

In this issue

Message from the chair	2
The department's amazing GEO ambassadors.....	3
Current faculty and staff.....	4
Faculty spotlight.....	6
Congratulations, graduates.....	7
Faculty awards and recognition.....	7
Emeritus faculty update: Robert "Skip" Nelson.....	9
2024 Million Dollar Club inductees announced.....	9
Summer bridge program for first-year Science IS-U Scholars.....	9
Moore, Lanning recognized as Alumni Day honorees.....	11
Alumni receives award.....	11
Celebrating 50 issues of Glacial Deposits.....	12
Updates from alumni.....	14
2024-25 Jahns Lecture.....	16
Douglas Clay Ridgley Lecture.....	16
McLean County Museum of History field trips.....	17
SustainableSTATE Club: Empowering through action.....	17
Awards and scholarships.....	18
Investigation of Mantle xenoliths from Morocco facilitated by FIREbird Grant.....	18
FIREbird Grant research.....	18
Environmental systems science and sustainability student receives Outstanding Student Award from Illinois GIS Association.....	19
Summer research experience in Iceland.....	19
Birds Give Back for hydrogeology research.....	20
Internship experiences.....	21
Our newest Redbirds: Transfer students' passion for environmental restoration fuel charge toward change.....	22
2025 donors.....	23

Message from the chair

As time passes quickly, I am reminded of the enduring legacy of *Glacial Deposits*. This issue marks the 50th volume, with the first published in 1972-73. That inaugural edition reintroduced the department to alumni of the geography program and shared updates on graduates from 1962-72. In that first volume, Editor John Montgomery wrote that the purpose of *Glacial Deposits* was "...to maintain a permanent link with the geography alumni, and a permanent link with us."



Fifty volumes later, the department has grown to include programs in geology, environmental systems science and sustainability, and hydrogeology, yet our mission remains the same: to sustain that "link" and keep alumni informed and connected. Over the years, many editors have contributed to the longevity of *Glacial Deposits*, and I thank them all for their hard work and dedication.

Our programs now serve over 275 major students and thousands of others in general education courses. Last summer, more than 50 students completed internships. This volume features stories from students interning with the Metropolitan Water Reclamation District of Greater Chicago, the Kansas Geological Survey, and the University of Illinois Urbana-Champaign's Allerton Park and Retreat Center.

Students continue to earn awards and grants. Dillon Schmidt, an environmental systems science and sustainability major, received the Outstanding Student Award from the Illinois Geographic Information Systems Association. Several students earned FIREbird grants from the Office of Student Research to support their projects. At Geological Society of America Connects 2025, Maggie Pozzo won Best Student Paper from the Society for Sedimentary Geology.

Our faculty had a productive 2025. In the fall, the department welcomed Dr. Yiming Guo, an oceanographer and climate scientist, to campus. We are happy and excited to have Dr. Guo in the department and we look forward to the expertise he brings to our programs. Dr. Matt Himley and Dr. Dave Malone returned from productive sabbaticals. In fall 2025, Dr. James Day and Dr. R.J. Rowley were on sabbatical. Dr. Alec Foster was recognized with the College of Arts and Sciences Outstanding Service Award. Dr. Daniel Kpienbaareh was recognized with a 2024-25 Research Initiative Award. Dr. Melissa Heil was recognized as one of the 2024-25 Teaching Initiative Award winners. Dr. Amy Bloom was recognized with the Outstanding University Teaching Award for non-tenure track. Mr. Paul Meister received an Outstanding College Staff Award.

Fundraising remains vital to our success. In 2024-25, the department received over \$65,000 from alumni and friends during the Birds Give Back campaign. These gifts, along with endowed funds, supported course field trips, student research, and student travel to professional conferences. Additionally, we awarded over \$67,000 in scholarships to students. Your generosity enables us to fund scholarships, research opportunities, professional development, and field experiences—including study abroad courses. Thank you to everyone who contributes time, expertise, and resources to support our programs.

As a nod to earlier volumes, we reached out on social media to hear from alumni, and responses are included in this issue. We hope to continue this tradition. Please drop us a note and let us know where you are and what you're doing! You can email us at geo@IllinoisState.edu.

Thank you for reading the 2025 edition of *Glacial Deposits*. We deeply appreciate your continued engagement and support. Our students, faculty, and alumni remain at the heart of everything we do, and we look forward to sharing more accomplishments with you in the coming years. Stay connected with us through departmental events, outreach activities, and future newsletters, and if you return to campus, please stop by the department. We would love to show you our facilities and reconnect.

Regards,

Dr. Eric Peterson

The department's amazing GEO ambassadors

Over the past year, the GEO Ambassadors have been working in and around Illinois State University and the Normal community to support students on their educational journey and spread knowledge about Geography, Geology, and the Environment.

One of the most important jobs they have is actively participating at the University open houses and open department visits from potential and new students. Talking with parents and students about our majors and giving them a tour of our department are crucial for major numbers and retention.

As part of their efforts to support students within the department, GEO Ambassadors have hosted many events with the

focus of building community and encouraging self-care. Events included coffee chats hosted at Fusion Brew, game nights, department ice skating, geography vs. geology bowling tournaments, and tote bag painting on Earth Day.

Ambassadors also create fundraising events to support the campus community. These events included a fall bake sale, a spring mineral sale, and delivering candygrams during Valentine's Day.

Outreach for the Normal community and working with future students is a main priority for GEO Ambassadors. This year they hosted several open house events for prospective high school students and even

invited students from Chiddix Junior High School to participate in geology themed learning activities. Ambassadors also participated in Science Palooza at Prairieland Elementary School.

The GEO Ambassadors have had an incredible year of connection, outreach, and fun! From supporting fellow students and hosting creative events to inspiring future geoscientists in the community, their efforts have brought energy and enthusiasm to everything they do. As they continue to grow, the ambassadors look forward to finding new ways to share their love for Geography, Geology, and the Environment with the Illinois State and Normal community and beyond.

The 2025-26 Geo Ambassadors



Students attending a department ice skating event



Teaching high school students about geology



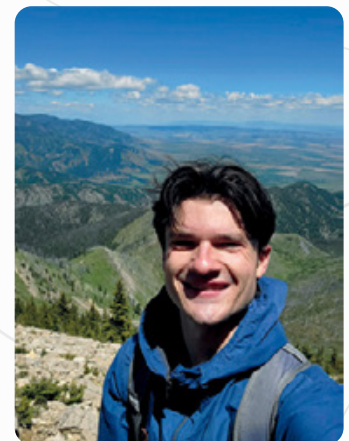
Students painting tote bags on Earth Day



American Rosales, environmental systems science and sustainability



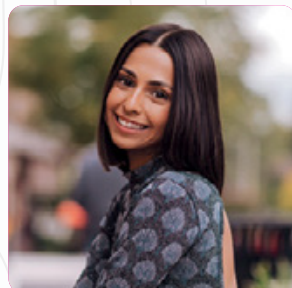
Grace Haack, geography



Preston Kietzman, geology



Clara Graham, earth and space science education



Breana Aguirre, geography education

CURRENT *faculty*



Dr. Tenley Banik
Associate Professor of
Geology; Petrology,
Volcanology,
Geochemistry



Adam Bauer
Instructional Assistant
Professor of Geography



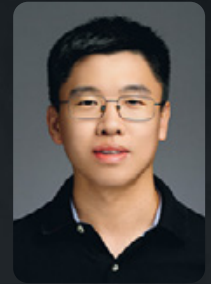
Dr. Amy Bloom
Instructional
Assistant Professor of
Geography; IGA
Co-Coordinator



Dr. James Day
Professor of Geology;
Paleontology,
Paleoecology,
Paleogeography



Dr. Alec Foster
Associate Professor
of Geography; Urban
Environmental Change,
Urban Sustainability,
Environmental Justice



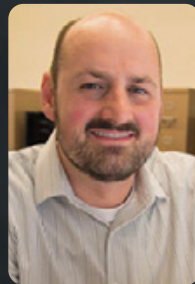
Dr. Yiming Guo
Assistant Professor of
Environmental Science;
Lake Water Dynamics,
Oceanography,
Climate Variability,
Carbon Capture and
Storage, and Numerical
Modeling



Dr. Melissa Heil
Assistant Professor of
Geography; Human
Geography, Urban
Geography, Urban
Planning



Dr. Matt Himley
Professor of
Geography; Nature-
Society, Political
Ecology, Latin America



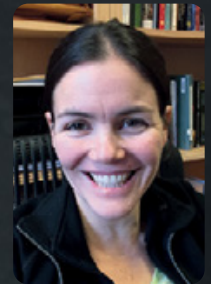
Dr. John Kostelnick
Professor of
Geography, Director,
Stevenson Center
for Community
and Economic
Development,
GEOMAP Director,
IGA Coordinator;
Cartography &
GIScience



Dr. Daniel Kpienbaareh
Assistant Professor
of Geography; GIS/
Remote Sensing
Applications, Natural
Resource Management,
Sustainable Agriculture,
Sub-Saharan Africa



Dr. David Malone
Distinguished Professor
of Geography; Structure,
Stratigraphy, 3-D
Mapping



Dr. Reecia Orzeck
Associate Professor of
Geography; Political
Economy, Historical and
Social Geography,
Middle East



Dr. Eric Peterson
University Professor
of Geology and
Department Chair;
Hydrogeology, Karst
Hydrology



Dr. RJ Rowley
Professor of
Geography; Sense
of Place, Cultural
Geography, Internship
Coordinator



**Dr. Wondwosen
Seyoum**
Associate Professor
of Geology;
Hydrogeology, Remote
Sensing, Hydrologic
Modeling



Dr. Aondover Tarhule
Professor of Geography,
University President



Dr. Jonathan Thayn
Professor of
Geography; Landscape
Ecosystem Function
Modeling, Remote
Sensing, Latin America



Dr. Lisa Tranel
Associate Professor of
Geology; Earth Surface
Processes; Tectonics
and GIS Applications

CURRENT *staff*



Karen Dunton
Administrative Aide



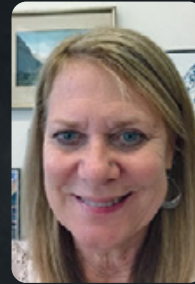
Barbara Fiest
Civil Service Extra Help



Paul Meister
Coordinator of
Academic Services
in Geology, GEO 102
Instructor

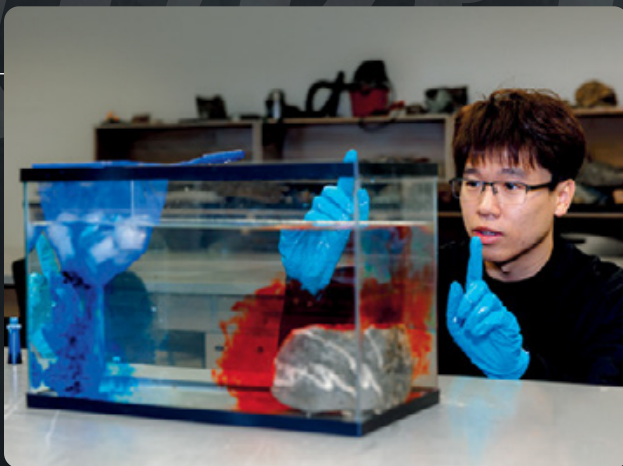


Laura Roethle
Accounting Officer



Jill Thomas
Geography Advisor,
Environmental
System Science and
Sustainability Advisor,
Teacher Education
Specialist, Geography
Lecturer

Welcome to the department!



Dr. Yiming Guo joined Illinois State University's Department of Geography, Geology, and the Environment in 2025. He is an oceanographer and climate scientist whose work looks at how the ocean and atmosphere work together to shape our planet's climate.

Guo grew up near the coast in China and became fascinated by the movement of waves and currents. He earned his bachelor's degree in marine science from the Ocean University of China, where he studied how waves move beneath the surface of the sea. He then came to the United States to pursue his Ph.D. at North Carolina State University. His doctoral research explored how ocean currents at different scales transport heat around the globe and how this process both influences and responds to climate change. After completing his doctoral degree, Guo held research positions at Yale

University and the Woods Hole Oceanographic Institution, where he expanded his focus to include how the ocean stores and releases carbon, a key factor in climate change. His research has reached wide audiences in the scientific community, with publications in journals such as *Nature Communications: Earth & Environment*, *Geophysical Research Letters*, and the *Journal of Geophysical Research*.

At Illinois State, Guo teaches classes such as Earth's Dynamic Weather and Climate and Global Environmental Change. He enjoys helping students connect what they see outside—like storms, changing seasons, or unusual weather—to the larger patterns of the atmosphere and ocean. He also mentors students on research projects, including studies of extreme events over lakes, how lakes in Illinois may respond to climate change, and how coastal seas can be better understood and predicted in the context of long-term climate change.

Beyond the classroom, Guo takes part in outreach events ranging from public school science fairs to community science days, where he shares the excitement of ocean and climate science with wider audiences. He has also published outreach-focused articles, including one in *Frontiers for Young Minds* written for children and families. Through his teaching, research, and outreach, he is eager to build connections with students, colleagues, alumni, and friends of the department. Looking ahead, he is excited to continue his work at Illinois State and to contribute to conversations about one of the greatest challenges of our time: understanding and responding to global climate change.

FACULTY SPOTLIGHT



Dr. Matt Himley visits the Atacama Desert in northern Chile in July 2025.



Dr. Matt Himley and colleagues visit a site in the Atacama Desert in northern Chile in July 2025. (Photo/Manuel Méndez)

DR. MATT HIMLEY

Dr. Matt Himley, professor of geography, has long been fascinated with Andean environments and how people interact with and shape them. He holds a master's degree in geography from Syracuse University, and for his thesis research studied the history of conservation initiatives in an Indigenous community in highland Ecuador. For his Ph.D. in geography, also from Syracuse, he turned his attention to mining in Peru, focusing his research on how a large-scale gold mine transformed livelihood and resource-use practices in communities near it, as well as how these communities mobilized to influence how mining took place and to claim a greater share of its benefits. Since joining the Illinois State faculty in 2010, Himley has continued to research the socio-environmental dimensions of mining in Peru, including by developing research on the historical relations among science, resources, and territory in the country.

In the fall of 2024, these interests led Himley to participate in the formation of a working group of scholars from home institutions in Chile, Colombia, the United Kingdom, and the United States with academic interests in how people and governments in the Andes have engaged with the material and symbolic legacies of mining across time. For this, Himley and his colleagues were awarded a Ford-LASA Special Projects grant from the Latin American Studies Association (LASA). Over the past year, the group has been working on a special section of the journal *Latin American Research Review*, which will include eight individual papers that collectively report on research from Chile, Colombia, and Peru. The group also used Ford-LASA funding to meet in Chile in late June and early July of 2025. In addition to participating in a seminar with local researchers in Santiago, Himley and the group travelled for four days across the Atacama Desert in northern Chile, visiting historical and contemporary mining sites including abandoned nitrate operations, large-scale copper mines, and a lithium mine. This trip was an invaluable opportunity for working group members to share ideas about the interactions of historical and contemporary processes in mining regions, laying the groundwork for future collaborations. Himley is



Dr. Matt Himley and colleagues tour a lithium mine on the Atacama Salt Flat in northern Chile in July 2025. (Photo/Daniela Mosquera-Camacho)

excited to report on this and other scholarly work when he gives his College of Arts and Sciences distinguished lecture in March of 2026. In the meantime, he has already integrated information learned on this trip into his classes.

At Illinois State, Himley teaches a variety of geography classes in the areas of human geography, human-environment geography, and the geography of Latin America. Across these classes, Himley aims to cultivate in students a capacity to think both critically and geographically about some of the more complex issues facing society. Often, this means introducing concepts that geographers have developed to understand the world and then prompting students to put these to the test by applying them to real-world cases. Motivating this approach to teaching is Himley's belief that studying geography is more than an academic pursuit, but a way to make sense of the world with the goal of making it a better place.

Congratulations, GRADUATES!

The following students graduated in spring, summer, and fall 2025.

Earth Space Science Teacher Education

Alejandra Barranca (fall '25)
Hailey Kuhn (summer '25)
Emily Laureano (spring '25)
Piper Thibeault (fall '25)

Environmental Systems Science and Sustainability

Shannon Ahern (spring '25)
Mekaila Aupiu (fall '25)
Caity Christopher (spring '25)
Thomas Diveley (spring '25)
Abbi Espinosa (fall '25)
Aidan Hanlon (spring '25)
Cade Ho (summer '25)
Lauren McIntire (spring '25)
Dean Phillips (summer '25)
Katie Pikora (summer '25)
Bre Race (spring '25)
Jomareun Richardson (fall '25)
Anna Shafer (spring '25)
Gabbie Smith (spring '25)
Erin Vachlin (spring '25)

Geography

Julia Bell (spring '25)
Ashlyn Bristle (spring '25)
Jarrett Cox (summer '25)
Tommy Gilmartin (summer '25)
Kyle Gorisek (fall '25)
Graham Gunn (fall '25)
Samantha Kelly (summer '25)
Kyler Kradle (spring '25)
Sean Meyer (summer '25)
Alec Mudra (spring '25)
Jaylon Newsom (spring '25)
Marisol Nunez (spring '25)
Viviana Ramos (summer '25)
Will Short (summer '25)
Laine Sullivan (spring '25)
Drew Wilson (spring '25)

Geography Teacher Education

Jack Calomino (spring '25)
Nathan Desmet (spring '25)
Ethan Klein (spring '25)
Jack Lee (spring '25)
Thomas Mau (fall '25)

Nolan Pemstein (fall '25)
Sarah Yoder (fall '25)

Geology

Lucy Bruckner (fall '25)
Boston Daker (fall '25)
Lauren Driggs (spring '25)
Devin Durica (fall '25)
Grace Eyrich (spring '25)
Ruby Garey (spring '25)
Alaina Glover (spring '25)
Cameron Gould (summer '25)
Tyler Hochstatter (spring '25)
Carly Johnson (spring '25)
Kage Line (spring '25)
Gabriella Montano (fall '25)
Lucas Wittkamp (spring '25)

Hydrogeology

Joseph Awuku (summer '25)
Daniel Chukwudi (summer '25)
Kennedy Cull (spring '25)
Franklin Ijigade (summer '25)
Ryan Krakowiak (spring '25)
Christabel Obi (summer '25)
Zainab Onozasi Suleiman (summer '25)

Faculty awards and recognition

Administrative/Professional Distinguished Service Awards presented at The Founding 2025

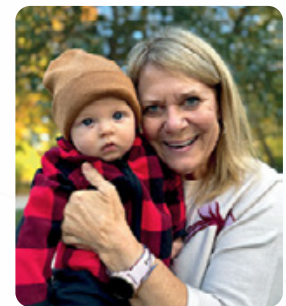
The A/P Distinguished Service Award acknowledges outstanding contributions by A/P staff. It is the highest non-faculty award presented to A/P staff members by the University.

JILL FREUND THOMAS

Department of Geography, Geology, and the Environment

Jill Freund Thomas '82 began her career in geography as a staff cartographer, making maps and graphics for faculty on campus and teaching the Introduction to Cartography course. Since 1996, she has taught a variety of classes for Learning in Communities and Teaching and Learning, as well as major classes in remote sensing, world geography, and national parks. Currently, she is the advisor for both the geography and the environmental system science and sustainability majors, and for several minors. She is coordinator of the social science geography education program and teaches two

methods and one career prep course each year. Her passions are education and good advising for students across campus. Regarding her passions, she tries to stay current and active by being a committee junkie. She is on the Center for Teacher Education (CTE) executive council and chairperson of the CTE Vision committee, the Academic Advising Council (AAC) Professional Development, and chair of AAC Teacher Education committees. She is also currently on the Advisory Best Practice Task Force. She has been the editor of the Illinois Geographical Society journal, *Illinois Geographer*, since 2011, and is a member of the Illinois Geographic Alliance. Outside of work, she was a foster parent for over 10 years and adopted three children and continues to work with kids-in-need programs.



Jill enjoys time with the newest addition to her family.

2024-25 College of Arts and Sciences award winners

Outstanding College Service Award

DR. ALEC FOSTER

Department of Geography, Geology, and the Environment

Dr. Alec Foster is a broadly trained human-environment geographer. His research investigates the social impacts of urban environmental change, examining urban greening from environmental justice and political ecology perspectives and asking who wins and who loses



when cities implement sustainability plans, policies, and projects. Foster teaches courses across the geography and environmental systems science and sustainability majors, including Human Geography, Maps and Geographic Reasoning, Environmental Justice, and Sustainable Cities.

Foster's service roles include serving as faculty advisor for several student clubs, as a member of numerous committees in the College of Arts

and Sciences and Department of Geography, Geology, and the Environment, and reviewing many journal articles and book submissions over the years. Foster holds a Ph.D. in geography and urban studies from Temple University, an M.A. in geography from the University of South Florida, and a B.A. in environmental studies/economics from New College of Florida.

2024-25 University award winners Research Initiative Award

DR. DANIEL KPIENBAAREH

Department of Geography, Geology, and the Environment

Dr. Daniel Kpienbaareh is an assistant professor of geography in the Department of Geography, Geology, and the Environment. He is originally from Jirapa Duori in the upper-west region of Ghana. He holds a bachelor's degree in geography and rural development (minoring in economics) from the Kwame Nkrumah University of Science and Technology, Ghana (2011); an M.S. in climate change science and policy from the University of Sussex, United Kingdom (2013); a M.S. in GIS/remote sensing and cartography from the University of Akron, Ohio (2017); and a Ph.D. in geography and environment from the University of Western Ontario, Canada (2021). He currently teaches Introduction to GIS, Earth's Dynamic Weather, Climate Change, Agriculture and Sustainable Futures, and Introduction to Environmental Systems. Kpienbaareh is an interdisciplinary human-environment researcher interested in applying geospatial techniques to explore the impacts of human-environment interactions on socio-ecological systems and design locally relevant policy options for addressing environmental challenges. Research themes include natural resource management, agroecology, food security, and environmental health. His research primarily focuses on smallholder farmers in sub-Saharan Africa (Ghana, Malawi, and Rwanda).



Outstanding University Teaching Award, non-tenure track

DR. AMY BLOOM

Department of Geography, Geology, and the Environment

A native of Illinois, Dr. Amy M. Bloom earned her bachelor's degree in geology from Augustana College followed by her master's and Ph.D. from the department of geography at the University of Utah



where her research focused on the reconstruction of past climate and environmental conditions in California using sedimentological, chemical, and biological indicators from lake sediments. Bloom began her teaching career at Illinois State University in 2004 and is currently an instructional assistant professor in the Department of Geography, Geology, and the Environment.

Over the last two decades she has

taught a wide range of courses, including, most recently, large general education courses on weather, natural disasters, and world geography. In addition to teaching face-to-face courses, she has been teaching online regularly since 2014. Bloom is also the co-coordinator for the Illinois Geographic Alliance, LLC (IGA) which is housed at Illinois State University and seeks to promote and enhance geographic knowledge in the schools and among the general populace of Illinois. In this role since 2015, she develops, facilitates, and supports programs, events, and professional development opportunities, including the annual Geography Education in the 21st Century Conference and summer workshops for pre-service and in-service K-12 educators.

University Teaching Initiative Award

DR. MELISSA HEIL

Department of Geography, Geology, and the Environment

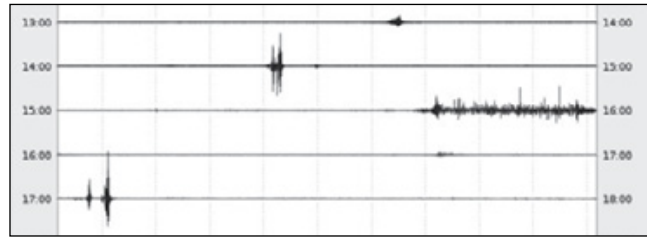
Dr. Melissa Heil is an assistant professor in the Department of Geography, Geology, and the Environment. She earned her B.A. in organizational studies from the University of Michigan, and her M.A. and Ph.D. in geography from the University of Illinois. Since joining Illinois State in 2020, Heil has instructed courses including Human Geography, Urban Geography, Urban Planning, and Social and Cultural Geography. Heil's teaching style combines rigorous academic inquiry with real-world application, preparing her students to address complex challenges in urban environments.



Emeritus faculty update: Robert “Skip” Nelson

In 2025, Associate Professor Emeritus of Geology Robert “Skip” Nelson continued as the local contact for EarthScope Backbone Station HDIL, a permanent seismic station sponsored by the National Science Foundation (NSF) that involved various earth science research initiatives, including seismic monitoring. The station is located 20 miles west of Illinois State University in the Mackinaw Fish and Wildlife Area. The station consists of an ultra-high resolution GPS receiver (cm), broadband seismometer, strong motion seismometer, data processor, and solar power system. When there is a problem with the seismic system, the United States Geological Survey Seismological Laboratory (Albuquerque, New Mexico), or if there is a problem with the GPS system, UNAVCO (Boulder, Colorado) asks Nelson to check on the site.

On May 16, 2025, the Fisher Grade School sixth-grade class had their field day at the Mackinaw Fish and Wildlife Area. They visited Station HDIL. The portion of the helicorder (processed vertical mo-



The helicorder trace shows the noise generated by sixth-grade students during a field trip to the seismic station.

tion of the broadband seismometer) outlined shows the seismic noise generated by the students. The two tall spikes were the signatures of two activities that demonstrated seismic waves.

2024 Million Dollar Club inductees announced

By Eric Boerngen

The Office of Research and Sponsored Programs has announced that 16 new members have joined Illinois State University’s Million Dollar Club. The Million Dollar Club was established in 1990 by President Thomas Wallace and Provost David Strand “to recognize grant/contract productivity by members of the ISU community.” One of the 2024 inductees was Dr. Lisa Tranel from the Department of Geography, Geology, and the Environment.

The 16 inductees reached \$1 million in total cumulative external funding during the 2024 fiscal year. They join a club of more than 167 employees who have obtained \$1 million or more in external funding for research and other sponsored programs.

During the past decade, Illinois State University has received over \$250 million in external grant funding. First given in the early 1990s, the Million Dollar Club honor was reinstated in 2009.

Tranel joins other current and former faculty from the department in this exclusive club.



From left, Dr. Aondover Tarhule, president; Dr. Lisa Tranel; and Dr. Ani Yazedjian, vice president for academic affairs.

Department of Geography, Geology, and the Environment Million Dollar Club Inductees

2024 Lisa Tranel; **2015** Catherine O’Reilly, Bill Perry;
2014 Amy Bloom; **2009** David Malone, Robert Nelson



Science IS-U Scholars at the Summer of Inquiry Research Symposium, *front row from left*, Kennedy Joe, Marcos Perez-Rodriguez, Daniah Corp; *middle row from left*, RJ Williams, Peyton Brewer, Ashlyn Cleveland; *back row from left*, Michael Housour, Gorgeous Dawson. (Photo/Henrique Villela, Center for Civic Engagement)

Summer bridge program for first-year Science IS-U Scholars

This summer, first-year STEM students in the Science IS-U Scholars program came to the Illinois State University campus for a six-week bridge program designed to support their transition to Illinois State and their STEM majors, build a STEM cohort community, and lay the foundation for their role as civically engaged scientists.

The Science IS-U Scholars program is co-directed by Dr. Rebekka Darner, associate professor of biological sciences and interim associate dean of the Mennonite College of Nursing; and Dr. Ben Sadd, professor of biological sciences. The program is funded by the Howard Hughes Medical Institute (HHMI). Science IS-U Scholars are first-year science, technology, engineering, and mathematics (STEM) majors who are committed to utilizing their scientific expertise to pursue just, empathetic, and equitable solutions to societal problems. The program was designed to engage the scholars in scientific inquiry and exploration by prioritizing learning, knowledge, and discovery.

“Building community connections and getting scientists involved in civic engagement are key—not just for tackling societal issues, but also for helping the public connect with both foundational and applied science,” Sadd said.

The Science IS-U Scholars are Peyton Brewer (molecular and cellular biology), Ashlyn Cleveland (actuarial science), Daniah Corp (environmental systems science and sustainability), Gorgeous Dawson (biochemistry), Michael Housour (chemistry), Kennedy Joe (chemistry), Marcos Perez-Rodriguez (biochemistry), and RJ Williams (biology). This is the first cohort of Science IS-U Scholars. Two additional cohorts of scholars will join the program in fall 2026 and 2027.

Science IS-U summer bridge program

At the end of June, the cohort of scholars moved into Manchester Hall and started the six-week summer bridge program. There were three main components of the summer bridge program: community building, civic engagement in STEM, and the Level-Up Math program.

The first component was community building with Dr. Ashley Waring-Sparks, interim director of the Center for Mathematics, Science, and Technology (CeMaST). Waring-Sparks led the scholars in several community-building activities throughout the summer program. The scholars visited the Redbird Adventure Center and worked together to scale the high ropes course. They took a tour of

campus resources and the local Bloomington–Normal community. They participated in a “lab crawl” to introduce them to research happening on campus and get them thinking about labs that might be a good fit for their research internships next summer. They also utilized CeMaST’s STEM Hub makerspace to make stained-glass motivation mosaics. The STEM Hub also served as a home base and meeting place for the program.

The second component of the bridge program was an interdisciplinary studies course conceptualized by Darner titled *The Civically Engaged Scientist* (IDS 119). During the summer, the course was adapted and taught by Dr. Kate Evans (Science IS-U program coordinator). A large part of the course consisted of service days with several organizations on campus. Scholars joined Fell Arboretum on the Quad to tag trees for identification and contribute to the virtual arboretum map. They volunteered with the Office of Sustainability to prepare donated items for the Front Yard Free Cycle event that takes place during Welcome Week. They also volunteered at the School Street Food Pantry, which provides food and personal care items to students in need. Students learned about civic projects that have been carried out and are ongoing in the Illinois State and Bloomington–Normal community from panels of local experts and had deliberative dialogues about energy choices and food security, facilitated by the Center for Civic Engagement. Throughout the course, students worked to identify social problems of interest that relate to their future careers and create a civic action plan. At the end of the bridge program, the scholars presented their civic action plans at the Summer of Inquiry Research Symposium, which also included undergraduate scholars from other Illinois State summer research programs.

The last component of the bridge program was the Level-Up Math program with Dr. Oscar Chávez, associate professor of mathematics. The program was designed to review math concepts, develop collaboration, and build problem-solving skills. When the scholars were on campus for Preview, they took the ALEKS math placement assessment, which was then used to personalize their math preparation throughout the bridge program.

When asked to reflect on their experiences in the summer bridge program, one scholar, Daniah Corp, reported that her experiences in the bridge program with the cohort helped her acclimate to living on campus and taking college-level classes while also helping her feel more confident to start her first year at Illinois State.

“Making friends within the cohort and navigating college through the summer with them was such a great experience. Having that friend/support group definitely helped me adjust to my new environment and build confidence for the start of the fall semester,” said Corp.

What’s next for the Science IS-U scholars?

At the end of the summer bridge program, the Science IS-U Scholars moved into their rooms on the Co-Sciences Themed Living/Learning Community floor in Hewett Hall. They will continue to live with their program peers and other STEM majors on the Co-Sciences floor for their first two years at Illinois State. During the fall and spring semesters, the scholars will continue to participate in community building and professional development and learn about research opportunities on campus. Monthly events will be held with the scholars and their peers on the Co-Sciences floor to further build community, provide timely support, build study skills, assist in career development, and address their needs and concerns. In the spring, they will work with Evans to find a research mentor for their eight-week research internship in summer 2026. During their second year, they will begin mentoring the next cohort of scholars. They will also

complete the Science IS-U seminar course focused on career exploration and applying to undergraduate research experiences, graduate programs, or positions that will launch their STEM careers. In their last two years at Illinois State, they will continue to participate in community-building, professional development, and cohort-to-cohort mentoring.

The Sciences IS-U Scholars program will continue to support STEM student success,

and the HHMI Success in Science grant will fund two additional cohorts of Science IS-U Scholars through the program.

“We’re excited to soon begin the search for our next cohort of scholars for fall 2026,” Sadd said. “Beyond the opportunities it provides for students, the program also gives us, as educators, a valuable chance to connect more deeply with incoming STEM students—to understand where they’re starting from and how we can best support their

success.”

Applications for the fall 2026 cohort are open, and first-year students who have been admitted to an eligible STEM major will receive an email inviting them to apply to the program. For more information about the program, please visit the Science IS-U Scholars website at CeMaST.IllinoisState.edu/Students.

Moore, Lanning recognized as Alumni Day honorees

The department was proud to welcome Daniel Moore '14 and Adam Lanning '06, M.S. '11, as guests for Alumni Day in October.

Daniel Moore '14

A proud graduate of Illinois State University, Daniel Moore earned a degree in geography with a minor in history. His passion for maps, places, and people grew at Illinois State and has turned into a meaningful career in public service. Today, Moore works as a visual information specialist (geospatial) with the U.S. Secret Service, using GIS and cartography to support national security, field operations and investigations. From building mapping tools to visualizing real-time data, his work helps protect people and inform decision-making at the highest levels. Moore is passionate about innovation, problem-solving, and creating tools that make complex information clear and accessible.



Being recognized as an alumni honoree is both humbling and exciting—a chance to reflect on the journey, give back to

the Redbird community, and celebrate the impact of a strong education and the mentors who helped shape it.

Adam Lanning '06, M.S. '11

Lanning is the superintendent of water and water reclamation for the City of Rochelle, Illinois. Since 2003, Lanning has twice been nominated by the Illinois EPA as wastewater treatment plant operator of the year. He has co-authored two peer-reviewed scien-

tific papers. He has been awarded “perfect compliance for water treatment” at various communities, and while serving as wastewater treatment operator, has treated more than 100 billion gallons of water over 20 years. He has overseen more than \$40 million in capital improvement projects in Rochelle, updating the water and wastewater systems to meet regulatory requirements.



Alumni receives student professional paper award



Okiemute “Coco” Commander, a 2023 hydrogeology M.S. graduate of Illinois State University’s Department of Geography, Geology, and the Environment, has been awarded the 2025 Best Student Authored Paper by the Association of Environmental and Engineering Geologists (AEG). The recognition highlights Commander’s outstand-

ing research contributions to environmental geoscience.

His award-winning paper, “Agricultural Contribution of Chloride to a Saturated Riparian Buffer System: A Case Study in Central Illinois”, was published in the May 2025 issue of *Environmental and Engineering Geoscience*. Developed from his master’s thesis, the study analyzed more than 2,200 water samples collected over seven years, revealing that agricultural practices, particularly the use of fertilizers and nitrification inhibitors, significantly contribute to elevated chloride levels in groundwater and stream systems.

The EEG Best Student Authored Paper Award is presented annually to the top-ranked paper led by a student author. Selection

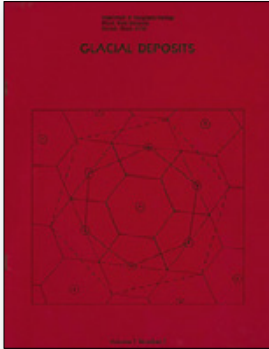
is based on peer-review scores and the scholarly impact of the publication, including citation metrics.

Since his graduation, Commander has been employed with Geosyntec Consultants in Columbus, Ohio.



Celebrating 50 issues of *Glacial Deposits*!

As we celebrate 50 issues of *Glacial Deposits*, the Department of Geography, Geology, and the Environment is excited to announce that all issues are now available online! You can explore five decades of departmental news, research, and achievements by accessing the archive at Geo.IllinoisState.edu. We are proud to continue the department's 165-year tradition of excellence in teaching and scholarship.



The first issue of *Glacial Deposits*



John Wroan with Barite donation in 2017



Installation of hydrogeology research site in 1985



Geography Field Course in 1947



Faculty examine samples in 1963



Students prepare for field course in 1964



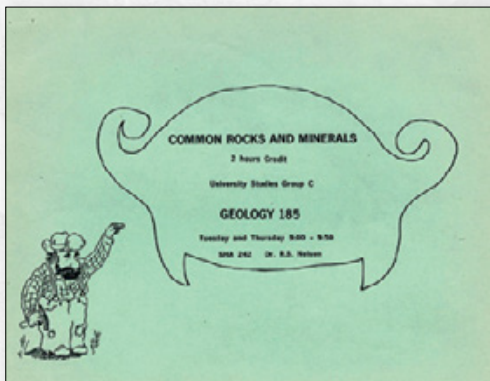
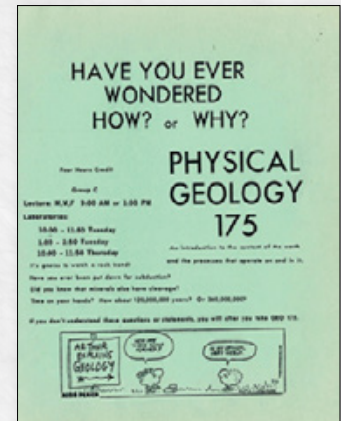
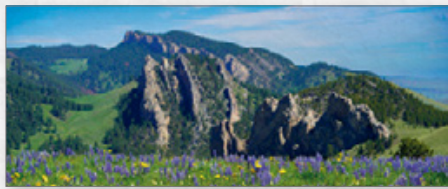
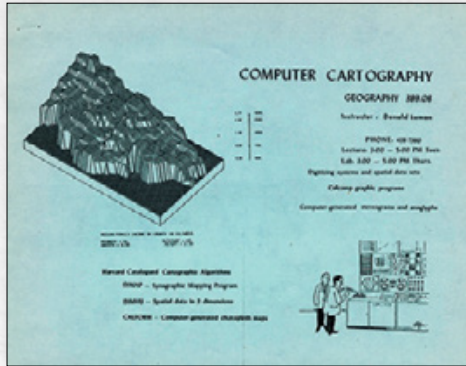
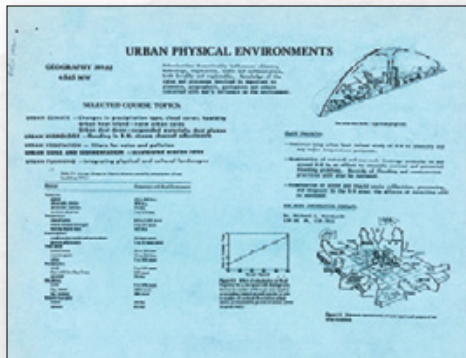
Faculty participate in a radio interview in 1973



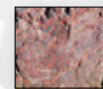
Advertisement for 1996 Plateau Country Field Course



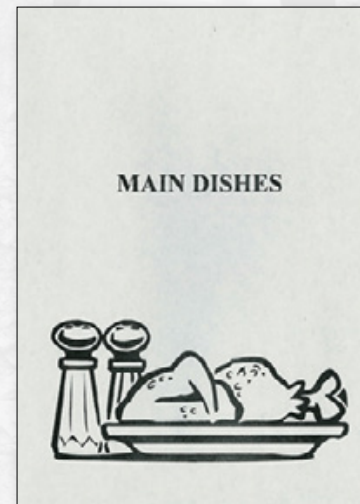
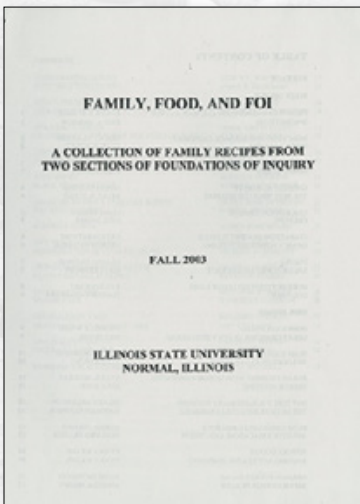
Pamphlet for cartographic services in the 1990s



Advertisements for various classes in the 1990s



Interview with geographer Dr. Michael Sublett in the 1980s



Family Recipe Book from Foundations of Inquiry in 2003

Updates from alumni

As part of the 50th anniversary edition, we thought it would be fun to put out a call to alums to see where they are and what they are up to. Thanks to everybody that responded!

Stan Paxton '74, geology

"I am retired and living in Mead, Colorado. I am a USGS Emeritus and participate in ongoing USGS research. My current project involves establishing and classifying temperature gradients for geothermal resources in U.S. sedimentary basins. I am having a lot of fun working with 1.4 million observations!"

George Garklavs '75, geology

"I worked my entire career with U.S. Geological Survey, Water Resources Division. Duty stations: Dekalb and Urbana; Bismarck, North Dakota; Denver, Colorado; and Twin Cities, Minnesota. I was district chief of USGS in Minnesota at final duty station. I retired in 2004, and now reside in Loveland, Colorado."

Craig Beintema '81, geology

"I'm retired and living in Pingree Grove."

Rich Schultz '85, geology

"I completed a M.S. in geology at Wichita State University and a Ph.D. in geochemistry from the University of Cincinnati. I worked for eight years in the environmental consulting industry as a project manager before returning to academia, serving as an adjunct faculty, assistant professor, associate professor, associate dean, senior online learning administrator, and chief digital learning officer. Most recently, I worked as the map standards coordinator for the Illinois State Geological Survey. Last year, I served as the president of the Illinois GIS Association. Currently, I am an adjunct faculty at DePaul University, the Illinois Institute of Technology, and Wheaton College where I teach courses in GIS and drones."

Shannon Fulton '92, geology; M.S. '97, geohydrology

"My husband and I still live in the Bloomington-Normal area and I'm happily working in the solar industry, as well as through the ParkLands Foundation conservation organization toward a brighter, cleaner, more resilient future for all. The knowledge and skills gained while earning my degrees have served me well professionally and personally. I am grateful to the professors and fellow students for those experiences."

Jack Lukehart '99, geography

"I am celebrating 20 years at Esri in Redlands, California. I have worked on a significant number of products; championing client experience and ensuring product viability."

Diane Lamb '02, geology; M.S. '04, hydrogeology

"I am currently working as the state geologist for USDA Natural Resource Conservation Services, part of the engineering team based in Champaign. Since graduating from ISU, I have worked temporarily at ISGS, then full-time at two different environmental engineering firms, before coming to USDA-NRCS. I remain appreciative of ISU, the lifelong relationships I have with fellow graduates and professors; I feel proud of both. All the best for continued success."

Marc McLaughlin '04, physical geography

"I am currently a development director with Continental Properties out of Menomonee Falls, Wisconsin. I am also village president for the Village of Fox River Grove. Additionally, I have American Institute of Certified Planners and Geographic Information Systems Professional certifications."

Samuel Bansah, M.S. '08, hydrogeology

"After receiving my master's at ISU, I went on to obtain a doctoral degree in Canada and currently working as an instructor in Water Resources Engineering Technologies at the Saskatchewan Polytechnic, Moose Jaw, Saskatchewan, Canada."

Casey Eberlin '08, geography

"I just celebrated 11 years married to a wonderful wife with 7-year-old twins, a boy and girl. I live in Alton. I have been working as the GIS technician for Southwestern Electric Cooperative in Greenville since 2017 while being a IBEW Union member."

Nicholas Bonarek '10, geography

"I was hired by Peoples Gas in Chicago as a GIS tech in February 2011, and I have had numerous roles with the company. Today, I am the operational controls manager where my team is accountable for the planning and forecasting of over 50 workloads. My wife and I have two kids and live in Riverside."

Justin Padaoan '10, geography teacher education

"I am currently residing good ole' Redbird Country in Normal. I have been with the Department of Veteran Affairs Veterans Health Administration since 2014 and currently serve as the Intimate Partner Violence Assistance

Program coordinator for VA Illiana Health Care System which services the Central Illinois communities."

Larry Haigh '10, geography

"After graduation I worked for the department part time for six months. I went back to where I grew up and had a few endeavors with agriculture and education. In 2022, I accepted a position in University Advancement back here at ISU. I reside in Normal and serve in the role of director of development for the College of Education and the Lab Schools at ISU."

Andrew Sergeant '10, geology; M.S. '12, hydrogeology

"I am currently working as a senior environmental manager for the Indiana Department of Environmental Management's Voluntary Remediation Program in Indianapolis. I worked as an environmental consultant for nine years prior to this, during which I obtained my LPG."

Ryan Doucette, M.S. '12, hydrogeology

"I'm blessed to be utilizing my hydrogeology background in Houston's oil and gas industry. In 2019, I was fortunate to co-found a company with 15 others. Since then, we've acquired four companies and continue to 'consolidate' the region! Thank you, ISU geology program, and in particular, Eric Peterson, for the guidance and mentorship."

Jennifer Goshorn '13, geology

"After a decade of working in environmental consulting at various engineering firms, I landed this great opportunity as a Senior Environmental Specialist at the world's first privately financed nuclear generating station for the No. 1 producer of carbon-free energy in the U.S.—Constellation. Though I am responsible for many environmental programs, I'm most excited about owning the radiological groundwater protection program and the groundwater remediation projects."

Daniel Moore '14, geography

"I work in Washington, D.C., at the U.S. Secret Service as a visual information specialist (geospatial) within the Forensic Services Division's Geospatial and Mission Support Branch. I am planning to join the Surge Capacity Force, a program that allows federal employees to assist FEMA during disasters and emergencies by providing critical support in response and recovery operations. Thanks to my preparation at ISU, I am equipped with the skills and expertise to contribute effectively to this initiative and help communities affected by disasters rebuild and recover."

Will Akin '15, geography

"I'm 10 years into native land management and restoration, working with McHenry County Conservation District, Kane County Forest Preserves, and Lake County Forest Preserves. I use GIS based applications to track rare and endangered species, as well as maintain and prioritize restoration efforts. Thank you to all in the geo department who've helped me along the way and shared their passions and knowledge."

Brooke Schumacher '17, geography

"I currently work for the Illinois Environmental Protection Agency in Bureau of Land, Field Operations in Rockford. I'm also a board member for Keep Northern Illinois Beautiful and a recent pickleball champion! Go Redbirds!"

Kacey Garber '17, geology

"I live near Peoria and work remotely as a senior project geologist for SCS Engineers, a nationwide environmental engineering and consulting company. I manage and contribute to projects focused on deep well injection of wastewater and carbon sequestration across the U.S."

Nicole Derf '19, geography

"Since graduating, I've made my home in Fort Collins, Colorado where I'm grateful to live and work among the mountains. I am currently working as a vegetation cartographer with Colorado State University conducting vegetation mapping and wetland delineations for the U.S. Air Force and National Guard. Most recently, I had the opportunity to travel to Arizona to assist in their forestry program to assess tree stand density to help evaluate wildfire risk."

Linnea Johnson '19, geology

"I am the lab manager at the Petro Star Refinery in North Pole, Alaska. Our refinery is directly fed by the Trans-Alaska Pipeline. We refine the crude oil from the North Slope of Alaska into a variety of fuel oils that supply military, commercial, residential, and industrial customers across the state."

Kaitlyn Dooley '21, geology

"I'm currently living in Seattle doing environmental remediation after three years of exploration work in Alaska and Idaho. I'm actively working on earning my PG and I'm going to Iceland this summer for vacation!"

William Andrews, M.S. '21, hydrogeology

"I am currently working as a hydrologist for the Pueblo of Sandia in New Mexico. The

hydrogeology program was integral to the progression of my career."

Cameron Essex '22, geology

"I am based in Reykjavik, Iceland, as a Fulbright-National Science Foundation Arctic Research Fellow. I am studying how increased warming from climate change is impacting Iceland's volcanoes, specifically those under ice around Langjökull glacier—Iceland's second largest glacier."

Nicole Soder '22, geology

"Since graduation, I've been working with Partner Science and Engineering Inc., remotely, as a project manager/geologist for the Geotechnical Department. I plan on receiving my PG license as well as moving back to the west coast. Go Birds!"

Olaoluwa Oladuji, M.S. '22, hydrogeology

"I am working as a hydrogeologist with the water resources and environmental team at WSP in Shelton, Connecticut. My work focuses on supporting projects on groundwater studies, environmental assessment, and sustainable groundwater water management. I'm grateful for the academic and professional foundation developed during my time at ISU and look forward to staying connected with the alumni network and sharing experiences from the geoscience field."

Jerry Komar, M.S. '22, hydrogeology

"I am working with Ramboll, an environmental engineering company, as a consultant/geologist in Milwaukee. I do sediment and soil sampling for the company, as well as provide litigation desktop and field work support. I also help with RCRA, CCR, and remedial construction work throughout the company."

Donna Beck (Korcak) '22, geology

"I work as a special education science teacher at a therapeutic school in Arlington Heights. Up the mountain!"

Andrew Dooley, M.S. '24, hydrogeology

"I am employed with Braun Intertec Corporation as an investigation and remediation staff scientist (80% field, 20% office work). I live in Fargo, North Dakota. My team and I provide environmental services for site cleanup and closure across northwest Minnesota and all of North Dakota, including several oil and gas clients in the Williston Basin. Currently, I rotate between full-time construction oversight

of one of the Minnesota DOT's largest transportation infrastructure projects to date, and North Dakota DEQ Brownfield cleanups."

Amina Abdulsalam, M.S. '24, hydrogeology

"I am pursuing a Ph.D. in geosciences and climate science at Penn State. My research focuses on how groundwater and surface water interactions influence nutrient transport in agricultural and coastal systems. I am also involved in hydrological dam modeling projects and community outreach initiatives that advance water sustainability. I serve as the student representative for the Geological Society of America's Geoscience Education Division Board, where I support earth-science education initiatives and help connect students and educators in the geosciences."

Ruby Garey '25, geology

"I have been at Fehr Graham in Rockford for six months working on Phase I Environmental Site Assessments, LUST investigations, and groundwater sampling events."

Franklin Ijigade, M.S. '25, hydrogeology

"I am a first-year Ph.D. student at the University of Georgia in Athens, where my research focuses on developing a regional groundwater flow model to assess and evaluate the impacts of anthropogenic stressors on water resources reservoirs. This effort seeks to enable the optimization of withdrawals for planning, design, and management for the sustainability of South Georgia's groundwater resources."



For more information, visit
Homecoming.IllinoisState.edu

2024-25 Jahns Lecture

The department was excited to welcome Dr. John Kemeny as the 2024-25 Jahns Distinguished Lecturer.

Kemeny brought over 40 years of experience in geomechanics and insight as the co-founder of a successful startup. His lecture, “Entrepreneurship in Applied Geology: Why Your Next Career Move Could Be an Innovative Small Business Startup,” was a fascinating look into the world of entrepreneurial geology. He walked students and faculty through the entire process, from brainstorming ideas to business development and licensing. Kemeny also shared stories from his own startup journey and discussed interesting AI-based solutions for monitoring and preventing landslides.

The Jahns Distinguished Lecturer, named

for Dr. Richard H. Jahns (1915-1983), was established in 1988 by Association of Environmental and Engineering Geologists (AEG) in co-sponsorship with the Engineering Geology Division of the Geological Society of America (GSA) to present an annual series of lectures at academic institutions, thus increasing student and young professional awareness about careers in Engineering Geol-



Dinner with the Jahns Lecturer, around the table, from left, Dr. Yiming Guo, Hannah Lartey (graduate student), Jana Kadel (sophomore), Dr. John Kemeny, and Dr. Wondy Seyoum

ogy, promoting the field that Dr. Richard H. Jahns pioneered.

Douglas Clay Ridgley Lecture

Dr. Marie Price presented the Douglas Clay Ridgley Lecture entitled, “A River, a Border, and Migrants: Remaking the Rio Grande Valley as a Securitized Environment” on February 21, 2025, at the Bone Student Center.

Price is a professor of geography and international affairs of the George Washington University and also serves as current president of the American Geographical Society. A Latin-American and migration specialist, her studies have explored human migration's impact on development and social change,

especially at the urban scale. She is interested in strategies that promote migrant inclusion as well as the use of geographic sciences and technologies to address inequality and promote development. She is co-author of two leading textbooks in world geography and has authored or co-authored over 80 articles and book chapters in leading journals. Price is currently funded by the NSF doing research on the U.S.-Mexico Border in the Lower Rio Grande Valley in a project titled “Geographies of Migration and (In)Security.”

She was a co-author on a report issued by the Organization of American States in 2023 on the role of local authorities in the reception and integration of immigrants and refugees in cities across the Americas. In her lecture, Price focused on the Lower Rio Grande Valley which has been one of the most active areas for unauthorized human crossings into the United States, in part because of its relative openness, and its proximity to Mexico and Central America. In response, for three decades billions have been invested to securitize this corridor, yet in 2023 the highest number of encounters were recorded in this zone. Focusing on this place, Price asks three geographical questions. First, what are the physical geographical challenges of building a wall in a river valley to securitize this region and how have they been addressed? Secondly, how is the human geography of this transborder region changed when securitization is emphasized, and layered bordering strategies are deployed? And finally, who has been entering this region since 2020 and what do their journeys tell us about the aspirations and capabilities of migrants in an age of increased mobility? Based on fieldwork, interviews with immigrants, border patrol, and civil society groups, and grounded in theories about bordering and migration, Price described the environmental and cultural realities of this area and how economic, political, and technological globalization are remaking its landscape.

During her visit to Illinois State, Price spoke with faculty and participated in a class discussion with current geography students.

The Douglas Clay Ridgley Lecture was established to recognize a leader in geography education and was endowed by George Means to honor his mentor and friend, Dr. Douglas Clay Ridgley, who served as professor of geography at Illinois State (Normal) University from 1903 to 1922.



Dr. Marie Price, 2025 Douglas Clay Ridgley Lecturer



McLean County Museum of History field trips

Dr. Reecia Orzeck has frequent occasion to bring her students to the McLean County Museum of History to learn from the archivists and exhibition curators there.

In the spring of 2025, the students in Political Geography (GEO 311) were taken on a walking tour of Downtown Bloomington by the museum's Senior Director of Education Candace Summers, and by museum board member Mike Matejka. Summers and Matejka used the landmarks and the landscape around the museum to tell the class about pivotal moments in the political

and economic history of Bloomington and Normal.

In the fall of 2025, the students in Qualitative Research Design and Methods in Human Geography (GEO 375) learned from the museum's Curator of Collections Jackie Cain how the staff conducts qualitative research and incorporates its findings into its permanent and temporary exhibits. The students visited two exhibits on their trip: *A Deadly Deception: The Asbestos Tragedy in McLean County* and *Challenges, Choices, & Change: Making a Home*.



SustainableSTATE Club: Empowering through action

SustainableSTATE is a student-led organization designed for those studying environmental systems science and sustainability in the department, but is open to all majors. The organization aims to raise awareness of environmental issues at Illinois State and beyond, while empowering students to be effective science communicators and active contributors to positive environmental change.

An important mission SustainableSTATE began to support is knowing where coffee comes from and how it was grown. By part-

nering with a fair trade and sustainability-focused Illinois roaster, we raised awareness for sustainable practices in the coffee industry the importance of fair-trade coffee, and how environmental variables influence the taste of coffee. SustainableSTATE invited the owner of the roaster to visit campus and attend the 20th annual Autumnal Festival at the Horticulture Center, providing education about fair trade and sustainable practices in the industry—and to serve some good coffee.

SustainableSTATE invited staff with the Ecology Action Center to share information

on recycling, and later hosted a community clean-up event. The organization also invited a local beekeeper to speak with members about native bees, including a chance for honey tasting.

During a flower-pressing event at the Horticulture Center, SustainableSTATE members collected plant clippings from around the property and were each presented with a handmade flower press created by Horticulture Center Director Jessica Chambers.

AWARDS and SCHOLARSHIPS

Every year, the department presents student awards that reflect the characteristics we value in our programs. These values include being engaged in department activities, helping each other, working hard, valuing teaching, and excelling in research.

Trilobite Award

Jana Kadel, Maggie Pozzo

This is given to a first-year undergraduate student who has been trying hard and getting engaged in geology program activities.

Gneiss Award

Farren Ackerman (undergrad), Zainab Suleiman (graduate)

This is given to a student (both undergraduate and graduate) who is engaged in department activities, helps other students, and is overall really nice and positive.

Gold Star Award

Alaina Glover

This is given to an undergraduate student who has been involved in high-level research activities, including presenting at a national conference.

Titanium Award

Brendan Havel (undergrad), Joseph Larbi Awuku (graduate)

This is given to a student (both undergraduate and graduate) who has a solid work ethic, is fully committed, and just keeps going.

Granite Award

Carly Johnson (undergrad), Ryan Krakowiak (graduate)

This is given to a student (both undergraduate and graduate) who has excelled in teaching and mentoring students, and supports the mission of teaching at Illinois State.

Research Initiative Award

Christabel Abugu

This recognizes a first-year graduate student with a promising research direction.

Research Achievement Award

Franklin Ijigade

This recognizes a graduate student with a demonstrated ability to conduct impactful, high-quality research.

Brad and Amber King Field Camp Awards

Lucy Bruckner, Boston Daker, Megan Grobe, Amira Harris-Bommarito, Gabby Montano

This supports students attending Illinois State University field camp.

Brad and Amber King Scholarship

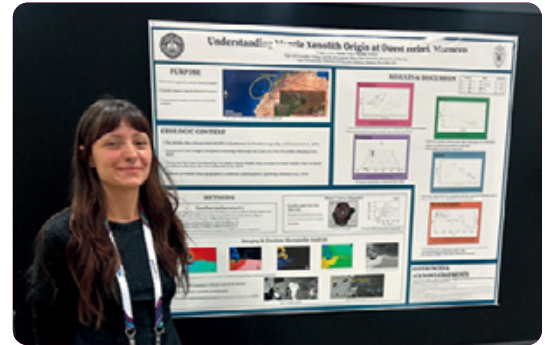
Lillian Drager

This provides financial assistance for high-achieving sophomores, juniors, or seniors majoring in geology.

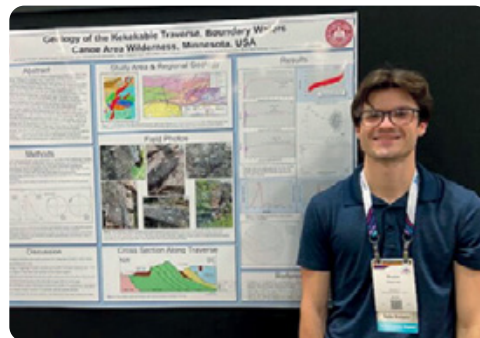
Investigation of Mantle xenoliths from Morocco facilitated by FIREbird Grant

by Dr. Tenley Banik

Geology major Lillian “Lilly” Drager '27 received a FIREbird Grant through the Office of Student Research to conduct research on xenoliths from Morocco with Dr. Tenley Banik this summer. Mantle-derived xenoliths are common in the basaltic lavas of the Cenozoic Mid-Atlas Volcanic Field (MAVF), which is underlain by thin lithosphere that has experienced delamination (i.e., the lower lithosphere became so dense it peeled off from the rest of the lower-density lithosphere). This research seeks to better understand the roles that the nearby Canary Islands mantle plume and asthenospheric upwelling play in generating MAVF volcanism. The xenoliths contain mostly olivine, ortho- and clinopyroxene, and spinel. Drager prepared the samples and collected mineral composition data via electron microprobe at University of Wisconsin-Madison, then used those data to calculate the pressure and temperature conditions of the xenoliths' origin location using a 2-pyroxene thermobarometer and Al-in-olivine thermometer. The results indicate that these xenoliths are sourced from approximately 25–35 km deep, likely at the base of the lithosphere due to asthenospheric upwelling, which broadly matches what other studies have found. However, the sample with the highest derivation temperature also appears to be sourced from a substantially deeper location than what other studies have found for high-temperature samples. Guided by images collected via scanning electron microscope, Drager also collected transects of compositional data across grain boundaries and element maps to uncover some of the reactions occurring in the xenoliths on their ascent through the mantle. Future work will focus on better understanding these reaction processes to provide further constraints on mantle source conditions. Drager presented her findings at the Geological Society of America's annual conference in October.



Lilly Drager presenting her Morocco xenolith analysis at the GSA Connects conference in October 2025.



Student grant funds research in Boundary Waters

by Preston Kietzman

This summer, I had the opportunity to pursue research thanks to the Illinois State University FIREbird Grant. With this grant, I went with other FIREbird students on a trip to our field site in the Boundary Waters of Minnesota. My research focused on structural features observed along a traverse and utilized field relations, geochronology, and paleomagnetic analysis to correlate the age of deformation in these units at 1,115 Ma, 16 Ma prior to the intrusion of a large igneous complex associated with the Midcontinent Rift, but is rather associated with a far-field deformation event due to the Grenville Orogeny.



Environmental systems science and sustainability student receives Outstanding Student Award from Illinois GIS Association

by Eric Peterson

Dillon Schmidt, a senior environmental systems science and sustainability (ESSS) major, was awarded an Outstanding Student Award by the Illinois GIS Association (ILGISA) at its annual conference held October 19-21 in Lisle.

In addition to completing the GIS (geographic information systems) curriculum in the Department of Geography, Geology, and the Environment, Schmidt is working on an independent study this fall semester that focuses on his interests in utilizing GIS for cutting-edge applications in agriculture. The project explores the use of geospatial artificial intelligence (GeoAI) for detection and automated mapping of weed species in corn and soybean fields in Illinois.

Schmidt recently completed a prestigious Research Experience for Undergraduates (REU) program this past summer with the Integrated Pennycress Resilience Project (IPReP) funded by the National Science Foundation (NSF). For the project, Schmidt used QGIS, an open-source GIS platform and R, a complex data analysis platform, to assess whether low-altitude drone imagery can be used to model pennycress yield.

The Illinois GIS Association is a statewide organization of GIS/geospatial professionals in Illinois with over 500 members from government, higher education, and private industry. The ILGISA Outstanding Student Award is presented to an undergraduate student of any major who has included GIS in their course of study, and has demonstrated exemplary proficiency and understanding of GIS, potential contribution to the GIS community, and general success in school.



Summer research experience in Iceland

by Gabby Montano

This past summer, I, alongside three students from Lafayette College, got the opportunity to join Dr. Tenley Banik and her colleague Dr. Tamara Carley, in Iceland conducting research at Vatnajökull National Park. We traveled to the southeastern coast of the island and set up our tents at a campsite near the Skaftafell glacier, an outlet of Vatnajökull ice cap. Our main purpose here was to sample several targeted subglacial volcanic systems in the southern part of the park. One target was the moraines that surround the famous and picturesque glacial lagoon, Jökulsárlón. Our goal was to better understand the magmatic processes occurring in the Óræfajökull volcanic belt (ÖVB), which partially sits beneath this giant glacier and whose rocks should populate the moraines around Jökulsárlón.



Eating lunch at the edge of Jökulsárlón.

To gather some deeper insights into what is occurring at Thordarhyrna, another volcanic system almost totally covered by Vatnajökull, we chartered a helicopter to sample some of the hard-to-access outcrops. Recent ice loss has exposed never-before-seen (or described or sampled) outcrops, but we identified a series of locations using new, high-resolution satellite images wherein we could safely land and gather a variety of silicic rock samples. It was a once-in-a-lifetime feeling to be one of the first people to explore an area! The exposures had a variety of igneous lithologies, from banded rhyolites

to spherulitic obsidian to basalt xenoliths. In keeping with other outcrops in the area that have “body part” names, we decided to nickname these outcrops “the spine” (*Hryggurinn* in Icelandic) since they stick out of the ice like a series of vertebrae, and another new outcrop we interpret to be a dome just peeking out of the ice we decided to call “the skull” (*Hauskúpa*).

Continue on Page 20

Dr. Gary P. Holland Scholarship

Clara Graham

This provides financial assistance for high-achieving sophomores, juniors, or seniors majoring in ESSE.

Eunice Blackburn Geography Scholarship

Dominic Franklin

This provides support for high-achieving students entering the geography program.

George Means Geography Scholarship

Lauren May, Kyle Schick

This provides financial support and encouragement to students of high character with strong professional promise and potential to improve society.

Henry O. Lathrop and A. W. Watterson Award

Caleb Ortman, Jenna Soltis

This memorial scholarship honors students who demonstrate academic achievement, good character, and leadership qualities.

Joseph Fluder Excellence in Environment Award

Dean Phillips, Viviana Ramos

This award recognizes student academic excellence and supports professional development activities, including an unpaid internship experience, participation in professional conferences and related travel, study abroad, or purchase of materials or technology that will enhance the professional growth of the candidate.

Louis Miglio Scholarship

Jared Flessner, Hailey Kuhn

The scholarship provides support to teacher education students while student teaching.

Margaret Means Geography Scholarship

Levi Cardoso De Campos, Graham Gunn

This supports geography students pursuing internships that are unpaid or that only carry a small stipend.

Powell Scholarship

Riley Frech, Nolan Hansen, Evelyn Kranzusuch, Seti Rivadeneyra-Braswell, Korynne Wesener

To provide support for new freshmen in the Geology program

Powell Graduate Scholarship

Eric Brunner, Kriti Panta

To provide support for Hydrogeology graduate student research

Steve and Lori Nalefski Scholarship in Geology:

Devin Durica

This supports high-achieving geology majors.

Continue on Page 20

William E. Shields Scholarship Memorial Scholarship in Geology:

Ariel Adams, Boston Daker, Isabella Hinz, Josh Kalmes, Samari Kirk, Alli Locke, Margaret Pozzo, Weronika Urbanek

This provides support for transfer students transitioning into the geology and ESSE majors.

Michael D. and Patricia A. Sublett Geography Professional Development Fund Award

Oscar Barrett, Jack Calomino, Nathan Desmet, Wolfgang Fey, Grace Haack, Eric Hedden, Mikayla Hilderbrand, Greg Larsen, Edward Latko, Shahrbanoo Moosavi, Lindsey Mullen, Keriayn Munnich, Alexis Piccolo, Matthew Stankevicius

This provides support to geography majors to offset the cost of education, including paying for necessities of life, academic and otherwise.

Earth and Space Science Education (ESSE) Professional Development Fund Award

Piper Thibeault

This provides funds to ESSE majors to offset the cost of education, including paying for necessities of life, academic and otherwise.

After our sampling objectives were complete, we drove further along the eastern coast to the wonderful Viking Café for some delicious Swiss mochas. This pilgrimage was made even better by going to a place called Austurhorn where we explored a series of outcrops exhibiting rare magma mixing. It was perfect for us geology nerds! On our final day in Iceland, we had the mountainous task of distributing the 20 or so gallon bags of collected samples into a variety of duffel bags and luggage. Overall, we ended up with about six checked bags of just rocks—now that’s a successful geology excursion!



We got up very early to meet the helicopter.

This research experience brought the research project I presented at GSA Connects in October 2025 to life. For the past year and a half, I have been collecting and looking at rock and zircon data from samples previously collected from a volcano called Esjufjöll and from moraines around Jökulsárlón in which we expected to find Esjufjöll rocks that were collected by the team

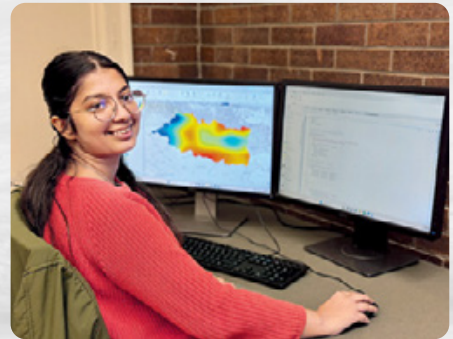
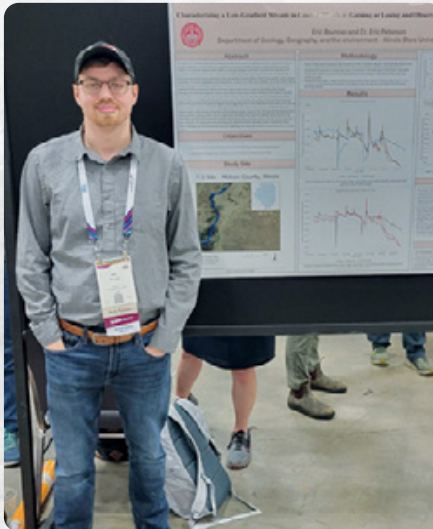
in 2024. However, my results showed that the moraine-derived clasts are from both Esjufjöll and, surprisingly, the underlying bedrock. Due to an intense crevasse field, Esjufjöll is now almost impossible to reach. From the helicopter fly-by, I got a singular vantage point to see and understand how the glacial outlet moraines I had been working on contained materials from both the surrounding volcanoes and bedrock. I had so many unique experiences and made some great connections this summer. Getting to participate in this research trip was truly a lifetime highlight.



(Probably) the first people to stand here!

Birds Give Back for hydrogeology research

Thanks to the support of our donors, two of our graduate students, Eric Brunner and Kriti Panta, were able to dedicate their summers to conducting their master’s thesis research project. Eric Brunner, a Michigander, remained on campus and spent his summer collecting data in the field. His project explores the relationship between the T3 stream and local groundwater, a study that requires him to measure stream stage and flow data. Meanwhile, Kriti Panta’s research took a global approach. The support enabled her to undertake a large-scale data science project, utilizing satellite data to analyze the Himalayan glaciers. Her work aims to assess how changes in the region’s ice mass are affecting vital surface water resources such as streams.



Internship experiences

Grace Haack

My name is Grace Haack, and I am a senior geography major with minors in French and water sustainability. I did my internship this past summer with the Metropolitan Water Reclamation District of Greater Chicago.

My summer was filled with field trips all over Cook County, GIS projects, and exploring the Stickney Water Treatment Plant. I did a bunch of “smaller” projects for the district (e.g., digitizing ditches, using Global



Navigation Satellite System (GNSS) receivers to plot points, and other projects within Arc), and yet these projects will be useful for the district for years to come. But the biggest accomplishment was when I got the GNSS receiver to start collecting centimeter-accurate points. This really opened a bunch of doors for me because all of a sudden, I was out doing fieldwork for both the Waterways and Sewer Control sections. One day I was taking points of fire hydrants around the Stickney Plant and the next day I was in Chicago taking points of manhole covers. Another way this opened doors for me was that I had to put on my teaching hat to teach the other workers how to connect to the receiver to ensure the centimeter accuracy. And I don't think I had ever been complimented as much as when I got this working and when I was teaching my colleagues. They were truly grateful because it had been over

a year of them having the devices and not being able to use them because the accuracy was over 60 feet. In turn, I was also able to teach people the wonders of GIS and the benefits of using maps and mapping services in their work.

And interspersed between plotting points and teaching people about GIS, I went on multiple field trips. I visited Lockport Powerhouse and Controlling Works a couple of times (this controls the water elevations of the Chicago River), I went on reservoir site tours, I went on a train tour from the Stickney Plant to LASMA, and I visited some other plants/structures with my fellow interns.

I had an absolute blast this summer, and while it started off scary (new environment and all that), I do not regret taking this internship at all. It opened me up to governmental agencies, a whole swarm of new people, and new ideas and thought processes. I am truly lucky to be able to say I worked for the MWRDGC, and I would definitely go back if the occasion arises.

So, if there is any advice I'd give to anyone reading this, I would say, “Take that GIS course because you never know where it might take you. Say yes to that internship because you will never know what comes after if you say no. It might seem hard right now, but at some point, it will become easier, and you will find where you were meant to go. Best of luck.”

Oscar Barrett

My name is Oscar Barrett, and I am a senior geography major pursuing a minor in environmental systems science and sustainability. During the summer of 2025, I completed an internship at the University of Illinois Urbana-Champaign's Allerton Park and Retreat Center as a GIS technician. I worked on a variety of GIS-related projects, with most of my time focused on donor mapping, field data collection, and organizing spatial data into a usable format for the park staff. While some parts of the job were slower and more technical, others provided me the chance to be creative, pitch new ideas, and see how my work could fit into the bigger picture of conservation and public engagement.

One of my main responsibilities was mapping all donor-sponsored items, which included trees, benches, and plaques, and then turning those data into something interactive and useful. I spent a lot of time in the field using ArcGIS Field Maps to document locations, especially tagged donor trees. Some of these were over a century old,

so identifying them sometimes turned into a full-blown investigation. I also worked on transferring old spreadsheet data into maps, helping clean up and standardize information so that future staff wouldn't have to start from scratch. Later in the summer, my role expanded to writing site descriptions, designing mockups for a donor engagement website, and thinking about future park projects like a potential river access plan.

Looking back, I am really proud of what I accomplished this summer. The donor tree map turned into something much bigger than I expected, and the fact that the staff at Allerton trusted me to shape the final version meant a lot. It was not always smooth or exciting—some of it was just plain tedious—but seeing the finished product and knowing

Continue on Page 22



that it might be useful for years to come made it all worth it. More than anything, this internship gave me a clearer sense of direction. I now know that I want to keep working at the intersection of GIS, storytelling, and conservation. Whether it is helping plan new trails, create other donor maps, or design better access to natural spaces, I want to be part of work that helps people connect with the land and with each other.

Christabel Abugu

This summer, my first in the United States, I worked with the Kansas Geological Survey on a solar-powered groundwater recharge project. My work focused on soil characterization and field site preparation for a pilot study that utilized solar installations to promote groundwater recharge while generating energy for agricultural benefits. I conducted laboratory analyses of soil samples to assess bulk density and organic matter, tracking seasonal soil moisture trends that revealed a reduction in infiltration potential over time. I also implemented comparative testing between HydraGo sensors and laboratory-based volumetric water content measurements to assess the reliability of continuous monitoring tools. Beyond the lab, I assisted in the installation of a weather station at the study site, which now records high-frequency data on rainfall, temperature, humidity, and solar radiation. This system will provide continuous environmental data to support groundwater recharge modeling



Christabel collecting soil samples west of Lawrence, Kansas



Christabel drilling an 8-foot-deep monitoring well at Bayer Farm in Scott, Mississippi

and hydrogeologic research beyond the duration of the internship.

This journey has been about adapting to new systems, embracing a new culture, and building community. Early morning walks under the scorching summer sun, missing buses, and even struggling to recognize the right ones at first were all part of the adaptation process. As part of my fieldwork, I also had the opportunity to take long drives across Kansas and Mississippi with Anajan Bhatti to farm fields, where we installed multi-depth soil moisture sensors, set up remote data loggers, and conducted infiltration tests with the SATURO system.

These experiences sharpened my field instrumentation skills and strengthened my ability to integrate field data with long-term hydrogeologic monitoring. I am thankful to all the supervisors, teams, and KSGS for the opportunity. So, to answer the question a friend asked me at the beginning of the summer, my highlights have been an award won, a scholarship earned, an internship completed, mentorships received, friendships made, and relationships built. All these threads come together as I step into my second year, ready to build on what I have learned and move closer to completing my master's in hydrogeology.

Our Newest Redbirds: Transfer students' passion for environmental restoration fuel charge toward change

by Cobe Jones

Blooming flower bouquets and babbling brooks offer a quiet glimpse into nature's beauty, while also inspiring Illinois State University junior Genna Warnick to restore, nurture, and preserve the world around her. From growing plants and designing floral arrangements to restoring a creek on her grandfather's farm, Warnick dedicates herself to environmental stewardship. She is applying her love for nature and making a global impact as an environmental systems science and sustainability major. "My family has always loved taking care of the land, and that set me on the path to look into conservation opportunities and realizing that environmental science is what I want to do," Warnick said. "We are here to be the people who can find solutions, who can invoke change, whether through teaching other people about it or being part of the

front lines of coming up with greener ways to create energy."

Genna Warnick

Warnick earned an associate degree from Richland Community College five years ago before taking a break from school to be with her father in Decatur, as he battled cancer. After he sadly passed away, Warnick found joy in her work at the same flower shop that prepared the arrangement for her father's funeral.

She also began restoring her grandfather's dried-up creek in rural Decatur.

"Every evening, when I had free time, I would walk down to the creek and I'd start digging, and I would measure how deep I was digging—about seven or eight inches," Warnick said.

Within three months, Warnick's efforts

allowed water to once again flow, while reestablishing a habitat for native animals, including crawdads, tadpoles, bees, and Monarch butterflies.

This success story became part of Warnick's conservation portfolio, which helped her earn a spot with the Rocky Mountain Conservancy Conservation Corps.

In Colorado, she volunteered with a vegetation crew that worked alongside members of the Rocky Mountain National Park Service to remove invasive species and reintroduce native plants. Her experience included learning about plant identification and herbicide safety.

"I realized how much I loved it and how much I love working with that type of crew, working outdoors," Warnick said.

Inspired to turn her passion for the environment into a career, Warnick decided

to enroll at Illinois State, where she began classes as a junior this fall as a proud recipient of a Civic Engagement Scholarship.

“The fact that they chose me and gave me this scholarship, it means a lot, and I plan to continue that type of civic engagement at Illinois State,” Warnick said.

The University’s commitment to civic engagement, combined with its strong environmental science program, were both factors in Warnick’s decision to transfer to Illinois State, which was once again recognized as a top destination for transfer students.

“ISU is actually one of the only universities I could find in the Central Illinois area

that offers a very well-thought-out environmental science program,” Warnick said.

After graduating, Warnick envisions herself becoming a park ranger or an environmental science teacher who will educate and instill hope to help overcome the feeling of helplessness often associated with our environment.

“We are here to be the people who can find solutions, who can invoke change, whether through teaching other people about it or being part of the front lines of coming up with greener ways to create energy,” Warnick said.



Junior environmental systems science and sustainability major Genna Warnick

2025 Donors

Thank you very much for the generous gifts!

Gifts were received between January 1 and December 31, 2025

- | | | | | | |
|---------------------------------|-------------------------------|----------------------------|-----------------------------|--------------------------|------------------------------|
| Brandon Agner | Jim David | Laura Hanna | Leslie Lawrence | Kate Piper | Chilyere Smith |
| The Alaska Community Foundation | Catherine Davids | Amira Harris-Bommarito | Isaac Leiterman | Stefanie Pipis | Lula Staley |
| Eric Avalos | James Day | Kim Hartmann | Peter Lennarson | Jacob Piske | Bret Starkey |
| Ron Baker | Joshua Debrates | Wils Hawn | Andrea Leonard | Audrey Plath | Derek Stephenson |
| Oscar Barrett | Kevin Deichmueller | Kelly Hayden | Joe Lesiak | Maggie and Anthony Pozzo | Gracie Stevens |
| Molly Barron | Nancy Dodson | Bill Hayner | SarahRose and Carol Lesmann | Aisha Praught-Leer | Dominic Stroz |
| Sharon Batterham | Ann Doolen | Brian Heady | Ivo Lima | Paula Pryor | Meredith Strow |
| Miriam Bauers | Andrew Dooley | Frances and Ryan Helgerson | Bethany Lintner | Jarod Przybylski | David Strubing |
| Steven Baumann | Kaitlyn Dooley | Stephen Hensler | Randall Locke | Michelle Quinn | Michael and Patricia Sublett |
| William Becker | Ryan Doucette | Katie Hickey | Gavin Long | Britney Quinn | Zaid Taha |
| Allison Beckett | Lauren Driggs | Amie Hinds | Christopher Longton | Anas Rabie | Rozemarijn Tarhule-Lips |
| Brodan Belcher | Owen Dunham | Joe Hoberg | Nancy and Fred Lutgens | Jason Rappe | James Tate |
| Michael Belke | Devin Durica | Tyler Hochstatter | Andrew Maas | Adam Rasche | Veronica Taylor |
| Ryan Bessen | Liam Eades | Mark Hodges | James Mackey | Mary Lou Rehkopf | Nancy Taylor |
| Hayley Beyers | Mark Edwards | Charles Holada | Michael Madison | Brad Renwick | Kristen Theesfeld |
| Scott Birns | Dave Elbow | Joe Honings | John Malone | Matthew Rhoads | Jason Thomason |
| Roger Blair | Jacqueline Epperson | Kirk Houchin | David and Dawn Malone | Evan Ricchio-Hitchcock | Tim Todd |
| Brad Boesdorfer | Cameron Essex | Brett Howell | Joshua Malone | Richard Rice | Anthony Tomaras |
| Tom Bouleanu | Aiden Fanning | Joshua Hufferd | Danika Mayback | Ellyn Rickels | Steve Travers |
| Addie Bowen | Thomas Feehan | Matthew Huisman | Travis McCaslin | Jarek Trela | Kyle True |
| Jack Bradford | Timothy Feiden | Angel Huitron | John McEvoy | Rocio Rivadeneyra | Andrew Trzaskus |
| Jack Bradshaw | Elizabeth Ferry | Aaron Jacob | Christopher McGarry | Maria Rojo | Adam Trzinski |
| Gregory Braswell | William Finucane | James Jacobs | Joe McGuire | Jacqueline Rowley | Nick Tully |
| Braun Intertec Corporation | Joseph and Shannon Fluder III | Laura Johansen | Sean McGuire | Michael Rudolph | Stephen Van der Hoven |
| Scott Brockway | Susan Fowler | Linnea Johnson | Patrick McLaughlin | Simone Runyon | Wayne Vogelsburg |
| Ben Bugno | Philip Frederick | Aidan Jones | Evan Meinzer | Monique Rutte | John Wagle |
| Justin Calhoun | Philip Frederick | Matt Julien | Paul Meister | Kelly Sanks | Bryan Wahls |
| Adam Cameron | Jared Freiburg | John Kapchinske | Matthew Meyers | Celeste Saul | Danny Warbritton |
| Erin Carlock | Aidan Fullriede | Matthew Kaufman | Jacob Milton | Kirsten Schaefer | Edward Washburn |
| David Carstens | Anthony Gaeti | David Kelly | Joseph Moll | Cody Schmidt | Jessica Welch |
| Diane Carter | Kacey Garber | Jamie Kennealy | Monica Mustain-Brooks | Ethan Schneider | Robert Wencel |
| Connor Chambers | Matt Garee | Brett Kenning | Emily Nagorski | Kevin Schnoes | Evan White |
| Alyssa Charsky | Ruby Garey | Preston Kietzman | Steve Nalefski | Alec Schroeder | Crystal Williams |
| Katherine Childs | Cody Garnsey | Elizabeth King | Jodi Neal | Robyn Schuline | Joanne Wilton |
| Ryan Christensen | Alaina Glover | Bradley King | Lynne Nelson | Kyle Schusler | Alex and Diane Wimmer |
| Jean Chruscicki | Jennifer Goshorn | James Kipp | Matt Nemsick | Katelyn Sculthorpe | Hannah Wirth |
| Melinda Collins | Cameron Gould | James Kirchner | Indy Nenn | Logan Seipel | Everett Wood |
| ConocoPhillips | John Grabs | Adam Kittler | Jeremy Neundorff | Mike Sell | Steven Young |
| Gail Corbett | Daniel and Holly Gregorich | Preston Konop | Ray Olson | Andrew Sergeant | Robert Young |
| David Crowley | Megan and Dan Grobe | John Kostelnick | Justin Padoaan | Laurie Shields | Robert Zawislak |
| Dakota Csanda | Zachary Grosch | Donald Kunkel | Autumn Parish | Alivia Shively | Glenn Zwanzig |
| Kennedy Cull | Josh Groth | Diane Lamb | Eric and Sarah Peterson | John Sieving | |
| Daniel Dallstream | Emily Hack | Adam Lanning | | Ryan Silberstorf | |
| Judith Darr | Larry Haigh | Julia Lavelle | | Gail Silcox | |
| | Scott Hampton | | | Brian Smith | |

