



The Maine Geologist

NEWSLETTER OF THE GEOLOGICAL SOCIETY OF MAINE

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PRESIDENT'S MESSAGE

Recently I was asked what the Geologic Society of Maine (GSM) does? My initial response was that we try to advance geologic knowledge to people that are interested in geologic topics. (I was wondering how many times I could work the word “geologic” into my response.) I went on, telling them that we achieve this by hosting a summer field trip and meetings twice a year. The meetings are good opportunities to connect with others that share interests in geologic topics, learn what others are doing in the field, promote fellowship with peers, and generally become more informed on particular geologic issues and topics. Upon further questioning, I added that the organization also assists students, and we can provide some funding to help students enhance their geologic education. (Note, if you are keeping track, I have used the word “geologic” five times.) After this exchange, I figured I should actually review what our Mission Statement really says. For those of you who are not devoted GSM website connoisseurs, the mission listed on our website states the following:

1. To further public awareness and understanding of the geology of the State of Maine, and of the modern geologic processes which affect the Maine landscape and the human environment;
2. To develop and encourage continuing social contact and dialogue among geologists working in Maine;
3. To advance the professional improvement of its members;
4. To inform members and other interested persons of current and planned geologic programs in Maine; and
5. To provide a financial base to publish and distribute a periodic Newsletter, to cover matters of technical and general interest, and to announce future society meetings.

Fortunately, my off the cuff response was very similar to the mission statement. I want to assure you I played no role in drafting that statement, and to be honest I am not sure if I ever read the statement. That said, I asked myself if we could be better at achieving these goals. I know the answer will always be yes, but is there something that we can focus on now to make our organization better? The GSM board is open to any of your suggestions and all ideas are welcome.

To start, I would like to increase our educational fund. Currently, we have a healthy fund that should be used to better our understanding of geologic topics. Let's challenge ourselves to double the fund and play a more active role in soliciting ideas for student lead projects. Perhaps creating an annual competition for student-lead projects that can be financed through these funds would be a good way to help the next generation of GSM members. Our organization is getting older—who would imagine that youthful Henry Berry was actually at an age to retire? Not possible, right? I think it is really important for our organization to actively cultivate, support, and finance student projects. These students are the ones that will take our place and advance GSM into the next geologic epoch. Ideas? Suggestions? Let us know what you think. What should we be working on?

Sincerely yours,
Rich Campbell
GSM President

NEWS FROM THE STATE GEOLOGIST

Now that the field season is moving towards its natural close, and woodsmoke wafts through the cool woods, it's a good time to take stock of our recent accomplishments and plans at the Maine Geological

Survey, and generally see what condition our condition is in. This has certainly been an odd few months for our federally funded projects and our collaborations with federal partners. The U.S. government has been shut down since October 1, which means that we can't communicate with almost all the federal employees that we are accustomed to working with. Federal government websites and computer infrastructure that we rely on for storing or disseminating some Maine data are no longer being actively maintained. As we attempt to monitor and address the current severe drought conditions, we cannot meet with many Maine-based scientists who work for the USGS, NOAA or USDA, limiting our sources of information and making coordination difficult. We all are hoping for a timely resolution to the shutdown so that everyone can get back to work.

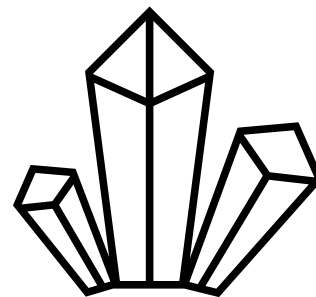
Earlier in the summer, we also experienced disruption to our typical geologic mapping work due to delays in the release of funds through the USGS STATEMAP program. For those who are not familiar, this national program provides matching funds to state surveys to produce detailed geologic maps and has supported mapping in Maine every year but one since its inception in 1993. This year, however, funds were not released until late August, too late for us to use effectively, so we made the hard decision to put off the mapping we had planned in 2025 until 2026. This will include surficial mapping in the Mercer and Kennebunk 7.5-minute quadrangles, and bedrock mapping in the Beetle Mountain, Haymook Lake, Turner Center, and Mousam Lake quadrangles. We are grateful to the USGS for working with us to make assurance that we will be able to begin working on these projects promptly next June.

However, despite these setbacks and inconveniences, MGS staff and collaborators have been exploring, problem-solving, creating, and generally getting work done, with [quite a number of publications and maps released](#) of late. One recent major success is the completion of a three-year project focused on detailed mapping of manganese-bearing rocks in Aroostook County, supported by the USGS Earth MRI program. This work, spearheaded by UMPI professor and lead author Chunzeng Wang, resulted in [three major scientific bulletins](#) (totaling

374 pages and 3 maps) for the Presque Isle, Mapleton, and Number Nine Lake quadrangles. These bulletins represent years of field work, laboratory work, and research to understand the origin of mineral resources in the Aroostook Manganese District, as well as regional geologic history, stratigraphy, and structure, and several newly defined rock units. The project also supported the next generation of geoscientists by funding the Master's degree of co-author Lauren Madsen at the University of Maine and providing internships for five undergraduate students. The research benefited from the collaboration of international geologists and paleontologists from six countries, who assisted with fossil identification and consultation. Chunzeng, Lauren, and project manager Amber Whittaker were recently featured in a nice [News Center Maine report](#) about the research.

Finally, in some of the biggest news of the decade, Henry Berry retired from the Maine Geological Survey at the end of September, after 30 years of service to the State of Maine. In an impressive burst of productivity, he was cranking out maps until the final weeks and then led a unique and thoughtful retrospective open house/field trip/seminar event on September 12, with many dear friends, colleagues, and family in attendance. He is currently taking a well-deserved rest in October but tells me that he's looking forward to tackling more maps and more geology in retirement! Thank you, Henry, for many years of your knowledge, friendship, laughs, and inspiration.

Ryan Gordon
State Geologist



NEWS FROM THE CAMPUSES

University of Maine – Farmington

Four UMF faculty and students attended NEIGC 2025 (see photo below), but we are most pleased to announce a geology exhibition at the Emery Community Arts Center in Farmington entitled “Rocks and Minerals Down the Microscope.” See a summary of the exhibition and photos below.

Doug Reusch, Julia Daly, and Larry Tuttle

Rocks and Minerals Down the Microscope: Rocks and the minerals within are all around us from the hills and mountains around Farmington to the raw materials used to make the electronic components in our cell phones! To celebrate these wonderful elements of the natural world, the Rocks and Minerals Down the Microscope exhibition at the Emery Community Arts Center will showcase rocks in a way that many have not seen them before: looking down the microscope! Display pieces in this ‘geoart’ exhibit will consist of photographs of rock thin sections, very thin slices of rock (about the thickness of a human hair!) glued to small rectangular pieces of glass, taken using a specialized optical microscope camera.

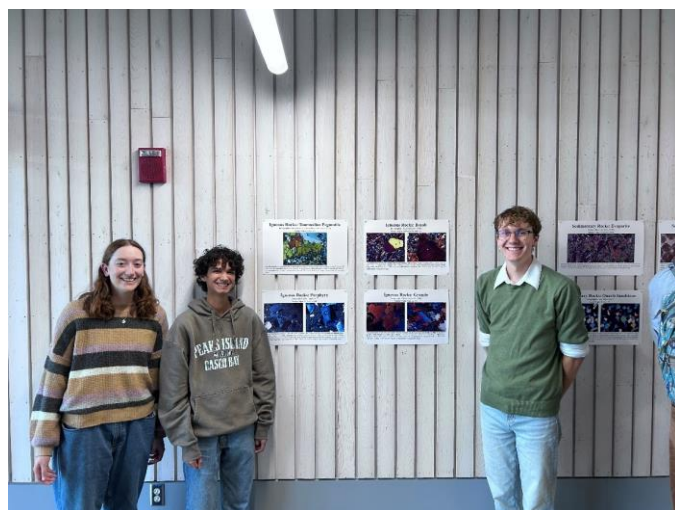
From a geologist’s perspective, rock thin sections represent a vital means for examining microscopic-scale features of their samples that are difficult to observe by looking at the rocks in hand specimen. As it turns out though due to the rich and varied range of minerals in rocks, each with their own unique ranges of color and texture, rock thin section photos function as their own natural works of art! Rock thin section images on display in the exhibit will include rock samples from Farmington and elsewhere so we invite you to come explore the truly spectacular, microscopic world of rocks and minerals!

The Rocks and Minerals Down the Microscope exhibition will be on display during the Fall 2025 semester in the Emery Community Arts Center from October 8th to November 19th with an opening reception on Wednesday, October 8th from 12:30PM to 2:00PM that all are welcome to attend. The timing of the exhibit is meant to correspond with Earth

Science Week (October 12th-18th, 2025) that is put on annually by the American Geosciences Institute to highlight and celebrate the importance of the geosciences to our daily lives.



Shot from a stop at NEIGC 2025. No sign will stop geologists from checking out a good outcrop!



UMF students with their ‘geoart.’

University of Maine

Seven undergraduates and four graduate students from UMaine attended NEIGC hosted by Yale in Connecticut this fall. The weather was fantastic for field trips, where students explored tracks at Dinosaur State Park, outcrops of mineral-rich hydrothermal veins in Trumbull, and columnar basalt at Castle Craig Tower. We explored the mineral and fossil exhibits at the Yale Peabody Museum and

learned about internship opportunities in their collections facilities.

Alice Bernosky



UMaine geology students at NEIGC 2025.

University of Maine – Presque Isle

In the summer of 2025, manganese mineralization was identified for the first time in Devonian strata in Maine by Chunzeng Wang. The discovery, located in the East Branch Penobscot River headwaters north of Baxter State Park, consists of a ~2-meter-thick banded manganese ironstone within the lower Seboomook Group (as part of the maroon shale/siltstone subunit). This finding is geologically significant as, until now, sedimentary manganese mineralization in the Maine-New Brunswick region had only been documented in Silurian sedimentary rocks (photo below).

Led by Chunzeng Wang and David Putnam, UMPI's GeoEnv Club members travelled to the North Maine Woods on October 5. They toured the Eagle Lake Tramway site, Churchill Dam, and stopped by several geologic, fossil, and archaeological sites (photos below).

As noted in the State Geologist's column, UMPI faculty and students played a huge role in bedrock mapping that was recently published by the MGS.

Chunzeng Wang



Seboomook Group manganese-bearing locality.



UMPI students and faculty at the Eagle Lake Tramway site.



UMPI students checking out glacial striations at the "Amanda's Ledge" site.

Bowdoin College

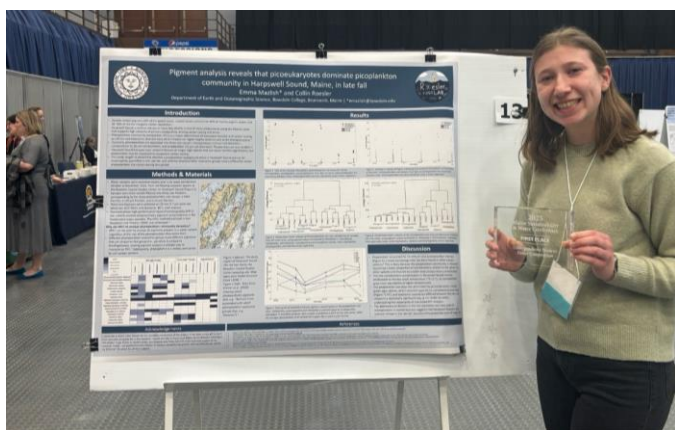
Bowdoin College faculty and students have been very busy with research and learning in both the lab and the field. The department scanning electron microscope was used for a variety of course research projects, from determining the timing and temperature of rock deformation at Two Lights State

Park to evaluating the role of microbes in the breakdown of different rock types. Students have enjoyed a lot of field time in various classes and have also presented research at local and national conferences. Emily Peterman passed on department chair duties to Michèle LaVigne and the department welcomed visiting faculty Dr. Trang Nguyen (soils and biogeochemistry) and Dr. Alec Petersen (joint appointment in Physics). Dr. Tessa Hill (UC-Davis) visited campus for two days, meeting with students, attending classes, and delivering a public lecture entitled “At Every Depth: Our Growing Knowledge of the Changing Ocean.”

Michèle LaVigne



Bowdoin students sampling water in Harpswell Sound.



Bowdoin student Emma Mazlish won best undergraduate poster at the Maine Sustainability and Water Conference.

GSM FALL MEETING

The GSM Fall Meeting will be held at Colby College in the Parker-Reed Room, [Alumni Center Building](#) (the same location as the 2025 Spring Meeting). Many thanks to GSM Treasurer Tom Whittaker for securing this very comfortable meeting space! The meeting theme will be “Geophysical Tools and Their Applications in Maine.” The full agenda is still being developed but the meeting will follow the usual format, starting at 1 PM with a short business meeting followed by talks and a social hour.

GSM SUMMER FIELD TRIP RECAP

The GSM Summer Field Trip took place on July 12–13 in the Augusta/Waterville area with the theme of “Geology, Hydrogeology, and Hydrology of Maine’s Capital Region.” Trip stops included PFAS investigation sites in Fairfield and Benton, surficial geology stops in Norridgewock and Smithfield, several bedrock localities, the Sheepscot River stream gage, and hydrology/hydrogeology at Viles Arboretum. Many thanks to GSM Vice President Andrew Collins for organizing the weekend and to all the stop leaders! The field trip guide can be found on the [GSM website](#).

NEIGC 2025 RECAP

The New England geologic community gathered October 3-5 in southwestern Connecticut for the [116th annual New England Intercollegiate Geological Conference](#), hosted by Yale University. Thanks to organizers Alan Rooney and Maureen Long, an outstanding collection of trips was presented. What would southern Connecticut be without trips to see dinosaur footprints in Mesozoic redbeds, or salt marshes impacted by rising sea level? And of course, there were opportunities to visit the world class mineral and meteorite collections at the Yale Peabody Museum. Several field trips looked at Appalachian bedrock features including metamorphism, structural geology, igneous

geochemistry, and tectonics, both classic localities and new research. One trip ventured into northern Manhattan, looking not only at the complex bedrock geology but also at teaching opportunities. Various conference participants saw anoxygenic phototrophs, pseudotachylyte, and topaz, and discussed ecosystem management while visiting research sites. Faculty and students from 34 colleges and universities were represented, including many students from Maine schools. This conference has been practicing “experiential learning” since 1901. Is there any better way to learn geology? NEIGC 2026 will be hosted by the University of Rhode Island and plans are underway. Keep an eye on the [NEIGC website](#) for details.

Henry Berry
Acting NEIGC Secretary

NEW GSM WEBSITE

Thanks to Chris Halsted, the GSM has a new website with a new address: <https://www.geologicalsocietyofmaine.org/>. We still own our old web address, so if you happen to type that one in, no problem—you will be routed to the new site. The new website has increased functionality that should allow us to set up events and communicate with members more efficiently. However, we were not able to migrate member accounts to the new site. ***This means that you will need to sign up for a new GSM account if you would like to pay your dues or make a donation.***

THE EDITOR'S MESSAGE

The newsletter is distributed through email and on the GSM website in PDF format. Anyone with special needs should contact the Editor. Please send items of interest and photographs of GSM activities to: Lindsay Theis, Newsletter Editor
lindsay.theis@maine.gov

GSM WEBSITE:

www.geologicalsocietyofmaine.org

FACEBOOK: facebook.com/GSMMaine

SECRETARY'S REPORT

GSM held no formal business meeting since the latest Secretary's Report, provided in June 2025. There are no minutes to report at this time. The next business meeting of the GSM will be held during our fall meeting, Friday, November 7, 2025.

The Executive Council met by Zoom in June 2025 to discuss updates to the GSM website and plans for the 2025 summer field trip and fall meeting.

Respectfully submitted,
Lisa Jacob, Secretary
lj@smemaine.com

TREASURER'S REPORT

It has been a busy time for the GSM balance sheet since the last report. A new website (and payment system for dues and donations), a successful Summer Field Trip (including a stop at Cushnoc Brewing), end of the fiscal year (July 31), lots of donations to the endowment funds, and planning for the Fall Meeting. In total, the GSM accounts are up ~\$10,200 in the four months since the last report (see the table below). **NOTE:** If you are yet to pay dues this year, please visit our new website (<https://www.geologicalsocietyofmaine.org/>) where you can pay online and create a profile that will also allow you to receive news and updates directly to your email address. If you wish to pay by check you are welcome to (my address is below or you can find me at the Fall Meeting) but do also create a profile on the GSM website (where I can then mark you as paid).

In the June newsletter, I reported that both endowment funds (EAPD and McCartney) lost value in late March and early April following the stock market plunge that came with the federal government tariff threats. The markets ultimately recovered, and so did the funds (by a combined ~\$8k). In addition, the EAPD Fund has been boosted since early April by a few large, and many small, donations from GSM members to the tune of \$1,165. On behalf of those who will benefit from these funds in the future, I offer a big “thank you!”

As always, I'd like to remind everyone of a couple of things relating to the endowments:

1. The two endowment funds are there to support activities that you—GSM members—wish to undertake. Please consider submitting an application through the GSM website if you would like some financial support for an activity.
2. Donations to the funds are accepted year-round (through the website or via check in the mail). Every little bit helps grow the funds such that the GSM can keep offering support well into the future and can hopefully support more activities and at a higher level.

Respectfully submitted,
Tom Whittaker, Treasurer
29 CMD Drive
Albion, ME 04910
Email: thomasewhittaker_at_gmail.com

Asset Summary
2/28/2025 to 6/15/2025

Fund	Account	Balance 6/15/25	Balance 10/24/25
General Fund	MSCU Checking	\$2,322.62	\$3,269.00
	MSCU Bus. Sav.	\$5.00	\$5.00
	<i>Subtotal</i>	<i>\$2,327.62</i>	<i>\$3,274.00</i>
EAPD Fund (prev. Anderson Fund)	Bath Savings Trust (managed acct)	\$47,081.13 (4/1/25)	\$54,113.03 (10/24/25)
	<i>Subtotal</i>	<i>\$47,081.13</i>	<i>\$54,113.03</i>
Kevin McCartney Fund	Bath Savings Trust (managed acct)	\$20,256.61 (4/1/25)	\$22,462.41 (10/24/25)
	<i>Subtotal</i>	<i>\$20,256.61</i>	<i>\$22,462.44</i>
<i>Combined Assets</i>	<i>Grand Total</i>	<i>\$69,665.36</i>	<i>\$79,849.44</i>

The GSM's most recent fiscal year ended on July 31, 2025. The summary of income and expenses for the checking account at Maine State Credit Union for fiscal year 24/25 is provided below.

Final Fiscal Year 24/25 Balance Sheet for MSCU Checking Acct:

Income:	
<i>Dues payments received:</i>	
By check	\$2,955.00
Online	\$2,664.17
Donations received by EAPD Fund	\$285.00
Donations received by KM Fund	\$50.00
Donations received for General Fund	\$1,150.00
Transfer from savings	\$16.84
Subtotal	\$7,121.01
Expenses:	
2024 Summer field trip costs	\$948.84
2024 Fall meeting	\$2,693.56
2025 Summer field trip costs	\$646.64
Exec. Council student stipend	\$1,000.00
Dues reimbursement (overpayment)	\$60.00
Cash Withdrawal	\$890.00
Supplies for Spring Meeting	\$31.62
<i>Research Awards:</i>	
Spring Meeting Student Awards	\$200.00
<i>Donations to GSM Funds:</i>	
EAPD Fund	\$150.00
Kevin McCartney Fund	\$50.00
<i>GSM Website:</i>	
Annual hosting plan (old website)	\$280.40
Domain purchase + multi-year hosting plan (new website)	\$363.20
Online payment processing cost	\$533.26
Subtotal	\$7,847.82
Net income	-\$726.81

UPCOMING EVENTS

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Organizer</u>
November 7, 2025	GSM Fall Meeting	Colby College	GSM
December 15–19, 2025	AGU Annual Meeting	New Orleans, LA	AGU

Please submit events to include on the calendar to the Newsletter Editor: lindsay.theis@maine.gov

PLEASE PAY YOUR ANNUAL GSM DUES VIA THE GSM WEBSITE:

<https://www.geologicalsocietyofmaine.org/pricing-plans/list>

****NOTE: You will need to create a new GSM member account on our new website to pay dues or make donations. You will be prompted to make an account when you select a GSM membership to pay dues (click the “Sign Up” button on the checkout page).****