



DEPARTMENT OF  
**GEOGRAPHY**

College of Arts and Sciences

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Geography

# Geography Newsletter

November/December 2024

## FALL/HOLIDAY ISSUE

This installment of the Newsletter is a “holiday double issue,” as your editor is including some newsworthy and photo-heavy items that did not make it into the previous issue.

It has been a very busy semester, filled with activities of all types, including lots of work and some needed recreation, as you will see within.

### Important Dates:

Winter intersession (4 weeks)  
December 16, 2024 - January 10, 2025

University Holiday/Shutdown  
December 23, 2024 - January 1, 2025

Class work begins  
Monday, January 13

University Holiday  
Monday, January 20

## Recent Achievements of the Gholizadeh Lab



Dr. Hamed Gholizadeh

**Dr. Hamed Gholizadeh** has achieved remarkable success this year in securing three significant research grants this year. He is leading or co-leading several projects funded by the U.S. Geological Survey (USGS) and NASA.

One USGS-funded project focuses on optimizing invasive plant management in grasslands. Ph.D. student **Saiful Islam**, under Gholizadeh's mentorship, received a \$10,000 Delores and Jerry Etter Research Scholarship to contribute to this project.

Dr. Gholizadeh is also a Co-PI on a NASA-funded project that aims to develop a near real-time wildfire risk map model informed by powerline fault data. This effort, supported by a grant of over \$1 million, with \$206k to the Gholizadeh Lab, will improve wildfire prediction and prevention via remote sensing.

Another USGS grant focuses on integrating remote sensing and environmental DNA (eDNA) to manage invasive aquatic plants, which brings further recognition to the Gholizadeh Lab's innovative approaches to environmental monitoring.



Saiful Islam

Dr. Gholizadeh's Ph.D. student, **Ny Aina Rakotoarivony**, recently published a paper in *GIScience and Remote Sensing* titled "Using imaging spectroscopy to assess the impact of invasive plants on aboveground and belowground characteristics."

The lab's publication record continues to grow, with other papers addressing topics such as structural diversity's role in forest productivity, estimating plant  $\beta$ -diversity with imaging spectroscopy, and developing tools for ensemble analysis of plant diversity using remote sensing proxies.



Ny Aina Rakotoarivony

By securing competitive funding, publishing in high-impact journals, and mentoring students like Islam and Rakotoarivony, the Gholizadeh Lab exemplifies the Department of Geography's commitment to addressing global ecological challenges through innovative, science-driven solutions.

## Lavanchy Recognized as Outstanding Mentor

Dr. Thomas Lavanchy has received the 2024 College of Arts & Sciences Faculty Award for Outstanding Mentoring. This college-wide award recognizes exceptional effort toward guiding undergraduate and graduate students in their academic, professional, and personal development.

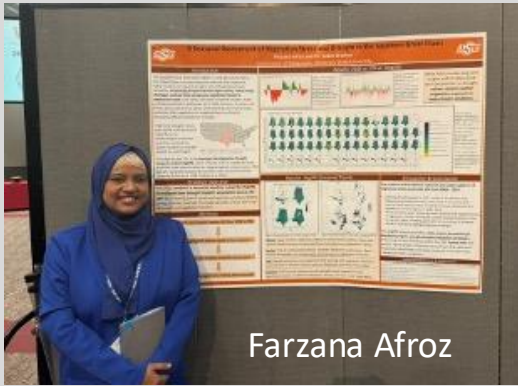
Dr. Lavanchy is known for his ability to engage students in meaningful research and teaching opportunities, supporting students from diverse and underrepresented backgrounds, and providing guidance that helps them achieve their goals. His mentorship extends beyond academics, assisting students in navigating challenges, building confidence, and preparing for successful careers through internships, research, and networking. This award is a testament to Dr. Lavanchy's commitment to fostering student growth and success.

Congratulations, Dr. Lavanchy, on this well-deserved achievement!



Dr. Thomas Lavanchy

## Student Posters at the SWAAG Meeting in San Marcos



Farzana Afroz

The 2024 SWAAG meeting at Texas State University, San Marcos, on October 6-8, was well-attended by Oklahoma State geography students and faculty. Special congratulations to **Farzana Afroz**, who received 3rd Place in the graduate student poster competition!

OSU Student Posters presented:

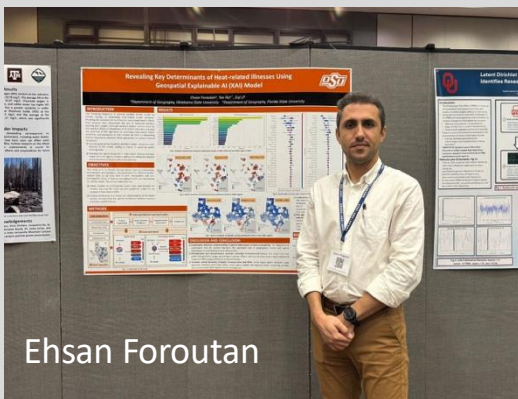
Farzana Afroz, "A Seasonal Assessment of Vegetation Stress and Drought in the Southern Great Plains."

Benjamin Yankah Biney, "Assessing Spatial Accessibility to Maternal Healthcare Services in Cape Coast, Ghana."



Great Igiekhumhe

Katelyn Cooke, "Geomorphic controls in the distribution of buried artifacts and cultural deposits at Piñon Canyon Maneuver Site, southeastern Colorado."



Ehsan Foroutan

Ehsan Foroutan, "Revealing Key Determinants of Heat-related Illnesses Using Geospatial Explainable AI (XAI) Model."

Omokhudu Great Igiekhumhe, "Rain-on-snow events and linkages to streamflow in New York State."



Adeyinka Olusanya, "Balancing Water Resources: The Impact of Hydraulic Fracking on Food-Energy-Water Nexus in the Southern Great Plains, USA."

## **Faculty Papers at the SWAAG Meeting in San Marcos**

Saber Brasher, “Rural Confluence: Communities and Academic Partners Uniting to Drive Discovery and Build Capacity for Climate Resilience.” (Session Organizer, Climate I)

Don Colley, “Safety, Privacy and Public Perception in Running Culture.”

Jonathan Comer, “Regional Patterns of Health Factors and Health Outcomes in the U.S.” (Session Organizer, Health & Medical Geography II)

Alyson Greiner, “Heritage in the City: What the Land Run Monument and the First Americans Museum Tell Us about Oklahoma City.”

Rory Hill, “Terroir's Global Adventure.”

## **Oklahoma State Geographers Compete in GeoBowl**

Oklahoma State’s “Orange Crush” (Katelyn Cooke, Ehsan Foroutan, and Farzana Afroz — along with one Texas State student) participated in the competition at the SWAAG 2024 GeoBowl.

The team faced off against full six-player squads. Orange Crush held second place until the final round, when they fell to third place. Cooke earned second-place overall as an individual competitor.

Orange Crush is currently training for the 2025 competition in Las Cruces. Congratulations, team!

## Fall Physical Geography Field Trip

In early October, Physical Geography students toured northwest Oklahoma, stopping at a wind farm, the Gloss Mountains, the Cimarron River, the Little Sahara Dune Field, and Alabaster Caverns.



(Above) Students calculating the megawatt output per square mile in a 15-mph wind.



(Left) Students file up a short but steep trail up a mesa at Gloss Mountains State Park (Major Co.)



Collared lizard or “mountain boomer” (*Crotaphytus collaris*), the state reptile of Oklahoma, basking on a gypsum outcrop, Gloss Mountains State Park.



Village Travel's Pistol Pete Express at Gloss Mountains State Park.

## Fall Physical Geography Field Trip, cont.



(Left) Students examining the characteristics of tamarisk or “salt cedar” (*Tamarix ramosissima*), a water-depleting riparian woody invasive species, within the floodplain of the Cimarron River.



(Right) Students hiking along the crest of a stabilized dune at Little Sahara State Park outside Waynoka (Woods Co.).



(Left) Deep below the surface of Alabaster Caverns State Park is the high point of the all-day field trip. Accompanying students are Visiting Assistant Professor Brittany Wheeler and PhD student Katelyn Cooke, GEOG 1114 instructor.

## Undergraduate Recruitment

It seems that many Geographers are born with an innate curiosity about the world, though they often need a little nudge to recognize their calling. To bridge this gap, raising awareness among undergraduates has become a key focus of the Department's faculty, staff, and students, who this Fall attended several events to introduce Geography to new freshmen and high school students and show off the opportunities the discipline has to offer.



Recruiting events in the Student Union Ballroom (above) and Gallagher-Iba Arena, where Dr. Yuting Zhou and Jean Wang (below) wowed crowds with geospatial tools.





## Geography Leads CAS's K12 Outreach Effort: The Oklahoma Science Olympiad

In November, as part of its role in K12 Outreach, Geography faculty helped with the Invitational round of the 2024 Oklahoma Science Olympiad, held for the first time at OSU. Emphasizing STEM for middle and high school students, the event drew over 250 middle and high school students from across the region.



Faculty members Brad Bays, Jon Comer, Tao Hu, and Thomas Lavanchy gave their Saturday to manage the map interpretation and atmospheric science competitions.

## Ten-Pin Bowling Progressing

The Geography 10-Pin Bowling Club rolls on at Frontier Lanes. The Faculty team has bolstered their powerhouse lineup with the addition of a Gold Star recruit, Visiting Assistant Professor Brittany Lauren Wheeler. In a dazzling debut, Wheeler (BRI) effortlessly outclassed your editor (BAB) and Dr. Rory Anthony Daniel Hill (RAD) during an early October scrimmage.



	1	2	3	4	5	6	7	8	9	10	Total	
BRI	43	X	X	7	5	2	1	2	X	7	9	137
BAB	4	1	4	6	X	7	2	5	4	8	3	116
RAD	6	X	7	6	7	1	X	8	8	1	X	126



## Geography Awareness Week



The Department began **Geography Awareness Week** on November 18th with a colloquium by this year's ConocoPhillips Career Spotlight Speaker, Dr. Andrew Schiller

### ***Geographic Innovation and Entrepreneurship in Action: Predicting Hail Damage, Real Estate Values, and Crime Risk*** was the title of his talk.

Schiller, who earned a PhD in Geography from Clark University, is founder of Location, Inc., a Massachusetts-based geographic data analytics firm which was acquired by CoreLogic in 2020.

Funding for the Career Spotlight Speaker series is provided by ConocoPhillips.



Dr. Andrew Schiller

## Alumni Sightings: SCAUG 2024 Conference



Several members and alumni of the Department attended the Oklahoma South Central Arc Users Group (SCAUG) 2024 Conference. From left to right: David Murray, Lauren Wood, Michael Larson, Greg Hackman, Shellie Willoughby, Everett Bonine, and Jacob Shepherd.

## Alumni Sightings: Prof. William Price



On Sunday, December 1st, the editor encountered **Dr. William Price**, Associate Professor of Geography in the Department of Geography and Meteorology at Ball State University in Muncie, Indiana, while on a morning walk at Boomer Lake. A Stillwater native, William holds two Geography degrees from Oklahoma State University (BS, 2005; MS, 2008).

William's MS thesis, "The Representation of Indigenous Peoples in the Destination Images of Australia and New Zealand: A Geographical Analysis of Tourism Websites," was completed under the guidance of Professor Alyson Greiner. William went on to earn his PhD in Geography at the University of Kansas in 2014, where he researched Aboriginal heritage in Tasmania. His current work focuses on the heritage tourism of industrial and mining landscapes. William was visiting his parents in Stillwater for the holiday weekend.

# Party Pics, Part One



## August Beginning-of-the-Year Get-Together by the Pool

Because we devoted space to our new students and faculty, the last Newsletter omitted photos of the August pool party, so here are a few.



# Happy Holidays from the OSU Department of Geography!



**December End-of-the-Year Potluck**  
December 6, 2024.