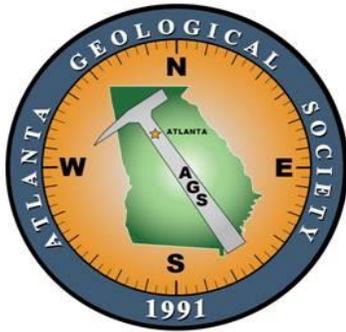
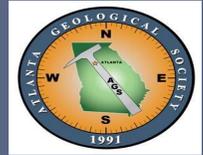


Atlanta Geological Society Newsletter

July 2021



AGS ³⁰ Atlanta Geological Society 30th year

(1991-2021)

Annual membership

- General: \$25
- Student: \$10
- Corporate: \$200

- [Click here to join](#)

President's Message



Hello everyone. I would like to thank Bill Witherspoon for his presentation at our June meeting, "A Fall Line Overview: Brooklyn to Texas, Asthenosphere to Alluvium, Cambrian to Anthropocene", which was very well attended. An eye-opener for me was regarding periodic uplift and scattered seismic activity. I'm sure the

July 27th presentation by Andrew Rindsberg on trace fossils in the Silurian Red Mountain Formation will also be well attended.

Remember our first in-person, face-to-face meeting will be our Summer Social/BBQ on August 31st. Please make your reservation using this link [Reservations](#). Remember to [vote](#) for your movie choice to be shown on the big screen during the social. Also, the Summer Social will be the perfect occasion to pick up the AGS T-shirts or other apparel that you ordered ([Use this link to order](#)). Orders are due before July 31. As a reminder, we like to give away door prizes at our Summer Social – age appropriate for adults and youth. We are looking for donations large and small to make the evening more exciting prior to the movie. I personally am reviewing my geology text, rock/mineral, and fossil collections and selecting various goodies to donate as door prizes. I encourage you to do the same.

And now, my perspective: All of the AGS committees have special needs and concerns, and all need more participation and/or support than they are currently receiving. The secret to maintaining the success of our Society is in actively maintaining these committees. Greater active participation lessens the burden on any one

July Meeting

Join us **Tuesday, July 27, 2021** for our AGS virtual meeting.

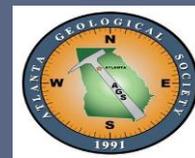
- Meeting starts 6:45 pm
- Presentation begins about 7:00 pm

Topic: "Reading the Rocks: Observing trace fossils in the Silurian Red Mountain Formation"

Speaker: Andrew K. Rindsberg (see p. 2 for bio and abstract)

In this Issue

- June presentation..2
- Field Trips..3
- AGS Annual BBQ Dinner..3
- Outcrop of the month..4
- In memory of Sam Pickering..5
- Job Vacancies..5
- Join the AGS..5
- Minerals in fireworks...6
- Featured School: University of North Georgia, Lewis F. Rogers Institute for Environmental & Spatial Analysis..7
- PG Candidate Workshop..8
- AGS T-Shirts and More..9
- News from UGA geology..10
- Events Calendar..12
- AGS Officers & Committees..17



individual. So, please review the list of committees in the *AGS Newsletter* or on our webpage and either contact the individual chairperson or me to sign-up. Through participation in these committees, as anyone who has served will testify, you will personally gain more than you can imagine. The best way to stay informed with respect to trends in our field is to be active and interface regularly with our colleagues. These committees are an excellent means of accomplishing this. I know that we all want to stay informed, so volunteer and participate. You will not regret it.

Lastly, please check that your AGS Membership dues for 2021 have been paid, especially if you are considering signing up for our first PG Candidate webcast workshop scheduled for July 24th. Signing up for AGS Membership and PG Candidate Workshops is easy. Just go to our website (<http://atlantageologicalsociety.org>) or visit us on Facebook. I will “see” all of you at our virtual meeting on July 27th.

Nils Thompson, AGS President
captain.nils@outlook.com

July Presentation: Reading the Rocks: Observing trace fossils in the Silurian Red Mountain Formation

The Red Mountain Formation is well exposed in interstate highway cuts and other outcrops from Bessemer, Alabama northeast to the Chattanooga area of Tennessee. Trace fossils are common and help to establish the paleoenvironments within sequences in the formation, which was formerly mined for iron ore. The talk will focus on how to observe the trace fossils and extract useful information from them in the context of the Red Mountain Formation.



Speaker Bio: Andrew K. Rindsberg is an ichnologist, former coeditor of the *Ichnology Newsletter* and *Pennsylvanian Footprints in the Black Warrior Basin of Alabama*, and author of many papers on trace fossils. He attended Stanford University before coming to the University of Georgia to study Paleozoic trace fossils under Robert W. Frey, and to the Colorado School of Mines to research deepsea traces with John E. Warme. He worked as a geologist for the Geological Survey of Alabama for seventeen years before returning to academia at the University of West Alabama in Livingston in 2006.

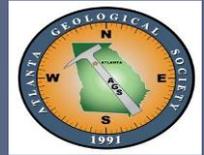
Andy's seen a lot of Alabama trace fossils, but realizes that there are still a few more to observe.

Join the presentation via WebEx:

<https://gsumeetings.webex.com/gsumeetings/j.php?MTID=m2de9a0f59d882cbeea9229311d11bca5>

Join by phone 415-655-0002

Access code: 120 591 9826

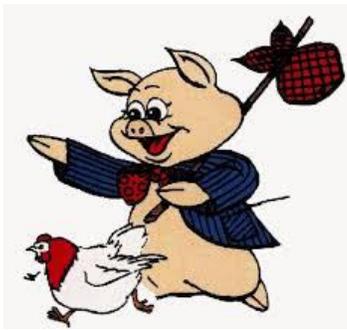


AGS Field Trips Planned

For the autumn of 2021 through the spring of 2022, the Atlanta Geological Society plans to offer a drive-it-yourself field trips for our members one Saturday each month to investigate the diverse geologic stories our region has to offer. We would like each field trip to concentrate on the geologic history of a different county in Metro Atlanta and visit three or four locations in that county. In addition to local organizing, the field trip leader(s) would be asked to produce at least a one-page summary of the geology of the county. These summaries will be made available to the public on the AGS website and over time could be assembled into an official brochure or circular that should be useful to the academic, business, and tourism communities.

The first trip in this series is being organized by AGS Field Trip Coordinator Scott Harris and will highlight the geology of Barrow County, on the northeastern edge of the region. It will feature Precambrian metamorphic rocks, Mesozoic magmatism and tectonics, and late Pleistocene stratigraphy. Details, including directions for free registration and liability waivers, will be made available in August on the AGS Facebook page. For more information and to volunteer contact Scott Harris at scott.harris@fernbank.edu

AGS Annual BBQ Dinner



Come join us as we resume our in-person meetings for some great food and fun! Door prizes, giant screen movie and socializing in person!

NOTE: T-shirt orders will be available for pickup at the dinner

When: Tuesday, August 31, 2021, 630pm

Where: Fernbank Museum

Cost: Members Free; Guests \$5

Reservations: Please make your reservation using this link [Reservations](#)

Door prizes: Please bring items to give away as [door prizes](#). These can be geology books, maps, samples, rocks, fossils, company swag or an endless list of other things that might interest AGS members and friends. Tag your donation as "Mature" if you feel the gift is best suited for an adult or "Youth" for our young guests. Note: Thanks to Michael Peck there will be a book fair giveaway, featuring a wide variety of historic GGS publications.

Sponsors: Thanks to [Golder Associates](#) for signing up to be a sponsor of the annual dinner.

SPONSORS NEEDED FOR OUR ANNUAL BBQ SOCIAL

[Click here for more information](#)

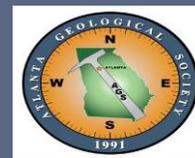


Outcrop of the Month

Bill Witherspoon

Long Island Gneiss exposed in a fresh road cut along I-285, as seen from the Perimeter Center Parkway bridge just east of the new GA-400 interchange. The inset shows a safely accessible road cut on the Parkway itself just north of the bridge. Long Island Gneiss is a quartz and feldspar-rich unit that has been mapped within the Brevard Zone for nearly ninety miles of that mylonite zone's length. Photo at right taken during traffic jam along I-285. Courtesy of Bill Witherspoon





In Memory of Sam Pickering



Samuel "Sam" Marion Pickering, Jr., 82, of Macon, passed away Thursday, August 27, 2020. Sam was the 10th State Geologist of Georgia, serving 1972-1978. Sam was born January 10, 1938 in Norfolk, Virginia to the late Samuel Marion and Emma Hawkins Pickering. He earned a Bachelor of Science in Geology and went on to receive his Master of Science at the University of Tennessee. Soon, he had a job at the Georgia Geological Survey in Atlanta. Hard work and innovative thinking lead him to become the State Geologist and Director of the Survey.

Thomas Thurmond of GeorgiaFossils.com states "In a personal interview at his home Sam Pickering shared how at one point the Georgia Geologic Survey would provide free, properly identified and tagged mineral and fossil samples to any school which would provide a case. Pickering chuckled as he told the story of once being held at gun-point on Graves Mountain while collecting samples for a school; mine employees didn't realize he was collecting with permission from the land owners. This was in the early to mid-1970s.

Pickering would go on to become State Geologist and lead the effort to published the first Geologic Map of Georgia, the first print of that map hanging in his home office with the signatures of all the participating geologists."

When the goals of the survey were changed, Sam took a job at Georgia Kaolin Deepstep and Dry Branch, Georgia. When his boss retired, he became Lands Manager. After retirement, Sam went on to start his own consulting business, Industrial Mineral Services. He had clients worldwide. Sam was preceded in death by his sister, Nancy Kendall and is survived by his wife, Lynda Pickering; daughter, Suzanne P. Deal (Ronnie); and brother, Frank Pickering (Judith).

Job Vacancies

Golder currently has postings for Project Geologist (Atlanta), Graduate Geologist (Atlanta), and Geologist I (Decatur, Alabama). See <https://www.golder.com/careers/> for details and/or to apply.

Join the Atlanta Geological Society

Membership categories:

- General (\$25) shall be persons who are interested in the geological sciences.
- Student (\$10) shall be full-time undergraduate, graduate or post-graduate students enrolled at an accredited college or university and who are interested in the geologic sciences.
- Corporate (\$200) shall be Registered Georgia Corporations engaged in geologic, engineering or other related services. Each Corporate Membership shall provide for up to 5 General Memberships for employees of the corporation and advertisement in the association newsletter and web site.

To join the organization, go to: <http://atlantageologicalsociety.org/membership-and-dues/>



What minerals produce the colors in fireworks?

Mineral elements provide the color in fireworks. Barium produces bright greens; strontium yields deep reds; copper produces blues; and sodium yields yellow. Other colors can be made by mixing elements: strontium and sodium produce brilliant orange; titanium, zirconium, and magnesium alloys make silvery white; copper and strontium make lavender. Gold sparks are produced by iron filings and small pieces of charcoal. Bright flashes and loud bangs come from aluminum powder.



STRONTIUM*
In addition to its use of making fireworks, Strontium is used in signaling, oil and gas production, and ceramic magnets.

* Critical Mineral Commodity



SODIUM
In addition to making our fireworks yellow, Sodium is used to make polyvinyl chloride (PVC) plastic made from chlorine and paper-pulping chemicals manufactured from caustic soda.



BARIUM* CHLORIDE
In addition to making fireworks green, Barium is also used in medicine and oil and gas production.

* Critical Mineral Commodity



COPPER
In addition to making fireworks blue and purple, Copper is one of the oldest metals used by humans, and today is mostly used in electronics and power generation.



TITANIUM*
Along with Zirconium and Magnesium to make fireworks grey and white, Titanium is overwhelmingly used as a white pigment and in metal alloys.

* Critical Mineral Commodity



ZIRCONIUM*
Along with Titanium and Magnesium to make fireworks grey and white, Zirconium is used in the high-temperature ceramics industry.

* Critical Mineral Commodity



MAGNESIUM*
Along with Titanium and Zirconium to make fireworks grey and white, Magnesium is used in furnace linings for manufacturing steel and ceramics.

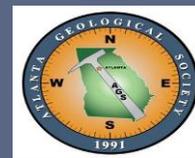
* Critical Mineral Commodity

Have a safe and happy Fourth of July.

www.usgs.gov/minerals

The USGS delivers unbiased science and information to increase understanding of ore formation, unexplored mineral resource potential, production, consumption, and how minerals interact with the environment. For more information, please visit www.usgs.gov. U.S. Geological Survey, 2020. Mineral commodity summaries 2020. U.S. Geological Survey, 200 p., <https://doi.org/10.3133/mcs20>.

U.S. Department of the Interior
U.S. Geological Survey



Featured School: University of North Georgia, Lewis F. Rogers Institute for Environmental & Spatial Analysis (IESA)

Katayoun Mobasher

The University of North Georgia's (UNG) Lewis F. Rogers Institute for Environmental & Spatial Analysis (IESA) was established as a teaching, research and public service resource for the North Georgia region. Originally named in honor of Dr. Lewis F. Rogers, a highly regarded geologist and chairman of Science, Engineering, and Technology who retired in 2008, the Institute is organizationally a standalone, trans-disciplinary unit at UNG that promotes environmental, geoscience, and geospatial education through the use of advanced technology, interdisciplinary instruction, collaborative learning and service.

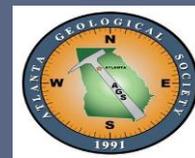
IESA consists of an interdisciplinary group of 19 full-time and 8 part-time faculty with expertise in Geographic Information Systems (GIS), Geology, Geography, Engineering, and Environmental Science, Studies, and Law. The range of faculty expertise allows IESA to offer a wide variety of geoscience and environmentally related programs and facilitate interdisciplinary research. IESA offers a robust intellectual environment that engenders an exciting range of disciplinary and interdisciplinary educational experiences. The program engages students in the physical and social sciences, technology, and engineering while maintaining core goals that facilitate the enrichment of students with holistic knowledge and dynamic problem-solving skills.

IESA was a 2012 recipient of the Regents' Award for Teaching Excellence for a Department/Program and recognized as a 2017 Center of Academic Excellence in Geospatial Science as designated by the National Geospatial Intelligence Agency and the United States Geologic Survey. IESA, an accredited program by the United States Geospatial Intelligence Foundation (USGIF), takes great satisfaction in being a vibrant and vital asset to shaping the future of our region. Our intent is to prepare students not only with a strong foundation of scientific and technical expertise but also with a well-grounded sense of social and ethical professionalism.

IESA administers a baccalaureate degree, an associate degree pathway, five minors, eight undergraduate, three graduate certificates, with supporting coursework in geology, geography, environmental science and studies, spatial science, and engineering. Programs within the Institute provide education in technical and geospatial approaches to tackle a variety of interdisciplinary problems and applications. The BS degree in Environmental Spatial Analysis has five suggested concentration areas including earth systems engineering, earth systems science, environmental studies, geospatial technology, or an optional interdisciplinary concentration. With recent rapid development of drone technology, remote sensing, and sensor technology, IESA offers a new course in the fundamentals of unmanned aerial systems and drone remote sensing. IESA undergraduate certificates include earth science, environmental science, environmental studies, geographic information science, geospatial intelligence, land surveying and space studies. IESA offers graduate certificates in geomatics, geospatial intelligence, and geospatial science and technology. Specializations provided by certificates offer students with fundamental knowledge and technological skills that are essential in modern geoscience careers. These credentials are stackable and allow students to add additional certifications and degrees over time.

Atlanta Geological Society Newsletter

July 2021



Approximately 100 students are enrolled in the programs offered by IESA. Graduates of these programs find employment opportunities rapidly in various industries including engineering and surveying firms, city and county governments, National Park Service, Environmental Protection Agency, US Army Corps of Engineers, and many others. Several of IESA's graduates have completed graduate degrees in geoscience or related disciplines from various institutions including the University of Georgia, Georgia Institute of Technology, Georgia State University, Clemson University, New York University, Northern Arizona University, University of California at Berkley and others.

IESA faculty are recipients of several UNG teaching and research awards. Research interests are interdisciplinary and diverse, often focused in the geosciences. In summer 2017, IESA was awarded a grant from the National Science Foundation (NSF) to develop an Associate of Science pathway in Geospatial Engineering Technology and a certificate in Land Surveying. Other grants include, Developing Georgia's Women Leaders in GIS, an EPA Environmental Education Grant, grants from the Georgia Forest Service and others. In 2020, IESA formed the "Watershed Analytics Research Group" that will facilitate a variety research labs and activities. For more information see: <https://ung.edu/institute-environmental-spatial-analysis/index.php>

PG Candidate Workshop

To assist candidates in their preparations for ASBOG tests and professional geologist registration, the Atlanta Geological Society offers monthly workshops featuring speakers who review important geologic principles. This month's session is on Igneous Petrology.

Subject: Igneous Petrology: The workshop will cover the basics of igneous petrology with a focus on major igneous rocks types and the minerals which define them. We will begin with the basic tectonic settings and processes of igneous rock formation as a foundation, after which we will link the lava types with the minerals which cool from them. We will go over the fundamental chemistry of growth rates, fractionation, and the Bowen's Reaction Series, and we will also review phase diagrams.

Speaker: Abigail Knapp, geologist with the Georgia EPD. She has a M.S. in Geology with a focus on hydrology. Her undergraduate research was in Igneous Petrology, specifically, the melt inclusions of the Banco Bonito Rhyolite in New Mexico.

Date: Saturday, July 24, 2021 **Time:** 10:00 am until 12:00 pm

Place: Online webinar hosted by Scott Harris of Fernbank Science Center – registration information below

Registration: To receive the zoom link and password, please send an email message to abigail.s.knapp@gmail.com.

This online workshop is open to current AGS members. Signing up for AGS Membership is easy and offers many benefits! For more information, go to our website at atlantageologicalsociety.org or visit us on Facebook.

Please join us and feel free to forward this announcement to anyone that might be interested. For more information contact Abigail Knapp, abigail.s.knapp@gmail.com

Atlanta Geological Society Newsletter

July 2021



Atlanta Geological Society T-Shirts and More—ORDER BEFORE JULY 31

A wide variety of T-shirts and sweatshirts with the AGS logo are now available for purchase. **Order online at:** <https://www.selectcorporatewear.com/shop4/pc/viewCategories.asp?idCategory=138>

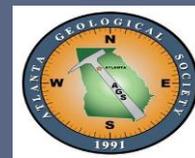
Items will be available for pickup at the annual BBQ dinner on August 31, or you may pay for shipping when you order. Last chance to order is July 31.



FINAL CHANCE TO ORDER

Orders must be received by July 31

[Click Here to order](#)



News from University of Georgia Geology

Paul Schroeder, Department Chair



The Geology department at UGA has maintained an amazing amount of productivity during the past year despite the challenges of the pandemic.

Fifteen students graduated from UGA with a B.S. degree. Some still needed to fulfill the field camp requirement this summer. Kudos to **Christian Klimczak, Doug Crowe, Adam Milewski, and Andy Darling** who transformed field camp to an Athens-based operation. A trip was made to Woodall Shoals, SC. Unprecedented access was made to Grave's Mountain, where student mapped and conducted water testing exercises. Drone surveillance mapping has been introduced to the field curriculum, which is now an essential skill set used by most all geologic enterprises. From our

undergrad cohort, we also had 7 majors participate in directed research studying topics from sharks teeth to cosmogenic nuclides to wildlife refuge hydrology to fossil Cretaceous oysters. Undergrads also presented at conferences, albeit virtual ones.

Three Ph.D. and seven M.S. students completed their studies, with most already moved on to future careers in the geosciences. Graduate student efforts collectively resulted in 11 publications and 18 presentations at meetings. External funding was received by 5 graduate students, with funds coming from GSA, Sigma Xi, and the Paleo Society. These numbers are impressive, particularly in a year where pandemic restrictions created a current that we were all swimming against.

Faculty highlights

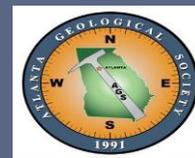
The new director of the Center for Applied Isotopes is **Dr. Carla Hadden**, who replaces interim director **Doug Crowe**.

Doug Crowe served as interim director of CAIS, and continued to champion our fund-raising effort and the curation of our outstanding Allard economic mineral collection. The collection database is a vast and rich resource for all, with new specimens expanding well beyond its original intent. Mineralogists from around the world can now access the information and specimens, many of which are now uncollectable because the sites have been reclaimed.

Andy Darling is now teaching the Dinosaurs course, which has a huge interest (and enrollment). This is in addition to the Earth Sciences Middle Grade education course, for which we see as very important to the next generation of teachers. At the same time, Andy has been collaborating with the NSF Critical Zone Observatory research cohort on using cosmogenic nuclides to study rates of erosion and impacts of land use on geomorphic landscape evolution. The accompanying photo of Andy is of him sitting at the head waters of the Holcomb's Branch in the Calhoun Critical Zone Observatory in the South Carolina Piedmont after sampling stream sediments for cosmogenic study.

Atlanta Geological Society Newsletter

July 2021



Charlotte Garing now has her multiphase microporous media laboratory operational with her grad students. She is collaborating with an NSF funded project that explores hydrologic transmission losses in dryland environments in places like Morocco.

Erv Garrison is shepherding a new NSF project to assess the potential of scour nuclei for the discovery of submerged prehistoric archeological sites on the inner- to mid-continental shelf in the Georgia bight. Erv's protégé, Jessica Cook published an exciting find that shows submerged shell middens offer a rare insight into the lifestyles of First Native people and the history for how past coastal communities were utilized.

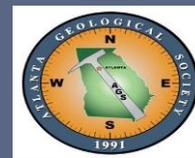
Rob Hawman was voted as the Teacher of the Year, which is becoming almost a perennial outcome. It is no coincident that Rob's teaching is recognized by this honor, but yet impressive by any means considering that all the Geology faculty take great pride and put great effort into their teaching. Rob remained remarkably engaged with his research. He published a paper in the highest-impact journal in his field, *Geophysical Research Letters*. This paper examined the nature of the southern Appalachians and Atlantic Coastal Plain using seismic signals generated by earthquakes from select locations on the opposite side of the Earth. This work was in collaboration with four of Rob's graduate students.

After two decades of focusing on the stratigraphic paleobiology of marine systems, **Steven Holland** and the UGA Stratigraphy Lab are turning their attention to nonmarine deposits and their archives of land plants and vertebrates. They are developing computer simulations of the nonmarine fossil record, which let them formulate hypotheses that they are testing in many field areas including the Miocene of southern California, the Triassic and Jurassic of central Wyoming, the Cretaceous of Montana and North Dakota, and the Carboniferous of the southern Appalachians.

Christian Klimczak co-authored four peer community white papers with well-known international scientists. These papers cover a wide range of recommendations and posit challenging questions related to planetary science and astrobiology focusing on Mercury-related science and mission support. Now that he is promoted and tenured, Christian is further embracing research related to landforms on Mars, Mercury and the Moon. His grad student Isik Yazici completed her M.S. study of Mercury impact fracture patterning and is starting a Ph.D. program in Germany. Christian also led the summer Geology Field camp, which was run from Athens.

Adam Milewski was named Professor of the year and was promoted to full Professor this summer. He is managing five grants, funded by the NSF-IRES program, the U.S. National Park Service, two with the National Fish and Wildlife Service, and the U.S. Department of Interior. Along with his grad students, Adam is using these grants to study hydrologic controls on transmission losses in drylands, coastal salt marshes, landscapes in the S.E. U.S., agropastoral decisions making in response to climate change, and water resource inventoried in national wildlife refuges. Adam continues to serve as an invaluable asset in his role as Associate Head, where he coordinates the teaching schedule and is a great sounding board for the Head as we navigate the challenges of new order in the pandemic world.

Valentine Nzungu's scholarly activities were reflected in his continued acquisition and management of extramural funds, where he is a co-investigator with the NSF sponsored UGA I-Corp program, which has the



mission to accelerate the commercialization of new technologies, products, and processes that arise from research. The research program Valentine established with Duke Energy continues to examine methods for immobilizing metals and non-metals in coal combustion residuals, which is proving to be quite effective both in terms of lowering industry costs and providing environmental benefits. He continues to receive high-profile notoriety for making the world a safer place with his MuniRem invention and the Geology Department continues to receive royalties from his sulfur-based bulk reductant patent. He developed a new course in Agrogeology, which was well received by the students and they explored new topics that tie together traditional knowledge in geology with concepts in agronomy.

Marta Patino-Douce is one of our most capable teachers in terms of working in the large class environment. The pandemic impacted her teaching, as it did with all teaching staff, but to her credit, she spent the summer preparing to teach online and got additional training by taking the course "Preparing to pivot" from the UGA Center of Teaching and Learning. Marta was able to update all of her course visuals and continues to lead the offering of the electronic course GEOL1011K, Introduction to Geosciences I, which satisfies part of the USG Board of Regent eCore. Marta remains extremely active beyond the UGA community, where she is involved with the Zoom for Seniors Mentorship, which trains Beta Sigma members. She remains active in the development and implementation of the Beta Sigma Chapter Virginia Macagnoni Grant and the Janett Gibbs Scholarship. As usual, Marta also spends much time helping with gemstone identification and evaluation for members of the community.

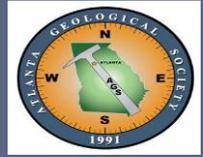
Mattia Pistone is setting up his experimental laboratory for synthesis of igneous rocks down the hill in the Hydrothermal laboratory. Mattia was successfully funded by the International Continental Drilling Program that explores the drilling into the lower crust in the Ivrea-Verbano zone, which is in addition to his Swiss National Science Foundation funded study to examine fluid and gas mobilization during magma solidification. Mattia has been active garnering teaching grants and awards. Included is a grant that brings digital optical microscopy to the classroom and, after 31 years, Mattia will be Geology's next faculty member to join the prestigious Lilly Teaching Fellows Program (Liz Gordan was the last and only).

Bruce Railsback published in the highly respected journal *Catena* and continues to be an active researcher in the paleoclimate community. His paper documents the discovery of carbonate nodules in a humid climate (TN) where he connects their stable carbon isotope composition to nearby stalagmites, which contain signals of C3 vegetation (e.g., broad leaf trees). We learn from his study that seasonality of environment is as important as degree of aridity of the environment when recording the isotopic signatures into the rock record. Bruce remains productive by advancing his widely accessed website, with a new particular emphasis on fundamentals of Quaternary science (Railsback.org/FQS/FQS.html). This resource continues to increase in popularity amongst practitioners of geochemistry and beyond.

Sally Walker was a co-author on three papers that address new ideas in her discipline of paleoecology/paleoclimatology. In these publications, she covered the topics of 1) growth and longevity of the Antarctic Scallop; 2) Atom Probe Tomography of organics in shell growth increments of the Antarctic Scallop to assess diagenesis prior to stable isotopic analysis; and 3) multi-causal decline of an invasive marine snail in an estuarine ecosystem. Sally was successful in obtaining two grants. One was from the NSF

Atlanta Geological Society Newsletter

July 2021



Polar programs division, where she is using the Antarctic scallop as a key indicator of sea ice conditions for both the present and the past.

Events Calendar

July 24: Geology Hike @ Sweetwater State Park with John Johnston. For more information: 770-732-5871

July 21-25: Echo Valley Gem Show, Franklin, NC: Echo Valley Showplace, 6456 Sylva Rd (across from GLW); Wed. 9-6, Thu. 9-6, Fri. 9-6, Sat. 9-6; Free admission; Dealers from around the world selling minerals, crystals, gems, rough rock, cabochons, slabs, beads, jewelry Sun 9-4pm. Contact Damian; Email: mbellpoint@gmail.com; Website: www.bellpointpromotions.com

July 23-25— Gem & Mineral Society of Franklin, NC, Show and sale: Robert C. Carpenter Community Building, 1288 Georgia Road; Fri. 10-6, Sat. 10-6, Sun. 10-4; Adults \$3, free admission for children 12 and under; Dealers from across the U.S., offering a great selection of rough and cut gemstones, gold and silver jewelry, minerals, beads, findings, lapidary equipment, and repairs. Contact Linda Harbuck, 98 Hyatt Road, Franklin, NC 28734, (828) 524-3161; Email: linda@franklin-chamber.com; Website: www.visitfranklinnc.com

August 17: Deadline to apply for Professional Geologist Licensing Exam

Sept. 17-18: Georgia Well Show, Marriott Riverfront Hotel Savannah, Ga. For more information and to register go to: <https://gagwp.wildapricot.org/event-4234890/Registration>

October 1, 8am: Georgia Professional Licensing Board Geologist Exam, Macon, Ga.

April 7-8, 2022: Geological Society of America joint section meeting—North Central and Southeastern Sections, Cincinnati, OH. For more information: https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/nc/2022mtg/home.aspx

UGA Online Lecture Series

For link go to: <https://geology.uga.edu/events/Colloquium>

August 27, 2021 - 4:10pm: Volcanology, Speaker: Arianna Soldati, (North Carolina State)

September 10, 2021 - 4:10pm: Coastal Processes, Speaker: Kelly Lazar, (Clemson University)

September 17, 2021 - 4:10pm: Hydrogeology, Speaker: Sarah Ledford, (Georgia State University)

September 24, 2021 - 4:10pm: Open Date

October 1 - 4:10pm: Igneous/Economic Geology, Speaker: Laura Bilenker, (Auburn University)

October 8, 2021 - 4:10pm: Structure / Tectonics, Speaker: Tim Diedesch, (Georgia Southern University)

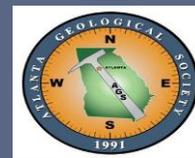
October 22, 2021 - 4:10pm: Glaciology, Speaker: Billy Armstrong, (Appalachian State University)

November 12, 2021 - 4:10pm: Tectonic / Geomorphology, Speaker: Max Dahlquist, (Sewanee - University of the South)

November 19, 2021 - 4:10pm: Open Date

Atlanta Geological Society Newsletter

July 2021



Atlanta Geological Society Events

Listed below are the planned meeting dates for **2021**. Meetings are generally on the last Tuesday of the month. Please mark your calendar and make plans to participate.

WebEx only

- **July 24, 10am:** PG Candidate workshop via webex. Speaker: Abigail Knapp
Topic: Igneous Petrology
- **July 27-** Monthly meeting. Speaker: Andrew Rindsberg, University of West Alabama. Trace fossils and stratigraphy in the Silurian Red Mountain Formation of Alabama and Georgia

In Person at Fernbank Museum

- **August 31** – AGS Social/BBQ & Movie in Fernbank's Giant Screen Theater
- **September 28-** Christy Visaggi will introduce Lisa Duong and other students from Georgia State University who will talk about their research
- **October 26-**Speaker: Tamie Jovanelly, Topic: Geological Wonders of Iceland
- **November 30-** Speaker: Scott Harris

Georgia Well Show, Sept. 17-18, Savannah, Ga

Presentations:

Know Your Cost of Doing Business: Larry Altman, Larry Altman Drilling, Inc., Blackshear. Larry will discuss all the cost of doing business that you may not have thought about. You must know what your true costs are to be able to be profitable and stay in business. This program was given years ago and was very well received.

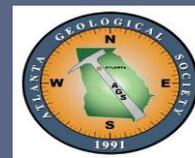
GA. EPD: Water Supply Issues: Georgia DNR EPD will give a presentation that was recently given to the Georgia Legislature about the water supply issues in Georgia.

Water Systems Council Update: Jesse Richardson is the attorney for the WSC and a foremost expert of water law throughout the country. He will give an update of issues around the country.

Determination of Slot Size, Millerville Well: Thomas M. Hanna – Technical Dir. Johnson Screens, Durango, CO

This is a two-part class with a lecture and student problem. The class will cover the proper selection of slot size and filter pack for a water supply well. Basic design parameters will be discussed including types of well completions both natural developed and filter packed wells. Instruction will be given in the basic screen-design parameters, filter packs and selection of filter pack and slot size.

For more information and to register go to: <https://gagwp.wildapricot.org/event-4234890/Registration>



Fernbank Events

Giant Screen Movies are back!

Fernbank's Giant Screen Theater is OPEN daily through September 6, 2021. Now Playing:

*Australia's Great Wild North

*Sea Lions: Life by a Whisker

*Coming July 2021: Turtle Odyssey

Upcoming Events

- Reptile Day, July 17, 10:00 AM-2:00 PM
- Fernbank Forest Night Walk, July 23, 7:30 PM – 9:30 PM
- Fernbank Forest Walk, July 25, 9:00 AM – 10:30 AM
- Fernbank After Dark: Heat Wave, August 13, 7:00 PM – 11:00 PM
- Dinosaur Birthday Bash, August 21, 10:00 AM – 1:00 PM

New Exhibits at Fernbank

Habitat: **On View April 17 – August 29, 2021**

Explore the stories and science of habitats, and the plants, animals, and humans that call them home in this new outdoor exhibit. The elevated walkway into WildWoods leads guests through a tour of the natural world. Set against the backdrop of a thriving forest found just minutes from the heart of downtown Atlanta, this new exhibit invites guests to travel “through” habitats and biomes found around the globe and explore the importance of preserving these natural communities through large-scale sculptures of animals, nests, flowers and more, created in partnership with local artists.

Games in the Gallery: **On View May 8 – August 29, 2021**

Discover a new way to play in the great outdoors with oversized games and fun skill challenges. Try your hand at checkers—or try your feet at hopscotch. Challenge your friends to tic-tac-toe, chess and more. This special exhibit encourages active and imaginative play and is located in WildWoods.

Crocs: Ancient Predators in a Modern World: **On View June 5 – September 6, 2021**

Come nose to snout to some of the animal world's most intimidating and misunderstood creatures in this lively new special exhibit. More than just a toothy grin, crocodylians live rich and complex lives. Immerse yourself (safely) into the intriguing world of crocs and explore their evolutionary history, biology and behavior, and their precarious relationship to humans. Features live specimens!

Nature's Ninjas: **On View June 5 – September 6, 2021**

Did you know that chameleons do not change color for camouflage? Or, that some octopus can change not only the color, but even the texture of their skin to perfectly camouflage with their environment? Every species has evolved unique strategies to protect themselves from predators. Discover some of the animal kingdom's surprising and awe-inspiring methods of self-defense in this interactive, family-friendly exhibit featuring dozens of live animals with daily “meet and greet” opportunities.



Fernbank Science Center Events

Fernbank Science Center and the
Jim Cherry Memorial Planetarium
present

The FSC At-Home Planetarium Show

Featuring
Timely Topics in the
Earth and Space Sciences

Friday Evenings
7:00 p.m. Eastern Time
(and available for replay in the video archives)
<https://www.facebook.com/fernbankcenter>
An At-Home Planetarium Production

Fernbank Science Center and the
Jim Cherry Memorial Planetarium
present

The PLANET-arium Show

Virtual Field Trip
through the Solar System

With Your Guide Planetary Geologist
R. Scott Harris

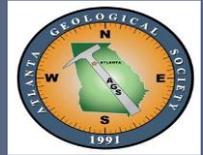
Saturdays at 1:00 p.m. or 8:00 p.m. ET
(please check weekly)
<https://www.facebook.com/fernbankcenter>
An At-Home Planetarium Production

Fernbank Science Center and the
Jim Cherry Memorial Planetarium
present

When Falcons Flew on the Moon

Celebrating the 50th Anniversary of Apollo 15

Friday, July 30, 2021
7:00 p.m. EDT
<https://www.facebook.com/fernbankcenter>
An At-Home Planetarium Production



AGS 30 Atlanta Geological Society 30th year (1991-2021)

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AGS Annual membership

- General: \$25
- Student: \$10
- Corporate: \$200
- [Click here to join](#)

www.atlantageologicalsociety.org

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- **Career Networking/Advertising:** Open
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