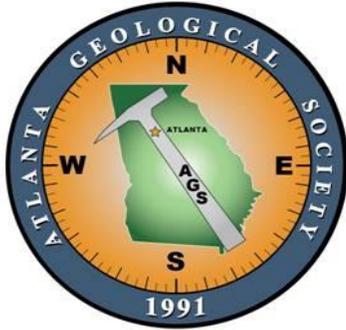


Atlanta Geological Society Newsletter

March 2022



AGS: Atlanta Geological Society

Annual membership

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

Newsletter deadline: 15th of month

Send articles & announcements to
John Clarke, Editor: ice12jsc@gmail.com

President's Message

Pamila Gore



This is my first President's Message since assuming the office in February, upon the passing of Nils Thompson. For those of you who don't know me, I am a Professor of Geology at Georgia State University's Perimeter College, Clarkston Campus, and I have been a member of AGS since 1993. I have been a Licensed Professional Geologist in Georgia since 1988, and was appointed to the Georgia State Board

of Registration of Professional Geologists by Governor Brian Kemp in 2021. I am first author of the *Roadside Geology of Georgia*, with co-author Bill Witherspoon, and author of the *Historical Geology Lab Manual*, published by John Wiley & Sons.

I would like to welcome Scott Harris, who was installed as our new Vice President at our February meeting. Scott is a Planetary Geologist at Fernbank Science Center, and has been serving as Chair of the Field Trip Committee, and host for our Zoom meetings and Professional Geologists Workshops.

I would like to thank all of our officers and committee chairs for their service to the Society, and to invite those who might like to assume a more active role in the Society to let me or one of the other officers know.

Many thanks to Clara Daniels, graduate student at Georgia Institute of Technology, for her presentation last month on seismic activity in the southeastern U.S. We have a full slate of talks coming up this year, and plan to continue meeting in person at Fernbank Museum, as the pandemic subsides. If you are interested in giving a presentation at an upcoming meeting, please let me or Scott Harris know so we can get you on the schedule for 2023. For a list of upcoming presentations [click here](#).

March Meeting

NOTE NEW TIME

Join us **March 29, 2022** for our AGS hybrid in-person and webcast meeting.

6:00: Pizza social at the museum

6:30: Business meeting

6:45: Presentation

Topic: Geology for the Next Generation: Purposeful Training in Geoscience Education

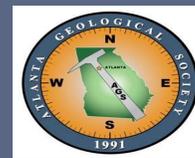
Speaker: Victor J Ricchezza Assistant Professor of Geology Georgia State University (see page 2)

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Atlanta Geological Society Newsletter

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March Presentation: Geology for the Next Generation: Purposeful Training in Geoscience Education

When: March 29, 2022 (NOTE NEW TIME)

6:00: Pizza social

6:30: Business meeting (zoom starts)

6:45: Presentation

The meeting will be in person and via zoom. Click on this link to join meeting:

<https://us02web.zoom.us/j/82999806944?pwd=bTliRE9raDNibnNYaTU3TlZhN25aQT09>

Abstract: Education seems susceptible to a particular form of bias. An instructor learns a thing a certain way, and thus considers this is *the way* that instruction is done. Over time, the curriculum of a program builds, sometimes by the demands of the job market, and sometimes by the inertia of this bias from the faculty. In his talk to the Atlanta Geological Society, Dr Ricchezza will present a synopsis of the basics of Geoscience Education Research and how it fits with curriculum design for geoscientists. His talk will include selected case studies from his own research, and will discuss how we can move forward as a profession to a more diverse workforce that is trained with the skills suited the jobs they find upon graduation.



Speaker bio: Dr Victor J Ricchezza is an Assistant Professor of Geology working for Georgia State University's Perimeter College at the Clarkston campus. Dr Ricchezza has worked at PC since Fall 2020. Before working at PC, he was an adjunct instructor for the School of Geosciences at the University of South Florida, where he previously earned a Doctorate in 2019 and a Master's degree in 2016, both in Geology. While in graduate school, Dr Ricchezza focused research in the subfield of Geoscience Education Research (GER). Put simply, while most geologists study earth materials and processes, he studies how geologists are trained at the university level, and how that process can be continually improved. His specialty within GER is quantitative literacy for geoscience, measuring how geoscientists are taught the quantitative skills they need to succeed professionally. Prior to graduate school, Vic worked as a high school teacher in Fulton County after a decade in environmental consulting. Vic lives a bit outside Atlanta with his wife and 2 kids, far too many cats,

and a pile of musical instruments.

Sponsor of this month's meeting—Salvino Environmental Services

Thanks to Salvino Environmental Services and an anonymous donor for generously sponsoring our February meeting. John Salvino is AGS treasurer and long-time member. His company, Salvino Environmental Services, LLC provides technical and field support services to remediation contractors. They also provide supplemental geological and environmental field support services as companies bridge the labor and human resource gaps between their current available staff resources and their project work load. For more information, go to:

<http://sites.google.com/site/salvinoenvironmental>





USGS 7.5-Minute Topo Maps Custom Designed and Centered Where You Want

For the first time ever, you can get 7.5-minute topographic maps centered on a place of your choosing! That's right, instead of relying on USGS to draw the boundaries of the topo map, you can select your own using the new pilot tool topoBuilder.

Let's say you're interested in visiting Horseshoe Bend near Page, Arizona and you want to get topo maps for that area. If you're relying on the US Topo maps that the USGS generates based on the 7.5-minute map series, you'd need four separate maps to cover that area. Now, with topoBuilder, you'd need just one. To access topoBuilder and design your own maps go to:

<http://ow.ly/eeMb5011GoH>

when you want
created on demand

where you want
centered anywhere in the U.S. and territories

what you want
turn map layers on or off with Geospatial PDF

The National Map
OnDemand Topo

On-Demand, Custom, Topographic Maps

start making yours at
topobuilder.nationalmap.gov

up-to-date
uses latest available data from The National Map

fast turnaround
maps processed within 5 days

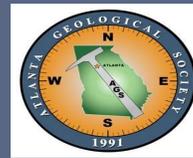
delivered to you
download maps from a link sent to your email

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/>



Outcrop of the Month

Bill Witherspoon

Okefenokee Swamp is back in the news this year, and in action alerts from the Georgia River Network and the Sierra Club, because of a bill, [HB 1289](#), now before the legislature. The bill would ban the nearby proposed Twin Pines titanium mine. As with Cumberland Island last month, I bend the "outcrop" definition, but such is the geology of the Coastal Plain. The following is excerpted from Pamela Gore's writing on p. 57 and 111-112 of *Roadside Geology of Georgia*.

The Barrier Island Sequence District is one of the most fascinating areas of the Coastal Plain because it contains a 2-million-year record of cyclic climatic changes associated with the Pleistocene glaciations. A sea level high stand about 2.1 million years ago formed Trail Ridge, a former barrier island that is now 40 miles inland. At sea level low stands, the shoreline was as much as 60 miles east of its present position, far out on today's continental shelf.

Trail Ridge dams the eastern edge of the Okefenokee, and without it there would be no swamp. When Trail Ridge was a barrier island, a large saltwater lagoon lay to the west. The lagoon was connected to the sea by inlets, located where the St. Marys and Satilla rivers now flow, though now most of the Okefenokee Swamp drains slowly south- westward into the renowned Suwannee River of Florida. The swamp formed as sea level dropped and rainwater filled the depression. Peat has been accumulating in the swamp for at least the last 6,500 to 7,000 years, indicating that the water has been fresh for that amount of time.

The Okefenokee Swamp is one of the largest freshwater wetlands in the United States, covering an area of roughly 700 square miles. The swamp is habitat for birds, mammals, reptiles, amphibians, and carnivorous plants, many of which are endangered or threatened. Most of the swamp is covered by water less than 2 feet deep. Cypress trees and hardwoods dominate the western part of the swamp, and prairies with ponds and grasses dominate the eastern part. There are numerous lakes within the swamp, in addition to channels with flowing water and sandy islands covered in pine trees.

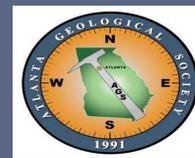


The Okefenokee is what's known as a blackwater swamp. Its water is dark, resembling tea due to the tannic acid that comes from decaying vegetation. Masses of partially decayed plant matter that accumulate on the bottom occasionally rise to the surface, floated by gases that form during decomposition. This produces floating "islands" that may be firm enough to walk on. These floating islands are responsible for the American Indian name Okefenokee, meaning "land of trembling earth." The thick layer of peat ranges from 5 to 15 feet thick. The Okefenokee Swamp is a modern analogue for ancient swamps that are today mined for coal.

The highly reflective black water of the Okefenokee Swamp. – photo by Pamela Gore

Atlanta Geological Society Newsletter

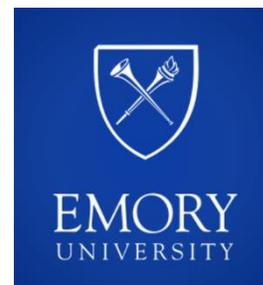
March 2022



Department of Environmental Sciences at Emory University

Anthony (Tony) J. Martin

Geologists of a certain age in the metro-Atlanta area may recall that Emory University once had a Department of Geology with an undergraduate major and graduate program in geology, but also that the department was closed in 1989. This purge was survived by a Geosciences Program that offered general-education requirement classes for non-science students and no advanced-level classes. In 1999, the Geosciences Program was then merged with the Human and Natural Ecology program to form a new Department of Environmental Studies, which was later renamed the [Department of Environmental Sciences](#). The department currently comprises a multidisciplinary blend of the natural and social sciences, much of which has human-oriented applications, especially with relation to human health.



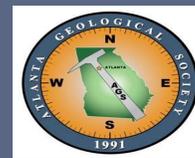
In terms of the geosciences, the Department of Environmental Science recently developed an [Earth and Atmospheric Science \(EAS\) minor](#) or track within the undergraduate major. The EAS minor aims to give students an understanding of:

- The physical sciences of Earth systems;
- Fundamental processes of the atmosphere, biosphere, hydrosphere, and lithosphere; and
- The flux of materials and energy through these systems.

Earth and atmospheric science courses offered in the department include: *Fundamentals of Geology*, *Evolution of the Earth*, *Environmental Geology*, *Physical Oceanography*, *Modern and Ancient Tropical Environments*, *Cartography and GIS*, *Introduction to Atmospheric Chemistry*, *Geological Origins of Landscapes*, *Barrier Islands*, and more. However, with the recent retirement of William (Bill) Size and upcoming retirement of Anne Hall, as well as no indications their positions will be replaced by faculty with similar expertise, some of these classes may not be taught over the next few years. We recently hired a biogeochemist (Dr. Debjani Saha) specializing in soil science, who we hope will also contribute to the EAS minor or track within the major.

Since 2015, Michael Page – Emory's expert on GIS (geographic information systems) and digital applications – and I have partnered with the Emory Center for Digital Scholarship to produce the [Georgia Coast Atlas](#). The Atlas attempts to provide an open-access and online resource on the natural and human histories of the Georgia coast using a combination of text, photos, videos, and other digital media. Although the pandemic slowed progress on the project during the past two years, it has nevertheless produced much educational content on geological and ecological processes of the Georgia barrier islands. This content includes three peer-reviewed videos of edited drone footage from [St. Catherines Island](#), [Sapelo Island](#), and [Ossabaw Island](#) that are accompanied by peer-reviewed articles.

Lastly, students also have the opportunity to do independent research projects on the Georgia Coast Atlas, as well as year-long Honors thesis projects in geology and paleontology. Past students have also presented their research results at Southeastern Section and national meetings of the Geological Society of America. The department is fortunate to have two internal sources of financial aid for students doing field work and travel, the Lester Fund (named after James Lester, the founder of the Department of Geology) and the Turner Fund. The Turner Fund is earmarked for field trips and research done in Georgia, and hence benefits those students interested in our local geology, from the Piedmont to the barrier islands. So, although students cannot major in geology at Emory, they have enough resources here to prepare themselves well for graduate programs in geology and future careers in the geosciences.



Covid-19 Relief Funds to Provide for Development and Monitoring of Deep Aquifers in Southwest Georgia

Atlanta Journal, February 23, 2022

Governor Kemp has awarded \$422 million of an expected \$4.8 billion of Federal covid-19 relief funds to water and sewer projects for dozens of Georgia cities and counties. Part of the funds will be allocated to improve agriculture irrigation practices, provide better resource protection, and enhance water source resiliency, especially during droughts in the Flint River Basin. Funds will be used by the Ga EPD and Albany State University to install 242 deep aquifer irrigation wells to provide water to farmers during droughts rather than withdrawing water from the Flint River. An additional 15 wells will be used to monitor hydrologic conditions in the deep aquifer. *Editor's note: Debbie Gordon of the USGS will be our guest lecturer at the October 25th meeting and will describe the hydrology of the Claiborne aquifer—one of the potential “deep aquifers” to be used as irrigation source in the Flint River Basin.*

UGA Student Publishes Article on PFAS in the Journal Science

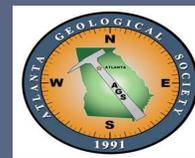
Per- and polyfluoroalkyl substances (PFAS) are products of the modern chemical industry that have been enthusiastically incorporated into both essential and convenience products. Dubbed “forever chemicals” because of their innate chemical stability, PFAS have been found to be ubiquitous environmental contaminants, present from the far Arctic reaches of the planet to urban rainwater.

Oluwaseun Adeyemi (current graduate student in the UGA Department of Geology) is currently working with **Dr. John Washington** (co-author, Research Chemist at USEPA, and Geology Adjunct Professor) performing mineralogical research on soil samples from agricultural fields that have received applications of biosolids that are high in PFAS. Waste-water treatment plant biosolids are widely applied to agricultural fields as soil amendments across United States. In recent years, it has been discovered that these biosolids often are high in PFAS. [Click here](#) to read the full article.

International Commission on Stratigraphy

Ben Bentkowski

The International Commission on Stratigraphy (ICS) is the largest and oldest constituent scientific body in the International Union of Geological Sciences (IUGS). Its primary objective is to define precisely global units (systems, series and stages) of the International Chronostratigraphic Chart that, in turn, are the basis for the units (periods, epochs and age) of the International Geological Time Scale; thus, setting global standards for the fundamental scale for expressing the history of the Earth. The work of the Commission is divided between seventeen subcommissions, each responsible for a specific period of geological time. Their work is overseen and co-ordinated by an executive of six officers. <https://stratigraphy.org/chart/>



OUR FIRST LADY GEOLOGIST

<https://www.whitehouse.gov/about-the-white-house/first-families/lou-henry-hoover/>



Did you know that one of our President's wives was a geologist? Lou Henry Hoover served as First Lady from 1929 to 1933 as the wife of the 31st President, Herbert Hoover. An avid Chinese linguist and geology scholar, she was also the first First Lady to make regular nationwide radio broadcasts.

Admirably equipped to preside at the White House, Lou Henry Hoover brought to it long experience as wife of a man eminent in public affairs at home and abroad. She had shared his interests since they met in a geology lab at Leland Stanford University. She was a freshman, he a senior, and he was fascinated, as he declared later, "by her whimsical mind, her blue eyes and a broad grinnish smile."

Born in Iowa, in 1874, she grew up there for ten years. Then her father, Charles D. Henry, decided that the climate of southern California would favor the health of his wife, Florence. He took his daughter on camping trips in the hills—her greatest pleasures in her early teens. Lou became a fine horsewoman; she hunted, and preserved specimens with the skill of a taxidermist; she developed an enthusiasm for rocks, minerals, and mining. She entered Stanford in 1894—"slim and supple as a reed," a classmate recalled, with a "wealth of brown hair"—and completed her course before marrying Herbert Hoover in 1899.

The newlyweds left at once for China, where he won quick recognition as a mining engineer. His career took them about the globe—Ceylon, Burma, Siberia, Australia, Egypt, Japan, Europe—while her talent for homemaking eased their time in a dozen foreign lands. Two sons, Herbert and Allan, were born during this adventurous life, which made their father a youthful millionaire.

During World War I, while Hoover earned world fame administering emergency relief programs, she was often with him but spent some time with the boys in California. In 1919 she saw construction begin for a long-planned home in Palo Alto. In 1921, however, his appointment as Secretary of Commerce took the family to Washington. There she spent eight years busy with the social duties of a Cabinet wife and an active participation in the Girl Scout movement, including service as its president.

The Hoovers moved into the White House in 1929, and the First Lady welcomed visitors with poise and dignity throughout the administration. In 1933 they retired to Palo Alto, but maintained an apartment in New York. Mr. Hoover learned the full lavishness of his wife's charities only after her death there on January 7, 1944; she had helped the education, he said, "of a multitude of boys and girls." In retrospect he stated her ideal for the position she had held: "a symbol of everything wholesome in American life."

The biographies of the First Ladies on WhiteHouse.gov are from "The First Ladies of the United States of America," by Allida Black. Copyright 2009 by the White House Historical Association.



New Interagency Report Highlights Alarming Sea Level Rise Predictions for U.S. Coastline

Tens of millions of people in the United States live in areas at risk of coastal flooding, and even more are moving to the coasts every year. These growing coastal communities are at increasing risk from coastal hazards, especially with projected sea level rise.

A new [interagency report](#), published by the U.S. Sea Level Rise and Coastal Flood Hazard Scenarios and Tools Interagency Task Force, concluded that sea level along the U.S. coastline is projected to rise an average of 10–12 inches (0.25–0.30 meters) in the next 30 years (2020–2050). This will be as much as the rise measured over the last 100 years (1920–2020).

Sea level rise will vary regionally along U.S. coasts due to factors such as variability in vertical land motion and sea surface height driven by ocean currents. This projected rise will create a profound shift in coastal flooding over the next 30 years by causing tide and storm surge heights to reach higher elevations and extend further inland. Higher global temperatures increase the chances of higher sea level by the end of the century.



Extensive inland flooding in Texas associated with Hurricane Harvey in 2017.

About 2 feet (0.6 meters) of sea level rise along the U.S. coastline is increasingly likely between 2020 and 2100 due to greenhouse gas emissions to date, such as carbon dioxide, contributing to increased global temperatures. Continuation of current emissions levels could cause an additional 1.5–5 feet (0.5–1.5 meters) of rise for a total of 3.5–7 feet (1.1–2.1 meters) by the end of this century.

The report, "[Global and regional sea level rise scenarios for the United States: updated mean projections and extreme water level probabilities along U.S. coastlines](#)," published Feb. 15, 2022, was authored by the U.S. Sea Level Rise and Coastal Flood Hazard Scenarios and Tools Interagency Task Force. The Task Force is co-chaired by Patrick Barnard of the USGS and includes scientists from a number of other federal agencies and academic institutions. The Task Force operates under the umbrella of the United States Global Change Research Program and the Subcommittee on Ocean Science and Technology.

"One of the major concerns with these new projections is the significant increase in flood frequency by 2050, including a five-fold increase in major flooding," says Patrick Barnard, USGS Research Geologist and co-author of the report. "These higher water levels will also exacerbate other coastal hazards, such as coastal erosion, emerging groundwater, and saltwater intrusion."

The updated scenarios have been integrated into a new [Interagency Sea Level Rise Scenario Tool](#) that provides sea level rise information for all U.S. coastal states and territories out to the year 2150. The data conveyed in the tool and report can be accessed and downloaded by coastal practitioners and community planners to help enhance local coastal resilience.

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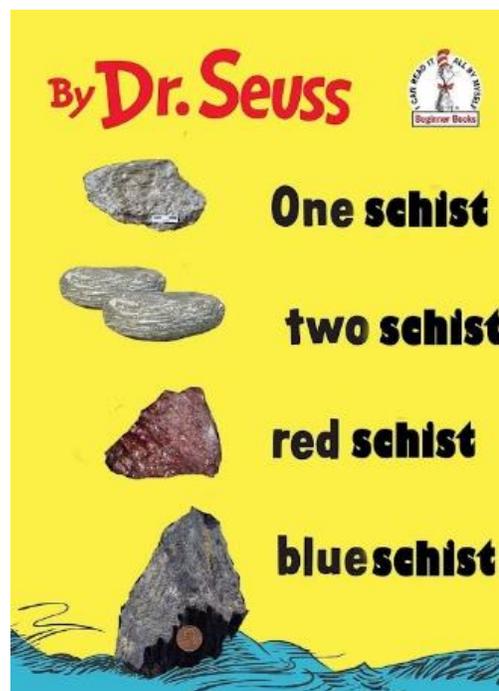


Even gradual sea level rise can rapidly increase the frequency and severity of coastal flooding—in many parts of the U.S., just 5–10 cm of rise will double flooding frequency. These new projections inform Federal agencies, state and local governments, and planners and policymakers in coastal communities about current and future sea level rise which, in turn are a key component to better understand future coastal impacts at the local scale and help inform critical decisions to prepare hazard mitigation strategies in support of coastal resilience. These data will also be key inputs for the Fifth National Climate Assessment (NCA5) and are being incorporated into current and planned tools and services by the USGS and partnering agencies.

“Sea level rise won’t just behave like water rising in a bathtub. It will lead to more beach erosion and the loss of coastal marshes,” said Davina Passeri, a Research Oceanographer for the USGS in St. Petersburg. “Natural shorelines offer protection from flooding and waves during storms, while also serving as a key habitat for animals like birds and turtles. With sea level rise, we will lose that natural buffer.”

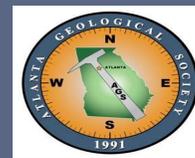
The USGS has held a critical interagency leadership position in the Task Force since its inception. Next steps for the Task Force are to begin strategizing for the next report, which is expected to have a significant focus on incorporating waves in future coastal water level projections and translating total water levels into future coastal hazards (e.g., flooding and erosion). Given this likely new direction, data, models, and tools developed across the USGS Coastal and Marine Hazards and Resources Program are expected to play an even larger role in this effort moving forward.

The main drivers for global mean sea level rise are atmospheric and ocean warming, which increase both the mass of the ocean (primarily through the melting of land ice) and the volume of the ocean (primarily through thermal expansion).



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March 2022 PG Candidate Workshop

Abigail Knapp, G.I.T.

Speaker: Abigail Knapp

Subject: Remote Sensing

Date: Saturday, March 26, 2022

Time: 10:00 am until 12:00 pm

Place: Online webinar. For more information and link contact Abigail Knapp: abigail.s.knapp@gmail.com

Please join us for a Saturday morning overview of remote sensing, with a highlight on the Landsat satellite applications. Remote Sensing falls under the General Geology/Field Methods section of the ASBOG FG and PG questions. In this workshop, we will go over the electromagnetic spectrum, remote sensing data collection and processing, and applications with a special highlight of the Landsat missions and data applications. Abigail Knapp is a geologist in training with an M.S. In Geology from UGA. During her masters' work she used Landsat and Sentinel 2 satellite data alongside "in-situ" datasets to investigate the drivers of harmful algal blooms in two Georgia reservoirs.

Please join us and feel free to forward this announcement to anyone that might be interested.

Two Professional Development Hours will be offered at this workshop, which is open to current AGS members. Signing up for AGS Membership is easy and offers many benefits! Student membership is only \$10. For more information, go to our website at atlantageologicalsociety.org or visit us on Facebook.

Events Calendar

December 4 – October 30, 2022: Hidden Secrets: Mysterious World of Caves. Tellus Science Museum. [Click here](#) for more information.

March 18, 12pm: Georgia Ground Water Association meeting. Speaker: James Landmeyer, USGS. Topic: Pump and "Tree": Using Trees to Remediate Contaminated Groundwater. [Contact Debbie Gordon](#) for more information.

March 26, 10am: AGS PG Candidate Workshop. Speaker: Abigail Knapp. Topic: Remote Sensing. Online webinar. For more information and link contact Abigail Knapp: abigail.s.knapp@gmail.com

March 29, 6pm: AGS monthly meeting, speaker: Victor Ricchezza. Topic: Geology for the Next Generation-- Purposeful Training in Geoscience Education

April 7-8, 2022: Geological Society of America joint section meeting—North Central and Southeastern Sections, Cincinnati, OH. [Click for more information](#)

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April 26, 6pm: AGS monthly meeting, speaker: Randy Kath. Topic: Structure, Geochemistry, Geochronology, and 2- and 3-dimensional strain analysis of the Long Island Creek Gneiss with proximity to the zone of most intense shearing in the Brevard Zone in western Georgia and eastern Alabama.

May 27, 9am and May 28, 11am: Micromount gathering, symposium and field trip. Tellus Science Museum. For more information [click here](#).

May 31, 2022. 6pm: Special AGS monthly meeting, sponsored jointly with the Association of Environmental & Engineering Geologists (AEG) Atlanta Chapter featuring Jahns Lecturer Richard Wooten, North Carolina Geological Survey (retired). Topic: Going Against the Grain: Linking Brittle Cross-Structures with Landslides, Hydrogeology, and Earthquakes in the North Carolina Blue Ridge and Piedmont.

August 30, 6pm: AGS monthly meeting, speaker: Karl Lang, Georgia Tech. Topic: **When Megafloods Attack!:** Diagnosing a Tectonic Aneurysm: new observations from the eastern Himalaya

September 27, 6pm: AGS monthly meeting, speaker: Jean Lynch-Stieglits, Georgia Tech. Topic: **How the Gulf Stream brings Warmth and Nutrients to the North Atlantic: Tales from the Past and Future Oceans**

October 25, 6pm: AGS monthly meeting, speaker: Debbie Gordon, USGS. Topic: Hydrology of the Claiborne aquifer in Southwestern Georgia

Georgia Groundwater Association Darcy Lectures

When: **Mar 28, 2022 10:00 AM** Eastern Time (US and Canada)

Topic: "**How Are Geochemical Reactions in Aquifers Connected to Climate Change Mitigation**"

Register in advance for this webinar:

https://us02web.zoom.us/webinar/register/WN_Wym99OmaSYCtLKNlzc0YqQ

When: **Mar 29, 2022 10:00 AM** Eastern Time (US and Canada)

Topic: "**Hydrogeochemistry: Recent Advances and Opportunities & Challenges Ahead**"

Register in advance for this webinar:

https://us02web.zoom.us/webinar/register/WN_Eg4899BuTkWXqg1vHKpWow

When: **Mar 30, 2022 10:00 AM** Eastern Time (US and Canada)

Topic: "**Watershed-Scale Hydrological Models as a Community Cyber Platform for Research, Teaching, and Service to Society**"

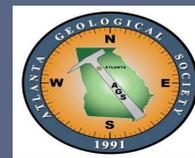
Register in advance for this webinar:

https://us02web.zoom.us/webinar/register/WN_yAwTMdWSSIKL5myKwwgPlw

After registering, you will receive a confirmation email containing information about joining the webinar.

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University of Georgia Geology Colloquium Series

Virtual event via zoom

Note: A password is required to join these meetings. Please call the Geology office (706-542-2652) and speak with a representative to obtain the code. Alternatively, a code request can be made to [UGA Geology](#).

March 18, 2022 - 4:10pm: Dr. Juliane Dannberg, (University of Florida): Mantle plumes and their interaction with tectonic plates: Insights from geodynamic modeling

March 25, 2022 - 4:10pm: Dr. Linda Kah, Department of Earth and Planetary Sciences (University of Tennessee): Understanding Jezero crater, Mars: Insight from the Perseverance rover mission

April 1, 2022 - 4:10pm: Dr. Sarah Carmichael, Department of Geological and Environmental Sciences (Appalachian State University): CSI: Devonian - are large igneous provinces guilty of causing the end-Devonian mass extinction?

April 8, 2022 - 4:10pm: Dr. Emily Martin, Research Physical Scientist Center for Earth and Planetary Studies (National Space and Air Museum Smithsonian Institution): Estimating regolith thickness on Saturn's Moon Enceladus

Fernbank Museum Events

Exhibits

Knights in Armor (On View February 5, 2022 – May 15, 2022) Through more than 100 objects—including full suits of armor, mounted equestrian figures, paintings, helmets, swords and other weaponry— this exhibit tells the tale of the European knight from the medieval and Renaissance periods through the Medieval Revival of the 19th century.

Symphonies in Scale: LICHENS (On View February 12, 2022 – May 8, 2022) The striking beauty of lichens is showcased in 10 larger-than-life macro photographs, which immerse guests in these worlds, ignite their sense of wonder and unearth a childlike curiosity

Fernbank's Giant Screen Theater is OPEN daily. Now Playing:

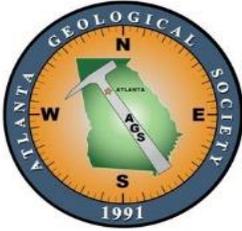
- *Mountain adventure: out of bounds
- *Dinosaurs of Antarctica
- *Coming Soon: Ireland (opens March 17)

Other events

- Fernbank Forest Wildflower Walk, March 17, 2:00 – 3:30 PM
- Fernbank Forest Wildflower Walk, March 19, 10:00 – 11:30 AM
- Fernbank After Dark: The Green Scene, April 8, 7:00 – 11:00 PM
- Born to be Wild, April 23, 10:00 – 1:00 PM
- Robots Day, May 7, 10:00 – 1:00 PM
- Fernbank After Dark: Booze and Botanicals, May 13, 7:00 – 11:00 PM
- Fernbank Audubon Walk, May 14, 9:00 AM – 10:30 AM

Atlanta Geological Society Newsletter

March 2022



AGS Annual membership

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

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