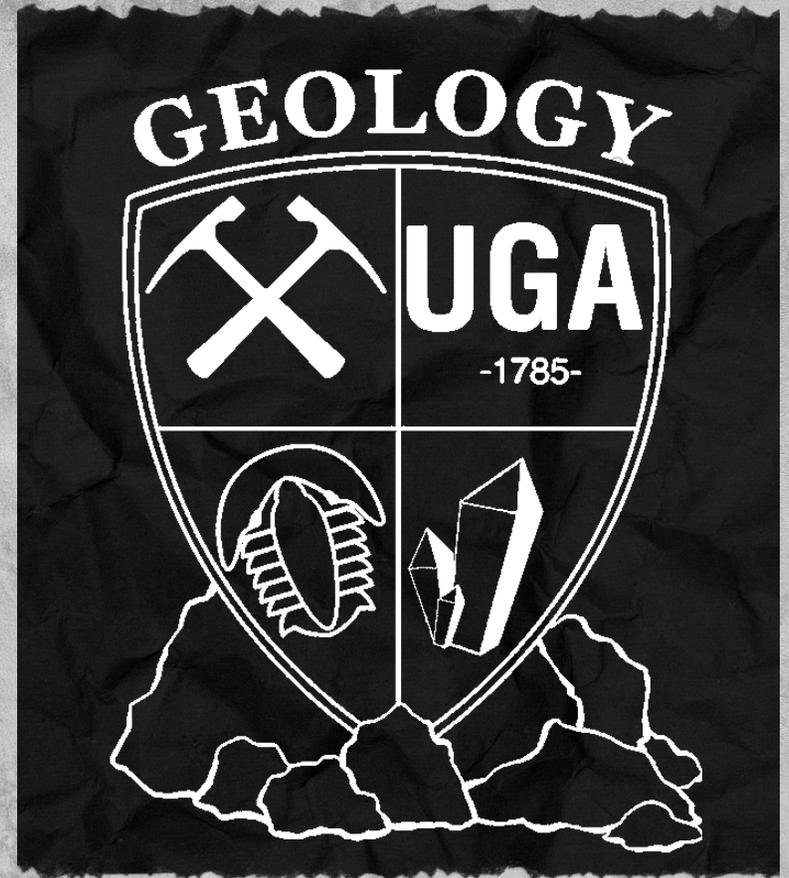


DEPARTMENT OF GEOLOGY
SINCE 1961



AWARDS CEREMONY 2024
04.26.24 | 210 FIELD STREET
ROOM 200A

WE ARE GEOLOGISTS

STAFF ACCOLADES

Our invaluable staff who make all we do
in the Department of Geology possible.
Thank you for all YOU do.

Ashley Arnold

Julie Cox

Michael Durham

Subrina Trealoff

GEOLOGY CLUB RECOGNITION

2023-2024 Officers

Sierra Wermuth – President

Jay Mrazek – Vice President

Katie Gooch - Social Media Coordinator

Baylen Carter - Treasurer

Roman Dzikowski - Outreach Coordinator

Quentin Spencer - Trip Coordinator

FACULTY PUBLICATIONS

Schroeder, P.A., Elliott, W.C., Tang, Y., and Lemke, L., (2024), Facilitating the critical mineral future: Valorization of kaolin mining waste through partnerships: *GSA Today*, v. 34, p. 60–61, <https://doi.org/10.1130/GSATG599GW.1>

Walker SE, (2023), Conservation biology and conservation paleobiology meet the Anthropocene together: history matters. *Front. Earth Sci.* 11:1166243. doi: 10.3389/feart.2023.1166243

Yazici, I. S., Cheng, H. C. J., Crane, K. T., and **Klimczak, C.**, 2024, Straight impact crater rim segments on Mercury. *Journal of Maps* 20(1), 2308687, doi: 10.1080/17445647.2024.2308687

Zimmt, J., **S.M. Holland**, A. Desrochers, D. Jones, and S. Finnegan, 2024. A high-resolution sequence stratigraphic framework for the eastern Ellis Bay Formation, Canada: A record of Hirnantian sea-level change. *GSA Bulletin*.

Zowam, F., **Milewski, A.**, and Richards, D., IV, 2023, A Satellite-Based Approach for Quantifying Terrestrial Water Cycle Intensity, *Remote Sensing*, 15(14), 3632.

ALUMNI ACCOLADES

Early Career Alumni of the Year Award
Na Hyung Choi, B.S. 2013

Distinguished Alumni of the Year Award
John Hayden, B.S. 1985

NEW ENDOWMENTS

Chemours Experiential Learning Fund

Presented by Ms. Kristen Woods

Watkins-Roden Experiential Learning Fund in Geology

Presented by Dr. Michael F. Roden

ADMINISTRATION

Department Head

Dr. Adam Milewski

Associate Department Head

Dr. Doug Crowe

Undergraduate Advisors

Dr. Doug Crowe

Dr. Rob Hawman

Graduate Coordinator

Dr. Steven Holland

Franklin College Faculty Senator

Dr. Steven Holland

ALUMNI ADVISORY BOARD

Mr. Grant Eager, Chair

Director of Tech Services, Vulcan Materials Co.

Ms. Charlotte Abrams

Branch Chief, Nuclear Regulatory Commission

Ms. Gigi Beaulieu

Senior Tech Manager, WSP, USA

Mr. Jeff Blackmon

Project Manager, Newmont Gold

Mr. Dakota Conn

Senior Geologist, Nevada Gold Mine

Mr. Skip Forsthoff

Consultant Geologist, Chevron

Mr. Ken Gillon

Consulting Geologist

Mr. Alex Glover

Director of Mining, Active Minerals International, LLC

Mr. Ed Hood

Area Landfill Director, GFL Environmental

Mr. Zach Hall

Director, Environ Science, Duke Energy

FACULTY PUBLICATIONS

Loughney, K.M., and **S.M. Holland**, 2023. The eight architectural zones of nonmarine basins. *Geosphere*: 19.

Nolan, M.R., **S.E. Walker**, T. Selly, and J. Schiffbaur, 2023. Centennial Cambrian Confusion: What is *Brooksella alternata*? *Geological Society of America, Programs with Abstracts*, Pittsburgh, Pennsylvania. Vol. 55, No. 6, 2023 doi: 10.1130/abs/2023AM-389423.

Nolan, M.R., **S.E. Walker**, T. Selly, and J. Schiffbaur, 2023. Is the middle Cambrian *Brooksella* a hexactinellid sponge, trace fossil or pseudofossil? *PeerJ* 11:e14796 <http://doi.org/10.7717/peerj.14796>.

Richards, IV., D., **Milewski, A.**, Becker, S., Donaldson, Y., Davidson, L., Zowam, F., Mrazek, J., and Durham, M., 2024, Evaluation of Remote Sensing-Based Approaches for Salt Marsh Monitoring, *Remote Sensing*, 16, 2.

Sakizadeh, M. and **Milewski, A.**, 2023, Spatial distribution pattern of groundwater contamination by cadmium, manganese, lead, and nitrate in groundwater resources of an arid area dominated by mining activity, *Environmental Geochemistry and Health*, In Press

Sakizadeh, M., and **Milewski, A.**, 2023, Identifying Source and Health Risk Assessment of Toxic Elements within an Arid Region, Iran, *Modeling Earth Systems and Environment*, In Press

Sakizadeh, M., and **Milewski, A.**, 2023, Quantifying Dynamics and Projections of Future Trends of Land use and Land Cover in part of Urmia Lake Basin by Machine Learning Techniques, Intensity Analysis and a Combined Method of Cellular Automata (CA) and Artificial Neural Networks (ANN) (CA-ANN), *Modeling Earth Systems and Environment*, 10.1007/s40808-023-01895-z

Sakizadeh, M., and **Milewski, A.**, 2023, Novel Spatial Models for Analysis of the Long-Term Impact of LULC Changes on Hydrological Components at Sub-basin Level, *Environmental Monitoring and Assessment*, 195 (5), 562.

Sakizadeh, M., **Milewski, A.**, and Sattari, M. 2023, Analysis of Long-Term Trend of Stream Flow and Interaction Effect of Landuse and Land Cover on Water Yield by SWAT Model and Statistical Learning in Part of Urmia Lake Basin, Northwest of Iran, *Water*, 15(4).

Salas, Simone Kilian, Katharina H.E. Meurer, Diana Boy, Elisa Díaz García, Susanne K. Woche, Jens Boy, Georg Guggenberger, Stephan Peth, **Paul. A. Schroeder**, and Hermann F. Jungkunst (2024) The “extra pinch” of pseudosand to enhance tropical biogeochemistry. *Journal of Plant Nutrition and Soil Science*. DOI: 10.1002/jpln.202400090.

Sarmiento FO, Haller A, Marchant C, Yoshida M, Leigh DS, Woosnam K, Porinchu DF, Gandhi K, King EG, **Pistone M**, Kavoori A, Calabria J, Alcántara-Ayala I, Chávez R, Gunya A, Yépez A, Lee S, Reap J (2023) 4D Global Montology: Toward convergent and transdisciplinary mountain sciences across time and space. *Pirineos*, 178, e075.

FACULTY PUBLICATIONS

Beddingfield, C., Crane, K. T., **Klimczak, C.**, and Cartwright, R.: Mercury's Lobate Scarps Reveal that Polygonal Impact Craters Form on Contractional Structures. *The Planetary Science Journal* 5:52, 32pp, 2024. doi:10.3847/PSJ/ad1fff

Davidson, L.J., **A. M. Milewski, and S.M. Holland**, 2023. Quantifying intermittent flow regimes in ungauged basins: optimization of remote sensing techniques for ephemeral channels using a flexible statistical classification. *Remote Sensing* 15:5672.

Dutta, Avishek, Elizabeth Connors, Rebecca Trinh, Natalia Erazo, Srishti Dasarathy, Hugh W. Ducklow, Deborah K. Steinberg, Oscar M. Schofield, and Jeff S. Bowman. "Depth drives the distribution of microbial ecological functions in the coastal western Antarctic Peninsula." *Frontiers in Microbiology* 14 (2023): 1168507.

Duttagupta S, Nynas K, Richardot W, Salam SB, Pennington M, Wong J, Van De Werfhorst LC, Dodder NG, Novotny T, Sant K, Holden PA. Influence of tobacco product wastes in a protected coastal reserve adjacent to urbanization. *Marine Pollution Bulletin*. 2024 Feb 1;199:115929.

Duttagupta S, Nynas K, Richardot W, Salam SB, Pennington M, Wong J, Van De Werfhorst LC, Dodder NG, Novotny T, Sant K, Holden PA. Influence of tobacco product wastes in a protected coastal reserve adjacent to urbanization. *Marine Pollution Bulletin*. 2024 Feb 1;199:115929.

Garrison, E.G., 2023. Sea-Level Evidence for a Significant Reduction of the Laurentide Ice Sheet in MIS 3, Georgia Bight, Southeastern United States. *Journal of Coastal Research*.

Gillikin, D.P., **Puhalski, E., **Camarra, S., *Cronin, K.E., Verheyden, A., and **Walker, S.E.** Nitrogen isotopes in the shell of the Antarctic scallop *Adamussium colbecki* as a proxy for sea ice cover in Antarctica. 6th International Sclerochronology Conference, Tokyo, Japan. 2023

Hetényi G, Baron L, Scarponi M, Subedi S, Michailos K, Dal F, Gerle A, Petri B, Zwahlen J, Langone A, Greenwood A, Ziberna L, **Pistone M**, Zanetti A, Müntener O (2024) Report on an open dataset to constrain the Balmuccia peridotite body (Ivrea-Verbano Zone, Italy) through a participative gravity-modelling challenge. *Swiss Journal of Geoscience*, 117.

Holland, S.M., 2023. The contrasting controls on the occurrence of fossils in marine and nonmarine systems. *Bollettino della Società Paleontologica Italiana* 62:1–25. invited paper
Holland, S.M., K.M. Loughney, and M. Cone, 2023. Preferential preservation of low-elevation biotas in the nonmarine fossil record. *Geology* 51:111–114.

Holland, S.M., M.E. Patzkowsky, and K.M. Loughney, 2024. Stratigraphic paleobiology. 50th anniversary issue of *Paleobiology*. 1–18.

Lord, T., **Walker, S.E.**, Crisp, E., and Aretz, M. Mississippian (Early Serpukhovian ~331–327 Ma) framework reefs hidden in the caves of Pigeon Mountain in Northwestern Georgia, U.S.A. Accepted for North America Paleontological Congress.

ALUMNI ADVISORY BOARD

Mr. John Hayden

Geology Program Evaluator, Accreditation Board for Engineering and Technology (ABET)

Mr. Frank Lieth

VP, Geological Services, Vulcan Materials Co.

Mr. Daven Mashburn

Senior Exploration Manager, Newmont Gold

Dr. Vince Matthews

Colorado Geological Survey, Retired

Mr. Ed Moritz

President, Gustavson Associates

Dr. Wes Myers

Los Alamos National Laboratory, Retired

Dr. Horry Parker

Geologist, US Army Corps of Engineers

Dr. James Saunders

Professor of Geology, Auburn University

Mr. Jeff Shellebarger

Chevron NA Exploration and Development, Retired

Ms. Kristen Woods

Mine Planner & Geologist, The Chemours Company

UNDERGRADUATE ACCOLADES

B.S. / A.B. Recipients
Fall 2023 – Spring 2024

Baylen Carter	Benjamin Kenney
Jo Durdin	Kade McClain
Roman Dzikowski	Jay Mrazek
Sophie Forbes	Ruby Parcels
Katie Gooch	Quentin Spencer
Maddie Hurd	Owen Slinn
Carter Washburn	

Outstanding Undergraduate
Students of the Year
2023-2024

Maddie Hurd & Katie Gooch

Outstanding Field Camp
Students of the Year
2023-2024

Katie Gooch & Maddie Hurd

NEW/RENEWED FACULTY GRANTS

Dr. Charlotte Garing:

NSF IRES (Track I): A Multi-Faceted Approach for Understanding Hydrologic Controls on Transmission Losses in Dryland Environments, 9/01/2020 – 8/31/2024 [\$208,956], Role: Co-PI

GA Office of Planning & Budget: Resilient and Sustainable Water-Resources Development Using Deep Groundwater in the Lower Flint River Basin, 9/01/2022 – 8/31/2027 [\$1,300,000 total / \$300,000 for Garing], Role: Co-PI

NSF MRI: Track 1 Acquisition of a High-Resolution X-ray Computed Microtomography System with In Situ Capabilities for Multidisciplinary Research and Education, 9/01/2023 – 8/31/2026 [\$1,177,779], Role: PI

Dr. Steven Holland:

National Science Foundation: collaborative research: conference: stratigraphic paleobiology field conference. EAR-2321173. Total award: \$49,111. University of Georgia award: \$15,266

Dr. Christian Klimczak:

(1) Comparing the morphological variability of shortening landforms on Mars and Mercury, NASA Solar System Workings Program; Period: August 1, 2021 to July 31, 2024

(2) Do Polygonal Impact Craters Form on Mercury's Lobate Scarps? Implications for Contractional Tectonism throughout the Solar System. NASA Discovery Data Analysis Program, June 1, 2021 to May 31, 2024

Dr. Adam Milewski:

P.I., Resilient and Sustainable Water-Resources Development Using Deep Groundwater in the Lower Flint River Basin, (2022-2027; Total: \$1,400,000)

Co-P.I. - Risk-Informed, Performance-Based Evaluation of Local and Regional Surface and Groundwater Hydrology using Alternative Conceptual Models, Chemours, (2021-2024; Total: \$355,400)

P.I. - Collaborative Research (IRES Track I): A Multi-Faceted Approach for Understanding Hydrologic Controls on Transmission Losses in Dryland Environments, National Science Foundation, (2020-2024; Total: \$299,500)

Dr. Mattia Pistone:

The excess gas paradox at volcanoes: does CO₂ favor gas accumulation in mafic magmas? National Science Foundation – Division of Earth Science – Petrology and Geochemistry (Award #2322935) [US\$ 442,241] Role: PI

FACULTY ACCOLADES

Professor of the Year
Dr. Steven Holland

Teacher of the Year
Dr. Doug Crowe

Shellebarger Professorship
Dr. Sally E. Walker

Regent's Entrepreneur Award
Dr. Valentine Nzengung

Lioba Moshi Award for Service in African
Studies
Dr. Valentine Nzengung

Senior Theses/ Research/Presentations

William Bell: Bell, William (2024) Mineral Alteration of Lunar Soil Simulants. University of Georgia CURO Symposium. Athens, GA. Abstract with program. <https://symposium.curo.uga.edu/book-abstracts>

Sali R. Boyer: Boyer, Sali R., Olivia N. Francois, Sierra J. Wermuth, William J. Bell, Grace Lang (2024) Mineral analysis of newly discovered granitic pegmatite: What it tells us about the Geologic history of the Elberton granite. University of Georgia CURO Symposium. Abstract with program. <https://symposium.curo.uga.edu/book-abstracts>.

Baylen Carter, Laubenstein, A., and Milewski, A., 2024, Database Advancement of Historical Well Logs of the Claiborne Aquifer in southwest Georgia USA, ACF Conference.

Abigail Davis: Davis, A., Walker, S.E., and Railsback, L.B., Giant barnacles as climate archives for the Middle Miocene Climatic Transition. Accepted, North America Paleontological Congress meeting, Univ of Michigan, Ann Arbor, June 2024

Davis, A., Walker, S.E., Railsback, L.B., Giant sessile barnacles as keys to unlocking marine shelf conditions during the Middle Miocene Climatic Transition, Calvert Cliffs, Maryland. Center for Undergraduate Research (CURO), April 2024.

Davis, A., Walker, S.E., Railsback, L.B., Giant sessile barnacles as keys to unlocking marine shelf conditions during the Middle Miocene Climatic Transition, Calvert Cliffs, Maryland. Geological Society of America Abstracts with Programs, Pittsburgh, Pennsylvania: Vol. 55, No. 6 doi: 10.1130/abs/2023AM-394305.

Roman Dzikowski, Laubenstein, A., and Milewski, A., 2024, Detailed Sieve Analysis of Southeast Georgia Surficial Sediments, ACF Conference.

Olivia Francois: Francois, Olivia, Sierra Wermuth, Sal Boyer, William Bell, Grace Lang (2024) Identifying Minerals from an Elberton Quarry by using SEM. University of Georgia CURO Symposium. Program with abstracts. <https://symposium.curo.uga.edu/book-abstracts>.

Emma Head: Head, E. and Walker, S.E., 2024, Ecological morphology of colonial and solitary rugose coral, Middle Mississippian, southeastern United States.

Graduate Student Recognition

Head, E. and Walker, S.E., Do Mississippian rugose corals have evolutionary stasis in corallite morphology like Devonian rugose corals? CURO, April 2024.

Head, E. and Walker, S.E. Do Mississippian rugose corals have evolutionary stasis in corallite morphology like Devonian rugose corals? Geological Society of America Abstracts with Programs, Pittsburgh, Pennsylvania. Vol. 55, No. 6 doi: 10.1130/abs/2023AM-395463.

Maddie Hurd: The Three-Dimensional Fault Structure Underlying Carnegie Rupes, Mercury (CURO, 2024)

Grace Lang: Lang, Grace, Sali R. Boyer, Olivia N. Francois, Sierra J. Wermuth, William J. Bell, (2024) Elberton Granite: Classifying Pegmatite Anomaly with Photo-Microscopy. University of Georgia CURO Symposium. Program with abstracts. <https://symposium.curo.uga.edu/book-abstracts>.

Jay Mrazek: Hydrologic characterization of cave streams with fiber optic distributed temperature sensing technology, advised by Charlotte Garing. Senior thesis research, CURO Symposium.
Progress Towards Interoperable Chronological Data at the World Data Service for Paleoclimatology and Scientific Applications, advised by Carrie Morrill and Allison Lawman. AGU.

James Muilenburg: Topographic Expressions and Growth of Thrust Faults on Mercury (CURO, 2024)

Ruby Parcels: Parcels R., Pistone M. (2024) Did Chimborazo volcano cause the Late Antique Little Ice Age or other climate changes at a regional to global scale?, SE GSA 2024 (Asheville, NC, US)

Parcels R., and Pistone M. (2024) Did Chimborazo volcano cause the Late Antique Little Ice Age or other climate changes at a regional to global scale?, 2024 CURO Spring Symposium, UGA (Athens, GA, US)

Spencer, Q.J., Huber, D.M., Kenny, B., and Walker, S.E., The effects of climate change on the geomorphology of three Georgia barrier islands from 1988–2021: Sapelo, Blackbeard and Cabretta Island. Southeastern Geological Society of America Meeting, Asheville, North Carolina, April 2024.

Spencer, Q.J., Huber, D.M., Kenny, B., and Walker, S.E., The effects of climate change on the geomorphology of three Georgia barrier islands from 1988–2021: Sapelo, Blackbeard and Cabretta Island. CURO April 2024.

Sierra Wermuth: Wermuth, Sierra, Sali Boyer, Olivia Francois, William Bell, Grace Lang (2024) Crystal Revelations: Unravelling Elberton Granitic Pegmatite via XRD Analysis. University of Georgia CURO Symposium. Abstract with program. <https://symposium.curo.uga.edu/book-abstracts>

Kaitlyn Hulsey

Outstanding Teaching Assistant Award, UGA Center for Teaching and Learning

Katie Gooch

Imperial Barrel Award Competition

Stephan Loveless

Outstanding Teaching Assistant Award, UGA Center for Teaching and Learning

Future Faculty Fellows Program, UGA Center for Teaching & Learning

Engineering and Technology Internship with ExxonMobil

Amy Laubenstein

2-Year United States National Chapter (USNC) Sponsored Student Membership for the International Assoc. of Hydrogeologists (IAH)

National Groundwater Association Paul M. Yaniga Memorial Trust Fund Award

Cade Orchard

Scientists in Parks, Badlands National Park

David F. Richards, IV

Keynote Speaker, Peach State Louis Stokes Alliance for Minority Participation

Post-doctoral fellowship, U.S. Naval Research Laboratory

Fabian Zowam

Internship with Tulsa Refinery

Graduate Student Recognition

Kwaku Asiedu

National Groundwater Association Paul M. Yaniga Memorial Trust Fund Award

Imperial Barrel Award Competition

Taran Bradley

Imperial Barrel Award Competition

Carly Daniel

Imperial Barrel Award Competition

Lea Davidson

USGS Mendenhall Post Doctoral Fellowship

Yannie Donaldson

Invited colloquium speaker, Rutgers University: Groundwater in deserts? Insights from machine learning and hydrogeophysics

Invited Panelist, GS-LSAMP Speaker Series

Invited Speaker, American Geophysical Union, San Francisco, California: A geophysical approach to monitor infiltration and geochemical processes in an arid and saline environment

Invited Speaker, American Geophysical Union, San Francisco, California: On the importance of near-peer-mentoring: an example from GNOMES, a critical zone geophysics, experimental learning field program

Panelist, National Association of Black Geoscientist International Student Career Journey

Undergraduate Awards

CURO Research Awardees

Abigail Davis

Benjamin Kenney

Emma Head

Jay Mrazek

Davis Huber

Ruby Parcels

Kiana Pillay

Scholarships & External Awards

Abigail Davis

Southeast Geological Society of America Award

Emma Head

Southeast Geological Society of America Award

Grace Lang

Rising Explorers Grant, The Explorers Club (\$1,500)

Jay Mrazek

NOAA internship travel grant for presentation at AGU, winter 2023
National Speleological Society conference support grant, summer 2024

Ruby Parcels

2023 Undergraduate Student Award, Southeastern Geological Society (\$1,000)

2023 J. David Lowell Field Camp Scholarship, Geological Society of America (\$2,000)

American Institute of Professional Geologists Scholarship

Sophie Forbes

Ruby Parcels

GRADUATE STUDENT ACCOLADES

Summer & Fall 2023

M.S. Recipients

Oluwaseun Adeyemi

Mineralogy of per- and polyfluoroalkyl substances (PFAS) contaminated soils from agricultural fields in Society Hill, South Carolina. M.S. thesis advised by Paul Schroeder.

Alexandra Bonham

Sub-annual variation of $\delta^{18}\text{O}_{\text{carb}}$ and $\delta^{13}\text{C}_{\text{carb}}$ in *Odocoileus virginianus* tooth enamel: paleoclimate and diet reconstruction in the Lower Chattahoochee River Valley at the onset of the Little Ice Age. M.S. thesis advised by Suzanne Pilaar Birch.

Marjean Cone

Testing for climate and elevation controls on Pennsylvanian plant communities in valley fills of the Breathitt Group in eastern Kentucky. M.S. thesis advised by Steven Holland.

Andrew Maendel

Magmatic differentiation and growth of a large mafic intrusion in the lower crust: insights from varying scales. M.S. thesis advised by Mattia Pistone.

Graduate Student Recognition

Outstanding Teaching Assistant
Award 2023-2024

Kaitlyn Hulsey
Stephan Loveless

Outstanding Graduate Students
of the Year 2023-2024

Cade Orchard, M.S.
David F. Richards, IV, Ph.D.

A.A.P.G. Imperial Barrel
Award Team

Kwaku Asiedu **Taran Bradley**
Carly Daniel **Katie Gooch**

Graduate Student Faculty Meeting
Representative 2023-2024

Stephan Loveless

Graduate Student Recognition

Internal UGA Geology Funding

Miriam Watts-Wheeler Research
Scholarships

Fall 2023 • Spring 2024

Grace Burns
Amy Laubenstein
Oyindamola Oseni

Miriam Watts-Wheeler Travel Scholarships

Fall 2023 • Spring 2024

Gayatri Basapuram	Stephan Loveless
Carly Daniel	Olajide Oladipo
Lea Davidson	Cade Orchard
Yannie Donaldson	David F. Richards, IV
Kaitlyn Hulsey	Fabian Zowam

Gilles and Bernadette Allard Geology Award

2023-2024

Emily Jackson
Michael Stefanou

Berg Scholarship in Geophysics

Fall 2023 • Spring 2024

Kwaku Asiedu

GRADUATE STUDENT ACCOLADES

Spring 2024

Ph.D. Recipient

David F. Richards, IV

**Remote Sensing-Based Monitoring of Landscape
Changes in Coastal Systems. Ph.D. dissertation
advised by Adam Milewski.**

Journal Publications & Technical Reports

Davidson, L.J., A.M. Milewski, and S.M. Holland. 2023. Quantifying intermittent flow regimes in ungauged basins: optimization of remote sensing techniques for ephemeral channels using a flexible statistical classification. *Remote Sensing* 15:5672

Holland, S.M., **C.J. Orchard**, and K.M. Loughney. In press. The paleobiologic implications of modern nonmarine ecological gradients. *Paleobiology*

Milewski, A., and **Richards, D.F., IV**. 2024. Regional impacts assessment for The Chemours Company FC, LLC. Geospatial & Hydrologic Services, LLC

Richards, D.F., IV, A.M. Milewski, S. Becker, **Y. Donaldson, L.J. Davidson, F.J. Zowam**, J. Mrazek, and M. Durham. 2024. Evaluation and analysis of remote sensing-based approach for salt marsh monitoring. *Remote Sensing* 16:2

Runnebohm, A.M., C.J. Indovina, S.M. Turk, C.G. Bailey, **C.J. Orchard**, L.H. Wade, D.L. Overton, B.J. Snow, and E.M. Rubenstein. 2023. Methionine restriction impairs degradation of a protein that aberrantly engages the endoplasmic reticulum translocon. *microPublication Biology*

External Grants

Emily Jackson: Society for Sedimentary Geology Student Research Grant. Paleosols and sequence-stratigraphic architecture: a test in the Cloverly Formation of Wyoming

Emily Jackson: Tobacco Root Geological Society Field Scholarship. Paleosols and sequence-stratigraphic architecture: a test in the Cloverly Formation of Wyoming

Olajide Oladipo: American Association of Petroleum Geologists Foundation Grant-in-Aid. Development of a low-cost alternative for removing and stabilizing boron in coal combustion residuals (CCR), coal ash leachates (CAL) and flue gas desulfurization (FGD) wastewater

David F. Richards, IV: Omega Psi Phi Fraternity, Inc. State of Georgia Alonza A. Bennet and Marvin Broadwater Sr. Scholarship

David F. Richards, IV: American Geophysical Union Travel Grant for AGU Chapman conference

External Grants

Abubakar Aliyu: American Association of Petroleum Geologists Foundation Grant-in-Aid. Recording tectonostratigraphic complexity and fault damage zones in the Cañon City Embayment

Lea Davidson: Geological Society of America, Farouk El-Baz Student Research Award

Lea Davidson: American Geophysical Union Travel Grant for AGU Chapman conference

Yannie Donaldson: Southeastern Geological Society

Yannie Donaldson: Geological Society of America, Farouk El-Baz Student Research Award

Yannie Donaldson: Geophysics of the near-surface an outdoor motivational experience for students (GNOMES) Travel Award

Yannie Donaldson: National Science Foundation LSAMP Principal Investigator and Project Director Meeting Travel Award

Yannie Donaldson: American Geophysical Union Chapman Conference Travel Grant

Journal Publications & Technical Reports

Turk, S.M., C.J. Indovina, D.L. Overton, A.M. Runnebohm, **C.J. Orchard**, E.M. Doss, K.A. Richards, C.B. Irelan, M.M. Daraghmi, C.G. Bailey, J.M. Miller, J.M. Niekamp, S.K. Gosser, M.E. Tragesser-Tina, K.P. Claypool, S.M. Engle, B.W. Buchanan, K.A. Woodruff, J.B. Olesen, P.J. Smaldino, and E.M. Rubenstein. 2023. Lipid biosynthesis perturbation impairs endoplasmic reticulum-associated degradation. *Journal of Biological Chemistry* 299:104939

Zowam, F.J., A.M. Milewski, **D.F. Richards, IV.** 2023. A satellite-based approach for quantifying terrestrial water cycle intensity. *Remote Sensing* 15:3632

Presentations/ Abstracts

Basapuram, G., S. Duttagupta, and A. Dutta. 2024. Biochemical transformation of pesticides in river water ecosystem. American Society for Microbiology 2024, Abstract #5419

Basapuram, G., S. Duttagupta, and A. Dutta. 2024. Effect of physicochemical parameters on biotransformation of organic compounds in riverine ecosystem. Geochemical Society Goldschmidt Conference 2024, Abstract # 22569

Burns, G., K. Parsons-Hubbard, and S.E. Walker. 2024. Preservation versus chemical and biological dissolution of carbonate at the East Flower Garden Brine Seep, Gulf of Mexico. Geological Society of America, Southeastern Section

Burns, G., K. Parsons-Hubbard, and S.E. Walker. 2024. Chemical and biological dissolution of carbonate at the East Flower Garden Brine Seep. North American Paleontological Convention

Carter, B., **A. Laubenstein**, and A. Milewski. 2024. Database advancement of historical well logs of the Claiborne Aquifer in southwest Georgia USA. Apalachicola–Chattahoochee–Flint Waters Conference, Poster #20

Presentations/ Abstracts

Stefanou, M., and A. Milewski. 2024. Using LiDAR to map and analyze Carolina Bays. Apalachicola–Chattahoochee–Flint Waters Conference

Warner, N., **A. Laubenstein**, D. Cox, M. Smearing, M. Golombek, and J.A. Grant. 2023. Remnants of clastic/volcanoclastic deposits in the western Elysium Planitia, Mars; implications of stratigraphy beneath the Insight Lander. Lunar and Planetary Sciences Conference Abstract #1556

Zowam, F.J., A.M. Milewski, and **D.F. Richards, IV**. 2023. A satellite-based approach for quantifying terrestrial water cycle intensity. American Geophysical Union Chapman Conference, Abstract #1493607

Presentations/ Abstracts

Orchard, C.J., and S.M. Holland. 2023. Lateral variation in the record of transgressions in nonmarine successions: Cloverly Formation, Wyoming, USA. Geological Society of America Abstracts with Programs 55(6)

Orchard, C.J., N.A. Jud, M.T. Carrano, and S.M. Holland. 2024. Potential sources of community composition change in the Cloverly Formation and Sykes Mountain Formation of Wyoming, USA. North American Paleontological Convention

Richards, D.F., IV, A.M. Milewski, J.F. Renner, S. White, and **F. Zowam**. 2023. Wetland Monitoring Change Detection of the Southeastern United States. Georgia Water Resources Conference

Richards, D.F., IV, and A.M. Milewski. 2024. Souss-Massa Basin subsidence measurements using synthetic aperture radar. American Geophysical Union Chapman Conference on Remote Sensing of the Water Cycle, Sensors to Science to Society

Rogers, E.R., M.C. Palucos, A.M. Morgan, R.A. Craddock, E. Benyshek, and **D.F. Richards, IV**. 2023. Reconstructing basaltic sediment transport on Mars using terrestrial analog. Lunar and Planetary Science Conference

Rotz, R., R. Craddock, C.A. Brigham, **D.F. Richards, IV**, H. Shozaki, and J. Wilder. 2023. Investigating hydrogeochemical systems in lava tube caves: a study of a meromictic lake on the Big Island of Hawaii, U.S. Geological Society of America Abstracts with Programs 55(6)

Presentations/ Abstracts

Cole, S.R., **C.J. Orchard**, C. Simmons, J. Gibbons, and M.J. Hopkins. 2024. Macroevolutionary consequences of the Late Ordovician mass extinction: a cross-clade investigation of the Lilliput Effect. North American Paleontological Convention

Davidson, L.J., and A.M. Milewski. 2024. Quantifying intermittent flow regimes in ungauged basins: improved characterization of ephemeral channels through remote sensing and discriminant function analysis. American Geophysical Union Chapman Conference on Remote Sensing of the Water Cycle. Poster abstract #1492103

Donaldson, Y., and A. Milewski. 2023. A geophysical approach to monitor infiltration and geochemical processes in an arid and saline environment. American Geophysical Union oral session

Marbles, A. Thomas, M. Galatioto, A. Avelar, J. Estrada, K. Keating, J. Hayes, **Y. Donaldson**, J. Moore, D. Litwin, and C. Harman. 2023. Uncovering the critical zone structure at two catchments in the Baltimore piedmont using ground penetrating radar. American Geophysical Union poster session

Estape, S., M. Dwanah, O. Joseph, P. Patel, J. Stradler, S. Lee, K. Keating, J. Hayes, and **Y. Donaldson**. 2023. Using electrical resistivity tomography to study groundwater resources and critical zone structure in the crystalline piedmont. American Geophysical Union Poster Presentation

Presentations/ Abstracts

K. Keating, **Y. Donaldson**, A. Tarzona, J. Hayes, G. Mount, K. O'Connell, R. DiBiase, J. Moore, and C. Harman. 2023. On the importance of near-peer-mentoring: an example from GNOMES, a critical zone geophysics, experiential learning field program. American Geophysical Union oral session

Donaldson, Y., and A. Milewski. 2024. Near surface geophysics and airborne remote sensing of flash floods in arid southwest, US. American Geophysical Union Chapman Conference

Dzikowski, R., **A. Laubenstein**, and A. Milewski. 2024. Detailed sieve analysis of southwest Georgia surficial sediments. Apalachicola–Chattahoochee–Flint Waters Conference, Poster #14

Greene, J., **M. Stefanou**, J. Jalali, and S. Woznicki. 2023. Quantifying water clarity in Michigan's inland lakes using optical remote sensing. American Geophysical Union

Holland, S.M., **C.J. Orchard**, and K.M. Loughney. Modern nonmarine ecological gradients and their implications for the fossil record. Geological Society of America Abstracts with Programs 55(6)

Hulsey, K.E., B.L. Dutrow, and M. Pistone. 2023. Fluid percolation in crystallizing felsic magmas: insights from tourmaline analysis, Stone Mountain Granite (Georgia, USA). Xth Hutton Conference (Baveno, Italy)

Presentations/ Abstracts

Laubenstein, A., A. Milewski, and S. Holland. 2024. Groundwater—surface water connectivity in the Claiborne Aquifer in southwest Georgia, USA. Apalachicola–Chattahoochee–Flint Waters Conference, Poster #19

Loveless, S.R., and C. Klimczak. 2024. A comparison of thrust fault systems underlying wrinkle ridges and lobate scarps on Mercury. Mercury Exploration Assessment Group

Loveless, S.R., C. Klimczak, L.R. McCullough, K.T. Crane, and P.K. Byrne. 2024. A comparison of thrust fault systems underlying wrinkle ridges and lobate scarps on Mercury. Lunar and Planetary Science Conference

Milewski, A.M., **D.F. Richards, IV**, **L. Davidson**, J. Renner, and S. White. 2023. Surficial aquifer analysis at the Mission Mine Site in Georgia. Georgia Water Resources Conference

Oladipo, O., **O. Oseni**, and V. Nzungu. 2023. Development of a low-cost alternative for removing and stabilizing boron in coal combustion residuals (CCR), coal ash leachates (CAL) and flue gas desulfurization (FGD) wastewater. American Geophysical Union, Abstract #1329245

Oladipo, O., and V. Nzungu. 2023. Development of a low-cost alternative for removing and stabilizing boron in coal combustion residuals (CCR), coal ash leachates (CAL) and flue gas desulfurization (FGD) wastewater. Geological Society of America Abstracts with Programs 55(6)