



The Maine Geologist

NEWSLETTER OF THE GEOLOGICAL SOCIETY OF MAINE

February 2020

Volume 46

Number 1

PRESIDENT'S MESSAGE

Greetings from Mt. Desert Island. The view from here has been mostly clear skies, cold temperatures, and barely any snow so far this winter. While ice-skating has been reliably quite good on some of the smaller ponds, skiing and snowshoeing have been nearly impossible – hopefully this will not be the new norm. I feel like I'm still waiting for winter to begin given the lack of snow, but the Spring GSM meeting is just around the corner: Friday, April 3, held at the University of Maine at Farmington! More information about the meeting can be found within this newsletter and on the website. Students should think about presentations as abstract submission will be due in March. We are looking forward to the grand opening of our updated website this spring as well – a huge thank you to Amber Whittaker and Cassy Rose for taking on the great task of upgrading the site! Building upon discussions about geoscience education in Maine that have taken place over the last two years, it seems like a good time to begin gathering a list of folks who are interested in volunteering to schools or field trips as geoscience “experts.” Within this newsletter you can find a link to an online form where you can volunteer to be on a list of local/regional experts that educators can reach out to when looking for visitors to interact with their students. As a graduate student, I was fortunate to be part of a program that facilitated a link between graduate students and local middle school students where I taught a geoscience lesson and talked about my research with the students a few times a year, enabling me to gain important classroom experience. I was thrilled with the opportunity to share my enthusiasm for geology with students and I was simultaneously humbled to learn important lessons about the planning, patience, and stamina needed to teach a 1-hour lesson to sixth graders! Through participation in faculty searches at a few different

institutions, I know how important it is for aspiring educators to have teaching experiences during their time in graduate school. As not all graduate students have the opportunity to be Teaching Assistants, this could be an opportunity for them to develop some professional skills and build their network. This would also be an excellent opportunity for teachers to enhance their students' experience through interaction with geoscience professionals. Very important to our future STEM workforce is for k-12 students to engage with current professionals, beyond those working in academia, in order for young people to envision their own potential futures. As an educator I have witnessed how powerful it can be for students to see concepts and skills they learn in the classroom and field applied to real societally relevant work such as: energy generation, water quality monitoring, environmental clean-up, resource extraction and management, legislation and policy decisions, and much more. Our newsletter seems like a great place to showcase some of the interactions our members are having with students through opportunities such as “visiting experts” - please feel free to share in the Member News section of the newsletter! A reminder to folks that the next deadline for [Walter Anderson Fund proposals is March 1](#). This fund provides support for geoscience education opportunities in Maine or for Maine students. Through this fund, Walter Anderson has enabled the GSM to provide opportunities to many students through the years. Walter's 90th birthday is this month, February 27! In celebration of Walter and his many years of work as a geologist in Maine, visit this [Story Map](#) with some highlights and an opportunity to celebrate Walter by making a contribution to the Walter Anderson Fund.

Sarah Hall, GSM President
shall@coa.edu

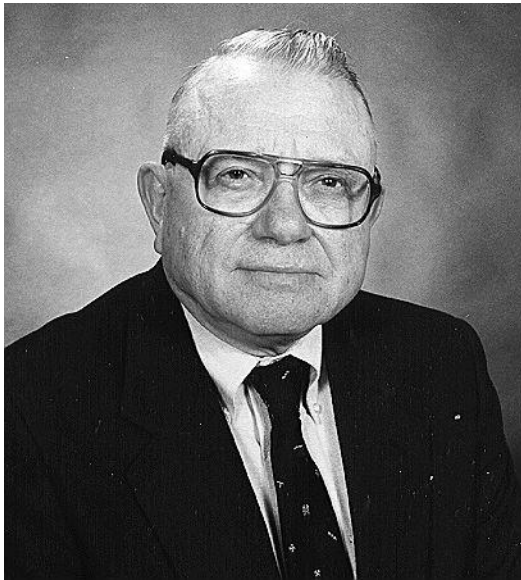
THE EDITOR'S MESSAGE

The newsletter is distributed through email in pdf format. Anyone with special needs please contact the Editor. Please send items of interest and photographs of GSM activities to:

Amber Whittaker, Newsletter Editor
amber.h.whittaker@maine.gov

GSM WEBSITE: www.gsmmaine.org
FACEBOOK: facebook.com/GSMMaine

WALTER AT 90 – AN APPRECIATION



After suffering many years in the Purgatory of Houston, Texas, Walter Anderson was deemed sufficiently cleansed in 1968 to assume the role of Assistant State Geologist at the Maine Geological Survey, and was appointed as State Geologist in 1979, a position he held for 17 years.

Walter built a truly modern geological survey that is the envy of many geological surveys. Looking at the problems facing the citizens of Maine, Walter quickly realized that the core programs of MGS in the late 1970s – bedrock mapping and mineral investigations – were insufficient to meet the needs of the State. He expanded the programs of the MGS to include mapping of surficial materials, identification of key aquifers, and to address

marine/coastal geology. While aggregate materials were essential to the Maine economy and the potential for landslides in glacial-marine mud was considerable, mapping of surficial materials had never really been undertaken in any systematic way in Maine prior to the program Walter established at MGS. Today, more than half the State is covered by detailed surficial maps, and the remainder by reconnaissance maps, all the product of the program Walter initiated.

Spinning off from the surficial mapping effort was the need to better identify and characterize aquifers in unconsolidated geological materials. To do so, Walter established a decades-long collaboration with other state agencies and the U.S. Geological Survey to systematically characterize sand and gravel aquifers. Aquifers mapped through this program now support hundreds of community water systems in the state, are essential to agricultural irrigation, and support the bottled water industry.

Two devastating coastal storms in the winter of 1978 caused tens of millions of dollars of damage to coastal homes, businesses, and public infrastructure. In response, Walter established a marine program to map coastal and nearshore submarine resources. The work of this program in the dynamic coastal dune systems and erodible bluffs form the basis for a sensible regulatory system that limits development in the most vulnerable coastal areas in Maine.

In the mid-1980s, the US Department of Energy (DOE) initiated a program to identify candidate repositories for spent nuclear fuel, one in the East and one in the West. Among the DOE's actions were the selection of potential sites in two granite bodies of Maine. While a supporter of nuclear power (even more so now given its potential to mitigate climate change), Walter recognized that the deeply fractured, water-saturated granites of Maine lacked the qualities needed for long-term isolation of nuclear waste from the biosphere. Over several years, Walter presented geologic information at scores of meetings in Maine, Washington, and elsewhere in the country that demonstrated that Maine granites were inappropriate repositories, a view that eventually prevailed. Furthermore, Walter parlayed a small contribution of DOE funds into a massive effort to improve geologic mapping, culminating in 1985 in

the compilation of new bedrock and surficial geologic maps of the State, products unparalleled in their geologic and cartographic quality and which hold tremendous value to this day.

Today it is difficult to imagine a geological survey without geographic information systems, but in the early 1980s, all cartography and map analysis was conducted manually. Walter was exposed to rudimentary GIS during the spruce budworm crisis of the early 1980s and recognized that this technology could have great application in geology. He worked over many years with the Administration and Legislature to advance the concept of GIS and oversaw the establishment of a GIS program in state government in 1990. He hired one geologist with GIS background (a scarce commodity at the time) and ensured that MGS geologists and cartographers were trained in GIS applications. Consequently, MGS has been long-recognized as a leader in the application of GIS to geological issues.

The respect that the MGS enjoys today as a valued and highly relevant program that provides unbiased science on geological issues is the product of Walter's visionary leadership. We wish him well in his 10th decade!

Bob Marvinney, State Geologist

Check out the [Story Map](#) about Walter developed by Sarah Hall.

Donate to the "Ninety for Ninety" drive for the Walter Anderson Fund via [GoFundMe](#)

2020 SPRING MEETING ABSTRACT SUBMITTAL AND FLYER

April 3, 2020

University of Maine at Farmington

Abstract Deadline: March 21

The 2020 GSM Spring Meeting is scheduled for Friday, April 3rd. This year the conference is being hosted by the Geology Department at UMF. The primary emphasis of the spring meeting is to showcase the latest undergraduate research during a

poster session and a round of oral presentations. The keynote speaker will be Dr. David Gibson, Professor of Geology at UMF. He will present an overview of mineral resources that are critical to meeting societal needs in the forthcoming years. See the flyer at the end of the newsletter for more information on how to submit an abstract (deadline is **Saturday, March 21, midnight**), preliminary schedule, and more. Please contact Dr. Doug Reusch with any questions.

Doug Reusch
reusch@maine.edu

2020 SUMMER FIELD TRIP

July 31 – August 2, 2020

Northwestern Maine

Registration Deadline: July 13

The thriving border town of Jackman, nestled in a four-season recreational area among the mountains and lakes of northwestern Maine, will be the headquarters for the 2020 GSM summer fieldtrip. On Saturday, this trip will highlight the sedimentological characteristics of the Silurian-Devonian units that comprise the Frontenac belt, which extends from the Caucomgomoc Lake area in northwestern Maine through the Southeastern Townships of Québec, and on into northern New Hampshire. Trip participants will be treated to some excellent exposures of the Frontenac, Ironbound Mountain, and Northeast Carry Formations exposed along and near the shores of scenic Seboomook Lake in the Public Lands Seboomook Unit. You'll be dazzled by the remarkable sedimentary structures preserved in sand-rich turbidites of the Northeast Carry Formation, including graded, cross, and convolute bedding. Imagine submarine pyrotechnics while sitting on Frontenac pillow basalts – they'll blow you away! Then settle back to earth with the clay particles that comprise the monotonous mud-silt turbidites of the Ironbound Mountain. There will be something for everyone – we'll even squeeze in a few stops to see Pleistocene lake clays, remnants of the formidable Glacial Lake Seboomook. There is

always good moose sighting in the bogs and ponds along our route!

As participants head (mostly) south on Sunday, we'll stop at the scenic Attean View rest area on Route 201 just south of Jackman for an overview of the geology of the Chain Lakes rocks that underlie the mountains and lakes to the west. Our final stop will be in The Forks where we will hike the short forest trail to view the geology of Moxie Falls (which I mapped in 1979!). On a hot summer day, this is a fine swimming spot.

Bob Marvinney, State Geologist
Address questions to:
Kevin Spigel, GSM Vice President
kspigel@unity.edu

Register by **July 13th** to attend the field trip. Registration details are on our website (www.gsmaine.org) and the registration form may be found at the end of the newsletter.

2019 FALL MEETING SUMMARY

**Climate Change and
Adaptation Planning in Maine
November 8, 2019
Augusta Civic Center**

The Fall GSM meeting, held at the Augusta Civic Center on November 8, 2019, brought together a number of folks working on different aspects of climate change here in Maine. State Geologist, Bob Marvinney opened the meeting with an introduction and overview of the new Maine Climate Council initiated by Governor Janet Mills. As the co-chair of the Science and Technology Subcommittee of the Council, Bob described the overall structure and goals of the new initiative foreshadowing some of the topics featured that afternoon. During the first half of the meeting we heard about some of the active scientific research and climate trends observed in different realms: Gulf of Maine (Matt Dzaugus, Gulf of Maine Research Institute), surface and ground waters (Glenn Hodgkins, USGS New England Water

Science Center), coastal areas (Peter Slovinsky, Maine Geological Survey), and extreme weather events (Sean Birkel, State Climatologist, UMaine). While some of the recent trends and predicted future scenarios are daunting, many speakers provided hopeful news of adaptation planning and resource management opportunities. Beverly Johnson (Bates College) discussed an opportunity to realize carbon burial through the protection of eelgrass beds in Maine, and Curtis Bohlen (Casco Bay Estuary Partnership) offered examples of best restoration practices in coastal areas given coastal change due to sea level rise. Rebecca Lincoln (Maine CDC) provided an overview of various health concerns observed and expected with climate change and what steps are being taken to monitor and deal with these concerns. From the Governor's Energy Office, Dan Burgess described Maine's Energy Policy and the steps proposed to achieve state energy and emissions goals. Nathan Robbins of the Maine DEP wrapped up the meeting with an overview of the history, progress, and future plans of the Maine Climate Council. Speakers were available for a brief question period before the meeting transitioned into a lively social hour. Conversations about the ongoing work of folks throughout Maine on the topics of climate change monitoring, mitigation actions, and adaptation planning continued over light snacks and drinks until the convention center staff started cleaning up the room! It was an inspiring afternoon spanning many concerning topics yet offering hope and reassurance that we have a broad network of researchers, professionals, and educators working on many aspects of climate change and its impacts around the state. Thank you very much to all of the speakers who contributed to this meeting and for all of the members who attended.

Sarah Hall

CALL FOR VOLUNTEERS

Geoscience Experts in K-12 Classrooms

Volunteer to be a "geoscience expert" for a k-12 class or field trip! We are gathering a list of

volunteers throughout the state of Maine to help facilitate geoscience educators. In particular we are looking to connect teachers with folks who have "expertise" in different realms of geoscience or career paths in the geosciences. If you would be willing to volunteer as a visiting "expert" in a geoscience class or on a field trip, please fill out this questionnaire:

<https://forms.gle/9HBzejdV4Vevh4xm6>

Your name and responses will be saved and matched to future requests from teachers. We are hoping to identify folks from different regions of the state with different expertise in order to facilitate minimal travel and help build community connections. Please send questions to: president@gsmmaine.org.

Serve the Geological Society of Maine

2020 marks the end of many terms for the officers and councilors of the Geological Society of Maine. Many of us agree to stay on term after term to serve the Society we love, but if you are interested in volunteering to serve as an officer or councilor for GSM, this year or in the future, please contact VP Kevin Spigel, the chair of the nominations committee: kspigel@unity.edu

NEWS FROM THE STATE GEOLOGIST

Water Resources Planning Committee 2.0

Water is abundant in Maine and is one of the State's most renewable resources. In an average year, more than 24 trillion gallons of precipitation fall across the State, and up to 5 trillion gallons recharge groundwater annually. Groundwater is an enormously important resource for public water systems, irrigators, commercial interests, and to the maintenance of stream flows that sustain important habitats. Analysis of decades of groundwater level records from monitoring wells maintained by the USGS demonstrates that, with a few minor exceptions, levels are stable or slightly rising across almost all areas of the State. And with climate

change, it is likely that precipitation will increase across our region.

Despite these facts, small but vocal groups continue to claim that Maine's water resources are under assault, most recently expressed in an anonymous flyer distributed at the January 29 Maine Climate Council meeting claiming that commercial interests are mining groundwater (i.e. using at rates greatly exceeding recharge). Few statements about Maine's groundwater are farther from the truth.

None of these are new claims. A year ago, the Legislature faced about a dozen bills focused on one aspect or another of Maine's water resources. As one response to the concerns, the Legislature reestablished the Water Resources Planning Committee (WRPC), a stakeholder group that provides a forum for discussion of water resources and the regulations governing their use. From 2007 to 2012, the WRPC had provided effective guidance on water issues before falling victim to the dismantling of the State Planning Office under which it was organized. The WRPC rev. 2.0 is administered in the Department of Agriculture, Conservation and Forestry and includes representation from:

State agencies charged with regulating water withdrawals; agricultural water users; public water utilities; water bottlers; use of water by private domestic well owners; environment and conservation organizations; commercial users of water; water conservation educators; stormwater or wastewater managers; and from Maine's tribes.

Among the charges to the WRPC are:

- Collecting and reviewing information regarding water withdrawal activities;
- Coordinating state water resources information;
- Refining the most recent watershed supply and demand study;
- Conducting appropriate water resources investigations in select watersheds;
- Considering projected increased water use by population, agricultural irrigation, commercial users, industrial users and other users;
- Considering seasonal use;

- Considering potential effects of climate change;
- Considering the effects of anticipated future water quality classification changes on the availability of water for withdrawal;
- Establishing priorities for further investigations, seeking input from the user community, from towns dealing with multi-municipal aquifers and from towns with significant local aquifers;
- Developing guidelines for consistency in further investigations; and
- Conducting annual reviews of state policy.

The Maine Geological Survey presented overviews of current water-related research at the first meeting of the WRPC in November 2019. During the interim WRPC-less years, we developed many new tools that will further our water work: a statewide soil-water balance model with the USGS for estimating groundwater recharge; improved water use data collection across twelve sectors; densification and improved geographic distribution of Maine's groundwater monitoring network; and studies of potential saltwater intrusion in coastal areas. These and other on-going efforts by the MGS move us a long way toward addressing the charges to the WRPC.

At future meetings, the WRPC will take up the review of Maine's current extensive and rigorous regulations governing large-scale water extractions. Stay tuned as this important stakeholder process continues.

Robert G. Marvinney, State Geologist
robert.g.marvinney@maine.gov

NEWS FROM THE CAMPUSES

College of the Atlantic

COA senior, Sahra Gibson is working on a proposal for a Downeast/Coastal Maine Geopark as her senior project. She is making prototypes of

potential "geosites" along the coast considering existing infrastructure, sites important to geoheritage, and local community involvement. Various students continue to work on components of the *All About Arsenic* project which strives to bring public awareness to the importance of regularly testing private well water. Junior, Gaby Moroz, will present her work on the project along with collaborators at MDI Biological Laboratory at the joint Northeast-Southeast GSA meeting this spring. Both Sahra and Gaby are looking forward to the GSM spring meeting!

Sarah Hall
shall@coa.edu

Unity College



Unity College students pose for the drone during a break from a recent coring project.

Life in the Geoscience program at Unity is moving by at a rapid pace. Students are now in the midst of various research projects on stream hydrology, groundwater modeling, climate modeling and more. I overhauled one of the junior/senior level courses, Geomorphology, by adding five additional field trips which means we are on the road 12/15 weeks! So far, so good, as we make our way through the state with the usual stops in Baxter and Acadia, but also to areas in central, western, and southern Maine. By far most of our trips are related to glacial systems, but we will cover fluvial and soil systems as well as some bedrock geology. Our drone project on water quality is still ongoing and was actually featured in a short segment on News Center Maine's 207 program, though flights will conclude at the end of the month. Image processing and data analysis will continue as we prepare to present at the North

American Lake Management Society meeting in Burlington, VT in November.

Kevin Spigel
kspigel@unity.edu

University of Maine at Farmington

The UMF Geology Club, led by officers Robbie Knowles, Bryer Carlson, Chelsey Drake, and Mike Chavez, under the guidance of Dave Gibson, conducted several well-received trips to field sites in western Maine last fall. Our division finally has their own drone, and structural geology students were captured actively mapping on Bald Mountain- a classic field site for students to learn the fundamentals of stratigraphy and structural geology. Alumni Myles Felch will lead UMF students through the new museum in Bethel later this semester. Julia Daly is co-leading a travel course to Iceland in May.

Doug Reusch
reusch@maine.edu

ITEMS OF INTEREST

Seeking Recommendations for a Coastal Maine Geopark

A small working group comprised of Sarah Hall (College of the Atlantic), Joseph Kelley (UMaine), Don Hudson (IAT Maine Chapter), and Sahra Gibson (Undergraduate at College of the Atlantic) is prototyping a Geopark for coastal Downeast Maine. Geoparks are single, unified geographical areas that promote that area's unique geological heritage in connection with all other aspects of the area's natural and cultural heritage. By raising awareness of the importance of the area's geology in history and society today, Geoparks give local people a sense of pride in their region and strengthen their identification with the area. Geoparks differ from U.S National or State Parks because they are not managed by the government. Instead, they operate as

a partnership with local communities and land managers through a bottom-up approach.

The working group is currently developing "Geosites" – sites of interest within the Geopark – and would greatly appreciate receiving any recommendations from GSM members. If you would like to recommend any geologically significant sites along coastal Downeast Maine that has a strong connection to Maine's cultural heritage for us to consider in this planning process, we would love to hear of them! Please suggest them using this Google Form: <https://forms.gle/LhShwAvfUZX3kHvS7>

SECRETARY'S REPORT

The Executive Council (EC) met on Friday, November 8, 2019, prior to the fall GSM meeting. Agenda items included planning for the fall 2019 GSM meeting, spring 2020 GSM meeting, and summer 2020 field trip, and an update on the new GSM website.

The EC met by video and phone conference on Friday, January 17, 2020. Agenda items included planning for the spring 2020 GSM meeting and summer 2020 field trip, remaining needs for the new GSM website, the nominating process for EC positions to become available in November 2020, and fundraising for the Walter Anderson Fund.

Fall 2019 Annual Business Meeting Minutes

1. GSM President Sarah Hall welcomed all and called the meeting to order.
2. Amber Whittaker, Newsletter Editor, discussed a proposed change to the GSM bylaws that was communicated to GSM members in the October 2019 newsletter: The proposal is to add the position of Website Administrator as an Officer of GSM, and clarifying the language in Article VI, Section 3 accordingly. Alteration of bylaws is allowed with a vote of two-thirds of the GSM membership. As noted in the October newsletter, the bylaws will be revised as follows:

- The first sentence of Section 3 of Article VI will be **updated and clarified** to read, “At each annual meeting the membership shall elect officers and councilors as necessary to fill vacant or expiring positions.”

- “g. Website Administrator *8” will be added to the list of officers in Section 1 of Article VII.

- Section 9 will be added to Article VII to describe the new officer position as follows: “Section 9. Website Administrator – The Website Administrator will be responsible for designing, adding, maintaining, and updating content on the website of the Geological Society of Maine. Content development will be conducted in coordination with the Executive Council and any committees created by the Executive Council, but final design implementation is at the discretion of the Website Administrator. The Website Administrator will serve as the liaison with the website provider in coordination with the Treasurer.”

- The first sentence of Section 1 of Article VIII will be updated to read, “The Executive Council shall be composed of the *seven* elected officers plus three additional councilors elected from the membership of the Society.”

- Footnote *8 will be added to document: “Proposed and accepted at the Fall Meeting of November 8, 2019 (see meeting minutes in the Spring 2020 GSM Newsletter).”

The change in bylaws was approved by membership vote. Cassaundra Rose has been serving as the Website Administrator and will be nominated for election to this new Officer position.

3. On behalf of the Nominating Committee, Vice President Kevin Spigel provided the recommendations that Cassaundra Rose be elected as Website Administrator for a term of two years, and Councilor Marty Yates be elected to extend his term as Councilor for one

year. The elections were approved by membership vote.

4. Amber Whittaker provided an update on the new GSM website. We have encountered some technical difficulties with Maine Hosting and are working through addressing these and completing upgrades to the website. The new GSM website will be published as soon as possible.
5. The spring 2020 GSM meeting will be held at University of Maine, Farmington, on Friday, April 3, 2020. Abstracts for student presentations will be due around the end of February 2020. Every student who presents will be awarded a one-year free student membership to GSM.
6. The 2019 summer field trip was held in western Maine. It was a wonderful trip, and many thanks to the trip leaders and to Myles Felch and Maine Mineral and Gem Museum for hosting!
7. The 2020 summer field trip will be held July 31 to August 2. Kevin Spigel provided details: The homebase will be Sky Lodge (Unity College property) in Jackman, Maine. Bob Marvinney will lead geological exploration. Because of accommodations and catering arrangements, reservations will be needed by February 1, 2020. Details will follow.
8. Funding for geoscience education is available through the Walter Anderson Geoscience Education Fund. Proposals for funding are due March 1, 2020.
9. Announcements
 - a. Peter Garrett provided information on the Citizens’ Climate Lobby, a worldwide organization working toward reducing CO₂ emissions. The Energy Innovation and Carbon Dividend Act is a bill before Congress that has

some support in the House of Representatives and needs constituency support. Peter provided postcard and letter templates and will send along any completed letters and cards to the respective congressional representatives.

- b. Keith Taylor reported that the Board of Licensed Geologists and Soil Scientists got laws changed, and undergraduates can now take the Fundamentals of Geology test.
- c. Troy Smith reported that Maine Department of Environmental Protection has a direct hire application opening for Division Director, Technical Services. Summer internships are available through the Margaret Chase Smith Center for Public Policy.
- d. Alice Kelley reported on a developing citizen science initiative studying cultural resources on the Maine coast. Alice has brochures available for those interested.
- e. Sarah Hall noted that a College of the Atlantic student is interested in establishing a Geopark (UNESCO designation). Any ideas for sites of interest can be sent to Sarah.

The business meeting was adjourned at 1:25pm.

Respectfully submitted,

Lisa Jacob, GSM Secretary
ljj@smemaine.com

UPCOMING EVENTS

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Organizer</u>
March 1	Anderson Fund grant proposal deadline		GSM
March 1-4	Prospectors & Developers Association of Canada (PDAC) Annual Convention	Toronto, Ontario, Canada	Prospectors & Developers Association of Canada www.pdac.ca
March 16-20	51 st Lunar and Planetary Science Conference	The Woodlands, Texas	Lunar and Planetary Institute & NASA Johnson Space Center
March 18-22	6 th Maine Science Festival	Bangor	www.mainesciencefestival.org
March 20-22	69 th SEGSA/55 th NEGSA Joint Meeting, Geological Society of America	Reston, Virginia	Arthur Mershat (USGS), Patrick Burkhart (Slippery Rock University)
March 28	2020 Maine Sustainability & Water Conference	Augusta Civic Center	Senator George J. Mitchell Center for Sustainability Solutions
April 3	2020 GSM Spring Meeting	University of Maine at Farmington	Doug Reusch & Dave Gibson
May 8-10	8 th Annual New England Mineral Conference	Sunday River, Newry	New England Mineral Association
May 11-13	GeoConventions GAC-MAC	Calgary, Alberta, Canada	Geological Association of Canada – Mineralogical Association of Canada
June 5-7	83 rd Annual Reunion and Field Conference, Friends of the Pleistocene, Northeastern Cell	Lakes Region, Central New Hampshire	GZA, NHGS, Smith College
June 21-26	Goldschmidt 2020 Conference	Honolulu, Hawai'i	Geochemical Society and the European Association of Geochemistry
July 31 – August 2	2020 GSM Summer Field Trip	Northwestern Maine	Kevin Spigel
October 1	Anderson Fund grant proposal deadline		GSM
October 3-6	AIPG Annual Conference	Sacramento, California	American Institute of Professional Geologists
October 9-11	112 th New England Intercollegiate Geological Conference	Western Connecticut and lower Hudson Valley, New York	Chris Koteas and Bob Wintsch

October 25-28	2020 Geological Society of America Annual Meeting	Montréal, Québec, Canada	Geological Society of America www.geosociety.org
Fall 2020	2020 GSM Fall Meeting	Augusta Civic Center	TBD
December 7-11	2020 American Geophysical Union Fall Meeting	San Francisco, California	www.agu.org

Please submit events to include on the calendar to the Newsletter Editor: amber.h.whittaker@maine.gov

MEMBERSHIP DUES STATEMENT

The GEOLOGICAL SOCIETY OF MAINE, INC. (often referred to as **GSM**) is a non-profit corporation established as an educational Society to advance the professional improvement of its members; to inform its members and others of current and planned geological programs in Maine; to encourage continuing social contact and dialog among geologists working in Maine; and to further public awareness and understanding of the geology of the State of Maine; and of the modern geological processes which affect the Maine landscape and the human environment.

The Society holds three meetings each year, in the late fall (Annual Meeting), early spring, and mid-summer (usually a field trip). A newsletter, *The Maine Geologist*, is published for all members three times a year. The Society year runs from Aug. 1 to Jul. 31. Annual dues and gift or fund contributions to the Society are tax deductible. There are four classes of membership:

2020 FEE SCHEDULE

\$ 30.00 REGULAR MEMBER	Graduate geologists, or equivalent, with one year of practice in geology, or with an advanced degree.
\$ 30.00 INSTITUTIONAL MEMBER	Libraries, societies, agencies, businesses with interests in or practicing geology and related disciplines.
\$ 15.00 ASSOCIATE MEMBER	Any person or organization desirous of association with the Society.
\$ 5.00 STUDENT MEMBER	Persons currently enrolled as college or university students.

THE GEOLOGICAL SOCIETY OF MAINE ANNUAL RENEWAL / APPLICATION FOR MEMBERSHIP

Regular Member	\$ 30.00	\$ _____	Name _____	Make checks payable to:
Institutional Members	\$ 30.00	\$ _____		Geological Society of Maine
Associate Member	\$ 15.00	\$ _____	Address _____	Bruce Hunter, GSM Treasurer
Student Member	\$ 5.00	\$ _____		44 Old Fairgrounds Rd
Contributions to GSM		\$ _____		Readfield, ME 04355
(please write gift or fund on check)				
TOTAL ENCLOSED		\$ _____	_____	

Email Address _____

(GSM funds include the Walter Anderson Fund _____, and discretionary gifts as noted by contributor)

THE MAINE GEOLOGIST is the Newsletter of the Geological Society of Maine, published three times a year, in mid-winter, summer, and early fall, for members and associates.

Items for inclusion in the **Newsletter** may be directed to:

Amber Whittaker, Newsletter Editor
amber.h.whittaker@maine.gov
 207-287-2803

2019/2020 SOCIETY YEAR BEGAN August 1
PLEASE SEND DUES TO TREASURER.

THE GEOLOGICAL SOCIETY OF MAINE
 c/o Bruce Hunter, GSM Treasurer
 44 Old Fairgrounds Rd
 Readfield, ME 04355

PLEASE PAY YOUR DUES!

THE GEOLOGICAL SOCIETY OF MAINE EXECUTIVE COUNCIL

President	Sarah Hall	(2020)	College of the Atlantic, shall@coa.edu
Vice President	Kevin Spigel	(2020)	Unity College, kspigel@unity.edu
Secretary	Lisa Jacob	(2020)	Sevee & Maher Engineers Inc., ljj@smemaine.com
Treasurer	Bruce Hunter	(2020)	Maine DEP, bruce.e.hunter@gmail.com
Newsletter Editor	Amber Whittaker	(2020)	Maine Geological Survey, amber.h.whittaker@maine.gov
Website Admin	Cassandra Rose	(2021)	Governor's Office of Policy Innovation and the Future
Councilors	Martin Yates	(2020)	University of Maine, yates@maine.edu
	Mike Deyling	(2020)	CES, Inc., mdeyling@ces-maine.com
	Henry Berry	(2021)	Maine Geological Survey, henry.n.berry@maine.gov
Historian	Daniel Belknap	(2020)	University of Maine (retired), belknap@maine.edu

The Geological Society of Maine 2020 Spring Meeting



Featuring

Student Research Presentations

April 3rd Friday, 1:00pm

Hosted by Department of Geology, University Maine at Farmington
North Dining Hall and Thomas Auditorium
Farmington, Maine

This is an opportunity for students to present current geologic research in a formal yet collegial atmosphere. Students from Maine schools, or students enrolled elsewhere and working in Maine are invited to present their work in oral or poster format. Members of the Society are eager to learn what students are doing. Interested students must submit an abstract by **2020 March 21 (midnight)**.

To Submit an Abstract, use this URL

<https://docs.google.com/forms/d/e/1FAIpQLSc9f63GIFgyFv48W29ZJMOVud5JC0oiZP18yfs59izWN-6Row/viewform>

- Complete each required section in the form. Ensure accuracy and proofread all content as no changes will be permitted after the deadline (2020 March 21, Saturday midnight).
- Posters cannot exceed 48" in length or width and should be formatted in landscape view
- Oral presentations should not exceed 15 minutes
- For questions, please contact Dr. Doug Reusch (reusch@maine.edu)

Preliminary Schedule (to be updated following abstract submissions)

1:00 Opening Remarks
1:15 GSM Business Meeting, open to all members
1:30 Student Poster Presentations
3:00 Student Oral Presentations
4:20 Keynote Presentation
4:50 Student Presentation Awards (Undergraduate Poster, Oral Presentation, High School Student)
5:00 Social Hour (cash bar)

Other Information

- On campus map (follow link below), parking (P33) is available at Site 25 (near alluvium-glaciomarine contact); North Dining Hall for registration is Site 23a (adjacent South Street); Thomas Auditorium is Site 7.
- <https://www.umf.maine.edu/about/directions-to-campus/>
- Several local options exist in Farmington for lunch prior to the meeting or for dinner after the meeting:
- https://www.tripadvisor.com/Restaurants-g40633-Farmington_Maine.html

