education in Nepal, including establishing a Geography Department at her alma mater.



## 2024-25 STUDENT AWARDS, cont.

The Department recognizes two awards for outstanding performance by our undergraduate majors.



(Left) Abby Morey is our **Outstanding Senior** for 2024-25. She is double-majoring in Political Science and Geography and has earned multiple minors. Abby held campus leadership roles and built professional experience as a Legal Assistant, and messenger and intern in the Oklahoma Legislature. She plans to pursue a career in law environmental law.

(Right) **Garner Devero** has received the **John F. Rooney, Jr. Outstanding Junior Scholarship**, named for the Regents Professor Emeritus and widely-recognized father of the geography of sport. A double major in Statistics and Geospatial Information Science, Garner balances academics, two jobs, and involvement in the OSU Climbing Club. He has a passion for GIS, UAVs, and outdoor adventure.



## 2024-25 STUDENT AWARDS, cont.



The **Susan Shaull Medal for Excellence in Teaching** is awarded to the top graduate teaching associate or assistant in Geography, honoring both teaching excellence and the dedication that defined Susan's life and service to the department. Ph.D. student **Wenqi Liu** is the 2024-25 recipient. Wenqi was selected for her outstanding work as a Teaching Assistant in GEOG 4203/5103 and her broader contributions to geospatial education. Wenqi's research focuses on remote sensing, geospatial technologies, and climate analysis, and she has already published seven peer-reviewed papers, including first-author articles in leading journals.

## Grants, Publications, and Fieldwork

### GRANTS AWARDED

Ph.D. students **M. Ny Aina Rakotoarivony** and **Saiful Islam** received the J.E. Weaver Competitive Grants Program Award from the Nebraska Nature Conservancy. They will be working with **Dr. Hamed Gholizadeh** on the HI-GRASS project.

### JOURNAL ARTICLES PUBLISHED

**Foroutan, E., Niazmardi, S., Hu, T.** (2025). Spatiotemporal Analysis of Heat-Related Emergency Department Visits and Hospitalizations in Florida (2005–2021): A Bayesian Change Point Detection Approach. *Sustainable Cities and Society*.

<https://doi.org/10.1016/j.scs.2025.106288>

**Rakotoarivony M. N., Gholizadeh, H., Hassani, K., Zhai, L., Rossi, C.,** (2025) “Mapping the Spatial Distribution of Species using Airborne and Spaceborne Imaging Spectroscopy: A Case Study of Invasive Plants”, *Remote Sensing of Environment*.

<https://doi.org/10.1016/j.rse.2024.114583>

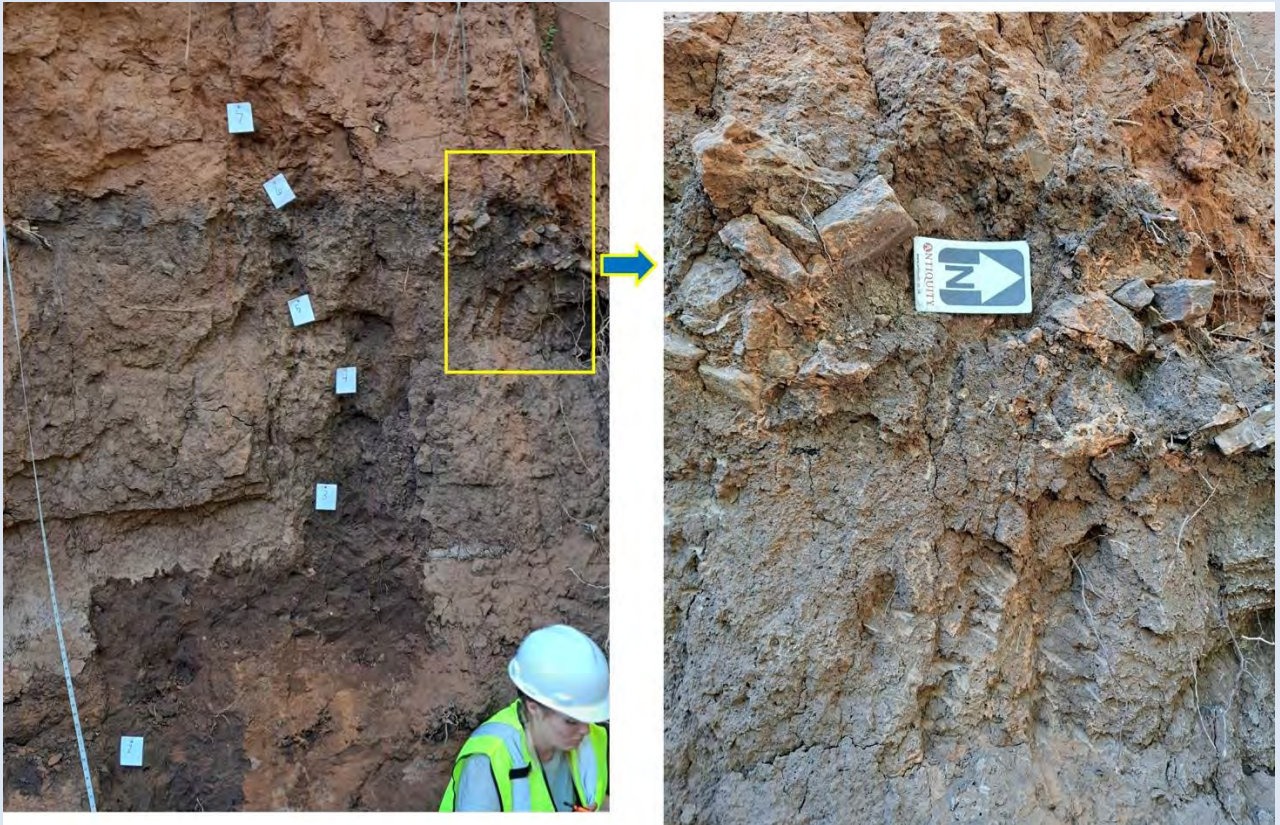
A successful UAV data collection day was had recently at OSU's McPherson Preserve. (from left) **Dr. Hamed Gholizadeh, Jean Wang, Saiful Islam, A.J. Burba, Ehsan Foroutan, M. Ny Aina Rakotoarivony,** and Jonathan Medellin.





## Grants, Publications, and Fieldwork, cont.

### Fire-Cracked Rock Feature Discovered at Boomer Creek



**Dr. Carlos Cordova** and Ph.D. advisee **Katelyn Cooke** made a geoarchaeological discovery while examining paleosols along Boomer Creek in south Stillwater. While cleaning a soil section for study, they uncovered the remains of what appears to be a prehistoric cooking pit known as a fire-cracked rock midden. These features are typically composed of heat-altered stones and charcoal, marking locations where Indigenous peoples repeatedly used fire-heated rocks for cooking or heating. Based on the development of the surrounding soil, Cordova estimates the feature is no older than 2,000 years, and likely less than 1,000 years old. Charcoal samples were collected from the pit with the goal of submitting them for radiocarbon dating, which would allow a more precise age and help place a top-end constraint on the age of the paleosol. A composite image of the feature has been shared with students in Dr. Cordova's Geoarchaeology course, and efforts are underway to continue the analysis—though, in true Kafkaesque fashion, few will be surprised if the midden also contains mammoth bones.

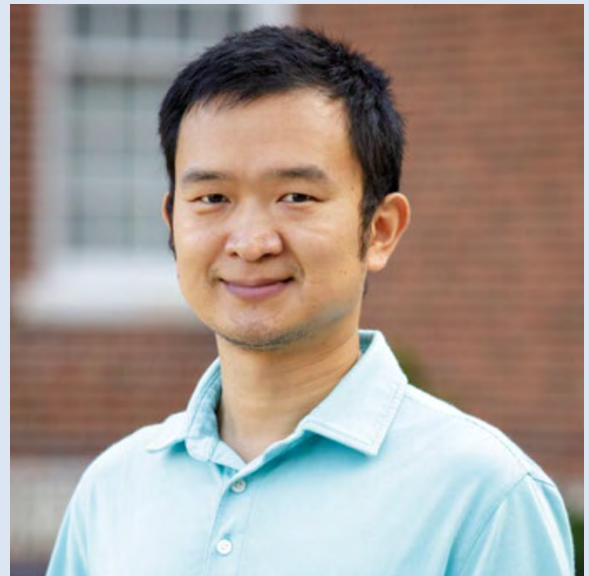
## Awards

The Department of Geography has been designated a 2025 OSU (Gold) Certified Healthy Department!



Ph.D. student **Adeyinka Olusanya** received the **IALE–North America Student Travel Award** to present his work on hydraulic fracturing impacts on groundwater storage in the Southern Great Plains. Only ten students nationwide are annually selected for this honor. Adeyinka is advised by Dr. Yuting Zhou. Congratulations, Adeyinka!

**Dr. Yuting Zhou** is the 2025 recipient of the **AmericaView Outstanding Service Award**, for his exceptional leadership and commitment to Earth observation education. Dr. Zhou's many contributions have strengthened AmericaView's success and visibility as it works to promote geospatial science across the United States. Congratulations, Dr. Zhou!





## Awards, cont.

### Mensah Gets Two Recent Awards



Master's student **Sylvia Mensah** has received a **2025 SWAAG Student Summer Field Award** for her proposal, "Assessing the Impact of Climate Variation and Hydrological Changes on Perennial Streams in Southeastern Oklahoma." She also took **First Place in the OSU Graduate College's Public Abstract Writing Competition**. Congratulations, Sylvia!

### Foroutan Awarded 2025 Graduate Student Holistic Science Prize

**Ehsan Foroutan**, Ph.D. candidate, has been awarded the **2025 Holistic Science Prize for Graduate Students** from the Department of Mathematics and the College of Arts and Sciences. He received the award from Dean Melinda Cro.



Ehsan's work combines geospatial big data, satellite imagery, smartphone mobility data, and machine learning to assess climate risk and heat vulnerability. His research, published in *Transactions in GIS* and *IJAEOG*, reflects the kind of cross-disciplinary scholarship the award seeks to recognize. He is the second Geography graduate student to receive this university-level honor. Congratulations, Ehsan!



## GTU Inductions and Social Gatherings

Gamma Theta Upsilon inducted eight new members (from left): **Chloe Taylor, Sheyda Azinmoghaddam, Farzana Afroz, Katelyn Cooke, Sylvia Mensah, Erin Templeton, Great Igiekhumhe, Holli Hendrick, Meagan Oages, Benjamin Biney.**



In late January, **Dr. Rory Hill** organized a chili and cornbread supper for all undergrad majors and minors to get to know each other. The event took place in what we are increasingly referring to as the Department Club.



Thursday of Finals Week allowed an evening for a final get-together at Stonecloud Brewing Company with **Dr. Saber Brasher** and her husband, **Erik Anderson**, before their departure to Colorado.



## In Memoriam: Regents Professor Emeritus John F. Rooney, Jr. (1939–2025)



The Department of Geography remembers Regents Professor Emeritus **John F. Rooney, Jr.**, who passed away on April 7, 2025. Dr. Rooney joined Oklahoma State University in 1969 as the founding head of the new Department of Geography. He led the department through a decade of growth, served again as head from 1992 to 1994, and later pursued a second career in golf course development.

A dynamic and imaginative cultural geographer, Dr. Rooney was a frequent collaborator on large and significant projects. He co-founded the Society for the North American Cultural Survey (SNACS), which produced the so-called *Scratch Atlas*, a behemoth of maps. He is best known for building the subfield of sports geography; he authored *A Geography of American Sport* (1974), and *The Recruiting Game: Toward a New System of Intercollegiate Sports* (1980). His later work on golf, developed with *Golf Digest*, reflected his talent for combining scholarship with real-world application.

He was a memorable teacher, known for his charisma, booming voice, and boisterous laugh, as well as an ability to recall his students' names and hometowns. He believed in the power of geography and brought enthusiasm to every lecture.

John and his wife Sandy were known for their hospitality. A recent photo at their home—featuring nearly every department head since 1969—captured the collegiality he helped build in the Department. Though retired for over 30 years, Dr. Rooney remained a loyal supporter and lasting influence. He will be deeply missed.