



# The Maine Geologist

NEWSLETTER OF THE GEOLOGICAL SOCIETY OF MAINE

February 2019

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## PRESIDENT'S MESSAGE

After two excellent years of leadership by Henry Berry, the torch was passed to me to be the next president of the GSM. Thank you, Henry, for inspiring so many of us during the past two years! Beyond matching your patience, organization, and enthusiasm in the field, I am most worried about living up to your always timely and philosophical “President’s Message” in the GSM newsletter! Here it goes...

To all our members, I want to thank you for welcoming me into such an amazing group of geoscientists! Although I’m originally “from away”, since arriving in Maine as a new educator and researcher I have found so much support from members of this group. Many of you have provided me with local geology tips and knowledge, alerted me to opportunities for students, sent me local and regional field guides, were willing to visit my classes to talk about your professional work and expertise, provided access to instruments and equipment, donated rocks and minerals for the COA teaching collection (thank you – I now have more than I have space for!), provided opportunities for my students to hunt for fantastic rocks and minerals throughout Maine, volunteered time to work with me on service projects, offered me a beer at the end of an awesome day during the GSM summer field trip....the list goes on and on! Taking a cue from Henry to reflect on “Why? Why do we do this? Why do we love geology?” (Oct 2018 GSM newsletter), I have to say, that while the rocks and landscapes still continue to fill me with wonder and curiosity, I do “this” because of the community of geoscientists I get to be a part of. I was first introduced to the feeling of belonging to this community in 1998 during my 6-week field camp with the Hamilton College Geology Department and have wanted to be a part of it ever since. I guess this speaks to the power of field

experiences for students! The GSM enables field experiences for students through the Walter Anderson Fund and also to members during the GSM Summer Field Trip – read more about both within this newsletter and on our website.

As the only geoscience faculty member at College of the Atlantic, the wider community of geoscientists and professionals within the environmental and education fields have greatly supported my teaching and research here in Maine. The network that exists through this Geological Society can be hugely beneficial to students here in Maine, especially as our workforce needs grow. As a Society, we have opportunity to help meet these needs through continuing and expanding our efforts to provide: 1) professional experiences to students enabling them to connect skills and content knowledge to potential career paths, 2) opportunities for students and young professionals to build their own professional networks that include a diverse group of members from different parts of the workforce, geographic region, stage in career, etc., and 3) transformative field experiences for students of all levels!

The GSM is already offering many great geoscience opportunities to students and community members. With the growing number of interdisciplinary research groups, such as those at the Senator Mitchell Center for Sustainability Solutions of the University of Maine (<https://umaine.edu/mitchellcenter>) and programs aimed to address issues in multiple spheres like the “All About Arsenic” education and public health initiative developed by workers at Mount Desert Island Biological Laboratory and Dartmouth College ([allaboutarsenic.org](http://allaboutarsenic.org)), it seems to be a good time for the GSM to continue engagement with other local/regional geoscience groups that are also

working to train and mentor students – both students pursuing more traditional geology career paths as well as those training to work on societal issues that require communication across disciplines. Stemming from conversations during the 2018 GSM summer field trip, a dialogue about geoscience education in Maine began and has continued. We collected some information from our members about how they are involved in geoscience education in the state through a survey and further discussed existing and potential future education resources in Maine at the fall GSM meeting. Read a summary of the fall meeting included in this newsletter and see the preliminary results of the survey at the end of this newsletter.

I am very excited to continue working with a motivated group of executive committee members. This fall we welcomed Kevin Spigel as the Vice President and Dan Belknap as the Historian. Read more about upcoming events such as the upcoming northeast GSA meeting in Portland where Marty Yates is organizing a GSM booth, the spring student meeting being held at University of Maine Presque Isle on Friday, April 5, and organized by Chunzeng Wang, Dave Putnam, and Kevin McCartney, our website upgrade project spearheaded by Amber Whittaker and assisted by our new webmaster Cassandra Rose, the GSM Summer Field Trip (July 27-28) to southwestern Maine and the Maine Mineral and Gem Museum being organized by Myles Felch, as well as the ongoing Walter Anderson Fund (WAF) campaign – an effort of the WAF committee to grow the fund which continues to provide amazing research and field experiences for geoscience students in Maine.

Sarah Hall, GSM President  
[shall@coa.edu](mailto:shall@coa.edu)

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### APPRECIATION FROM AN EX-PRESIDENT

Despite my best intentions, in the excitement of the November meeting I forgot to thank Steve Kelley for his service to the Society as one of our Directors. Steve served two consecutive terms as a GSM Director for a total of six years, including a voluntary role as Acting Treasurer for much of 2017. Part of

that role was organizing the summer field trip to the southern Maine coast, which entailed negotiating contracts for housing, meals, and transportation with the University of New England in addition to registrations and sales of books and t-shirts. Here we are enjoying a peaceful moment on that field trip on the Marginal Way, Ogunquit, Saturday morning, August 5, 2017. We're sitting on Bench #2, dedicated to geologist Arthur Hussey, GSM's first president. Thank you, Steve, for your many hours of work behind the scenes to keep the society running! And is that Hussey's book you are reading?

Henry Berry  
Ex-President



*Photo by Wally Bothner*

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### EDUCATIONAL GRANT PROPOSALS

**Due March 1**

The Geological Society of Maine welcomes funding proposals from groups and individuals to support educational programs through the Walter Anderson Geoscience Education Fund. Requests for the purposes of geoscience education may include furthering public awareness and understanding of Maine geology, encouraging social contact and dialogue among Maine geologists, or advancing

professional improvement of Maine-based geologists and students. Further description of the purposes, proposals, and submission process is given on the GSM website. Go to Walter Anderson Fund > Educational Funding Requests. Submission deadline is March 1.

[http://www.gsmmaine.org/wp-content/uploads/2018/06/Educational-Funding-Requests-v5\\_2018\\_0601.pdf](http://www.gsmmaine.org/wp-content/uploads/2018/06/Educational-Funding-Requests-v5_2018_0601.pdf)

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## 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](mailto:amber.h.whittaker@maine.gov)

**GSM WEBSITE:** [www.gsmmaine.org](http://www.gsmmaine.org)  
**FACEBOOK:** [facebook.com/GSMMaine](https://facebook.com/GSMMaine)

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## 2019 SPRING MEETING ABSTRACT SUBMITTAL AND FLYER

**April 5, 2019**  
**University of Maine at Presque Isle**

Mark your calendars! The 2019 GSM Spring Meeting is scheduled for Friday, April 5. This year the conference will be hosted by the Environmental Science – Natural Resources Program at University of Maine at Presque Isle (UMPI). The primary emphasis of the GSM spring meeting is to showcase the latest undergraduate and graduate research during a poster session and a round of oral presentations. The keynote speaker will be Dr. Aaron Putnam, George H. Denton Assistant Professor at the School of Earth and Climate Sciences at the University of Maine. Putnam charts the geologic history of glaciation around the world with the aim of deriving a more complete understanding of the dynamics that have produced major changes in

Earth's climate. He will deliver a keynote speech on “The Last Great Global Warming: Lessons from the past for a warming world.” See the flyer at the end of the newsletter for more information on how to submit an abstract (**deadline is March 24, midnight**), preliminary schedule, and more. Please contact Dr. Chunzeng Wang with any questions about the meeting ([chunzeng.wang@maine.edu](mailto:chunzeng.wang@maine.edu)).

Chunzeng Wang  
[chunzeng.wang@maine.edu](mailto:chunzeng.wang@maine.edu)

David Putnam  
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Kevin McCartney  
[kevin.mccartney@maine.edu](mailto:kevin.mccartney@maine.edu)

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## 2019 SUMMER FIELD TRIP

**July 27-28, 2019**

We are heading to Western Maine this summer!

A trip to this area would not be complete without a visit to at least one granitic pegmatite. In fact, we are planning a visit to two pegmatite quarries! Both are quite different, but each represents an outstanding example of a highly evolved melt. So, if you're tired of peering through your hand lens to identify minerals, you're in for a treat. There has also been a lot of recent work in the Ellis River Valley, so we are planning some surficial and hydrogeologic stops. In addition, we will visit the Maine Mineral & Gem Museum.

Following the theme of our Fall meeting (which dealt with Earth science education in Maine), we are planning opportunities for educators to build some basic geo-skills like mineral identification. We will also provide credit hours for educators participating in the field trip.

As plans begin to crystallize in the following months, if there is a geoscience education element that you feel should be included in this trip, please speak up.

The field trip will be held on the last weekend of July (27th & 28th). A group camping location will be available in Bethel. There are, however, several nearby hotel options if you prefer. If enough

individuals plan to camp Friday night (26th) as well, we can reserve a group site.

For inquiries please contact:

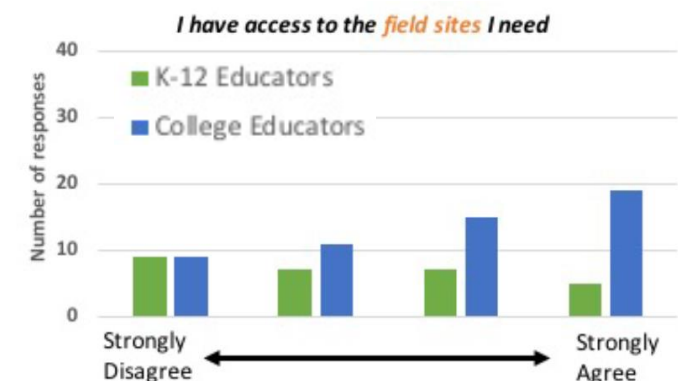
Myles Felch

[mfelch@mainemineralmuseum.org](mailto:mfelch@mainemineralmuseum.org)

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## 2018 FALL MEETING SUMMARY

### Geoscience Education in Maine



Graph showing example results from the survey data. More on the GSM website.

The Geological Society of Maine Fall meeting held in Augusta on November 9 was a huge success! We had a wonderful turnout of active and new members to hear from a variety of folks involved with geoscience education in Maine. We reviewed the geoscience education in Maine survey data (thank you to everyone who participated) which is summarized in a pdf document available for download on the GSM website [here](#).

**Marina Van der Eb** and **Deborah Shulman** of the Research in STEM Education (RiSE) Center at the University of Maine informed us of resources and support available to educators through the RiSE Center. **Shari Templeton** of the Maine Department of Education gave us an overview the process through which the state geoscience standards are currently being updated to align with Next Generation Science Standards. **Cassandra Rose** of the American Geoscience Institute (AGI) shared resources available through the AGU website and got involved with GSM as a new member and future webmaster! **Chris Gerbi** of the Earth and Climate Sciences Department at the University of Maine

described current geoscience education at the university level, where geoscience students are headed after college, as well as a bit about what we are teaching our future geoscience teachers. **Ed Lindsey** of Old Town High School and **Patti Millette** of Mt. Blue Hill High School shared examples of how they get their students in the field, participating in geoscience research, and communicating their work to the wider community. **Jeff and Jan Morrison** described how they open the Havey Mine to school groups as well their involvement with education and outreach events through the New England Mineral Association (NEMA). **Roland Charles** of the Maine Mineralogical & Geological Society (MMGS) and **Myles Felch** of the Maine Mineral & Gem Museum (MMGM) discussed current and future geoscience education initiatives the MMGS and MMGM. Overall, we learned that there are a number of existing resources and initiatives available to educators and students throughout Maine as well as a large number of people interested in promoting geoscience education in our state.

Following the talks, meeting participants engaged in small group discussion to identify how we might efficiently and effectively identify the needs of educators and students and meet those needs with the existing resources. Some ideas coming from the workshop included: cooperative lesson plan design involving experts in the process, workshops for educators connected to field trips, the production of a book on the Geology of Maine, something like the “Roadside Geology” series, but specifically for educators, career fairs geared towards geoscience students, a database with links to all education resources in the state, and a “buddy system” where geoscience professionals reach out to a local teacher. We plan to keep up the momentum by continuing to engage with the GSM community on this topic through: 1) working with AGI, an organization that already has a searchable geoscience education database system, to make a database geared towards ME educators that provides links to existing resources throughout the state, 2) planning a component of the summer field trip geared towards potential educators, 3) keeping in contact with other state geoscience societies and centers: NEMA, MMGS, MMGM, RiSE, MGS to work



collaboratively and to be sure to use existing resources where possible, and 4) keep folks informed of geoscience education outreach initiatives and events - thank you to everyone who volunteered to stay involved in this important work!

Sarah Hall, GSM President  
[shall@coa.edu](mailto:shall@coa.edu)

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**THE GEOLOGICAL SOCIETY OF AMERICA  
53<sup>RD</sup> ANNUAL MEETING  
NORTHEASTERN SECTION  
17-19 March 2019**

**GSM Booth Volunteers Needed**

The Geological Society of Maine has reserved an exhibit booth at the annual meeting of the Northeastern Section of the Geological Society of America happening at the Holiday Inn Portland-By the Bay. This is a special opportunity to promote GSM to our regional colleagues who will be traveling to Portland for the meeting. We plan to showcase our activities and promotes the Anderson Fund Endowment Campaign (see article below). We need volunteers who are willing to sit in the booth. If you are planning on attending the meeting anyway, why not schedule a time slot? Contact:

Marty Yates  
207-581-2154  
[yates@maine.edu](mailto:yates@maine.edu)

**The Anderson Fund Goes on Exhibit**

The Anderson Fund Endowment Campaign will go "on exhibit" March 16-19 when the Annual Meeting of the Northeast Section of GSA comes to Portland. Part of the GSM exhibit booth display at the meeting will be devoted to the campaign. This is our chance to let our colleagues "from away" know what fun and exciting things GSM is doing for geoscience education in Maine. We are making a difference through the Walter Anderson Geoscience Education Fund. Walter's Vision for this fund grew from years as State Geologist listening to legislators,

landowners, and teachers dealing with geoscience issues but lacking the basic information to make informed decisions. The key to effective natural resource stewardship is education—reliable, professional, science-based education. And the Anderson Fund has supported that vision well. Since 1995, over 55 individuals or school groups representing 11 educational institutions have received awards and grants from this fund. It has provided support for student field trips to the Grand Canyon, Iceland, Ireland, Scotland, and California. But we want to do more! The goal of this three-year endowment campaign is to step up the fund to a sustainable level. This is a once in a generation effort.

If you have colleagues who will be visiting for the meeting, please tell them about the Anderson Fund and invite them to visit the exhibit booth. If this fund is something you believe in and have contributed to, let them know why you think it is important to geoscience in Maine. Although we are a small state with modest resources, our small educational grants can go where they are needed to allow things to happen. Donations will be accepted at the exhibit booth.

The Anderson Fund Committee

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**WEBSITE UPGRADE**

**Look for changes soon!**

The Geological Society of Maine website is in the middle of an exciting upgrade! We are working to improve the design and functionality of the website so that it is easier to navigate, manage your membership information, and much more. Here are a few of the many improvements that you can look forward to:

Member center:

- Renew and pay for your membership online
- Create and edit your member profile

News, events, and announcements:

- A new online calendar for events of interest to the Geological Society of Maine community

- Clear guidelines on how to submit items for the calendar and newsletter

Resources:

- Education and outreach resources
- Geological Society of Maine publications
- Student funding and career opportunities
- Geology links

Giving:

- Information about how to give to the Geological Society of Maine's general fund and how to apply for grants
- An exciting new homepage for the Walter Anderson Fund

We also have a new email account for communicating with the Geological Society of Maine: [mail@gsmmaine.org](mailto:mail@gsmmaine.org)

We expect the upgrades to come online in the coming months, so please check back on the website frequently and let us know what you think at [mail@gsmmaine.org](mailto:mail@gsmmaine.org).

### **New Website Administrator!**

We would also like to introduce our new website administrator, Cassandra (Cassy) Rose. Cassy is the Program Manager for the Geoscience Policy and Critical Issues programs at the American Geosciences Institute. She works from home in Saco, Maine, and has lived in Maine since March 2018, when she and her husband decided to move "back home" to her husband's home state. She is originally from southern California and loves to hike to the top of big mountains, travel, crochet, embroider, and bake in her spare time. Cassy earned a B.S. in Geology from Florida State University, an M.S. in Geology from the University of California, Riverside, and a Ph.D. from Columbia University, where she studied the late Cenozoic evolution of North African hydroclimate and vegetation. After graduating from Columbia in 2015, she switched career tracks to work in geoscience policy and communication, helping policy and decision makers at all levels to find reliable, unbiased geoscience information. She loves helping students to think

about different career paths and is excited to get to know the Maine geology community.

GSM Communications Committee

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## **NEWS FROM THE STATE GEOLOGIST**

### **A New Direction for Maine**

In November, Maine voters elected a new Governor and a new Legislature, placing control of both chambers plus the Governor's Office in the hands of Democrats. Clearly, priorities for the next few years will be quite different from the past eight. In her inaugural address, Governor Janet Mills laid out new directions for the State of Maine, consistent with many of her campaign pledges. Among them is a new commitment to address climate change, given high priority in the Governor's address. Policies to address climate change are also high priority for the 129th Legislature. While we await the confirmation of Commissioners (including for the Department of Agriculture, Conservation and Forestry) – the leaders who will implement the Governor's priorities – we can glean much from about the policy directions of the State through bills submitted by members of the 129th.

The First Regular Session of the 129th Maine Legislature convened on Wednesday, December 5, 2018, comprising 88 Democrats, 56 Republicans, and 6 Independents in the House, and 21 Democrats and 14 Republicans in the Senate. With many newly elected freshmen in the House and a few in the Senate, there will be a steep learning curve on the issues coming before each of the Legislature's policy committees. Already more than 2,000 bill titles have been submitted, but at this early stage of the session, only a few bills have been printed with full language. Of interest to geologists are dozens of bills on energy-related matters, many on climate and sea-level rise, and others that address groundwater issues.

On the climate-change front, there are at least half a dozen bills on topics ranging from ocean acidification, to updating the State's Climate Action Plan, to addressing greenhouse gas emission

standards. There are two bills intended to prohibit offshore drilling for oil and gas. As the State's jurisdiction in the marine submerged lands extends to only 3 miles offshore, we geologists can definitely state that there is zero potential for oil and gas in Maine's territorial waters. Furthermore, the only real potential for hydrocarbon accumulations is over 100 miles south at the Georges Bank, and even there the potential is low. These bills will certainly make for some lively public hearings!

Several bills will address sea-level rise, including a \$50,000,000 bond to "to improve waterfront and coastal infrastructure in municipalities to address sea level rise." Another borrows from the State of New Hampshire by proposing a Coastal Risks and Hazards Commission to develop policy recommendations to address sea-level rise and increasing storm hazards. Marine geologists from the Maine Geological Survey will be intensely involved in the discussion of these bills as they proceed through the legislative process because, unlike the policy of the past 8 years, subject-matter experts in the state agencies will be permitted to present the science behind these issues. In an excellent example of providing science for policy development, on January 22 Marine Geologist Pete Slovinsky participated in an overflight with a southern Maine legislator to review the impacts of the most recent King Tide.

Finally, there are a slew of bills focused on groundwater extraction. Some proposals aim to broaden the State's oversight of groundwater by moving this resource into the public trust. Others very specifically seek to tax groundwater extraction for bottling. Behind these bills are many misperceptions about Maine's groundwater resources, among them that extractions for bottling have more impact on Maine's aquifers than extractions for other purposes. There is no scientific basis for this view. During a recent introductory session at the Legislature's Environment and Natural Resources Committee, one anti-bottled water activist declared, "Our aquifer levels are on steady decline," a statement for which there is not one shred of evidence.

Just for a bit of levity during the session, lawmakers will discuss the merits of *An Act to Rebrand*

*Maine's License Plate Slogan from "Vacationland" to "Staycationland."*

Whether on a serious topic or the nonsensical, the first regular session of the 129th Legislature will be engaging!

Robert G. Marvinney, State Geologist  
[robert.g.marvinney@maine.gov](mailto:robert.g.marvinney@maine.gov)

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## NEWS FROM THE CAMPUSES

### Unity College

About eight students attended the fall GSM meeting for the first time to learn more about the organization and sign up for membership. Several of these students are field and lab technicians in the Geoscience program at Unity College so it was an opportunity for them to meet new people and network as well as hear from others in the discipline. It was a busy end to the fall semester wrapping up student and class research projects on topics including fluorescent dye tracing, hydrologic modeling, stream water quality assessment, and lake sediment analysis. Much of this work was presented at the Unity College Student Conference in December and some students have plans to present results at the upcoming GSM spring meeting. A few more students wrapped up their internship requirements for the USGS and MFS by participating in the Unity College Internship Showcase. An interdisciplinary group of faculty at Unity College consisting of Dr. Kathleen Dunckel (Forest Resources and GIS), Dr. Jim Killarney (Environmental Chemistry), Dr. Janis Balda (Sustainable Enterprise) and Dr. Kevin Spigel (Geoscience) were recently awarded a NASA Faculty Research Seed Grant to use Unmanned Aerial Vehicles (UAVs aka drones) in conjunction with water quality testing to study algae blooms on Lake Winnecook (aka Unity Pond) using multispectral imagery. Part of this grant includes financial support for two undergraduate research assistants over the summer and a third during the next academic year. Other than that, the semester is

off to a quiet start, but I'm sure it won't stay that way for long!

Kevin Spiegel  
[kspigel@unity.edu](mailto:kspigel@unity.edu)

### **College of the Atlantic**

COA students are looking forward to and busy preparing poster presentations for the NEGSA meeting in Portland, Maine! Students will present on their independent research projects: a private well water chemistry study (with MDI Biological Laboratory personnel), watershed monitoring and mapping projects in and around Acadia National Park (with Friends of Acadia personnel), and a student perspective on participation in the Environment STEM Professional Development Program. While it's a bit too cold and icy for extensive field work this time of year, Steve Haynes, founder and curator of the Granite Industry Historical Society Museum on MDI gave the Geology and Humanity class a memorable recent visit to the museum with an exciting granite splitting demo! Looking forward to the spring term, the Seminar on Climate Change class will bring ~10 professionals to COA to give public talks – all are welcome.

More info:

<https://www.coa.edu/shall/Geoscience/Courses.html>

Sarah Hall  
[shall@coa.edu](mailto:shall@coa.edu)

### **University of Maine at Farmington**

UMF students are headed to Ireland-Scotland this May term (Dr. Gibson) and plans are underway for a trip to Iceland during May term 2020 (Drs. Daly and Hovel). Geological education outreach activities have included trips to the Royal Flush Ledges above Saddleback Ridge wind farm (Bryce Neal's senior project map area) with 9th grade students from Mt. Blue High School (Dr. Millette) and also with participants on the Quebec-Maine transect coordinated by the Eagle Hill Institute; age of participants ranged from 14 to 78! It's a stunning outcrop hosting distinctive stratigraphy repeated on

hypercryptic thrusts, gorgeous folds, and a panoramic view of west-central Maine to the Presidential Range. This site is one of 60 described in "Before Pangea Geoheritage Corridor, Quebec to Maine: A field guide and primer on Appalachian plate tectonics," a draft of which is available upon request ([reusch@maine.edu](mailto:reusch@maine.edu)). Recent lectures by invited speakers have included "Earth's mass extinctions: past and present" by Dr. Mike Coffin (sponsored by Division of Natural Sciences) and "Minerals in Maine" by Dr. John Slack (for the Gold Leaf Institute).

Doug Reusch  
[reusch@maine.edu](mailto:reusch@maine.edu)

### **University of Maine at Presque Isle**

Kevin McCartney has recently received a prestigious (in Poland) Kościuszko Fellowship and has returned to Szczecin for six months to continue his research there. His current project is an essentially worldwide study of silicoflagellate biostratigraphy for late Eocene through Oligocene, which would complement his Fulbright study of Paleocene to early Eocene. He arrived in Poland just after the New Year and will return to UMPI in early July.

Led by Drs. Chunzeng Wang and Kevin McCartney, UMPI's GeoClub made an exciting trip to Patten to tour Wolfden Resources's Pickett Mountain drilling site and core shop in October 19, 2018. For the students, this was the first time any of them had visited a mineral deposit drilling site. See the photo of the group at the end of the newsletter.

A research article entitled "Establishing an Indosinian geochronological framework for episodic granitic emplacement and W-Sn-Nb-Ta mineralization in Limu mining district, South China" and co-authored by Dr. Chunzeng Wang was recently accepted for publication in *Ore Geology Reviews*. The Limu mining district is a major producer of rare metals Nb and Ta in China and also the earliest-discovered Nb-Ta deposit in China. The article summarizes comprehensive geologic, geochemical, and geochronological research performed by a research team at the Guilin University of Technology since 2014. Dr. Chunzeng



Wang is a leading geologist and international collaborator of the team.

Kevin McCartney  
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Chunzeng Wang  
[chunzeng.wang@maine.edu](mailto:chunzeng.wang@maine.edu)

### **Bates College**

2019 brings in a year of change and stability in Geology at Bates. The students have created a new club, Earth to Bates (or E2B for short) which is designed to spread the joy of earth sciences across campus and into the local community.

Bev Johnson is working this semester with students in her class titled Environmental Geochemistry to monitor road salt contamination in a local watershed, a problem potentially exacerbated by recent extreme and rapid shifts in winter temperatures. Johnson's summer research program will be focused primarily on working with students to monitor and better understand carbon dynamics in salt marshes.

Mike Retelle is on sabbatical for the year and spent the fall semester doing research on Holocene lake sediments with colleagues in the Climate Research Center at UMass Amherst and also working in the Cosmogenic Isotope Lab at the University of Vermont on exposure dating of raised beach cobbles from northern coastal Norway. He is currently in residence in Svalbard for the winter semester working on several projects on Holocene glaciers and paleoclimate and skiing whenever he can.

Dyk Eusden served as Chair of the department this year during which we had a great review of our program guiding us toward the future (Thanks to Chris Gerbi of Orono for helping us with that!). He will be on sabbatical next academic year and is extremely happy about that! Dyk will split time between New Hampshire and Maine doing USGS StateMap bedrock mapping for both state surveys along the Rte. 2 corridor between Bethel, ME and Berlin, NH. Add in a few trips to the geochron lab out in Idaho for crystallization and detrital zircon dating of samples from the corridor and you've got the makings for a great year!

Alice Doughty is filling in for Mike as a visiting assistant professor. She taught Sedimentary Processes and Environments in the fall and is now teaching two introductory surface processes courses. Doughty's research involves modeling past glacier extents, such as during the Last Glacial Maximum and Late Glacial events, in tropical locations.

Dyk Eusden  
[deusden@bates.edu](mailto:deusden@bates.edu)

### **Bowdoin College**

The Earth and Oceanographic Science department at Bowdoin College just moved to a new building so all our extra capacity has been focused on the move.

<https://www.bowdoin.edu/facilities/campus-construction/completed-projects/roux-center.html>

Collin Roesler was on a 37-day research cruise in the North Pacific this summer.

<http://community.bowdoin.edu/news/2018/07/bowdoin-scientist-embarks-on-major-ocean-climate-study/>

Michèle LaVigne was featured prominently on the Bowdoin homepage for her externally-funded research.

<http://community.bowdoin.edu/news/2018/10/six-women-scientists-receive-prestigious-external-grants-in-spring-semester/>

Rachel Beane was awarded the Neil T. Miner award at GSA this fall and has been named the Bass Professor of Natural Sciences at Bowdoin.

<https://www.bowdoin.edu/news/2018/11/national-teaching-honors-for-geologist-rachel-beane.html>

<http://community.bowdoin.edu/news/2018/06/five-professors-appointed-to-named-chairs-2/>

Manlio Calentti '21 presented his summer research at the Geological Society of America:

<https://gsa.confex.com/gsa/2018AM/webprogram/Paper323085.html>

Zoe Aarons '19 and Luke Frankel '18 also presented research at the American Geophysical Union meeting in Washington, DC.

Emily Peterman  
[emily.peterman@bowdoin.edu](mailto:emily.peterman@bowdoin.edu)

## MEMBER NEWS

### Soil Test Pits: A Potential Learning Opportunity

Have you ever wanted to learn more about soils, but simply do not have the time to take formal classes? The Maine Department of Human Services tests individuals who desire to become licensed site evaluators and designers of subsurface wastewater disposal systems. An important part of this testing process involves field evaluation of soils within selected test pits at a designated locality in Maine. The focus here is not to map or name the soils the way a soil scientist does, but to characterize them following the Maine Subsurface Wastewater Disposal Rules. The localities are chosen each year with an emphasis on providing the broadest range of soil parent materials that a site evaluator is likely to encounter.

The field portion of this exam focuses on the applicant's ability to identify soils according to parent material, textural classification, drainage conditions and depth to limiting factors (such as the water table, hydraulically restrictive firm layers, or the bedrock surface). Prior to the test, a team of experts log the test pits and attempt to identify those pits where opinions coincide and differ. The day after the field exam, the Maine Association of Site Evaluators (MASE) convenes their annual field seminar which involves observing the soil profile pits followed by in-depth discussion of the findings. This is a great opportunity for interested parties to descend into pits to examine the soils first-hand and to ask questions from others.

While this seminar is generally looked upon as a refresher for site evaluators and an educational event for site evaluators in training, it could also be looked upon as an opportunity for anyone interested in learning about Maine soils. This might be a particularly good opportunity for high school earth science teachers! The MASE Annual Field Seminar is typically held in late September. Individuals interested in attending this event should contact Dale Knapp, MASE Executive Director at [maseexecutivedirector@gmail.com](mailto:maseexecutivedirector@gmail.com) and ask to be placed on the e-mail list for the annual field day.

#### Links:

Maine Department of Human Services

<https://www.maine.gov/dhhs/mecdc/environmental-health/plumb/index.htm>

#### Licensing

<https://www.maine.gov/dhhs/mecdc/environmental-health/plumb/se-licensing.htm>

Maine Subsurface Wastewater Disposal Rules

<https://www.maine.gov/dhhs/mecdc/environmental-health/plumb/rules.htm>

#### MASE

<https://www.maineese.com/>.

Daniel B. Locke, Hydrogeologist  
Maine Geological Survey  
[daniel.b.locke@maine.gov](mailto:daniel.b.locke@maine.gov)

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## SECRETARY'S REPORT

### Fall 2018 Executive Council Meeting

The Executive Council (EC) met on Friday, November 9, 2018, prior to the fall GSM meeting. Agenda items included a financial update, creation of an endowment fund account for the Walter Anderson Education Fund, redesign and upgrade of the GSM website, support for and participation in the annual meeting of the Northeast Section of the Geological Society of America (NEGSA), and planning for the spring GSM meeting and summer 2019 field trip. The EC took the following actions (moved, seconded, and approved):

1. Have Maine Hosting redesign and increase functionality for the GSM website, for a cost of \$2,600 with associated increases to annual hosting costs.
2. Sponsor NEGSA for \$100 at the "Lepidolite" level, and have an exhibit booth at the NEGSA meeting for a cost of \$300.

## Fall 2018 Business Meeting Minutes

GSM President Henry Berry called the meeting to order and began with some reflections on his two-year Presidency. One highlight is the new GSM logo, not to be confused with the emblem that was put together by Arthur Hussey, the first president of GSM, in 1974. Several past presidents of GSM are in the room, and were acknowledged and honored.

Treasurer Bruce Hunter provided the Treasurer's Report, and noted that the annual fiscal report is published in the October 2018 newsletter.

1. GSM has two accounts: The general account, for operating funds, has a balance of \$7,441 that includes \$4,250 in dues from 122 members, received since August 1. The Anderson Fund account has a balance of \$21,927, including \$365 in donations received before today.
2. GSM awarded two grants from the Anderson Fund in the last year: \$750 to Gemma Venuti of the College of the Atlantic, for her research into the paleontology and paleoecology of Great Duck Island; and \$750 to the UMO Geology Club for their trip to Iceland.

The annual meeting of the Northeast Section of the Geological Society of America (NEGSA) will be held in Portland in March 2019. The EC voted to sponsor NEGSA for \$100 at the "Lepidolite" level, and to host a booth at the meeting. Marty Yates will chair a volunteer committee. Anyone interested in volunteering at the booth should speak to Marty.

### Communications Committee updates

1. The EC voted to increase the functionality of the website, to provide a new design and improvements (including on-line payments). The EC approved authorizing Maine Hosting to do the work for a one-time fee of \$2,600, with an increase in annual website hosting charges to about \$245. The Communications Committee will work closely with Maine Hosting to coordinate the redesign.
2. Marty Yates is the current Webmaster and has served in this capacity for several years. He would love to be relieved of this job, and would be happy to work with anyone interested in this position. Anyone interested is encouraged to speak with Marty.

Walter Anderson offered congratulations to Amber Whittaker on an excellent newsletter.

### Anderson Fund Committee report

1. An endowment for the Walter Anderson Education Fund was established at Bath Savings Institution on October 22, 2018. Funds are being transferred from the GSM Anderson Fund account to the Bath Savings endowment account.
2. More news and information will follow on fundraising efforts to support and build an endowment to fund future education opportunities.
3. All are encouraged to review Anderson Fund information. This opportunity to support geoscience education is one very important aspect of the work of the society.

The GSM spring meeting will be held on Friday, April 5, 2019 at University of Maine, Presque Isle. The spring meeting features student presentations and is a great opportunity to hear about student research.

The summer 2019 field trip will be held in western Maine, and will be co-hosted by Myles Felch, Maine Mineral and Gem Museum. More information to follow.

Election of Officers and Directors. On behalf of the Nominating Committee, Sarah Hall presented a slate of nominations for all officers (two-year terms) and one open director position (three-year term): President Sarah Hall, Vice President Kevin Spigel, Treasurer Bruce Hunter, Secretary Lisa Jacob, Newsletter Editor Amber Whittaker, Historian Dan Belknap, Director Henry Berry. The nominations are moved by the Nominating Committee, and were seconded and approved by the membership.

President-Elect Sarah Hall extended thanks to Henry Berry for his two-year presidency, leadership, and mentoring.

The business meeting was adjourned at 1:25pm, and was followed by a presentation of goals and agenda for the afternoon meeting: Geoscience Education in Maine.

Respectfully submitted,

Lisa Jacob, GSM Secretary  
[lj@smemaine.com](mailto:lj@smemaine.com)

## UNPUBLISHED SECRETARY'S REPORTS

While organizing materials for the GSM website upgrade, we found there were a few Secretary's Reports that did not get published in a newsletter. We publish them here to rectify the record.

### June 2015 Secretary's Report

The GSM Executive Committee met on April 10, 2015, prior to the GSM Spring Meeting. Topics of discussion included the 2015 Isle au Haut field trip, review and approval of an Anderson Fund request, and planning for the GSM 2015 Fall Meeting.

The GSM Spring Meeting was held in the afternoon of April 10, 2015 at Colby College in Waterville. The afternoon program included student poster sessions followed by oral presentations. Student presentations (abstracts presented in this newsletter) were judged by GSM Executive Council members. The students did excellent work, and awards were presented for best student presentation and posters. Keith Taylor presented awards to:

- Zachary Burton (presenter) and Emily Peterman of Bowdoin College for the best oral presentation.
- Courtney Payne (Bowdoin College), Collin Roesler (Bowdoin College), Ross Powell (Northern Illinois University), and Julie Brigham-Grette (University of Massachusetts at Amherst) for the best poster presentation.

Honorable mentions for undergraduate poster presentations were given to:

- Isaiah Bolden of Bowdoin College, and
- Donald Osthoff and David Gibson of University of Maine at Farmington.

An award honoring a poster presentation by a high school student was presented to Roshan Luick of Mount Blue High School.

The award presentation was followed by an excellent Keynote address by Dr. Geneviève Roberts of Bates College.

GSM President Marty Yates convened the business meeting following the afternoon program.

Business Meeting Minutes  
Acknowledgements

GSM President Marty Yates extended thanks to Dr. Geneviève Roberts for an excellent Keynote address, and acknowledged and thanked student presenters for all their hard work and excellent presentations. Marty also thanked GSM officers and directors, and noted many on-going orders of business, which the Executive Council addresses in periodic meetings and phone calls. Marty extended particular thanks to Bruce Hunter, GSM Treasurer, who has been deeply involved in organizing the logistics of the 2015 summer field trip.

### Treasurer's Report

Treasurer Bruce Hunter spoke about the intention to build up money in the Anderson Fund, to create a larger endowment to be able to give more scholarships and grants. Bruce transferred \$8,000 to \$10,000 from the GSM operating funds to the Anderson Fund over the last year. There is about \$20,000 in the Anderson Fund at this time. Please see the Treasurer's Report, included in the newsletter.

### 2015 Summer Field Trip

Please refer to the GSM website for details of the July 25-26 field trip to Isle au Haut. Bob Gerber will lead surficial geology discussions, and Marshall Chapman will lead bedrock geology discussions. Bob has produced an extensive document describing accommodation and transportation logistics, geology of the island, and what to expect. There is a link to this PDF document on the website.

Some field trip participants can stay on the island. Some participants will stay on the mainland at the Old Quarry Campground and travel to and from the island by water taxi. Accommodation plans will be requested with field trip registration. For those staying at the campground and using water taxi transportation, a \$25 registration fee is requested. Others will manage their own accommodation and transportation. Water taxi space is limited to 30, and space will be given first to those staying at the campground. The May 31 registration deadline is firm, because of the coordination necessary with the campground and water taxi.

There will be a gathering on Saturday evening of the field trip, held at the Old Quarry Campground. All are welcome.

Announcements



Chris Morrell highlighted several announcements from the latest newsletter, including events and key dates. All are encouraged to review the newsletter and see Chris for further details.

Doug Reusch announced a field trip he will be leading across the New England Appalachians, from Quebec City into Maine. The trip starts Sunday 7/26 and will last 5 days. The trip will provide an overview of the Appalachians, and the target audience is high school science teachers and undergraduate students. A link will be provided on the GSM website.

Marty Yates announced a grant given from the Anderson Fund. One function of the Anderson Fund is to provide financial support for research and education. GSM received a request from University of Maine at Farmington for funds in support of their geology field trip to Ireland and Scotland. GSM will be awarding UMF \$750 to support their trip.

Bill Berry announced the New England Mineral Symposium, to be held Mothers' Day weekend at the Sunday River Ski Area.

Thanks to Colby College

Marty thanked Bob Nelson from Colby College for organizing and facilitating this meeting, with several competing events at the college today.

Respectfully submitted,

Lisa Jacob, GSM Secretary  
[ljj@smemaine.com](mailto:ljj@smemaine.com)

### **November 2015 Secretary's Report**

The GSM Executive Committee met by conference call on November 2, 2015. Topics of discussion included preparations for the GSM fall meeting, the need for a Webmaster for future website upgrades and maintenance, Executive Council elections, applications for Anderson Fund grants, planning for the 2016 spring meeting and summer field trip, and the possibility of offering a GIS short course.

The GSM Fall Meeting was held on November 13, 2015 at the Augusta Civic Center. The afternoon program included an interesting series of presentations on coastal geology, mapping, and the use of emerging technology. GSM President Marty

Yates convened the business meeting following the afternoon program.

#### **Business Meeting Minutes**

The business meeting was called to order at 4:40 pm by GSM President Marty Yates.

1. Thanks to all speakers from this afternoon's excellent programs. Many thanks to Henry Berry for organizing this entire meeting. Thanks also to Bruce Hunter for managing logistical arrangements with the Augusta Civic Center.

2. GSM enjoyed a marvelous field trip in July 2015. The trip was organized by Bob Gerber and Marshall Chapman. Bruce Hunter made a lot of logistical arrangements. It was an enjoyable time, and the geology was remarkable. Many thanks to Bob.

3. The GSM spring meeting traditionally has an academic focus. UMO will host the spring 2016 meeting on Friday, April 1. Posters and talks will be welcomed from undergraduate and graduate students.

4. Planning is underway for the 2016 summer field trip, to an area between Liberty and Brewer. Dave West and Steve Pollock have agreed to lead the bedrock portion of the trip. The surficial portion is to be developed.

5. GSM is exploring the possibility of offering a short course on LiDAR and GIS, to introduce the software and capabilities, and resources available in Maine. The course may be offered in September or October 2016.

6. Many thanks to Steve Kelley for three years of service to GSM as Director. With the end of Steve's term, nominations are open from the floor. With no nominations forthcoming, Steve Kelley indicated his willingness to serve a second term. His nomination by Irwin Novak was seconded by Fred Beck. With no further discussion, Steve was elected by unanimous vote. Thanks to Steve for his willingness to continue his service to GSM.

7. Other officer positions are open. Martha Mixon has managed the GSM website, and Carol White has produced and edited the newsletter. Both have indicated that they would like to be replaced. Marty proposed the formation of a Communications Committee, with the charge of managing the website, creating and managing a Facebook page for GSM,

and producing a newsletter. More discussion will follow on this subject.

8. Following review by the Executive Council, Bruce Hunter presented two grants to be awarded from the Anderson Fund: \$500 to UMPI for their spring field trip to Iceland, and \$500 to UMO Geology Club for their California coastal geology trip. The Executive Council requests that these two groups submit a report to GSM following their trips.

9. Finally, Marty offered congratulations to the geological "society," the only organization in the state to bring together the study of geology with civil service to community, state, and society.

The meeting was adjourned at 4:55pm.

Respectfully submitted,

Lisa Jacob, GSM Secretary  
[lj@smemaine.com](mailto:lj@smemaine.com)

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## TREASURER'S REPORT

GSM has two big projects underway this year that will require higher than ordinary expenditures. A new website is being designed to make your online experience with the Society better. Yes, you will be able to pay your dues online at the new website. Our second big project is the Anderson Fund Endowment Campaign, to improve our ability to fund and support geoscience education in Maine. Members, thank you for paying dues in the amount of \$5,170 so far this year, and for your continuing donations to the Anderson Fund in the amount of \$475.00. See the table for GSM income and expenditures as of January 31, 2019.

In early December we began working closely with Maine Hosting Solutions to build a new GSM website. We have given Maine Hosting a 50% down payment (\$1,247.50) for the construction of the website. Our annual hosting fee will increase to \$245.40. This cost is covered by the dues increase approved last year.

The Anderson Fund Committee has been working with Bath Savings Trust Company, a local financial institution recommended by Walter, to explore transitioning the Anderson Fund into an

endowment fund. The GSM Executive Council approved entering a formal relationship on July 27, 2018 (see October Newsletter), and an endowment account for The Walter Anderson Geoscience Education Fund ("Anderson Fund") was established at Bath Savings Trust Company on October 22, 2018, preparing the way for the launch of the endowment campaign. Funds of the existing Anderson Fund in the amount of \$15,000 were transferred to Bath Savings Trust in October 2018 to open the endowment account. We have retained a CD in the account at Maine State Credit Union that will mature on May 26, 2019. We have also kept \$1,618.54 of Anderson Fund money in the account to cover any unexpected expenses conveniently. All of this money will be transferred to Bath Savings Trust when the CD matures. Expenses related to the fundraising campaign will be \$325 to rent an exhibit booth at the Northeast Geological Society of America (NEGSA) meeting in Portland, and other expenses such as printing brochures.

Keep in touch with GSM on the website to see how these initiatives develop.

### Partial Fiscal Year August 1, 2018 to January 31, 2019

	Actual
<b>Income</b>	
Dues Paid	\$5,170.00
Donations to Anderson Fund	\$475.00
<i>Other Income</i>	
Field Trip 2018 registration payment	<u>\$10.00</u>
<b>Subtotal</b>	<b><u>5,655.00</u></b>
<b>Expenses</b>	
Dues Letter mailing	\$174.92
<i>Meeting Expenses</i>	
Fall Meeting 2018	\$1,506.00
Name tags and pens	\$16.56
NE GSA booth	\$325.00
NE GSA Sponsorship	\$100.00
Penalty for Early Withdrawal of 2 CDs	\$23.27
<i>GSM Website</i>	
Domain renewal	\$28.95

New web site and database programming	<u>\$1,247.50</u>
<b>Subtotal</b>	<b>3,422.20</b>

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<b>Net Increase</b>	<b>2232.80</b>
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**Partial Year Asset Summary January 31, 2019**

Account	Sub-Account	Jan. 31, 2019
<b>General Fund</b>		
	Business Savings	\$26.84
	Checking	<u>\$5,548.45</u>
	<b>Total</b>	<b>\$5,575.29</b>
<b>Anderson Fund</b>	<b>Maine State Credit Union</b>	
	Business Savings	\$1,618.54
Matures 5/26/19	1 Certificate of Deposit	<u>\$5,700.31</u>
	<b>Sub-Total</b>	<b>\$7,318.85</b>
	<b>Bath Savings Trust</b>	
	Managed Account	<u>\$15,196.87</u>
	<b>Sub-Total</b>	<b>\$15,196.87</b>
	<b>Total Anderson Fund</b>	<b>\$22,515.72</b>
<b>Total Assets</b>	<b>All Funds</b>	<b>\$28,091.01</b>

Respectfully submitted,

Bruce E. Hunter, GSM Treasurer (2018)  
[bruce.e.hunter@gmail.com](mailto:bruce.e.hunter@gmail.com)

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## UPCOMING EVENTS

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Organizer</u>
<b>March 1</b>	<b>Anderson Fund grant proposal deadline</b>		<b>GSM – see website for more info</b>
March 7, 7:30-9:00 PM	Public lecture by Dr. Rachel Beane: “Stories from Earth”	Bowdoin College, Visual Arts Center, Kresge Auditorium	Stewardship Programs Bowdoin College
March 17-19	2019 Geological Society of America Northeastern Section 53 <sup>rd</sup> Annual Meeting	Portland, Maine	Steve Pollock
March 28	2019 Maine Sustainability & Water Conference	Augusta Civic Center	Senator George J. Mitchell Center for Sustainability Solutions
<b>April 5</b>	<b>2019 GSM Spring Meeting</b>	<b>UMaine Presque Isle</b>	<b>Chunzeng Wang David Putnam Kevin McCartney</b>
May 10-12	7 <sup>th</sup> Annual New England Mineral Conference	Sunday River, Newry	New England Mineral Association
May 12-15	GAC-MAC Annual Meeting 2019	Québec City Convention Center	Geological Association of Canada – Mineralogical Association of Canada
May 31- June 2	82 <sup>nd</sup> Annual Reunion of the Friends of the Pleistocene, Northeastern Cell	Cape Cod, Massachusetts	USGS, Massachusetts Geological Survey, Massachusetts Geological Society
<b>July 27-28</b>	<b>2019 GSM Summer Field Trip</b>	<b>Western Maine</b>	<b>Myles Felch</b>
September 14-17	AIPG Annual Conference	Burlington, VT	American Institute of Professional Geologists <a href="http://www.aipg.org/annualmeetings">www.aipg.org/annualmeetings</a>
September 22-25	2019 Geological Society of America Annual Meeting	Phoenix, Arizona	<a href="http://www.geosociety.org">www.geosociety.org</a>
October 11-13 (tentative)	111 <sup>th</sup> New England Intercollegiate Geological Conference	Westchester, New York	Dennis Askins, NY Dept. of Design and Construction



October 13-19	Earth Science Week	Check the website for events	American Geosciences Institute <a href="http://www.earthsciweek.org">www.earthsciweek.org</a>
October 27-29	Exploration Mining and Petroleum Conference	Fredericton, New Brunswick, Canada	New Brunswick Department of Energy and Resource Development
<b>Fall 2019</b>	<b>2019 GSM Fall Meeting</b>	<b>TBD</b>	
December 9-13	2019 American Geophysical Union Fall Meeting	San Francisco, California	<a href="http://www.agu.org">www.agu.org</a>

Please submit events to include on the calendar to the Newsletter Editor: [amber.h.whittaker@maine.gov](mailto:amber.h.whittaker@maine.gov)

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## PHOTOS



University of Maine at Presque Isle GeoClub trip to an active drill site at Wolfden Resource's Pickett Mountain project.





Breakout session at the 2018 GSM Fall Meeting on Geoscience Education in Maine.



Members enjoying a talk by Myles Felch at the Fall Meeting.

## 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:

### 2018 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 _____	<b>Make checks payable to:</b> Geological Society of Maine Bruce Hunter, GSM Treasurer 44 Old Fairgrounds Rd Readfield, ME 04355
Institutional Members	\$ 30.00	\$ _____		
Associate Member	\$ 15.00	\$ _____	Address _____	
Student Member	\$ 5.00	\$ _____		
Contributions to GSM		\$ _____		
(please write gift or fund on check)				
<b>TOTAL ENCLOSED</b>		\$ _____		

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](mailto:amber.h.whittaker@maine.gov)  
207-287-2803

**2018/2019 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
Directors	Martin Yates	(2019)	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  
2019 Spring Meeting**

**Featuring  
Student Research Presentations**

Campus Center, University of Maine at Presque Isle (UMPI)  
Friday, April 5, 2019, 1:00 pm  
Hosted by the Environmental Science – Natural Resource Program at UMPI

This is an opportunity for undergraduate and graduate students to present current geologic, geo-environmental research in a formal atmosphere. Students from Maine schools, or students enrolled elsewhere and working in Maine are invited to present their work in oral or poster format. Interested students must submit an abstract by March 24, 2019 (midnight).

**To Submit an Abstract:**

- Follow the URL: <https://goo.gl/forms/zOJyXpMc8oNwBNHQ2>
- Complete each required section in the form. Ensure accuracy and proof-read all content as no changes will be permitted after the deadline (March 24, 2019, midnight).

Posters can be formatted in either portrait or landscape view and can be at any size (but no wider or longer than 48 inches). Oral presentations should not exceed 15 minutes. Please save your PowerPoint presentation in a flash drive.

**Preliminary Schedule:**

- 1:00 Opening Remarks
- 1:15 GSM Business Meeting (open to all members)
- 1:30 Student Poster Presentations
- 3:00 Keynote Speech: Dr. Aaron Putnam (UMaine School of Earth and Climate Sciences)
- 3:45 Student Oral Presentations
- 5:00 Student Presentation Awards Ceremony (best poster and oral presentations)

**Other Information:**

- Direction to UMPI Campus Center: Make the first left turn from Rte-1 to UMPI campus (if coming from south) and park on the second parking lot on the left side. Walk across the street to the Campus Center. The meeting place is in the multi-purpose room, on the second floor of the Campus Center.
- UMPI dining hall is open for lunch and dinner. It is also located on the second floor of the Campus Center.

For questions, please contact Dr. Chunzeng Wang ([chunzeng.wang@maine.edu](mailto:chunzeng.wang@maine.edu))