



Department of Geology Awards Ceremony

Friday, April 20, 2017

University of Georgia



Alumni Advisory Board Members

Mr. Frank Lieth, Chair

Director, Geological Services, US Vulcan Materials Co.

Ms. Charlotte Abrams

Nuclear Regulatory Commission

Mr. Jeff Blackmon

Project Manager, Newmont Gold

Dr. Donald Baker

President, OGM Resources

Mr. Skip Forsthoff

Consultant Geologist
Chevron

Mr. Alex Glover

Director of Mining & Environment, Active Minerals, International, LLC

Mr. John Hayden

Deputy Executive Director, Government Relations & Public Affairs,
Society for Mining, Metallurgy, and Exploration, Inc.

Mr. Daven Mashburn

Senior Exploration Manager, Newmont Gold

Dr. Theodore McCarthy

Fellow Analyst, Savannah River National Laboratory

Dr. Wes Myers
Los Alamos National Laboratory

Mr. Ed Moritz
President, Gustavson Associates

Mr. James Nutaitis
Geologist, BHP Billiton

Mr. Seth Ramaley
Director, Groundwater Protection Program
Waste Management

Mr. Jim Redwine
Senior Managing Scientist
Anchor QEA, LLC

Dr. James Saunders
Professor of Geology, Auburn University

Ms. Katie Sechrist
Geologist, Newmont Gold Corp.

Mr. Jeff Shellebarger
President, Chevron NA Exploration and Development



Undergraduate Accolades

B.S. / A.B. Recipients

Summer 2016 - Fall 2016 – Spring 2017 – Summer 2017

Miranda Anderson	Anthony Moraes
Alan Brown	Morrison Nolan
Michael Buckelew	Randall Padgett
Emily Cox	Mathew Perdue
Anthony Davila	Matthew Quinn
Renee Day	Andrew Raley
Ben Forkner	David Richards
Cody Hammond	Dexter Riley
John Harris	Prabin Sharma
Adam Heath	Jack Simmons
Sarah Hickey	Elyse Stempinski
Zaak Hinz	Samuel Svoboda
Bobby Ikebudu	Carson Walters
Reid Jordan	Claire Webster
Sage Maher	Crockett Womack

Senior Theses/Research

Michael Buckelew	Anthony Moraes
Patrick Doherty	Morrison Nolan*
Laura Dupont*	Matthew Quinn
Ben Forkner	David Richards*
Zaak Hinz*	Jack Simmons*
Reid Jordan*	Samuel Svoboda
Sage Maher*	Claire Webster

*denotes UGA Geology Undergraduate Funding

Presentations at Professional Meetings

Hinz, Zaak, Trilobite Coquina in Siliceous Concretions from the Middle Cambrian Conasauga Formation, Southeastern USA. UGA CURO Symposium, Spring 2017.

Jordan, Reid, Evaluation of Middle Miocene Barnacles as High Resolution Paleoclimate Proxies. UGA CURO Symposium, Spring 2017.

Maher, Sage, Urbanization-Driven Hydraulic Erosion in the Georgia Piedmont. Geological Society of America Southeastern Section Meeting, Spring 2017. Georgia Water Resources Conference, Spring 2017.

Moraes, Anthony, Clay Mineral Concentration with Depth and Land Use History in the Critical Zone in Calhoun, South Carolina. Geological Society of America Annual Meeting, Fall 2016. UGA CURO Symposium, Spring 2017.

Nolan, Morrison, Re-evaluation of the Middle Cambrian sponge, *Brooksella alternata*, from the Conasauga Formation of Georgia and Alabama, USA. Geological Society of America Annual Meeting, Fall 2016.

Quinn, Matthew, Applications to Prolonging Data Collection Efficiency in Stream Channels. UGA CURO Symposium, Spring 2017. Georgia Water Resources Conference, Spring 2017.

Richards, David, Rare Earth Elements Distributions in the Critical Zone: Possible Roles of Pine Versus Hardwood Vegetative Covers. UGA CURO Symposium, Spring 2017.

Simmons, Jack, Sandstone provenance in the Jurassic Sundance Seaway, Wyoming, USA. Geological Society of America Southeastern Section Meeting, Spring 2017.

Svoboda, Samuel, Clay Abyss: Underclays of Sile Region Critical Zone. UGA CURO Symposium, Spring 2017. AEG Symposium, Athens GA Spring 2017.

Webster, Claire, Immediate and Long Term Threats to Water Resource Availability at Felsenthal National Wildlife Refuge. Geological Society of America Southeastern Section Meeting, Spring 2017. Georgia Water Resources Conference, Spring 2017.

Journal Publications

Colville, K., Perdue, M. (2016). Tectonic Setting, Lithology, and Eruption History of Two Unique Volcanoes: Mount Vesuvius and Lassen Peak. *The Classic Journal*.

Funding and Awards

Geology Club Field School Scholarship

Kiston Dowler

Newmont Mining Corporation Field School Scholarships

Kyle Colville
Kiston Dowler
Susan Kraft
Nia Watson

UGA Center for Undergraduate Research Opportunities Funding

David Richards
Reid Jordan
Zaak Hinz
Matthew Quinn
Anthony Moraes

Geological Society of America Travel Grants

Sage Maher
Anthony Moraes
Claire Webster

UGA Presidential Award of Excellence

Zaak Hinz

Outstanding Field School Student

2016

Mathew Purdue

**Outstanding Undergraduate Students
2016-2017**

Sage Maher
Anthony Moraes
Morrison Nolan



Graduate Student Accolades

2016-2017 Graduate Degrees

Ph.D.

Khalil Lezzaik, “An Integrated Assessment of Groundwater Scarcity and Risk Conditions in the Arab Middle East and North Africa Region.” (Milewski)

Ny Riavo G. Voarintsoa, “Investigating stalagmites from NE Namibia and NW Madagascar as a key to better understand local paleoenvironmental changes and implications for Inter-Tropical Convergence Zone (ITCZ) dynamics.” (Railsback)

M.S.

Erik Alberts, “Global Phase Seismic Interferometry (GloPSI) and Broadband Seismic Reflection Techniques: An Investigation of the Southeastern Suture of the Appalachian Margin Experiment.” (Hawman)

Quentin Anlian, “Evolution of Oblique-slip Deformation Band Damage Zones at Canon City Embayment, Colorado.” (Klimczak)

Hudson Farren, “Determination of Element Vectors in the Deeply Saproilitized Southern Appalachians: Locating Haile and Ridgeway-Type Epithermal Gold Systems using Geochemical Data and Multivariate Statistics.” (Crowe)

Stephanie Gugolz, “Evaluation of the Biochar Enhanced Constructed Treatment Wetland for the Removal of Contaminants from Agricultural Wastewater.” (Nzengung)

Bolton Howes, “Sequence Stratigraphic Expression of Flexural Subsidence: Middle Jurassic Twin Creek Limestone, Wyoming, U.S.A.” (Holland)

Presentations at Professional Meetings

Alberts, Erik, Verellen, Devon, Parker, Horry, Hawman R.B., Fischer K.M., and Wagner L.S., 2016, Imaging and Analyzing the Upper Lithosphere Beneath the Southern Appalachians using Global Seismic Phases Recorded by the SESAME Broadband Array. RMR.

Anlian, E. Quentin, Klimczak C., and Crowe D.E., 2016, Laramide Thrust Fault-Related Folding Accommodated by Slipped Deformation Bands in Dakota Group Sandstones, Cañon City, Colorado. Geological Society of American Annual Meeting, Denver CO.

Anlian, E. Quentin, Klimczak C., and Crowe D.E., 2016, Slipped Deformation Bands Accommodate Thrust Fault-Related Folding in Dakota Group Sandstones, Cañon City, Colorado. Rocky Mountain Rendezvous, Laramie WY.

Brown, Garrett B., Sclafani J.A., Hajek E., and Patzkowsky M.E., 2016, Biofacies Interpretations of a Shelf Margin Succession: San Andres Formation (Guadalupian, Middle Permian), Last Chance Canyon, New Mexico. Geological Society of America Annual Meeting, Denver CO.

Callihan, Melanie B., and Klimczak C., 2016, Topographic Expressions of Lunar Graben. Geological Society of America Annual Meeting, Denver CO.

Crane, Kelsey T., and Klimczak C., 2016, Timing and Rate of Mercury’s Global Contraction History. Geological Society of America Annual Meeting, Denver CO.

Cronin, Kelly, Walker S.E., and Bowser S.S., 2016, Does Sea Ice Cover Affect Growth in Juvenile Stages of the Antarctic Scallop, *Adamussium colbecki*? Geological Society of America Annual Meeting, Denver CO.

Gugolz, Stefanie, and Nzengung V., 2016, Evaluation of Biochar Enhanced Constructed Treatment Wetland for the Removal of Contaminants from Agricultural Wastewater. US Biochar Initiative Conference 2016 and Georgia Water Resources Conference 2017.

Hanley, Caitlin, and Oleinik A., 2016, Observed Assemblage Patterns of Foraminifera on the Southeast Florida Reef Tract: Implications of a Species Preferred Substrate. Geological Society of America Annual Meeting, Denver CO.

Knapp, Abigail S., Milewski A.M., and **Rotz, Rachel R.**, 2017, Temporal Relationship Between Drought-Precipitation Patterns and the Onset, Duration, and Severity of Freshwater Harmful Algal Blooms in Lake Allatoona, GA. Geological Society of America Southeastern Section Meeting, Richmond VA.

Lee, Jake W., and Roden M.F., 2016, Investigating the Mantle Source of the Lunar Crater Volcanic Field, Nevada: Evidence of a Thermal Plume? American Geophysical Union Annual Meeting, San Francisco CA.

Monarrez, Pedro M., Aberhan M., and Holland S.M., 2016, Regional and Environmental Tests of the Escalation Hypothesis During the Jurassic: A Tethyan Origin to Escalation? Geological Society of America Annual Meeting, Denver CO.

Smith, Chris W., Lewis R.D., 2016, The Distribution of Encrusting Foraminifera at Cat Island, Bahamas. Geological Society of America Annual Meeting, Denver CO.

Verellen, Devon N., Alberts, Erik C., Parker, E. Horry, Hawman R.B., Fischer K.M., and Wagner L.S., 2016, Investigation of P-Wave Reflectivity Beneath the Southern Appalachians using the SESAME Broadband Array. Geological Society of American Annual Meeting, Denver CO.

Verellen, Devon N., Alberts, Erik C., Parker, E. Horry, Hawman R.B., Fischer K.M., and Wagner L.S., 2016, Imaging and Interpreting Lithospheric Structure in the Southern Appalachians using the SESAME Broadband Array. American Geophysical Union Annual Meeting, San Francisco CA.

Voarintsoa, Ny Riavo G., Wang L., Kathayat G., Cheng H., Li X., Edwards R.L., Rakotondrazafy A.F.M., and Madison Razanatsheho M.O., 2017, Multi-proxy Evidence of a Wet 8.2 ka Event Revealed in NW Madagascar: Linkage to Latitudinal Shifts of the Inter-Tropical Convergence Zone and the Atlantic Meridional Overturning Circulation. UT Austin.

Voarintsoa, Ny Riavo G., Wang L., Railsback L.B., Brook G.A., Liang F., Cheng H., Edwards R.L., 2017, Stalagmites and their uses in Paleoenvironmental Reconstruction. UGA Interdisciplinary Research and Ideas Symposium. Athens, GA.

Voarintsoa Ny Riavo G., Railsback L.B., Brook G.A., Wang L., Kathayat G., Cheng H., Li X., Edwards R.L., Rakotondrazafy A.F.M., and Madison Razanatsheho M.O., 2016, Distinct Early-, Mid-, and Late-Holocene Climate in NW Madagascar: Evidence from Two Stalagmites. Southern Hemisphere Assessment of PalaeoEnvironments International Focus Group Workshop: Southern Hemisphere Climate of the Present and Past, Universidad de Chile, Santiago.

Voarintsoa Ny Riavo G., 2016, Stalagmite $\delta^{13}\text{C}$ Changes and Vegetation Cover Change in northwestern Madagascar. Geological Society of America Annual Meeting, Denver CO.

Wright, Sarah N., Holland S.M., 2016, Drone-based measurements of stratigraphic columns and cross-sections. Geological Society of America Annual Meeting, Denver CO.

Journal Publications

Crane, Kelsey, and Klimczak C., 2017, Timing and Rate of Global Contraction on Mercury. Geophysical Research Letters.

Monarrez, Pedro M., Aberhan M., Holland S.M., 2017, Regional and Environmental Variation in Escalatory Ecological Trends During the Jurassic: A Western Tethys Hot Spot for Escalation? Paleobiology.

Voarintsoa, Ny Riavo G., Wang L., Railsback L.B., Brook G.A., Liang F., Cheng H., Edwards R.L., 2017, Multiple Proxy Analyses of U/Th Dated Stalagmite to Reconstruct Paleoenvironmental Changes in Northwestern Madagascar between 370 CE and 1300 CE. Palaeogeography, Palaeoclimatology, and Palaeoecology.

Voarintsoa, Ny Riavo G., Brook G.A., Liang F., Marais E., Hardt B., Cheng H., Edwards R.L., and Railsback L.B., 2017, Stalagmite Multi-Proxy Evidence of Wet and Dry Intervals in Northeastern Namibia: Linkage to Latitudinal Shifts of the Inter-Tropical Convergence Zone and Changing Solar Activity from AD 1400 to 1950. The Holocene.

External Funding

Callihan, Melanie. Topographic Expressions of Lunar Graben. GSA travel support.

Farren, Hudson. Determination of Element Vectors in the Deeply Saprolitized Southern Appalachians: Locating Haile and Ridgeway-Type Epithermal Gold Systems using Geochemical Data and Multivariate Statistics. OceanaGold research support.

Hanley, Caitlin. Observed Assemblage Patterns of Foraminifera on the southeast Florida Reef Tract: Implications of a Species Preferred Substrate. Cushman Foundation travel and research support.

Howes, Bolton. Sequence Stratigraphic Expression of Flexural Subsidence: Middle Jurassic Twin Creek Limestone, Wyoming, U.S.A. GSA research support.

Knapp, Abigail. Temporal Relationship Between Drought-Precipitation Patterns and the Onset, Duration, and Severity of Freshwater Harmful Algal Blooms in Lake Allatoona, GA. GSA travel and research support.

Lee, Jacob. Investigating the Mantle Source of the Lunar Crater Volcanic Field, Nevada. Sigma Xi research support.

Monarrez, Pedro. Testing the Role of Escalation on Middle Jurassic Macroevolutionary Patterns at the Regional Scale. Paleontological Society Richard K. Bambach research support.

Smith, Chris. Foraminiferal Response to Heavy Metals: An Examination of Potential Bioindicators and Incorporation using the Propagule Method. AAPG Bernold M. “Bruno” Hanson Memorial Environmental research support.

Smith, Chris. The Distribution of Encrusting Foraminifera at Cat Island, Bahamas. Cushman Foundation travel support.

Voarintsoa, Ny Riavo. Stalagmite $\delta^{13}\text{C}$ Changes and Vegetation Cover Change in northwestern Madagascar. GSA travel and research support.

Voarintsoa, Ny Riavo. Understanding the Holocene Paleoenvironmental Changes in Madagascar using Stalagmites. International Association of Sedimentologists research support.

Wright, Sarah. Drone-based measurements of stratigraphic columns and cross-sections. GSA travel support.

UCLA SIMS Workshop 2017 Participant

Kelly Cronin

INQUA SHAPE International Focus Group Workshop Participant

Ny Riavo G. Voarintsoa

CUAHSI Pathfinder Fellowship 2016/2017

Michael Durham

SEG/Gary and Lorene Servos Groundwater Exploration Scholarship

Rachel Rotz

GSA John Montague Award

Ny Riavo G. Voarintsoa

Internal Funding

Miriam Watts-Wheeler Research and Travel Scholarships

Fall 2016 • Spring 2017

Erik Alberts

Investigation of P-Wave Reflectivity Beneath the Southern Appalachians using the SESAME Broadband Array.

Quentin Anlian

Laramide Thrust Fault-Related Folding Accommodated by Slipped Deformation Bands in Dakota Group Sandstones, Cañon City, Colorado.

Garett Brown

Biofacies Interpretations of a Shelf Margin Succession: San Andres Formation (Guadalupian, Middle Permian), Last Chance Canyon, New Mexico.

Garett Brown

Beyond Water Depth: Identifying Additional Abiotic Factors Controlling Modern and Fossil Benthic Marine Community Compositions.

Kelly Cronin

Does Sea Ice Cover Affect Growth in Juvenile Stages of the Antarctic Scallop, *Adamussium colbecki*?

Kelly Cronin

Effect of Sea Ice on the Growth and Shell Chemistry of the Antarctic Scallop and Ecosystem Engineer, *Adamussium colbecki*.

Laura Fackrell

Amelioration of Martian Regolith Simulants by Microbial Communities

Caitlin Hanley

Observed Assemblage Patterns of Foraminifera on the southeast Florida Reef Tract: Implications of a Species Preferred Substrate.

Caitlin Hanley

Distinguishing Provincial Transitions: The Biogeography of Shallow-Water Benthic Foraminifera off the Southeastern United States.

Bolton Howes

Sequence Stratigraphic Expression of Flexural Subsidence: Middle Jurassic Twin Creek Limestone, Wyoming, U.S.A.

Abigail Knapp

Effects of Precipitation and Drought Dynamics on Freshwater and Cyanobacterial HABs in Lake Allatoona, GA.

Cullen LaPointe

Growth and Isotopic Ecology of the scallop, *Chesapecten nefrens*, during the Middle Miocene Climactic Optimum and Subsequent Rapid Cooling Event, Calvert Cliffs, Maryland.

Jake Lee

Investigating the Mantle Source of the Lunar Crater Volcanic Field: Nevada: Evidence of a Thermal Plume?

Pedro Monarrez

Testing the Role of Escalation on Middle Jurassic Macroevolutionary Patterns at the Regional Scale.

Pedro Monarrez

Testing for Local and Regional Evidence of Escalation During the Middle Jurassic, Dorset Coast, United Kingdom.

Pedro Monarrez

Regional and Environmental Tests if the Escalation Hypothesis During the Jurassic: A Tethyan Origin to Escalation?

Rachel Rotz

Geophysical Variation of Inland Freshwater Lens Occurrence, Geometry and Density Variation in Northern Kuwait.

Chris Smith

Foraminiferal Response to Heavy Metals: An Examination of Potential Bioindicators and Incorporation using the Propagule Method.

Devon Verellen

Investigation of P-Wave Reflectivity Beneath the Southern Appalachians using the SESAME Broadband Array.

Devon Verellen

Imaging and Interpreting Lithospheric Structure in the Southern Appalachians using the SESAME Broadband Array.

Sarah Wright

Drone-based measurements of stratigraphic columns and cross-sections.

Gilles and Bernadette Allard Geology Award

Pedro Monarrez

Testing for Local and Regional Evidence of Escalation During the Middle Jurassic, Dorset Coast, United Kingdom.

Rachel Rotz

Geophysical Variation of Inland Freshwater Lens Occurrence, Geometry and Density Variation in Northern Kuwait.

Schlumberger Faculty for the Future Fellowship Award

Ny Riavo Voarintsoa

Outstanding Teaching Assistant Award

Kelsey Crane

Jake Lee

Outstanding PhD Student of the Year 2016-2017

Ny Riavo Voarintsoa

Outstanding MS Students of the Year 2016-2017

Erik Alberts

Bolton Howes

Faculty Accolades

Department Head

Doug Crowe

Associate Department Head

Ray Freeman-Lynde

Undergraduate Advisors

Rob Hawman
Paul Schroeder

Graduate Coordinator

Sue Goldstein
Steve Holland

Professor of the Year

Steve Holland

Teacher of the Year

Mike Roden

UGA Academic Entrepreneur of the Year Award

Valentine Nzengung

Staff Accolades

A Group of Extremely High Performing Individuals

Rachel Ashton
Ashley Arnold
Cindy Fouche
Bobbi Snodgrass
Julie Cox

Michael Lewis
Chris Fleisher
Laura Dupont
Elyse Stempinski
Gian Cella

Recognition of Geology Club

2016-2017 Officers

Anthony Moraes - President

Gian Cella - Secretary

Jacob Bowser - Treasurer

Kiston Dowler - Web page

Jacob Bowser - Professional Liaison
- Outreach

Reid Jordan - Events

