

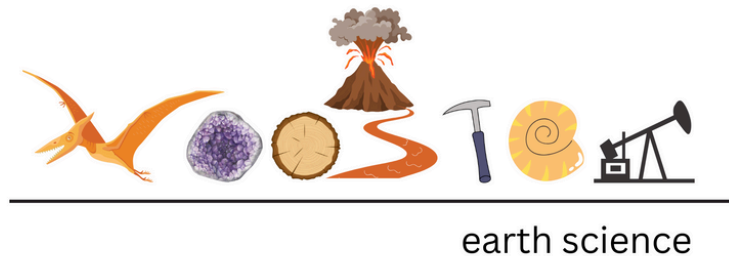
DEPARTMENT OF
EARTH SCIENCES



2024-2025
ANNUAL REPORT

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Greetings from the Chair

Dear Alumni and Friends,

Welcome to the 2024-2025 annual report from The College of Wooster Department of Earth Sciences. What an extraordinary year it has been! We saw record-breaking enrollment and more ESCI students actively engaged in research presentations and publications, reflecting both our program's growing appeal and our students' exceptional scholarly contributions.

We couldn't be prouder of our Class of 2025, whose I.S. research took them from Browns Lake Bog in our own backyard to the Waka' Burial Site in Guatemala. Our continuing students are making their mark too, securing competitive APEX Fellowships and Keck project opportunities—discover their inspiring journeys in the student spotlights section.

Our faculty experienced meaningful changes this year as we bid farewell to Dr. Shelley Judge and welcomed Dr. Eva Lyon back to our department family. Dr. Wiles distinguished himself by spearheading AMRE research publications and supporting a remarkable number of student GSA presentations. Dr. Meagen Pollock expanded our research capabilities with new analytical equipment, while Nick Wiesenbergs, our dedicated technician, and our administrative coordinator provided invaluable support.

Our department's strength lies in combining exceptional geoscience education with the supportive community that makes students feel at home. Signature events like Earth Science Week and our Osgood Lecture, featuring renowned climate data artist Jill Pelto, strengthened community bonds. We celebrated numerous students at the Dewald recognition dinner and are excited to grow the Mark A. Wilson Scholarship in Evolutionary Studies, furthering our mission to deliver transformative educational opportunities that make ESCI at Wooster truly distinctive.

None of this would be possible without the generous support of alumni and friends like you. We encourage you to fill out the Alumni Information Form included in this report so we can celebrate your continued journeys.

Thank you for being part of the ESCI family. Your ongoing connection means the world to us.

Warmest regards,
Meagen Pollock
Chair, Department of Earth Sciences

24-25 ESCI BY THE NUMBERS

40

ESCI Majors



372

**Students in
ESCI Courses**



8

**Published
Research
Articles**



4

Active Grants



**Student
Coauthors**

16



**Scholarship
and Prize
Winners**

FACULTY & STAFF

SHELLEY JUDGE

In the summer of 2024, Shelley conducted field work in central Ohio with **Jess Link ('25)** and **Lauren Segura ('26)** to collect fossiliferous limestones. Shelley also traveled to Utah, where she taught field camp for Ohio State, continuing her decades-long support of field instruction.

During the fall semester, Shelley taught *Earth Systems and Global Change*, *Planet Earth Lab*, and *Oceanography*. She mentored **Rheo Hendrickson ('25)**, **Jess Link ('25)**, **Des Smith ('25)**, and **Kendall Travarca ('25)** on the first semester of their Senior I.S. projects. Their projects were diverse: Rheo analyzed the morphology of stromatolites from the Sanpete Valley in Utah. Jess conducted a biostratigraphic analysis of the Columbus Limsetone. Des, a double major in Archaeology, studied the Waka' Burial 61 Akan Effigy from Guatemala. Kendall investigated antlers in Moose species.

Shelley continued to serve on a variety of committees, including one of two Wooster Faculty Athletic Representatives (FAR) to the NCAC and the NCAA and Wooster's Teaching Staff and Tenure Committee (TS&T).

In Spring 2025, Shelley returned to her alma mater and joined the faculty of the OSU School of Earth Sciences. Wooster ESCI was sad to see her go and wishes her the best in her new position.

Professor

B.S. Mount Union University,
1991

M.A.T. Kent State University,
1992

M.S. Ohio State University, 1998

Ph.D. Ohio State University, 2007
Wooster since 2008



EVA LYON

Dr. Lyon has returned to her undergraduate alma mater as a visiting assistant professor at The College of Wooster. Following graduation, she spent a few years pursuing a master's degree, and working as a seasonal park ranger. She ultimately earned a PhD in 2020 from The University of Kentucky, working on the light stable isotope geochemical record of June Lake. June Lake has been a fruitful site to study Holocene climate change in the eastern Sierra Nevada – Lyon just put out a new paper on the oxygen isotope record in early 2025 (see also Lyon et al., 2019; Lyon et al., 2020; Streib et al., 2021). Lyon has recently become more active in studying the limnogeology of the eastern US, studying Brown's Lake bog in northeast Ohio with **Dr. Wiles**, and a newly identified paleo-lake (Paleo-Lake Buckeye) in West Virginia with colleagues from Ohio University. She presented preliminary findings on the sedimentology of Buckeye at the regional Geological Society of American meeting in Erie, PA this past spring.

Visiting Assistant Professor
B.A. The College of Wooster, 2007
M.S. Utah State University, 2011
P h.D. University of Kentucky, 2020
Wooster since 2024



Lyon kept busy prepping new courses (*Cave Geology* in the fall, and *Intro to GIS* in the spring) and getting re-acquainted with the Independent Study process. She ushered two students across the IS finish line this year: **Rheo Hendrickson ('25)** and **Jess Link ('25)**, who studied stromatolites from the Green River Formation, and the biostratigraphy of the Columbus Limestone, respectively. Lyon also advised four Junior IS projects with wide-ranging topics, from diatoms in a Sierra Nevada Lake (**Lilian Martin '26**), to Holocene climate in the Petén region of Guatemala (**Ryann Taylor '26**), to Ordovician bioeroders in the Cincinnati Arch (**Taylor Grant '26**), to a new Pleistocene paleolimnological record from West Virginia (**Evie Sanford '26**). She also taught three sections of *Earth Systems and Global Change*, which both fills the MNS requirement for non-majors, and serves as the new entry point for students perusing a major in our department.

Lyon has enjoyed engaging students with important and societally relevant content (i.e., climate change), and exposing them to new topics within the earth sciences. One of these new topics, and a favorite experience from last year, was a trip to eastern West Virginia for the Cave Geology class field trip. Eight students, ESCI technician Nick Wiesenbergh, and Dr. Lyon explored three different caves, emerging a little bit wetter and muddier from each one.

MEAGEN POLLOCK

Meagen taught *Earth Materials* in the fall and *Igneous and Metamorphic Petrology* in the Spring.

Meagen mentored four seniors in Independent Study. **Vince Baioni ('25)** modeled storm surge for a Category 5 hurricane landfall in Key West, FL. **Tyrell Cooper ('25)** analyzed the relationship between extreme weather conditions and climate modes in the North Atlantic Ocean. **Lee (Atlas) Dwyer ('25)** studied the influence of climate on the evolution of color terminology in Arabic. **Hayden Jacoby ('25)** examined the morphology of olivine in glaciovolcanic basalts to decipher magmatic processes. Meagen also had the honor of working with **Des Smith ('25)** in the spring semester on Des' joint Archaeology-Earth Sciences research.

Meagen mentored seven junior I.S. students: **Cate Barkdoll ('26)**, **Neil Edmiston ('26)**, **Ihaja Metz ('26)**, **Elliot Miller ('26)**, **Molly Schlabach ('26)**, **Lauren Segura ('26)**, and **Luke Woodfill ('26)**.

Their proposed research explores natural hazards (wildfires, floods, derechos) and using petrological and geochemical approaches to understand natural systems (continental rifts, glaciovolcanism, planetary environments, and natural waters).

In the Wooster X-ray Lab, Meagen mentored **Ihaja Metz ('26)**, **Mary Palmieri ('26)**, **Cooper Norwell ('27)**, and **Isobel Yasenchak ('27)**, who analyzed major and trace element compositions of 200-million-year-old diabase from Pennsylvania. Mary created an R-script to process raw XRF data.

Meagen continues to serve as Chair of the department. She also started a term as Associate Dean for Experiential Learning in APEX, where she helps students, faculty, and staff with internships and other forms of hands-on, real-world education. This year, Meagen was honored to be appointed to The Lewis M. and Marian Senter Nixon Professorship in the Natural Sciences.

Professor & Department Chair
Assoc. Dean Experiential Learning
Lewis M. and Marian Senter Nixon
Professor of Natural Sciences
B.S. Marshall University, 2001
Ph.D. Duke University, 2007
Wooster since 2008

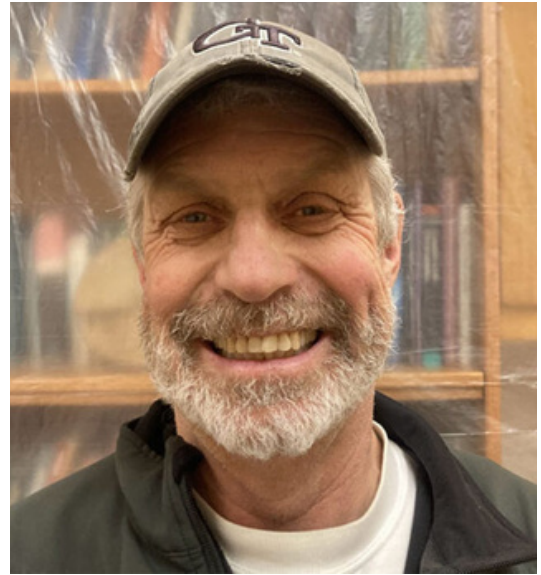


GREG WILES

In the fall, Greg taught *Modern Climate Change*, *Geomorphology* and a tutorial on *Statistics using R*. He taught *Paleoclimate* and the *lab of Planet Earth* in the Spring.

Greg worked with seniors **Amanda Flory ('25)** on the tree-ring record of yellow spruce trees from Southeast Alaska as a record of volcanic cooling and cooling internally-forced by Northeast ocean-atmosphere climate variability, and **Mihalis Protopapadakis (Proto; '25)**, double major in ESCI and Archaeology, who combined their interest to work on the Wooster – excavated Pella Archaeology Site in Jordan. Amanda and Proto traveled to Ketchikan and Klawock, Alaska with Nick Wiesenberg and Greg to sample trees with Tlingit-Haida youth and both students presented results of their Alaska work at the GSA meeting in the spring. **Lilly Hinkley ('25)** examined the flux of character if icebergs from several tidewater outlet glaciers in Greenland using radar data. Lilly's work, which was part of here summer internship at Cornell University. She presented results of here research at the December AGU meeting. **Grace Neuman ('25)** summarized the sedimentology, geochemistry and radiometric dating of lake sediments from Browns Lake that recorded land use changes associated with European Settlement. Grace also presented her results at the GSA meeting in the spring. **Kendall Travarca ('25)** completed her IS on using statistical analyses to help differentiate between species of moose and contribute to an understanding of their evolution. Several member of *Modern Climate Change* (**Evie Sanford ('26)**, **Anika Knowles ('27)**, **Lynnsey Delio ('26)** and **Laurel Andrews ('25)**) also presented results of their work examining climate and the growth of deciduous conifers at Secrest Arboretum at the Spring GSA meeting.

Professor
Ross K. Schoolroy
Chair of Natural Sciences
B.A. Beloit, 1984
M.S. SUNY Binghamtom, 1987
Ph.D. University at Buffalo, 1992
Wooster since 1998



Greg is working with juniors **Lynnsey Delio ('26)**, who will be working with Nick and Greg on a Keck Geology project in the summer traveling to Juneau and Angoon in Alaska along with four other students. **Mary Palmieri ('26)** will be leveraging a network of tree-ring records to model the variability of cloudiness over several centuries. **Chanel Harris ('26)** focused on a geotechnical analysis of the mass movements of Fern Valley (The College of Wooster field station) for her junior IS and **Bella Woodbury ('26)** completed a study on the South Wellfield and groundwater modeling as the Wooster community expands the wellfield. **Aaron Walter ('26)** focused on investigating the hydrology of Apple Creek in Wooster and the unique setting of the creek as one of the few streams in Ohio that can support a trout population.

Wenshuo Zhao ('23) recently published his IS in the journal *Dendrochronologia* with coauthor Nick and Greg describing his work in improving the climate signal in blue intensity tree-ring chronologies from Alaska. Greg and Mark Wilson were coauthors with several researchers from the University of Cincinnati led by Aaron Diefendorf, on project that included work at Browns Lake and appeared in *Organic Geochemistry*. Greg, Nick, Meagen Pollock and several Wooster students published a paper in *Dendrochronologia* that describes the climate response of seven white oak tree-ring records from the Wooster area.



NICK WIESENBERG

The position of Geological Technician within the Department of Earth Sciences is one which lends itself to being a person who wears many hats. Each day is often unlike the previous which makes coming to work both exciting and rewarding. Coupled with department faculty that are truly “rock solid”, it’s truly a dream position! Nick’s daily duties include maintaining the department’s equipment, conducting lab safety checks, keeping consumable items stocked, and working directly with students and faculty to ensure that Earth Scientists may remain focused upon their respective research projects. Nick is the curator for the College’s weather station, stream-monitoring equipment, and geographic information systems (GIS) image-based data collections at Fern Valley. He has received additional training in chemical safety, hazardous waste

disposal and transport, operating GIS equipment and software, and wilderness first aid. Nick monitors and maintains the seismic station located on campus and is also in charge of archiving datasets, rock, mineral, and wood sample specimens for the department’s various disciplines. He assists students first-hand within the labs and the field with software, equipment usage and training as well as a diverse gambit of dendrochronological analysis and research. Over the past year he has sampled numerous historic structures throughout Ohio to provide the property owners with build dates on their old house, cabin or barn using tree-ring dating. Unraveling these mysteries is both exciting and rewarding. Nick enjoys spending his free time outdoors and is an active volunteer at Wooster Memorial Park, Vulture’s Knob, and the City of Wooster. Nick is also on the board of the Killbuck Watershed Land Trust, a non-profit organization dedicated to the preservation and conservation of the rural and natural integrity of land throughout the Killbuck Creek watershed and neighboring areas.

Department Technician
since 2009



RESEARCH HIGHLIGHTS

*College authors in red. *Denotes student authors.*

Featured Publications

Lyon, E. C., Erhardt, A. M., Streib, L. C., Zimmerman, S. R., & McGlue, M. M. (2025). A high-resolution record of Late Holocene drought in the eastern Sierra Nevada (California, USA) from June Lake carbonate geochemistry. *Quaternary Research*, 123, 1-15.

Wiles, G., Wiesenberg, N., Pollock, M., *Denes, C., *Cooper, T., *Smith, D., & *Wiles, M. (2025). Changing climate response of Northeast Ohio white oaks, USA: Is it tree age or site age?. *Dendrochronologia*, 91, 126307.

*Zhao, W., *Fu, J., Wiesenberg, N., Gaglioti, B. V., & Wiles, G. C. (2025). Improving the climate signal of tree-ring blue intensity of sub-fossil wood using hydrogen peroxide: An example from the gulf of Alaska, USA. *Dendrochronologia*, 91, 126340.

Featured Presentations

*Flory, A., Wiesenberg, N., *Protopapadakis, M., Girt, B., Gaglioti, B., and Wiles, G. (2025). Can volcanic events force decadal cooling in the North Pacific?. *Geological Society of America Abstracts with Programs*. Vol. 57, No. 3, doi: 10.1130/abs/2025NE-407487.

*Hinkley, L. and Culberg, R. (2024), Investigating Submarine Iceberg Geometry in Tidewater Glacier Fjords in Greenland Using Ice-Penetrating Radar. Abstract C21F-0422, AGU Fall Meeting, San Francisco.

*Neuman, G., *Sanford, E., *Rothstein, P., Wiesenberg, N., Lyon, E., Wilson, M.A., *Pozefsky, M., and Wiles, G. (2025). A lake record of environmental change in northeastern Ohio since European colonization. *Geological Society of America Abstracts with Programs*. Vol. 57, No. 3, doi: 10.1130/abs/2025NE-407502.

RESEARCH HIGHLIGHTS

*College authors in red. *Denotes student authors.*

Featured Presentations

*Segura, L., Wiesenberg, N, *Walters, A., *Diehl, I., *Sanford, E., Gaglioti, B., and Wiles, G. (2025). Five new mountain hemlock tree ring chronologies from Southeast Alaska: New records of climate. Geological Society of America Abstracts with Programs. Vol. 57, No. 3, doi: 10.1130/abs/2025NE-407485.

*Sanford, E., *Delio, L., *Metz, I., *Knowles, A., *Andrews, L., Wiesenberg, N., Pollock, M., and Wiles, G. (2025). Using dendroclimatic analysis of exotic deciduous conifers in an arboretum to document tree growth in response to climate change, Northeast Ohio, USA. Geological Society of America Abstracts with Programs. Vol. 57, No. 3, doi: 10.1130/abs/2025NE-407602.

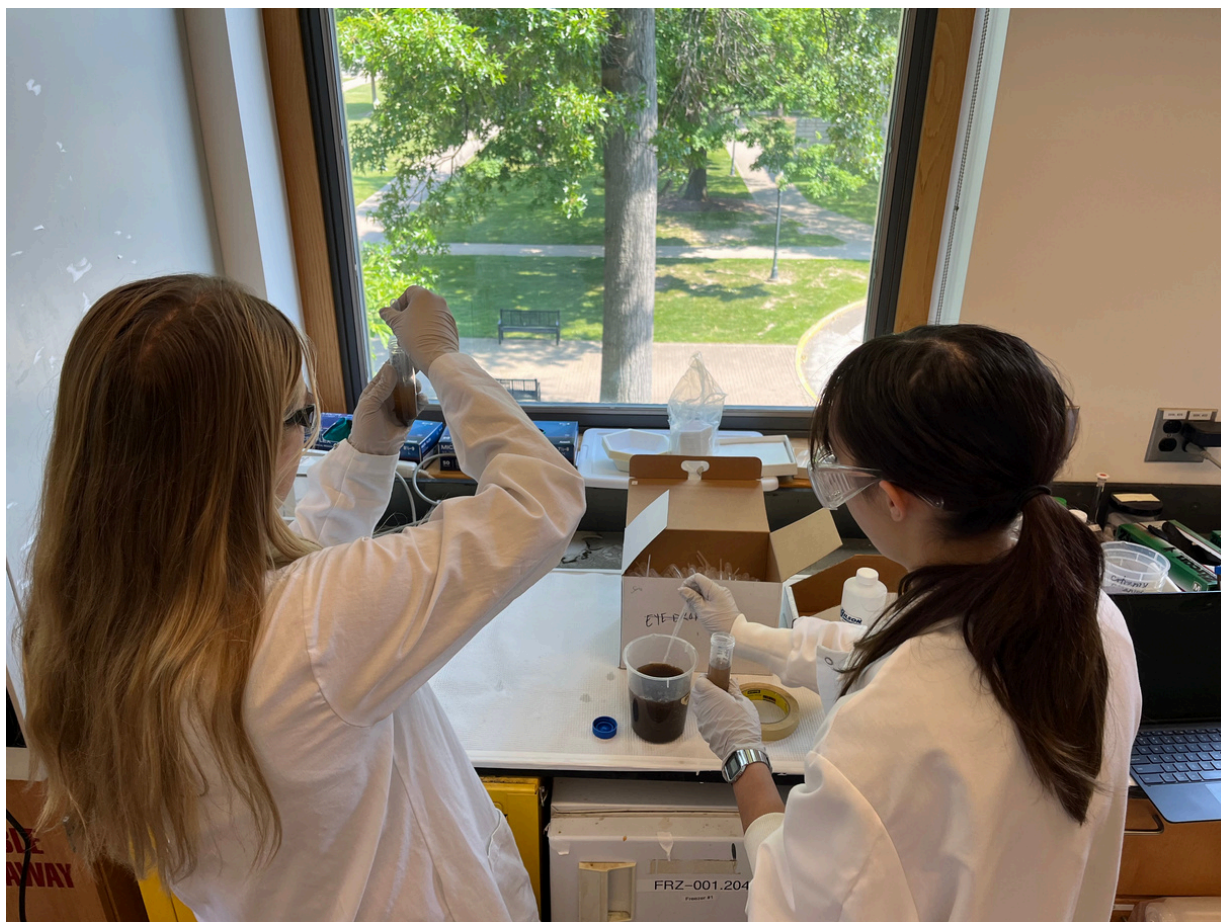
New Grant Funding

Greg Wiles (PI) and Nick Wiesenberg (co-PI). Climate and Tree Growth in Southeast Alaska. Supports two project directors and five students to (1) develop tree-ring chronologies adding to a growing network of records from Alaska and the Yukon and (2) use these data in climate analyses and modeling. The group will conduct their work in summer 2025, including certification in wilderness first aid, training in the Wooster Tree Ring Lab, and field work at coastal sites near Juneau, Alaska. NSF REU subaward through the Keck Geology Consortium.



New Lab Equipment

Meagen Pollock (co-PI) secured Pittcon grant funding with Jennifer Faust (Chemistry) to support the acquisition of a portable X-ray Fluorescence Spectrometer (pXRF). The pXRF will be used by Archaeology, Chemistry, and Earth Sciences students to analyze the composition of materials in the field and lab, including artifacts, forensic evidence, metal-based pigments, economic ores, and lake cores.



ESCI student researchers working on lab projects.

CLASS OF 2025 & SENIOR I.S.

VINCE BAIONI

ANALYSIS OF STORM SURGE IN KEY WEST, FLORIDA IN THE EVENT OF A WORST-CASE SCENARIO CATEGORY 5 HURRICANE LANDFAL

Climate change is causing hurricanes to become stronger and more frequent. These storms will continue to pose a threat to the populations along the U.S. Atlantic coastline. These regions are growing significantly in development and population size. Many of these locations are extremely susceptible to storm surge, one such place is Key West, Florida. In this study, I examine the worst-case scenario storm surge the city can experience. Based on historical case studies, I created a hypothetical hurricane named Emilio that includes the meteorological conditions to allow for maximum storm surge potential. I used ArcGIS Pro and publicly available elevation data to simulate flooded areas during storm surge events of different intensities. In all cases, Key West will be almost completely inundated with storm surge. The only area that might avoid inundation is the western portion of the city. Because hurricane Emilio's upper right quadrant will impact the city, Key West will also be severely damaged by the winds of a category 5 hurricane. While the western section of the city might not be entirely inundated with storm surge, it will experience 165 mph winds. It is important to understand the impacts Hurricane Emilio could have because it can educate the public on the potential effects of a severe hurricane. insert activities Compared to the National Weather Service (NWS), my research uses publicly available information and historical data to create a hypothetical storm surge.

The simplified and accessible approach to mapping storm surge can be used by officials that don't have NWS data to visualize storm surge potential for their residents. My research can lead to better hurricane awareness and new building codes and mitigation techniques, which may save lives in the future.



TYRELL COOPER

CALCULATING THE RELATIONSHIP BETWEEN EXTREME WEATHER CONDITIONS & CLIMATE MODES ACROSS THE NORTH ATLANTIC OCEAN

Anthropogenic climate change affects all sectors of the planet's biogeochemical systems and the disruptions to these global systems, especially concerning the atmosphere and hydrosphere, become more apparent with each passing year. An observed weakening, or slowing, in the circulatory strength of the Atlantic Meridional Overturning Circulation (AMOC) has been present since the mid-1900s due to increased average ocean temperatures. AMOC weakening solely produces the emergence of the phenomena known as North Atlantic Warming Hole (NAWH). The relationship between ocean circulation and atmospheric processes requires intense examination now that major circulatory systems are being affected by modern anthropogenic climate change. This paper examines the intensification and shifting frequencies of climate extremes across the North Atlantic Ocean. This is achieved by identifying distinct pressure patterns using the SOM algorithm, defining CTP appropriate extreme weather conditions, and correlating the occurrence of pressure pattern dependent climate extremes to a climate mode, North Atlantic Ocean (NAO), to contextualize the proposed systemic behavioral trends. Weak positive correlations were found between the NAO and extreme cold and precipitation conditions. The NAO is seen to be in its positive phase when there is higher probability of extreme conditions describing regional air temperatures to be below the 10th percentile for at least five days and precipitation is above the 90th percentile for at least five days.

Extremely high air temperature conditions are not correlated strongly with the NAO index and there is no increased probability for any one specific heat related indices to occur. This work provides insight into future climate risks under continued AMOC weakening.



LEE DWYER

GEOCLIMATOLOGICAL IMPACTS ON LINGUISTIC TERMINOLOGY & EVOLUTION: A CASE STUDY ON ARABIC COLOR TERMINOLOGY

Scientists in the last century have made great strides in linguistic research, particularly in the field of ecolinguistics. This novel area of research examines the environmental, climatological, and geological mechanisms of influence on linguistic behavior. The synthesis and evolution of color terminology in language lies at the nexus of biological, anthropological, environmental, and climatological factors that coalesce to create hues that humans have identified in various ways to describe the world around them. In the Arabic language, colors are generally classified into eleven basic categories. Some of these categories are borrowed or inferred from nearby languages or adopted artificially, but others developed as a result of anthropological effort to describe environmental phenomena for the sake of survival. This study examines the variegated elements contributing to the general development of lexical color terms in Arabic and isolates the environmental factors that have been empirically found to have a concentrated effect on Arabic's linguistic function.



AMANDA FLORY

VOLCANIC SIGNATURES IN YELLOW-CEDAR: UNDERSTANDING MECHANISMS OF THE PACIFIC DECADAL OSCILLATION

The Pacific Decadal Oscillation (PDO) is defined by sea-surface temperatures (SSTs) in the North Pacific and is a primary driver of climate in the Gulf of Alaska (GOA) (Mantua and Hare, 2002). Characterized by decades-long regime shifts of warm or cool SSTs along the GOA, fluctuations in the PDO have the potential to impact marine resources in the North Pacific and adjacent North American climate (Mantua et al., 1997). The short observational record of the PDO (1900-present) only covers 4-5 regime shifts, thus longer records are needed to characterize how sensitive this phenomenon is to climate forcing. While the mechanisms behind PDO shifts are not well understood, modeling experiments suggest that large stratospheric volcanic eruptions have previously shifted the PDO into a negative mode (Wang et al., 2012). Stratospheric tropical eruptions eject sulfate aerosols into the atmosphere, modifying the Earth's albedo and eventually cooling regional SSTs. Several large volcanic eruptions documented in ice cores are known to cool SSTs in the North Pacific as evidenced by SST-sensitive tree ring records across the GOA (D'Arrigo et al., 2013). This study uses yellow cedar (*Cupressus nootkatensis*) tree ring width data from Southeast Alaska to provide additional evidence of volcanic cooling following the estimated 1458, 1600, 1695, and 1808 eruption events. Dude Mountain, located in Ketchikan, Alaska, was chosen as the study site for its high-elevation (863m) and minimized stand disturbance. This well replicated (1350-2023) ring-width record serves as a proxy for past temperatures and shows negative correlations with May, June, and July Sitka temperatures during the 1920s through the 1940s, but not with the PDO.

This possibly suggests that the series does not respond to shifts in the PDO, but instead to shifts in the Pacific current, which tend to be at their strongest during May and June. Stratospheric volcanic events can induce extended cooling to the North Pacific Current, delivering colder waters, winds, and temperatures into the Gulf of Alaska. These temperature fluctuations represent a key component of the PDO as it manifests in our study region due to the unique geospatial setting of Dude Mountain. We propose that our proxy may better reflect the Pacific Current through North Pacific Ocean heat content, which could serve as a recorder of more consistent ocean temperatures associated with PDO phases.



RHEO HENDRICKSON

MORPHOLOGICAL DIFFERENCES IN STROMATOLITES IN RESPONSE TO CHANGES IN THE GREEN RIVER LAKE SYSTEM, SANPETE VALLEY, UTAH

Stromatolites are large, layered calcareous deposits, typically found by the shore of oceans or lakes. These are formed due to interactions of cyanobacteria – a photosynthetic organism – and the surroundings, specifically, introduced sediment and minerals in the water. The resulting stromatolite formations have a variety of external and internal structures influenced by the environment in which they form. The Green River Formation is a large lacustrine deposit that formed in what is the present-day United States during the middle Eocene, and is known for a large variety of fossils, including stromatolites. The stromatolites being investigated in the Green River Formation are some of the most recent deposits, formed ~45 million years ago, around the time the lakes were fully evaporating. This research investigates if changes in stromatolites reflect the changes in the fluctuations of the lake the samples formed in. The stromatolites were collected from two locations within Sanpete valley, White Hill and Temple Hill. When investigating sample stromatolites, the alterations in their internal formation, echoed in oxygen isotope analysis results, show minute changes in water that reflect small changes in the stages of lake recession.



LILLY HINKLEY

INVESTIGATING SUBMARINE ICEBERG GEOMETRY IN GREENLAND'S FJORDS USING ICE-PENETRATING RADAR

When glaciers and ice sheets release icebergs into the ocean through calving processes, they introduce freshwater into the marine environment, influencing the salt and heat flux in the surrounding area and contributing to ice sheet mass loss. Iceberg keel shape, depth, and density all play crucial roles in determining how fast these icebergs melt and their interactions with fjord stratification and turbulence. In previous studies, iceberg density has been assumed to be the density of solid ice (917 kg/m^3), but due to the presence of air bubbles or fractures, the density of many of these icebergs may fall below the solid ice threshold. These factors influence iceberg melting behavior, making it essential to understand both iceberg geometry and density to comprehend local ice-ocean interactions and circulation patterns. While there are many ways to observe the surface of icebergs and their properties above the waterline with satellite remote sensing, measuring iceberg keel shape and estimating density below the waterline is more difficult. Here, I employ ice-penetrating radar to directly investigate submerged iceberg geometries and consider iceberg density variations in Greenland's Tords. I analyzed airborne ice-penetrating radar data from NASA's Operation IceBridge between 2011 and 2017 to distinguish between icebergs calved from ice shelves and those from ice cliffs across 12 Tords in Greenland. Submarine iceberg shape was measured for all icebergs wider than approximately 150 meters and spatial trends across Greenland's basins were examined. In total, 79 radargrams and 851 icebergs were incorporated into this study. Density is a key assumption in studies of iceberg melt rates. Since many studies rely on specific density values, ensuring they are accurate is important for determining whether their melt rate estimates can be trusted. The results reveal a diverse spatial distribution of iceberg shapes across the basins, including variations in keel depth, aspect ratio, and densities. I observe significant differences in iceberg shape and density depending on whether the iceberg was calved from an ice shelf or ice cliff. Glaciers ending in a cliff face appear to calve narrow but deeper icebergs with lower densities, whereas glaciers terminating in a floating ice shelf appear to calve wider and shallower icebergs with higher densities, suggesting they are less damaged than icebergs that calve from ice cliffs.

These findings on submarine iceberg shape and density provide foundational observations that can improve future meltwater flux estimates of icebergs and help us better understand the implications this will have on fjord and glacier systems in a changing climate context.



HAYDEN JABCOBY

USING OLIVINE TO BETTER UNDERSTAND GLACIOVOLCANISM AT BRÆÐRAVIRKI RIDGE

Bræðravirki Ridge is a hyaloclastite-dominated tindar in the Western Volcanic Zone of Iceland. Bræðravirki Ridge can provide insight as to what processes start at the beginning of a glaciovolcanic eruption. These processes are not able to be witnessed as they happen. By studying the olivine crystals found in the samples collected from previous studies, it is possible to confirm their hypotheses of magma mixing and the ridge's eruptive sequence. These samples consisted of pipes, pillow lavas, lapillistone, and intrusions. This study performed a random point count of olivine crystals in thin sections to find out their morphological distribution. Out of the polyhedral, tabular, hopper, and skeletal morphologies, most samples contained predominately polyhedral crystals. The distribution of polyhedral to other morphologies were similar between the pillow basalts and pipes. This can conclude that these two lithologies were made from the same magma and that the pipes acted as a feeding mechanism for the pillow basalts. The intrusions and the lapillistone had a noticeable increase of tabular, hopper, and skeletal in their morphological distribution. This indicates that these lithologies had a similar melt that experienced higher cooling rates for a longer duration. The observation that olivine was crystallizing during the emplacement of the extrusive units indicates that the mixing event from Topham's (2023) hypothesis is confirmed and may have initiated the eruptive event.

This could tell us that other mixing events cause eruptions within glaciovolcanic settings. A lack of dendritic morphologies alongside several embayments means more information needs to be conducted at Bræðravirki ridge.



JESS LINK

ANALYZING A PIONEERING REEF COMMUNITY FOLLOWING A DISCONFORMITY AT THE SILURIAN- DEVONIAN BOUNDARY OF CENTRAL OHIO

Understanding how reef communities may respond to dramatic environmental changes is paramount for current observation of modern-day reefs. This study aims to provide insights into regional ecological change, paleogeographic change, and sea level change following the disconformity at the Silurian–Devonian boundary of Ohio. Eastern and central Ohio underwent a series of slow and rapid transgressions from the late Silurian to the early Devonian due to global tectonic movement and lithospheric flexure related to the Acadian orogeny. At the Silurian–Devonian boundary, a disconformity separates the Bass Islands Dolomite from the Columbus Limestone. The Bass Islands Dolomite is an Upper Silurian dolostone while the Columbus Limestone is a Middle Devonian limestone made up of the Bellepoint, the Eversole, and the Delhi Members. The Bellepoint Member is a brown magnesian limestone divided into three zones: Zone A, Zone B, and Zone C (“the Coral Zone”). Nineteen lithologic hand samples and one hundred and fifteen fossil samples were collected from five localities in Delaware County, Ohio, west of the town of Bellepoint. At the scale of the exposure at Mill Creek, the sequence boundary was continuous and had a slightly irregular surface. Dominant phyla within the Coral Zone were solitary and fasciculate rugose corals and massive tabulate corals. Other phyla include echinoderms, stromatoporoids, mollusks, and brachiopods. The sequence boundary is likely the result of erosion following the transgression of Devonian epeiric seas onto land; this transgression was likely brought about by tectonism related to the Acadian orogeny and development of the western Appalachian Basin. The existence of a bioclastic wackestone and stromatoporoid-rich bindstone 50 centimeters below the Coral Zone suggests an attempt by pioneering organisms at reef development and may suggest repositioning the Coral Zone boundary. The Coral Zone likely represents a developing reef of pioneering, opportunistic species, potentially undergoing rapid autogenic succession.

Co-Social Media Chair of GeoClub
I worked as an intern for Equity & Belonging at the Center for Diversity and Inclusion at the College; I've worked there for the past four years. I plan to take a gap year (or two) before going to graduate school so that I may focus on building professional and research skills through internships and employment opportunities. I was inducted into the Phi Beta Kappa Honor Society preceding graduation.



GRACE NEUMAN

ECHOES OF EXPLOITATION: A HISTORICAL AND ECOLOGICAL STUDY OF LAND USE, LOGGING, AND ENVIRONMENTAL CHANGE IN NORTHEASTERN OHIO SINCE EUROPEAN COLONIZATION.

This study examines the environmental transformation of Northeastern Ohio since European colonization, focusing on the interplay of human activity with ecological change; land use practices include logging, farming, and other forms of environmental exploitation. Combining research previously conducted by others, chemical analysis of lake core sediments, radiometric dating using Pb-210, and direct measurement of the distribution of grain sizes. Over the past 200 years, logging, agriculture, and other environmental disturbances have led to increased sediment deposition, nutrient fluxes, and ecosystem shifts. Elemental analysis at the OSU Star Lab complements Pario sediment testing to identify grain size and nutrient fluxes through time. Preliminary results document major changes in sediment sources, including increased sediment deposition into the lake attributed to agricultural and logging activities, which have disrupted natural nutrient cycles and transformed wetland ecosystems. Particle size analysis revealed a dominance of clay-sized sediments rather than the expected silt-dominated loess, suggesting a complex interplay of hydrological and anthropogenic factors. By integrating sediment core analysis, radiometric dating, and elemental testing, this research highlights the long-lasting effect of human activity on Ohio's landscapes. This research underscores how human influence leaves a legacy on the landscape, showing a critical need for sustainable land use practices. In this respect, historical and ecological data are integrated into the study as valuable insights into the complex relationship between human activity and environmental systems within Northeastern Ohio.

LARP Club, Ballroom Dance, Wooster Coven, Geo Club, and ASC

I may end up taking a gap year as I truly need to get a drivers license, car, and money (job), before going to graduate school. I want to be more prepared this time around before stranding myself.

Dean's Scholarship, Powers Trust Scholarship, Resch Foundation Scholarship, Rindsfoos Scholarship, Federal Pell Grant, Federal SEOG Grant, Ohio Coll Oppt Grant



MICHAIL PROTOPAPADAKIS

MATERIAL GIRL IN A MATERIAL WORLD: EXPLORING THE MATERIAL AGENCY OF HUMAN SKELETAL REMAINS AND PALEOCLIMATE PROXY RECORDS FROM PELLA, JORDAN

This Independent Study presents the first published report of human remains from the College of Wooster's Pella Collection. The remains were excavated from the archaeological site of Pella, Jordan, by the College of Wooster in 1967. They were subsequently brought to the United States, where they have remained in storage ever since. This project performs an osteological analysis of the remains, as well as a paleoenvironmental analysis of ancient Jordan to investigate the relationship between paleoclimate proxy records and archaeologically-derived narratives of the ancient Near East. The results of the two analyses are examined through the theoretical lens of material agency in order to best contextualize their long and complicated histories. This study creates biological profiles for the thirteen identified individuals, and explores the different meanings attributed to the human remains across time and in different sociopolitical contexts. Similarly, the materiality of climate reconstruction is explored in order to accurately evaluate the applicability of paleoclimatic records. This project will hopefully serve as a starting point for future bioarcheological and paleoenvironmental research on the Pella Collection.



DES SMITH

PATRON DEITIES AND ANCESTRAL MAYA ONTOLOGIES: A CONTEXTUAL ANALYSIS OF THE WAKA' BURIAL 61 AKAN EFFIGY, PETÉN, GUATEMALA

In 2012, the tomb of a royal woman was discovered in a buried subphase of a central ceremonial building in the heart of ancient *El Peru-Waka'* (henceforth Waka'). The interred was identified as Lady K'abel, the site's most significant Snake Dynast whose Calakmul origins and title of *Ix K'aloomte* (roughly translated to "lady supreme warrior") positioned her as superior in rank to her spouse, 6th century classic Waka' ruler K'inich Bahlam II. Situated in the pelvis of the interred, archaeologists discovered a roughly hewn figurine. This object, has been interpreted as a fetish or effigy, depicting one of, if not the most significant of Waka's patron deities known as Akan, the god of drinking, disease, and death (Grube 2004). The object seems to be made of soft carbonate stone and of small size. Its position in the pelvis of this woman in the birthing position has been identified by Navarro-Farr and colleagues (2024) as indicative of Lady K'abel's role as a conjurer. In the following, I argue that in addition to the feature of its positioning, the object's material composition further underscores its significance.

Geoclub (President)

ASC (President)

STEM Zone ZI

I'll be taking a year to myself to give my academic brain a small break. After that its off to graduate school! Additionally I am seeking in-industry jobs to gain some experience while I take this break!

Dendrochronology Publication: Changing Climate Response of Northeast Ohio White Oaks, USA: Is it Tree Age or Site Age?

I worked at Muddy's Bar and Grill, and adeptly served as Scovel department assistant.



KENDALL TRAVARCA

ANTLER BEAM ANALYSIS OF SPECIES IN THE ALCEINI TRIBE

Moose today, known as *Alces alces*, exists as four subspecies within North America in the taxonomic tribe Alceini. While much is known about these amazing species, their ancestry remains unsolved due to lack of fossilized remains belonging to possible ancestors. Unlike species such as *Cervalces scotti*, which lived alongside *Alces alces* and have full skeletal remains, larger species such as *Cervalces latifrons* and *Cervalces latifrons postremus* exist only as remains in teeth, long bones, partial skulls, and antlers. While fossils of possible ancestors to moose, such as *Cervalces latifrons* and *Cervalces latifrons postremus*, are extremely limited, antler beams of all four species discussed are plenty within their remains. In order to gain a better understanding of these species and their relations to one other, t-tests were performed in order to determine significance between species measurements. T-test results showed that the antler beam diameters of *Cervalces scotti* and *Cervalces latifrons postremus* were the most similar relative to all other tests between other species. While these two species existed in different habitats and possibly at different times, we can hypothesize that *Cervalces latifrons postremus* may have faced displacement in forests and may have been forced to become smaller over time due to lack of resources in an unfit environment. This shrinkage in size may have resulted in fossils that measure to the sizes of *Cervalces scotti*.

WOOD's Club and Geoclub
I will be taking a gap year.
Dean's Scholarship



SENIOR IS SYMPOSIUM



Vincent Baioni | 2025 I.S. Symposium

Name: Vincent Baioni Title: Analysis of Storm Surge in Key West, Florida in The Event of a Worst-Case...

 The College of Wooster / May 1



Tyrell Cooper | 2025 I.S. Symposium

Name: Tyrell Cooper Title: Calculating the Relationship Between Extreme Weather Conditions...

 The College of Wooster / May 1



Lee [Atlas] Dwyer | 2025 I.S. Symposium

Name: Lee [Atlas] Dwyer Title: Geoclimatological impacts on linguistic terminology and evolution: A...

 The College of Wooster / May 1

SENIOR IS SYMPOSIUM



Amanda Flory | 2025 I.S. Symposium

Name: Amanda Flory Title: Volcanic Signatures in Yellow-Cedar: Understanding Mechanisms of the...

 The College of Wooster / May 1



Lilly Hinkley | 2025 I.S. Symposium

Name: Lilly Hinkley Title: Investigating Submarine Iceberg Geometry in Greenland's Fjords Using Ice...

 The College of Wooster / May 1



Michail Protopapadakis | 2025 I.S Symposium

Name: Michail Protopapadakis Title: Material Girl in a Material World: Exploring the Material Agency of...

 The College of Wooster / May 1

SENIOR IS SYMPOSIUM



Desiree Smith | 2025 I.S. Symposium

Name: Desiree Smith Title: Patron Deities and Ancestral Maya Ontologies: A Contextual Analysis ...

 The College of Wooster / May 1



Kendall Travarca | 2025 I.S. Symposium

Name: Kendall Travarca Title: Antler Beam Analysis of Species in the Alceini Tribe Major: Environmenta...

 The College of Wooster / May 1

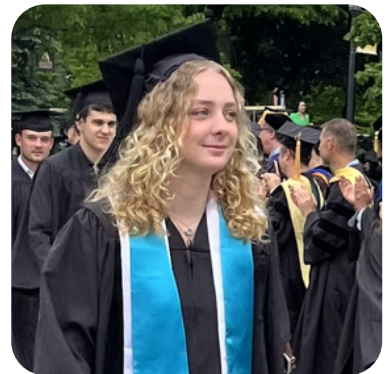
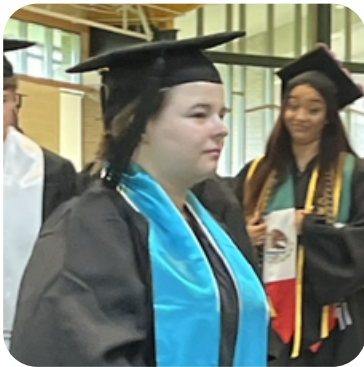


Jess Link ('25, right) at I.S. Symposium with alumni **Cam Matesich ('14, left)** and **Hudson Davis ('24, middle)**.

COMMENCEMENT 2025



COMMENCEMENT 2025



MEET OUR MAJORS

CLASS OF 2026



Cate Barkdoll



Lynnsey Delio



Neil Edmiston



Taylor Grant



Chanel Harris



Lilian Martin

CLASS OF 2026



Ihaja Metz



Elliot Miller



Ethan Ostrow



Mary Palmieri



Evie Sanford



Molly Schlabach

CLASS OF 2026



Lauren Segura



Ryann Taylor



Aaron Walters



Bella Wodbury



Luke Woodfill

CLASS OF 2027



Arjan Chahal



Damien Gately



Riley Higgins



Anika Knowles



Anna Lundquist



Ethan Neuner

CLASS OF 2027



Cooper Norwell



Somkene Obiechina



Maddie Ostapchenko



Cheyenne Wentz



Li Winner



Avi Wolkenberg

CLASS OF 2027



Adam Wood



Left to right: A. Lundquist '27 and
C. Wentz '27



Geomorphology field trip

STUDENT SPOTLIGHTS

RYANN TAYLOR '26

WOODs and GeoClub

Elected to Phi Beta Kappa

Resident Assistant, Admissions Tour Guide and
Archaeology Lab Assistant

Using an APEX Fellowship for funding, I will be
traveling to Guatemala with Dr. Navarro-Farr to work
on site at El Perú Waka' and get experience working in
a lab.



MARY PALMIERI '26

Marching Band, Concert Band, Symphonic Band,
Clarinet Lessons and Geoclub

X-ray Lab Research Assistant, Music Librarian and
2025/26 Department Assistant

ODNR internship working in the core repository at
the H.R. Collins Laboratory.

Donald R. Coates Endowed Geology Scholarship and
Karl Ver Steeg Prize in Geology and Geography





STUDENT SPOTLIGHTS

IHAJA METZ '26

Marching Band, Symphonic Band, Percussion
Ensemble and Historical Fencing Club
Admissions Tour Guide, Research Assistant in the X-
Ray lab with Dr. Meagen Pollock and Sophomore
Research with Dr. Shelley Judge
I am planning on working in the X-ray lab for a bit this
summer.



LYNNSEY DELIO '26

Softball & Boys and Girls Club weekly volunteer
Fitness Center Desk Worker
Summer '25 Keck Geology Research: Climate and Tree
Growth in Southeast Alaska
Dean's List and Athletic Director's Honor Roll



STUDENT SPOTLIGHTS



TAYLOR GRANT '26

Wooster Coven and Geoclub

I am the Environmental Studies Department Assistant on campus and work at PetSmart in Massillon off-campus.

I will spend most of my summer working at the PetSmart store, but will also do some fossil collection in Maysville, Kentucky in preparation for my Senior I.S.



LAUREN SEGURA '26

COW dance company, Geology Club, Alpha Psi Omega and WOODs

Admissions Tour Guide, Research Assistant in the X-Ray lab with Dr. Meagen Pollock and Sophomore Research with Dr. Shelley Judge

I will be attending OSU's field camp, which I received an APEX Fellowship award for.

APEX Fellowship award

Cropp Endowed Geology Scholarship





STUDENT SPOTLIGHTS

RILEY HIGGINS '27

Resident Assistant, GeoClub and Intramural Tennis
I worked at Dick's Sporting Goods off campus.
KECK project in Massachusetts, working at a local
restaurant, going to Houston.
F.K. Warner Endowed Geology Scholarship



A. Wolkenberg '27



SCHOLARSHIPS & AWARDS

Molly Schlabach '26

The Karl Ver Steeg Memorial Scholarship

honors the memory of Karl Ver Steeg, who taught in the Department of Geology from 1923 until 1952. It is awarded annually to a deserving student who is majoring in Geology.



Lilly Hinkley '25

The Robert W. McDowell Prize in Geology

was established in 1945 by Phiip C. ('14) and Sarah Write McDowell ('14) in memory of their son, Robert W. McDowell ('45), who lost his life in World War II. It is awarded annually to the geology major who has the highest general standing juring the junior and senior years.



Cheyenne Wentz '27

The Margaret Reed and John O. Clay Endowed Scholarship

was established in 1985 by John R. Clay, the son of Margaret ('45) and John Clay ('43). It is awarded annually to a student who has demonstrated academic achivement.



Lauren Segura '26

The Frederick W. and Ruth Perkins Cropp Scholarship

was established in 1978 by family and friends to honor the late Mrs. Cropp, class of 1925, and the late Dr. Cropp, class of 1926, for their lifetimes of Christian service.



Mary Palmieri '26

The Karl Ver Steeg Prize in Geology and Geography

was established in 1958 to honor Karl Ver Steeg, who taught in the Department of Geology and Geography from 1923 until 1952. The prize is awarded annually to the Geology major who has the highest general standing in the middle of the Junior year.



Evie Sanford '26

The Don J. Miller Memorial Fund

was established in 1961 by the family and friends of Don J. Miller, of the class of 1940. In recognition of Mr. Miller's devotion to geology, the scholarship provided by this fund is awarded annually to a student majoring in geology.



Tyrell Cooper '25

The Charles B. Moke Prize

is given in memory of Charlie Moke ('31), who taught in the Department of Geology for 36 years. The prize consists of a field device awarded to a graduating senior who plans to make Geology a vocation and who has shown the greatest improvement during their college career.



Des Smith '25 & Jess Link '25

The Charles B. Moke and Margaret Kate Moke

Endowed Scholarships

were established in 1983 by Fritz Kate ('38), Margaret's brother. These two scholarships are awarded annually to Geology majors who have distinguished themselves by dedication to quality in their academic work, have demonstrated self-reliance, and have a sincere interest in and a concern for other people, characteristics which were exemplified by Charlie and Margaret Moke.



Riley Higgins '27

The Frederic Kent Warner Endowed Scholarship

was established in 1986 by family and friends in memory of Fred Warner ('76). Fred, originally from Orville, Ohio, was killed in a 1985 helicopter crash en route to an off-shore Alabama oil rig while working for ARCO. It is awarded annually to a Geology major.



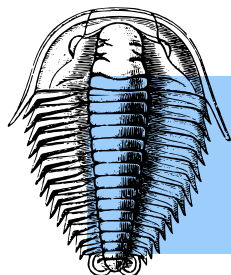
Hayden Jacoby '25 & Isabella Woodbury '26

The Robert A. Piscetta #31 and Wilson Sporting Goods Endowed Scholarship

was established in 2018 by Colleen McCauley Piscetta, a member of the class of 1989, and Wilson Sporting Goods Company to honor the memory of Robert A. Piscetta, a member of class of 1987. While at Wooster, Rob majors in geology under the mentorship of Dr. Mark Wilson and was a standout pitcher for the Fighting Scots Basement Team under Coach Tim Pettorini. After graduation, Rob was drafted as a pitcher by the Los Angeles Dodgers and then went on to a 19-year career with Wilson Sporting Goods, where he worked his way up from Ohio Territory Manager to Vice President. The scholarship carries #31 because this was Rob's favorite number, which he wore while playing baseball for The College of Wooster and the Los Angeles Dodgers. The scholarship is awarded each year to upper-class Geology majors.



Dewald recognition dinner award recipients. Left to right:
T. Cooper, N. Hohman, Dr. Pollock, C. Wentz, M. Palmieri,
L. Hinkley, A. Knowles



GEOCLUB & ESCI EVENTS

WHAT WE DID THIS SUMMER	SEPTEMBER, 2024
GEOCLUB AT STEM BASH	SEPTEMBER, 2024
GEOCLUB HIKE AT SPANGLER	OCTOBER, 2024
EARTH SCIENCES WEEK / GRAD SCHOOL FAIR	OCTOBER, 2024
STEM CAREER FAIR	OCTOBER, 2024
CAVE GEOLOGY PRESENTS	NOVEMBER, 2024
END OF SEMESTER CELEBRATION	DECEMBER, 2024
DR. BEVERLY SAYLOR (CASE WESTERN)	JANUARY, 2025
NEW MAJORS CELEBRATION	FEBRUARY, 2025
OSGOOD LECTURE - JILL PELTO	MARCH, 2025
NE-NC GSA ANNUAL MEETING	MARCH, 2025
STEPHANIE SPARKS (ARIZONA)	APRIL, 2025
DR. IAN HILLENBRAND (USGS)	APRIL, 2025
ALUMNI CAREER PANEL	APRIL, 2025
JUNIOR I.S. POSTER SESSIONS	APRIL, 2025
DOGS ON THE LAWN	APRIL, 2025



GEOCLUB & ESCI EVENTS



2024-2025 Geoclub members



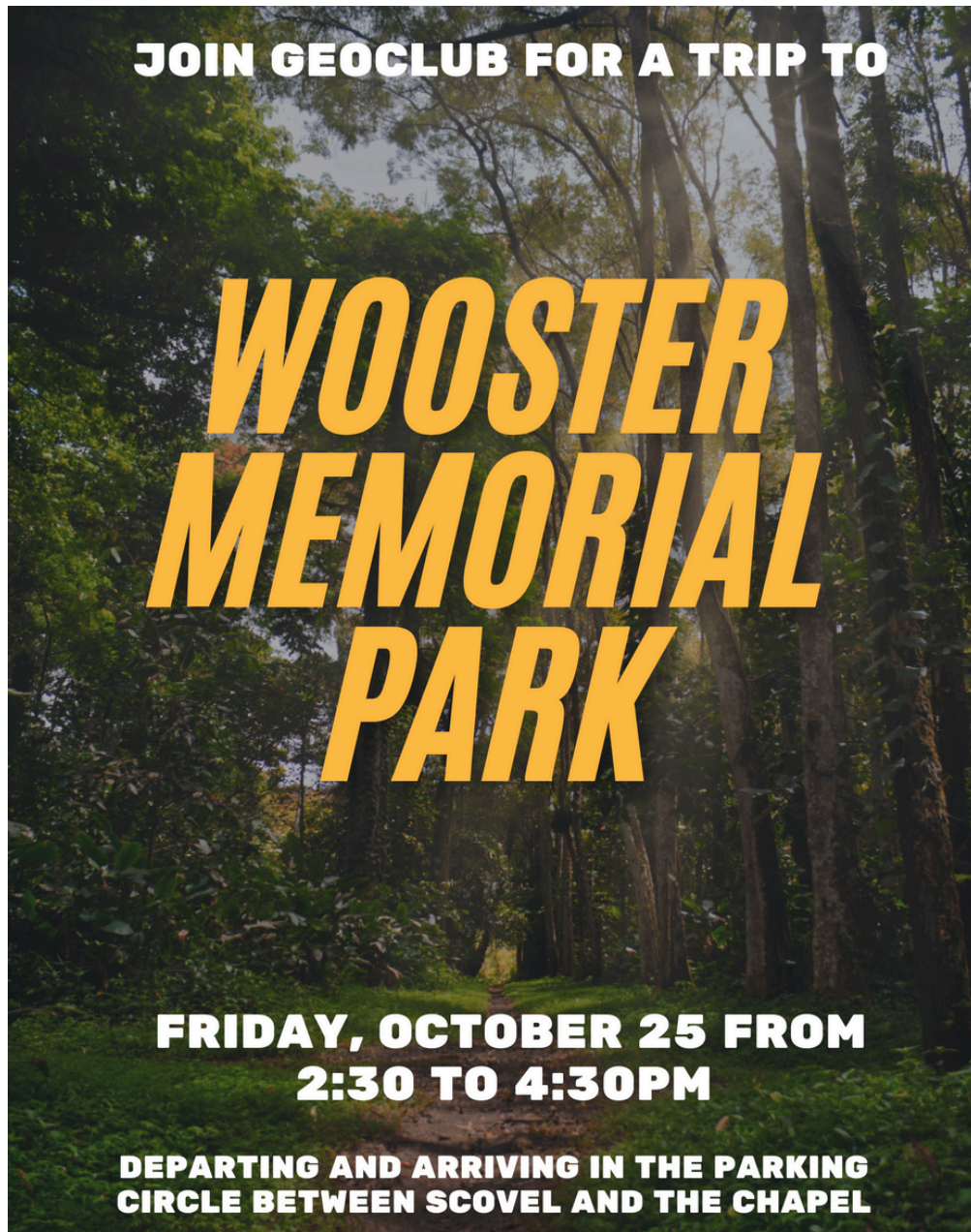
Memorial Park hike fall 2024



STEM bash fall 2024

GEOCLUB TO SPANGLR MEMORIAL PARK

Majors and lab technician Nick Wiesenberg attended a field trip adventure hike in Spangler memorial park.



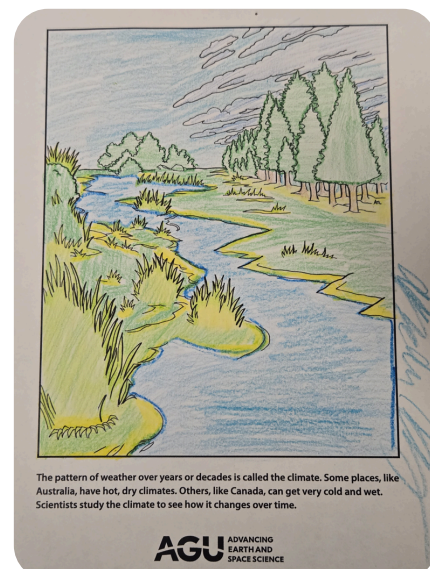
EARTH SCIENCE WEEK



rock painting



Left to right: Lauren Segura '26
and Ryann Taylor '26



STEM CAREER FAIR



ESCI SEMINAR SERIES PRESENTS

STEM CAREER FAIR



10/31 IN SCOVEL 205, AT 11AM

CAVE GEOLOGY PRESENTS

ESCI SEMINAR SERIES
PRESENTS

THROUGH THE CULVERT: DISCOVERING THE KARST WORLD OF WEST VIRGINIA

Presented by: ESCI 299 - Cave Geology
11/21 IN SCOVEL 205, AT 11AM

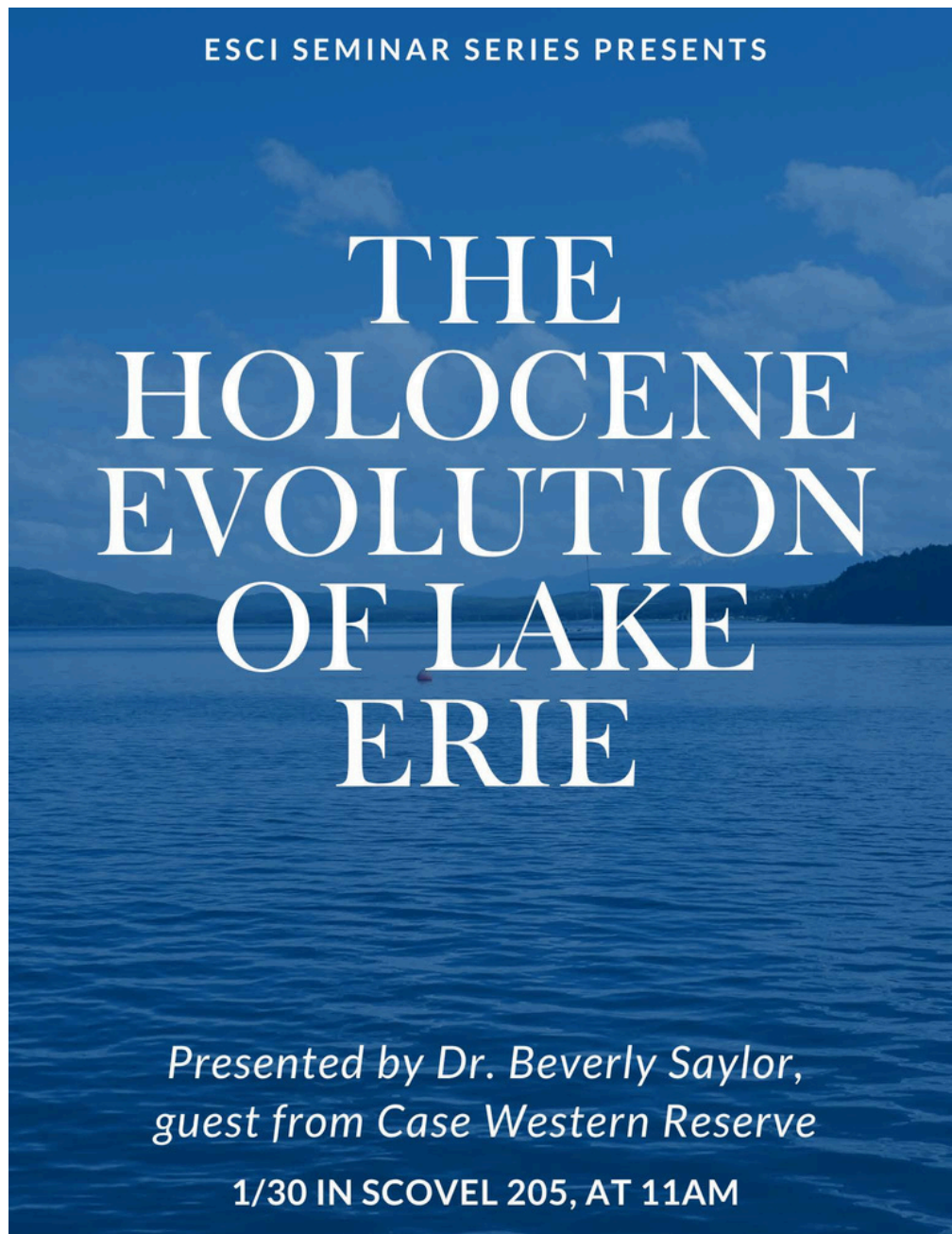
END OF SEMESTER CELEBRATION

Majors and faculty gathered for merriment and to celebrate their many accomplishments of 2024 with lunch from Chipotle.



DR. BEVERLY SAYLOR LAKE ERIE EVOLUTION LECTURE

Dr. Beverly Saylor from Case Western Reserve University spoke to our majors and faculty on the holocene evolution of Lake Erie.



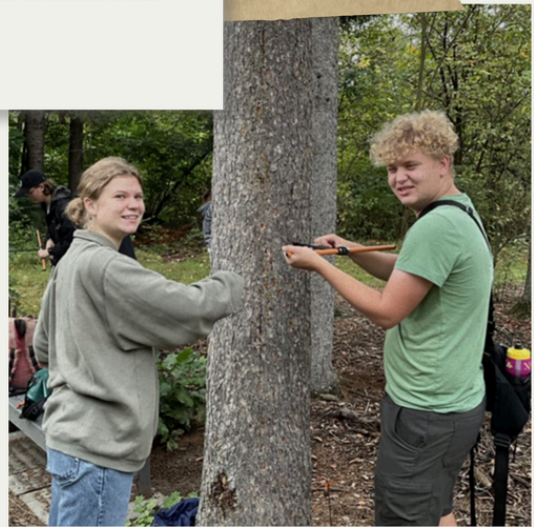
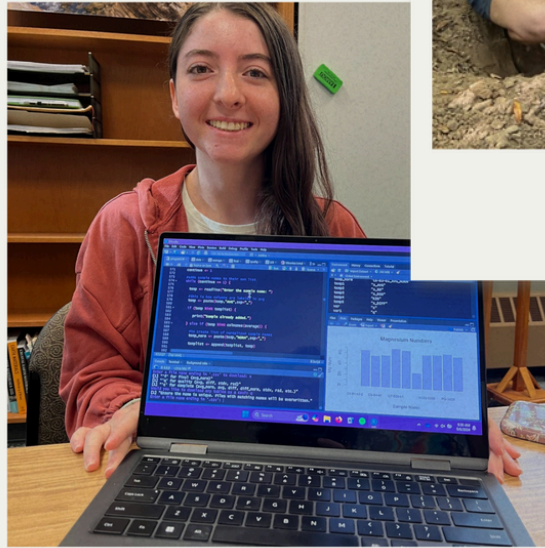
NEW MAJOR CELEBRATION

New majors were celebrated with lunch from Chipotle and a swag bag from the Earth Sciences department. Our current majors and faculty attended to welcome the new majors to the department.





Earth Materials class.



Earth Science majors in action.

43RD OSGOOD LECTURE

The Richard G. Osgood, Jr., Memorial Lectureship in Geology was endowed in 1981 by his three sons in memory of their father.

Dr. Osgood was a paleontologist with an international reputation who taught at Wooster from 1967 until 1981. Funds from this endowment are used to bring a well-known scientist interested in paleontology and/or stratigraphy to the campus each year to lecture and meet with students.



43RD OSGOOD LECTURE



Jill Pelto



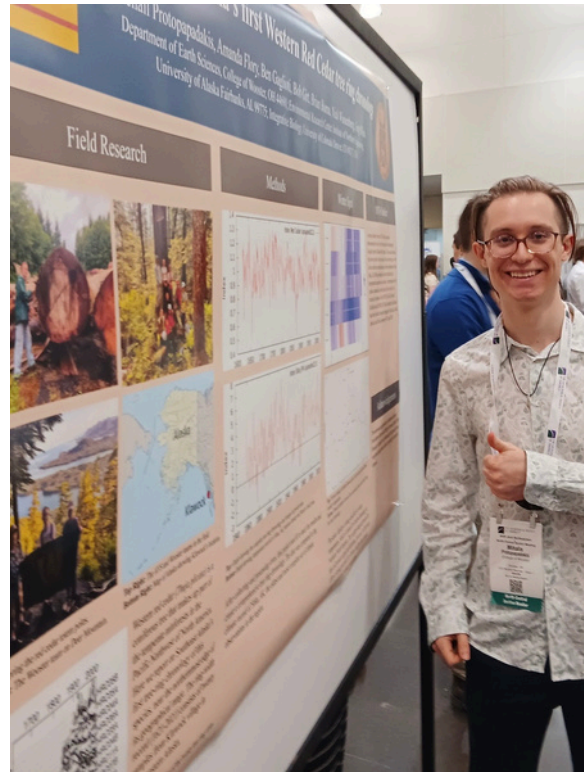
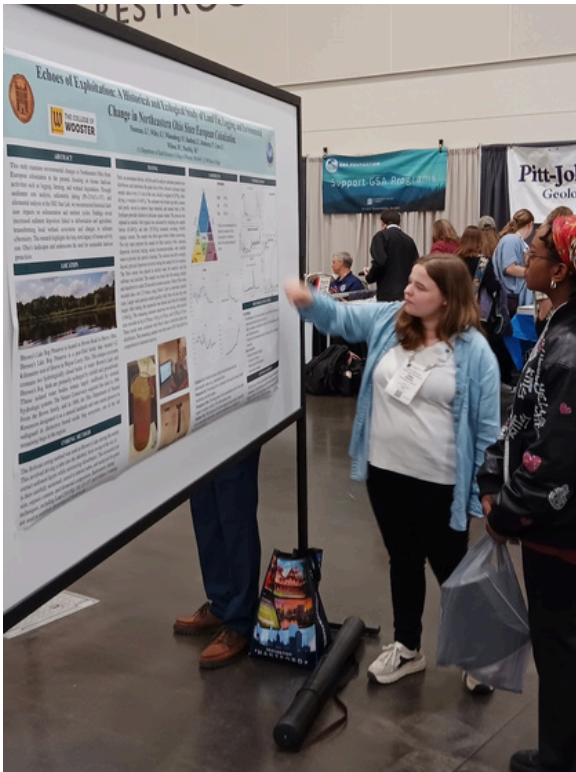
Jill Pelto

Jill Pelto's work focuses on communicating human-environment connections. She incorporates scientific data directly into her paintings to engage broad audiences using climate and conservation graphs. She is passionate about outreach and collaboration, and works with students and adults around the country in creating their own data-art.

She currently is based in Bellingham, Washington and grew up in Massachusetts, lived in Maine for a decade, and New Mexico briefly.

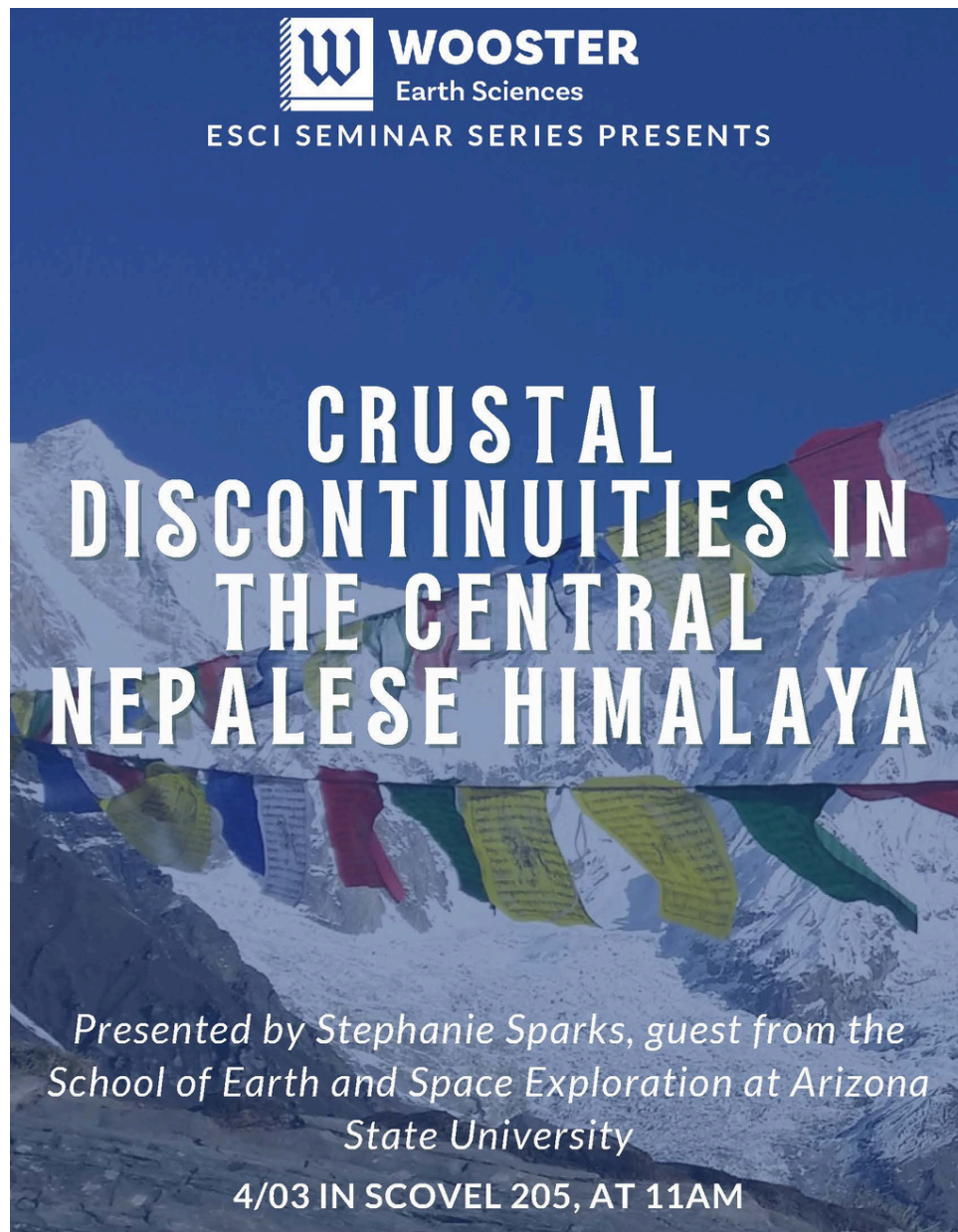
She completed a Master's of Science in August 2018, which focused on studying the sensitivity of the Antarctic Ice Sheet to changes in Earth-Climate system. She underwent this degree at the University of Maine, where she also completed B.A. degrees in Studio Art and Earth Science. She has conducted research on the mountain glaciers of Washington and British Columbia, in the Dry Valleys and Transantarctic Mountains of Antarctica, in the Falkland Islands, and in New Zealand

2025 NE-NC GEOLOGICAL SOCIETY OF AMERICA

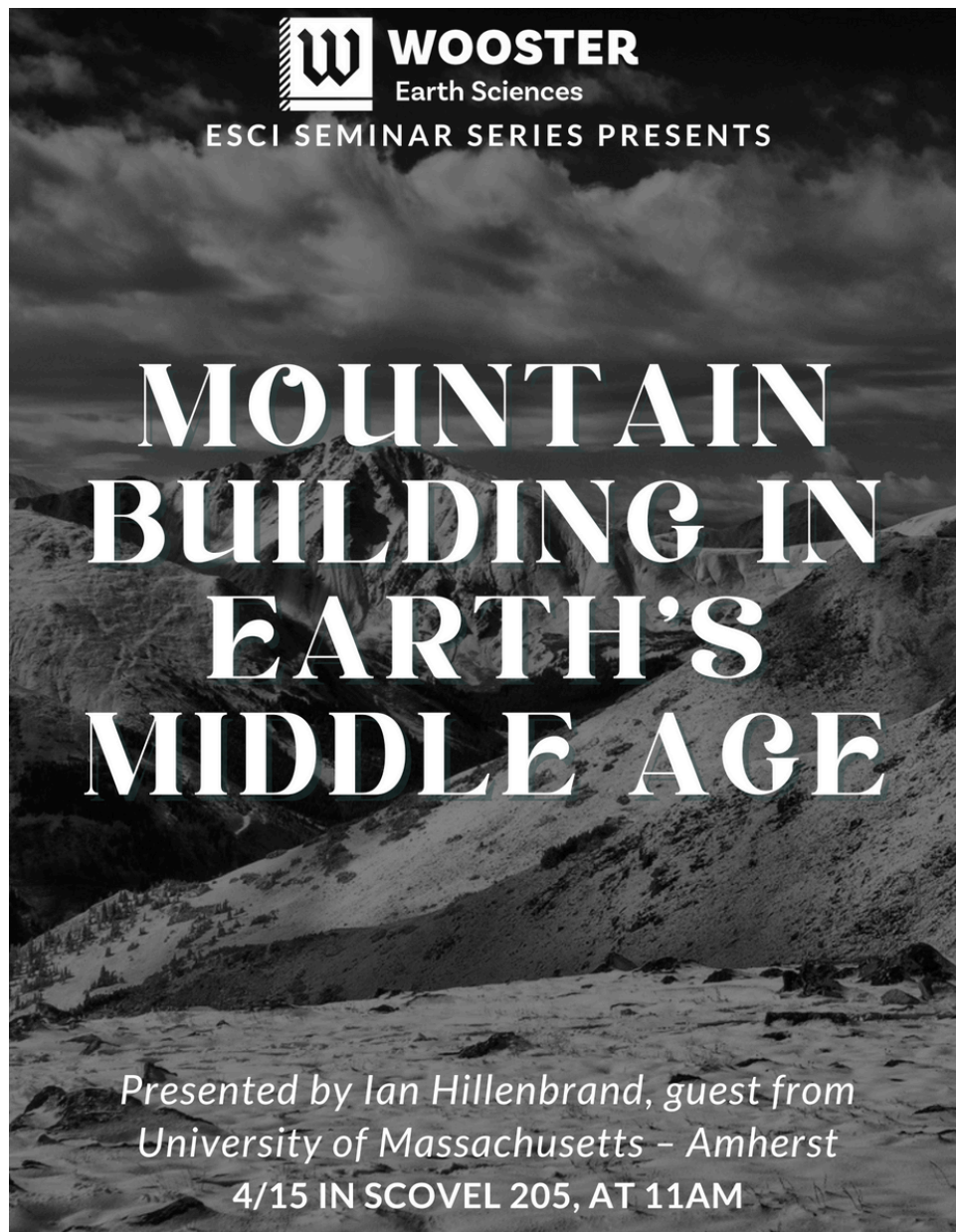


The annual meeting took place on March 27-30 in Erie , Pennsylvania.
Presentors left to right: G. Neuman '25, P. Papadakis '25, A. Flory '25

Dr. Stephanie Sparks lecture “Crustal Discontinuities in the Central Nepalese Himalaya.”



Dr. Ian Hillenbrand lecture
“Mountain Building in Earth’s
Middle Age”



JUNIOR IS POSTER PRESENTATIONS

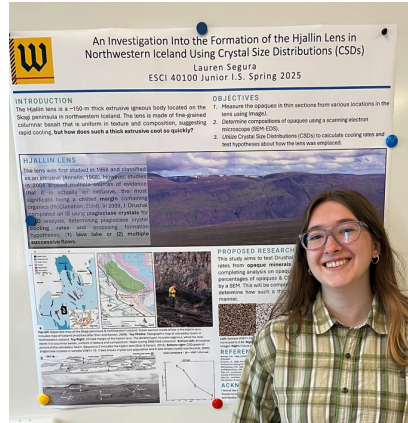
The following seventeen Juniors '26 Cate Barkdoll, Lynnsey Delio (ANTH), Neil Edmiston, Taylor Grant (ENVS), Chanel Harris, Ihaja Metz, Lilian Martin (BIOL), Elliot Miller, Ethan Ostrow, Mary Palmieri (DATA), Evie Sanford, Molly Schlabach, Lauren Segura, Ryann Taylor (ARCH), Arron Walters (MUSC), Bella Woodbury and Luke Woodfill (URBAN) presented their IS posters to the department.



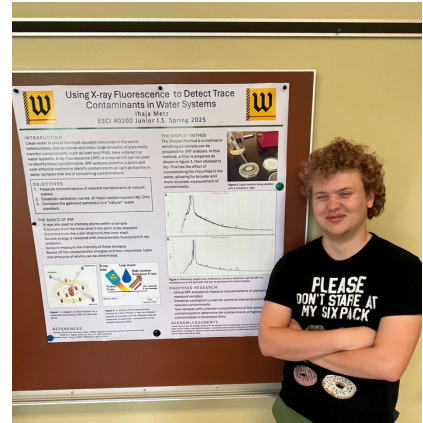
JUNIOR IS POSTER PRESENTORS



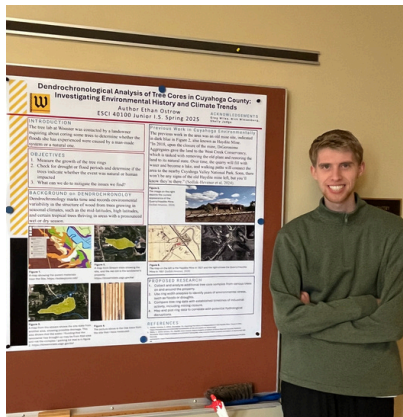
Elliot Miller '26



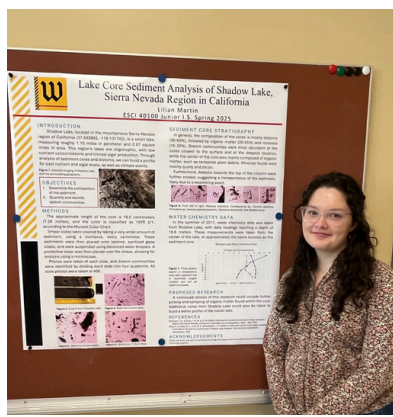
Lauren Segura '26



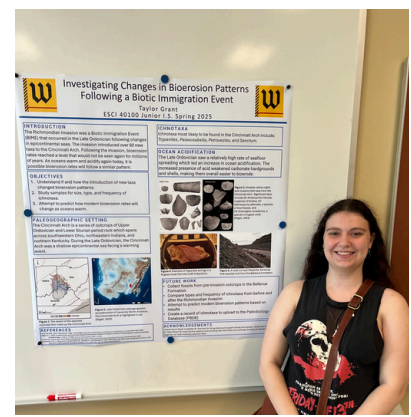
Ihaja Metz '26



Ethan Ostrow '26



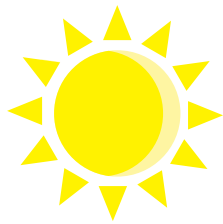
Lilian Martin '26



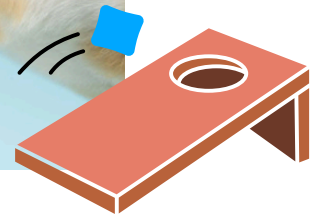
Taylor Grant '26

DOGS ON THE LAWN

Dogs on the lawn was a progressive event in the academic quad co-hosted by Earth Sciences and several other departments that included games, activities, music and picnic goodies. Faculty, students and 4-legged friends alike enjoyed an opportunity to gather for some fun in the sun to celebrate the end of a great academic year.



GAMES



ALUMNI UPDATES



Clara Deck ('17) visits with Wooster ESCI students and faculty. Clara shared her journey to becoming a Communications Specialist at NOAA.



Hudson Davis ('24) is now a full-time Assistant Science Educator for the Mammoth site in Hot Springs, South Dakota.



Michael Craigmile ('18) is a microscopist at EMSL Analytical. He connected with one of this year's seniors about pursuing lab careers.



Nicholas Fedorchuk ('12), a professor at Southern Connecticut State University, caught up with **Lauren Segura ('26)** at GSA.

Fill out the alumni information form at the end of this report to be included next year's alumni updates and panels!

Alumni Talk

Three Earth Sciences alumni will be calling in to share their post-Wooster experiences. They will be sharing advice, stories, and tips for life after undergrad!



Matthew Engler

Matthew graduated from Wooster in 2023 with degrees in Environmental Science and Environmental Studies. He is now an Engineering Technician at Clark Dietz Inc. in Wisconsin.



Melissa Dods

Melissa graduated from Wooster in 2019 with degrees in Geology and Archaeology. She now works in Atlanta as an Environmental Protection Specialist with FEMA.



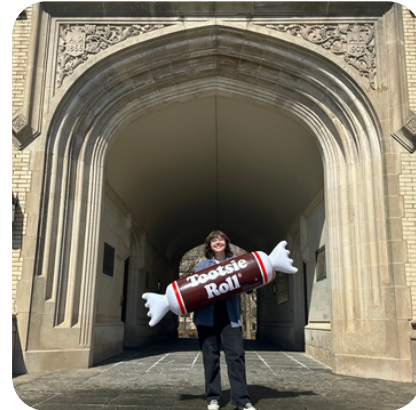
Leo Weeks

Leo graduated from Wooster in 2022 with an Environmental Geoscience degree. He then went on to receive his Masters from Indiana University Bloomington.

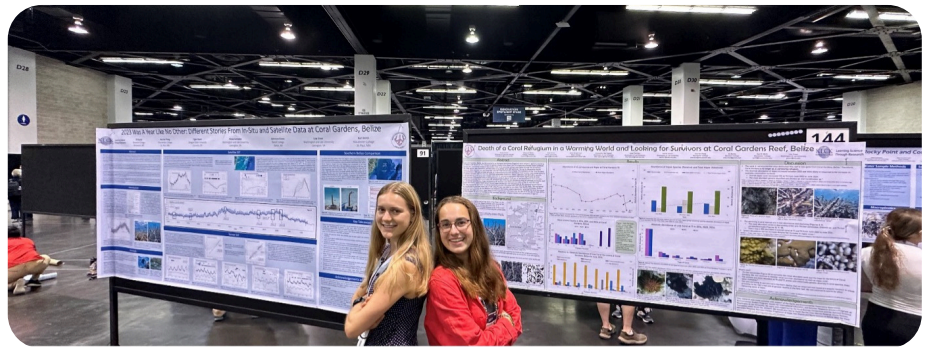
April 18th 4-5pm
Scovel 216

Thank You!

**Thanks to the George H. Davis Fund,
Jess Link ('25) studied the structure and
"stratigraphy of a disconformity in central
Ohio**



"I would like to personally thank you for the Davis Fund, as it has allowed me to do field and lab work analyzing a sequence boundary. For context, my I.S. is titled "Analyzing a Pioneering Reef Community Following a Disconformity at the Silurian-Devonian Boundary of Central Ohio" and much of the background revolved around tectonic movement and structural geology. I would not be able to complete this project without the assistance of your fund, so I am very grateful."



**Thanks to the Roger W. Stoneburner and Jean Stoneburner Funkhouser Fund,
Cheyenne Wentz ('27) and Anna Lundquist ('27) went to GSA**

"The Geological Society of America (GSA) conference was an amazing opportunity for us to learn new things while sharing our summer research and experiences with other professionals in the geology field. We presented our summer research during poster sessions, and it was fun to be able to connect with people that were interested in our projects and wanted to know every detail. It was also great to be able to see other people's projects and research, knowing that they put as much effort into their projects as we did into ours. This conference was educational not only in learning about other geologists' experiences, but also learning how to be professionals in our field and having the confidence to share our research with others."

To our dearest Earth Sciences family,

It is our greatest honor to be the undergraduate home for so many thriving alumni. From nonprofits to government, academia to industry, Wooster geoscientists are making a difference.

Our students develop a solid foundation in the Earth sciences along with real-world experiences that successfully launch their careers. They gain an edge by attending field camp, participating in safety trainings, working as interns, and learning specialized techniques. However, financial barriers can prevent deserving students from pursuing their passion for the geosciences.

Help us celebrate Dr. Mark Wilson's impact while supporting our students!



We are thrilled to announce progress toward establishing **The Mark A. Wilson Scholarship in Evolutionary Studies**, created to honor our beloved professor emeritus who inspired Wooster geologists for over four decades. This scholarship will support students whose research interests align with evolutionary studies, with preference given to those with demonstrated financial need.

We have raised \$1,350 toward our goal, but **we need your help to reach the \$50,000 endowment threshold by December 31, 2027**. Once endowed, this scholarship will provide ongoing support for students pursuing evolutionary research—ensuring Dr. Wilson's impact continues for generations to come.

How to donate:

- Visit <https://wooster.edu/give/wooster-priorities/>
- In the Designation drop-down, choose "Other"
- Write "Mark A. Wilson Scholarship in Evolutionary Studies"

Other ways to support our department:

Below are our existing endowed funds that you can also support:

- **James R. Baroffio Fund for Geologic Research** helps defray expenses for analytical work (major element, trace element, isotopic, and geochronologic studies) for Senior I.S. research.
- **F.W. Cropp III Endowed Fund for Independent Field Work in Geology** helps defray field work expenses for Geology majors conducting Senior Independent Study research.
- **George H. Davis Endowed Research Fund** supports creativity and fieldwork for geology majors engaged in Senior I.S. that includes geologic mapping and/or field-based structural geology.
- **W. R. "Ted" Danner Fund for Student Geological Fieldwork** helps defray field expenses for students and faculty engaged in geological fieldwork, whether in courses or Independent Study.
- **Karl Ver Steeg/C.B. Moke Fund for Geologic Research** helps defray field expenses for students and faculty engaged in Senior Independent Study.
- **Roger W. Stoneburner and Jean Stoneburner Funkhouser Geology Endowed Fund** supports the activities of the department.
- **Stanley M. Totten Geology Student Research Fund** supports Geology majors and their research related to their major.
- **The Sherman A. and Florence M. Wengerd Department of Geology Endowed Fund** purchases equipment and supplies for undergraduate teaching and research in sedimentology and stratigraphy, and supports faculty travel for Senior I.S. projects.
- **Designate the Department of Earth Sciences** to support the department's annual budget for student-centered classes and events.

Thank you to the many individuals, organizations, companies, and groups that have given generous gifts to support the Department of Earth Sciences and our students. Every contribution ensures that financial need never prevents a passionate student from pursuing the geosciences.

We appreciate your support! Please contact our department and/or the College of Wooster Advancement team with any questions.

STAY IN TOUCH

Help us keep our ESCI network strong! Whether you've recently graduated or it's been decades since you walked across campus, we want to hear from you. Complete our Alumni Information Form—available online or in print—so we can celebrate your achievements and keep you updated on department news and opportunities to get involved.

[Alumni update form for 2025-26](#)

Earth Sciences Alumni Information
Update form 2025-26



Date: _____

ALUMNI INFORMATION SHEET
Department of Earth Sciences

Name: _____

Attended As/ Maiden Name (if applicable): _____

Class: _____ I.S. Advisor: _____

Home
Address: _____

Telephone: _____ E-mail: _____

Advanced Degree: _____ Year: _____

Institution: _____

Advanced Degree: _____ Year: _____

Institution: _____

Position Title: _____

Business Name
and Address: _____

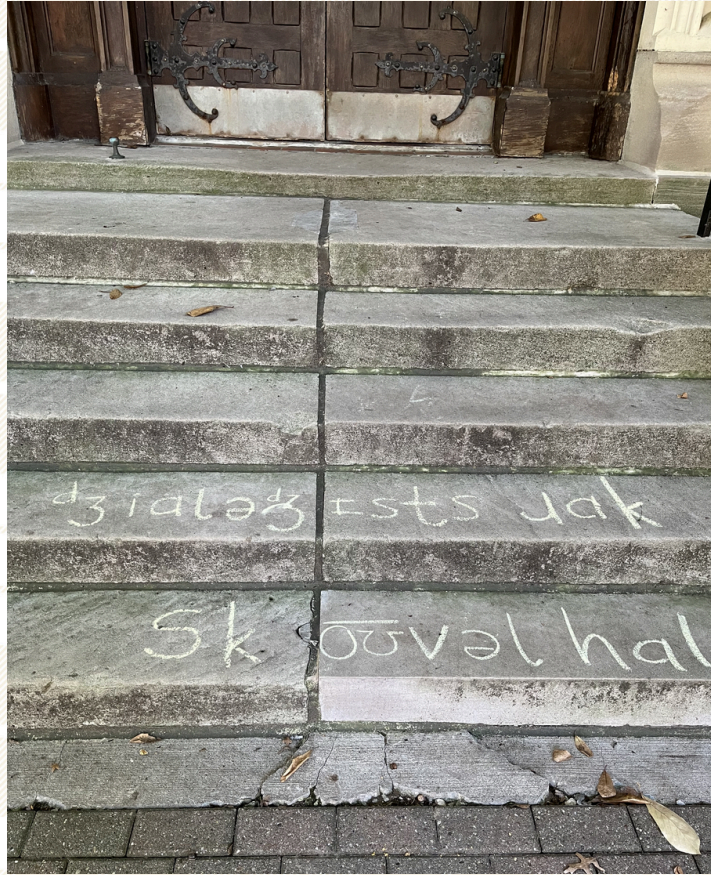
Telephone: _____ E-mail: _____

Occupation: _____

If your occupation is related to geology, please check one or more of the following:

_____ Environmental	_____ Petroleum
_____ Government	_____ Student
_____ Hydrogeology/Hydrology	_____ Teaching
_____ Minerals	_____ Other (please explain)
_____ Energy (Other)	_____

Other news you'd like to share:



THE COLLEGE OF **WOOSTER**

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🌐 www.wooster.edu/areas/earth-sciences

🌐 www.woostergeologists.scotblogs.wooster.edu

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