



Department of Geology Awards Ceremony

Friday, April 24, 2015

Department of Geology
University of Georgia
Awards Ceremony
April 24th, 2015



Alumni Advisory Board Members

Mr. Alex Glover, Chair

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

Dr. Donald Baker

President, OGM Resources

Mr. Rick Deery

Geologist/Mining Law Program Leader
US Bureau of Land Management

Mr. Skip Forsthoff

Consultant Geologist
Chevron

Mr. John Hayden

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

Mr. Frank Lieth

Director, Geological Services, US Vulcan Materials Co.

Dr. Theodore McCarthy

Fellow Analyst, Savannah River 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

Mr. Ryan Stepler
Senior Geophysicist, Marathon Oil Corporation



Undergraduate Accolades

B.S. Recipients
Summer 2014 - Fall 2014 – Spring 2015

Abigail Akinosho	Philippe Bauchau
Alexa Burgess	Jason Burwell
Henry Candela	Isabelle Cantin
Sean Cartwright	Buck Collins
Calvin Conn	Elizabeth Dyer
Amelia Hays	Tanner Hemphill
Andrew Herring	Adam Jones
Geoffrey Gagat	Katelynn Garrett
Taylor Goble	Hamilton Goodner
Michael Grimaldi	Jacob Hollander
Jefferson Hopper	Britton Hundley
Joshua Johns	Rory Leahy
Brande Ledford	John McDaniel
Walker Padgett	Karly Pecua
Sam Santoso	Rachel Rotz
Evan Whallon	Taylor Woods
Sydne Workman	

Senior Theses/Research

Abigail Akinosho	Elizabeth Benyshek
Jason Burwell	Elizabeth Dyer
Veronica Fay	Katelynn Garrett*
Hamilton Goodner*	Mya Habermann
Alan Herin	Jacob Hollander*
Jefferson Hopper*	Adam Jones*
Arthur Machado	Caroline Potterf
Sam Santoso*	Taylor Woods
Sydne Workman	

*denotes support from KaMin Undergraduate Research Fund

Presentations at Professional Meetings

Akinosho, Abigail, Walker, S.E., and Bowser, S., 2014, Growth disruptions in the Antarctic scallop, *Adamussium colbecki*, GSA Annual meeting, Vancouver, Canada.

Garrett, Katelynn, Liang, F., Sellers, R.C., Railsback, L.B., Romani, J.R.V., Rodriguez, M.V., Grandal-d'Anglade, A., Cheng, H., and Edwards, R.L., 2015, Radiometric and isotopic evidence for changing interglacial climate over the past 550,000 years from six stalagmites from northwestern Spain, GSA SE section meeting, Chattanooga, TN.

Jones, Adam., 2014, Stable isotope and crystallinity variations in kaolin deposits of Georgia in up-dip to down-dip occurrences, GSA Annual Meeting, Vancouver, Canada.

Workman, Sydne, Burwell, Jason, and Holland, S.M., 2015, Regional variability in the stratigraphy of the marine Jurassic of northern Wyoming, GSA SE section meeting, Chattanooga, TN.

Geology Club Field School Scholarship

Matthew Breithaupt

Newmont Mining Corporation Field School Scholarships

Calvin Conn
Marie Bartlett

Undergraduate Students of the Year

Jason Burwell Hamilton Goodner
Elizabeth Dyer Jefferson Hopper

Phi Beta Kappa honors

Jason Burwell Brande Ledford
Jefferson Hopper Caroline Potterf



Graduate Student Accolades

2014-2015 Graduate Degrees

Ph.D.

Don Lundy, “An investigation of the relationship between lateral spreading and mass depletion of an LNAPL body in contact with groundwater at the Bemidji, MN crude oil release site.” (Dowd)

M.S.

Annaka Clement, “The Sequence Stratigraphy of the Middle Jurassic Gypsum Spring and Piper Formations in the Eastern Bighorn Basin of Wyoming, U.S.A.” (Holland)

Thear Kirk Fraley, “A variable-density model to determine possible sources of elevated salinity and dissolved constituents in the Suwannee River Basin Springs, north-central, Florida.” (Dowd)

Ryan Jubran, “Electrical resistivity tomography combined with previously collected surface-wave data in a karst terrain: A case for combining techniques to detect subsurface features.” (Hawman)

Kristopher Kusnerik, “Community paleoecology and biogeography of the Jurassic (Bajocian- Oxfordian) Sundance seaway in the Bighorn Basin of Wyoming and Montana, U.S.A.” (Holland)

John Mosely, “Group II xenoliths from Lunar Crater Volcanic Field, Nevada: Implications for subducted plate metasomatism.”
(Roden)

William Phalen, “*Homotrema rubrum* (Lamarck): Distribution and biology of a potential reef bioindicator and underwater angler.”
(Goldstein)

Joanna Wilford, "Characterizing the Weathering of Masonry Sandstone." (Swanson)

William Wylie, “Electrical Resistivity Tomography as a Method for Imaging the Shallow Subsurface in an Investigation of Weathered Rock and Large Mass Movements.” (Hawman)

Presentations at Professional Meetings

Cahalan, Matthew, and Milewski, A., 2014, Spatiotemporal analysis of sinkhole development in the covered karst terrain of Dougherty County, GA, GSA National meeting, Vancouver, Canada.

Cahalan, Matthew, and Milewski, A., 2015, An integrated approach for subsidence monitoring and sinkhole formation in the karst terrain of Dougherty County, Georgia, GA Water Resources, Athens, GA.

Clement, Annaka., Holland, S., and Graybeal, D., 2014, Sequence stratigraphy of the Middle Jurassic Gypsum Spring and Piper Formations in the eastern Bighorn Basin of Wyoming, GSA National meeting, Vancouver, Canada.

Clement, Annaka, Holland, S., and Graybeal, D., 2015, Sequence stratigraphic architecture of the Middle Gypsum Spring and Piper Formations in the eastern Bighorn Basin of Wyoming, SE GSA meeting, Chattanooga, TN.

Durham, Michael, Milewski, A., and Sultan, M., 2014, Characterization of transmission losses in ephemeral channels: A case study in the Wadi Ferrain basin, Sinai Peninsula, Egypt, GSA National meeting, Vancouver, Canada.

Durham, Michael, Milewski, A., and Sultan, M., 2014, Enhancement of existing satellite-based hydrologic models in Egypt using soil temperature probes, Int'l Assoc. Hydrol. 41st Congress, Marrakech, Morocco.

Fackrell, Laura, and Schroeder, P., 2014, Spatial versus spectral resolution: mapping hot spring clays using meter scale satellite data and ground truth mineralogy, Annual Clay Mineral Society meeting, State College, TX.

John, Doug, and Walker, S., 2014, Symbiotic trilobite morphology in the Cambrian: Phylogeny versus Environment, GSA National meeting, Vancouver, Canada.

Kling, Corbin, and Klimczak, C., 2015, Thrust fault displacement distributions at the Phlegra Montes lobate scarp system, Mars, Lunar and Planetary Science National meeting, Houston, TX.

Kusnerik, Kristopher, and Holland, S., 2015, Community paleoecology of the Jurassic (Bajocian-Oxfordian) Sundance Seaway in the Bighorn Basin of Wyoming and Montana, SE GSA meeting, Chattanooga, TN.

Lezzaik, Khalil, and Milewski, A., 2014, A global hot spot analysis (Getis-Ord G_i^*) of groundwater storage change using GRACE satellite and GIS-based spatial statistical analysis, GSA National meeting, Vancouver, Canada.

Parker, E. Horry, Hawman, R., Fisher, K., and Wagner, L., 2014, P-to-S receiver function constraints on crustal structure and firf magmatism in the southeastern United States, AGU Annual meeting, San Francisco, CA.

Parker, E. Horry, Hawman, R., Fisher, K., and Wagner, L., 2014, Intra-crustal discontinuities in the southern Appalachians: Evidence for shear localization during continental collision, GSA National meeting, Vancouver, Canada.

Parker, E.Horry, Hawman, R., Fisher, K., and Wagner, L., 2014, Detachment faulting and sub-horizontal shear beneath the southern Appalachians: evidence from SESAME receiver functions, IRIS workshop, Sunriver, OR.

Rotz, Rachel, and Milewski, A., 2014, Understanding hydrologic alterations and physiographic changes in Kuwait from prolonged drought and climate change, GSA National meeting, Vancouver, Canada.

Seyoum, Wondowosen, and Mileski, A., 2014 Characterization of terrestrial water storage using a regional integrated hydrologic model to evaluate water storage estimates from GRACE satellite in the northern High Plains, GSA National meeting, Vancouver, Canada.

Voarintsoa, N.R., Railsback, L.B., Liang, F., Brook, G., Cheng, H., and Edwards, L., 2014, Control of solar radiation over climate variability in southern Africa: isotopic and petrographic evidence from Namibia and Botswana stalagmites, GSA National meeting, Vancouver, Canada.

Waters, Frank, Gulmez, F., Genc, S., Karacik, Z., Roden, M., and Billor, M., 2015 Complex compositional zoning in clinopyroxene in late Cretaceous potassic-alkaline volcanic rocks from northern Turkey, SE GSA, Chattanooga, TN.

Wilford, Joanna, 2014, Characterizing the weathering of Stanford sandstone, Annual meeting Preservation South, Athens, GA.

Wilford, Joanna, 2015, Characterizing the weathering of Angkor sandstone from Kulen Mountain, Cambodia, Assoc. Preserv. Tech., Quebec City, Canada.

Journal Publications

Parker, E. Horry, Jr., Crustal magmatism, tectonic inheritance, and continental rifting in the southeastern United States, *GSA Today*, v. 24, p. 4-9.

Parker, E. Horry, in press, Hawman, R., Fischer, K., and Wagner, L., Constraining lithologic variability along the Alleghenian detachment in the souther Appalachians using passive-source seismology, *Geology*.

Railsback, L.B., Gibbard, P., Head, M., **Voarintsoa, Ny Riavo**, and Toucanne, S., 2015, An optimized scheme of lettered marine isotope substages for the last 1.0 million years, and the climatostratigraphic nature of isotope stages and substages, *Quat. Sci., Rev.*, v. 111, p. 94-106.

Seyoum, Wondwosen, Milewski, A., and Durham, M., in press , Assessment of the relative impact of natural processes and human activities on the hydrology of the Central Rift Valley lakes, Ethiopia, *Hydrologic Processes*.

External Funding

Ny Riavo Voarintsoa, GSA Southeastern Section Student Travel Grant to attend GSA annual conference in Denver (\$100)

Ny Riavo Voarintsoa, AGU Student Travel Grant to attend AGU annual conference in San Francisco (\$500)

Wondwosen Seyoum, 2013 graduate student research grant from IAMG (International Association of Mathematical Geosciences) (\$1500)

William Phelan, Cushman Foundation research grant (\$1100)

Internal Funding

Miriam Watts-Wheeler Research Scholarships

Fall 2014 • Spring 2015

Matthew Cahalan

Analysis of geologic and hydrologic controls of subsidence monitoring and sinkhole hazard assessment in the covered karst terrain of Dougherty County, Georgia.

Michael Durham

Construction of a physical model to evaluate infiltration processes using temperature probes.

Laura Fackrell

Distribution of thermophilic ammonia oxidizing archaea across hot spring sediment gradients: The role of trace elements in the nitrogen cycle.

Stephanie Gugolz

Evaluation of a biochar enhanced constructed wetland for the removal of contaminants from agricultural wastewater.

Khalil Lezzaik

A regional GIS-based assessment of groundwater depletion in the Middle East and North Africa region using an integrated suite of remote sensing datasets.

William Phalen

Homotrema rubrum distribution and abundance: A potential paleoceanographic proxy for past disturbance events.

Rachel Rotz

Investigating precipitation dynamics on inland freshwater lenses.

Ny Riavo Voarintsoa

Investigating stalagmites from northwestern Madagascar as a key to better understand climate variability in southwestern Indian Ocean, and its global implications.

Miriam Watts-Wheeler Travel Scholarships

Michael Durham
Khalil Lezzaik
Wondwosen Seyoum

Doug John
Horry Parker
Ny Voarintsoa

Gilles and Bernadette Allard Geology Award

Michael Lukas

Geophysical prospection at Caisteal Mac Tuathal in Perthshire, Scotland.

Pedro Monarrez

Testing if biotic interactions drove diversity dynamics of marine benthic macroinvertebrates in the middle Jurassic Twin Creek limestone of the western interior U.S.

Joseph W. Berg Award

Michael Lukas

Geophysical prospection at Caisteal Mac Tuathal in Perthshire, Scotland.

Outstanding Teaching Assistant Award

Annaka Clement
Michael Durham

Graduate Students of the Year

Annaka Clement
Elias Horry Parker



Faculty Accolades

Undergraduate Advisors

Rob Hawman
Alberto Patiño-Douce

Graduate Coordinator

Steve Holland
Sue Goldstein

Associate Department Head

Paul Schroeder
Ray Freeman-Lynde

Professor of the Year

John Dowd

Teacher of the Year

Sally Walker



Staff Accolades

A Group of Extremely High Performing Individuals

Rachel Ashton
Julie Cox
Cindy Fouche
Michael Lewis
Ashley Arnold

Jason Burwell
Chris Fleisher
Corbin Kling
Elizabeth Benyshek
Robert Phares

Recognition of Geology Club Members

2014-2015 Officers

Mya Habermann & Veronica Fay – Pres.

Sam Santoso - Secretary

Joe Booth - Treasurer

Katelynn Garrett & Evan Whallon – Outreach

Lauren Carter - Publicity

Sam Santoso & Adam Jones - Events

Karly Pecua – Brown Bag Talks

Rachel Rotz – Professional Liaison

Walker Padgett – Trip Planning

Kunal Sinha – Web page



Presentation of 2015 Outstanding Young Alumni Award

Ms. Jennifer Manion Baar

Presentation of 2015 Distinguished Alumni Award

Dr. Jean Morrison