

THE PRESIDENT'S MESSAGE

Two years go by quickly. It hardly seems as if it has been that long since I became the President of the GSM at the Fall Meeting in Portland. Two fall meetings, two spring meetings, and two field trips later we are about to start a new cycle.

But what a way to end! This year's Fall meeting will be an all day Maine Metallic Minerals Conference hosted by the Society, the Maine Geological Survey, and the School of Earth and Climate Sciences at the University of Maine, and will be held at the Black Bear Inn in Orono on November 9th. The conference is planned to be an educational exploration of a variety of topics relating to metallic mineral deposits in the State. Talks will be presented on the geology and mineral potential of Maine, the history of non-ferrous metal exploration and mining in the state, land ownership and access, surface and mineral owner perspectives, legal implications of mining, and current mining and reclamation techniques. The Society business meeting and cash bar social hour will follow the presentations. Registration will be free for GSM members with dues paid through 2012 and students. Non-society members registration is \$25. On-site lunch and dinner is available with advance registration. Please see our website, <http://www.gsmmaine.org/>, for details.

The next two years promise to be an interesting time for geology in the State of Maine. With active members in many phases of geology (consulting, industry, government, and academia) our membership is bound to become involved in a variety of geological topics and issues. More mineral exploration and prospect development may be on the horizon. Site location related to onshore and offshore alternative energy projects will involve geological expertise. Academic departments will continue to seek the best ways to prepare their students for the profession, and will continue to learn more about the Earth. No matter where our desks are located, we all share a common interest in the science. It is important for our society as a whole and our members as individuals to remember this common bond of our fascination with how the Earth works and the enjoyment of experiencing geology in the field. We all need to work together as a united group to further the profession as a whole.

Alice R. Kelley, President (2011-2012)
akelley@maine.edu



Geological Society of Maine Fall Meeting November 9, 2012 MAINE METALLIC MINERALS CONFERENCE

Black Bear Inn, 4 Godfrey Drive, Orono, Maine
(just off the Interstate, 2 mi west of UMaine campus)
8 am - 8 pm

FREE REGISTRATION FOR STUDENTS!

Maine Metallic Minerals Conference hosted by the Geological Society of Maine, the Maine Geological Survey, and the School of Earth and Climate Sciences at the University of Maine will be an all-day educational exploration of a variety of topics relating to metallic mineral deposits in the State. The Society business meeting, cash bar social hour and dinner will follow the presentations. Registration is free for GSM members with dues paid through 2012 and students with a valid student ID. Non-society members' registration is \$25. On-site lunch and dinner is available with advance registration by October 31. Please see our website, <http://www.gsmmaine.org/>, for details, or contact Alice Kelley (akelley@maine.edu).



THE EDITOR'S MESSAGE

Please send items of interest for the News from the Campuses and Member News columns, or other things you'd like to share.

Please check the date on your address label – members more than two years in arrears will be dropped from the mailing list. Send dues to Lois Ongley (see address on the last page).

Dan Belknap, Newsletter Editor (1998 – present)
<belknap@maine.edu> (207) 581-2159, FAX: -2202

GSM WEBSITE: www.gsmmaine.org

NEWS FROM THE STATE GEOLOGIST

Through numerous meetings over the past year, I have been working with the leadership of GSM and others to organize a conference on metallic mineral resources in Maine. The conference will occur within days of your reading of this column, as a collaborative event involving GSM, U Maine, and the MGS. We are very pleased that this informational meeting is happening! Many have asked why we are doing this, and it is a fair question given Maine's general lack of exploration and mining activity over the past several decades. In response, I offer several points:

- In March of this year, Representative John Martin introduced LD 1853, "An Act to Improve Environmental Oversight and Streamline Permitting for Mining in Maine." As presented, this bill would have made sweeping changes to statutes and rules that have governed metallic mineral mining since 1991. Notably, no projects have ever been permitted under those rules. During an unprecedented series of hearings and work sessions over a three-week period, the Legislature's Environment and Natural Resources Committee substantially modified the original bill and ultimately passed a law which, among other provisions, directs the Maine Department of Environmental Protection to adopt new mining rules by January 2014. The publicity around this bill has brought much attention to Maine's mineral potential.
- Over the past year, the Maine Geological Survey has responded to numerous inquiries regarding Maine's mineral potential and mining in Maine. A surprising number of Canadian firms have inquired about mineral claims, not realizing that for the most part mineral resources are private property in Maine. Property owners and land managers have called as well. Over the past several decades, large tracts of land in Maine have seen a dramatic shift of ownership, away from long-term paper company ownership to investment owners. Lacking the long association with the land that was common with prior owners, the new land managers may have little knowledge of the mineral potential of their holdings.

Our conference is intended to be informational, neither encouraging nor discouraging mining. We intend to bring exploration professionals, landowners and others together to explore the geologic context of Maine's metallic mineral deposits and the potential for undiscovered resources. Given the general lack of exploration activity for many decades and the great advances in exploration techniques in the interim, it is likely that a modern exploration program would make more discoveries. The conference will also provide information on landownership and access to lands, and a review of modern mining techniques. We hope this meeting will provide landowners, exploration professionals and others an opportunity to meet and discuss common interests and

concerns, and begin a meaningful dialogue about Maine's metallic minerals.

Robert G. Marvinney, Maine State Geologist:
Robert.G.Marvinney@maine.gov

GSM Summer Field Trip

Mt. Blue State Park

Weld and Farmington region, August 4-5, 2012

GSM members gathered in the Mt. Blue region for a field trip investigating the bedrock and surficial geology of the western hills. Many thanks to Doug Reusch and Tom Weddle for organizing trips and logistics. A group of us camped Friday and Saturday night at Center Hill, overlooking the Tumbledown range and Webb Lake, while some stayed closer to swimming at the Mt. Blue State Park campground.



Saturday, Doug Reusch led an intrepid group through the woods of Bald Mountain to the spectacular ledge outcrops that characterize the top half of the mountain. Sidewalk chalk in hand, the group split into three to trace several distinctive marker beds. Doug showed how the detailed mapping of these quartzite-schist "bar codes" he and students have completed over the past several years has revealed a series of cryptic thrusts that can be traced over hundreds of meters along the ridge of Bald.

Continuing to the summit for a lunch with a fabulous view, the group learned how the stratigraphy observed on Bald Mountain reflects the broader regional plate tectonic history. Following the hike down the group resumed contemplation of local landforms from the cool waters of Webb Lake. Dinner at the Kawahnee Inn, arranged by Tom Weddle, was a real treat and several of us availed ourselves of the combination of cold beers and beautiful porch views.



Sunday, Tom gathered us at Center Hill for an overview deglaciation in the western part of the state, then our (very long!) caravan headed out to begin a tour of four area gravel pits. The first two stops, both in active pits,



highlighted the contrast between high-energy coarse gravel deltaic deposits (stop one) and sandier delta deposits at stop two. Continuing east through the Sandy River valley from Phillips to Strong, we visited two pits just north of town. Stop 3 brought us to an enigmatic high-energy deposit with large rounded boulders. A lively discussion about the origins of this deposit ensued (could it be flow till?).



Our final official stop, very close by, was completely different: thinly bedded sands and silts interpreted to be either glaciomarine or glaciolacustrine. Careful excavation of one of the bedding surfaces showed potential flow direction indicators. Inspired by evidence of moving water, we ended the day at what I think of as a swimming stop on the Sandy River. I hear that some folks actually looked at the sculpted bedrock surface, but I couldn't see it from where I was floating in the river.

Cheers to Doug and Tom for a great trip!

Julia Daly, UMaine Farmington dalyj@maine.edu

GSM SECRETARY'S REPORT

The GSM Summer Field Trip is summarized above. Thank you Julia for a great report. There was no official GSM business conducted at that meeting.

The GSM Executive Committee met September 27 to plan the Fall meeting and to discuss other GSM business, such as the slate of officers for the next two years (volunteers are always welcome), a guideline for student requests for support from the Education Fund, and preliminary planning for the Spring meeting, 2013. NOTE that under the established rotation (see Secretary's Report June 2005) the next location of the Spring Meeting is at UMaine Farmington. Unity College has also asked to be included in the rotation.

It is not the usual practice to publish those notes; items at a mature stage and needing full discussion with the GSM membership will be discussed at the Fall meeting, November 9 in Orono (See meeting announcement above).

Martha Mixon, Secretary Martha.mixon@gmail.com
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GSM TREASURER'S REPORT

During FY11-12, the Geological Society of Maine had a net gain of almost \$760. We had projected a loss but a planned Teacher Map Education project was deferred until FY12-13. Our federal tax return was filed and accepted by the IRS in late August.

The Executive Committee proposes and will ask the membership to consider the following budget for this fiscal year:

BUDGET

Fiscal Year August 1, 2012 to July 31, 2013

Income

Dues	\$ 2,750.00
Dividends	\$ 75.00
Donations for Anderson Fund	\$ 100.00
Other Income	
Meeting Income	\$ 600.00
Field Trip Income	\$ 1,600.00
Copyright Fees	\$ 0.00

Subtotal \$ 4,225.00

Expenses

Newsletters	\$ 1,000.00
Meeting Expenses	
Fall	\$ 1,000.00
Spring	\$ 300.00
Field Trip	\$ 700.00
Executive Committee	\$ 0.00
Anderson Fund Awards	
Teacher Map Workshop	\$ 2,000.00
Spring Meeting Awards	\$ 200.00
Student Research and Travel	\$ 0.00
Website	\$ 75.00
Miscellaneous contingency	\$ 230.00

Subtotal \$ 5,505.00

Net Gain (Loss) \$ (1,380.00)

Current Membership

Students	34
Associates	19
Regular Members	195
Institutional Members	<u>7</u>
Total	<u>255</u>

REPORT OF INCOME AND EXPENSE

Year to Date, August 1 – September 9, 2012

Assets and Liabilities

As of September 19, 2012, we had a total of about \$22,650 in various accounts and subaccounts at the Maine State Credit Union.

Income FY to date

Dues	\$ 530.00
Dividends	\$ 5.61
Donations to Anderson Fund	\$ 50.00
Meeting Fees	\$ 380.00
Copyright Fees	\$ 0.00
Subtotal	\$ 965.61

Expenses

Newsletters	\$ 322.62
Meeting Expenses	\$ 0.00
Field Trip	\$ 665.12
Executive Committee Mtg Apr.	\$ 20.00
Anderson Fund Awards	
Teacher Map Workshop	\$ 0.00
Spring Meeting Awards	\$ 0.00
Web Site	\$ 0.00
Miscellaneous	\$ 0.00
Subtotal	\$ 1,007.74

Net gain [or loss] (\$ 42.13)

Checks written for a total of \$117.34 had not yet cleared the bank.

Respectfully submitted,

Lois K. Ongley, Treasurer (2010 - present)

longley@unity.edu

NEWS FROM THE CAMPUSES

Bates College, Lewiston

For those of you who knew Roy Farnsworth, we are saddened to report that he passed away on July 18, 2012. The following text was circulated by the president of Bates College (slightly edited below):

"We are saddened by the passing of Professor Emeritus of Geology Roy Lothrop Farnsworth, who died July 18 at age 84. He served with the U.S. Army Corps of Engineers in Germany, and his fields of interest were glacial geomorphology and environmental geology. Professor Farnsworth earned degrees from Boston University — a bachelor's in English language and literature, and master's and doctoral degrees in geology — before joining the Bates faculty in 1961. He served as department chair for 19 of his 29 years at the college, retiring as professor emeritus in 1990. In the mid-1960s, as Bates debuted a new calendar as part of a three-year degree option, Professor Farnsworth was among the first faculty members to explore creative ways to use Short Term to benefit students. He created the Short Term course Field Geology, leading an expedition throughout

the Northeast and into Canada. Camping along the way, they collected fossils, did geologic mapping, visited mines to evaluate economic resources, studied minerals and spoke with local experts. Professor Farnsworth did the cooking, too. As a teacher, he tried to share part of himself with his students, and, in turn, gained great satisfaction from following students as they built their lives.

Roy was an avid flyfisherman. He was a past chairman of the Baxter State Park advisory committee, he also served on the scientific forestry advisory committee and the director's scientific study committee. He was a trustee of the Maine Wilderness Watershed Trust and past chairman of the Auburn Water District.

Donations may be made in Roy's memory to the Bruce Bouley Fund at Bates to support senior thesis research in field-based geologic mapping, or the Baxter State Park Authority, 64 Balsam Drive, Millinocket ME 04462."

Bev Johnson, Geology, Bates bjohnso3@bates.edu

Your Newsletter Editor adds that Roy was long a faithful member of GSM, and a cheerful friend ever since my student days. Dan Belknap

University of Maine, Farmington

This past May, sixteen undergraduate students from the University of Maine – Farmington embarked on a twenty-one day journey across Ireland, Northern Ireland, and Scotland. The trip was led by Dr David Gibson (University of Maine – Farmington) and Dr Marty Yates (University of Maine), with Mr. Desmond O'Brien also helping. This is the fourth time this course has been run and while most of the students are geology and science education majors it is also open to non-majors. The trip highlights some of the most important geologic localities in Ireland and Scotland and culminates with a mapping project on the Isle of Skye.

After arriving in Dublin, Ireland we traveled in mini-vans to Galway on the western coast of Ireland. After a quick stop at the hostel, we piled back into our vans and drove south to examine the magnificent limestone pavement of the Burren and the Cliffs of Moher, finishing our first day with an underground tour of the Ailwee Caves. The first few days of the field trip were based in Galway investigating the igneous and metamorphic geology of Connemara. Then it was on to Donegal via the majestic mountain of Croagh Patrick, which we hiked in glorious sunshine, taking some time on our way up the mountain to discuss the origin of the serpentinites!

During the next three days in the northwest of Ireland we saw variations in the landscape controlled by the geology, from the rugged Ox Mountains to the green pastures of the Carboniferous limestones of Sligo (including Streedagh Point where even Dr Gibson could find the fossils!) to the drumlins of South Donegal. Then before we knew it we were off to the classic igneous

geology of the North Antrim coast including of course the Giant's Causeway, the Portrush sill and a walk across the Carrick-a-Rede rope bridge.

The next part of the trip took us across the Irish Sea to Scotland, stopping first in Edinburgh and on to the Highlands. We visited many famous localities such as the Lewisian Gneiss, the oldest rocks in the British Isles, the Moine Thrust, one of the locales that helped shape plate tectonic theory, along with a great hike up Mt. Conival to observe the sequence of thrusts. Many of the group agreed that our accommodation in the Highlands, at the Argyll Hotel, Ullapool, was the best of the trip, especially the food. Some of the group even tried haggis though they were not told what it was until after they ate it!!

We next spent four days mapping the bedrock geology of the south-central part of the Isle of Skye. In four groups, with assigned map areas, spent all day on the hills and along the spectacular coastline marking in the different rock types and their contacts. In addition, we went to examine the layered intrusion of the Cuillins. To reach this area we traveled by boat and were dropped off in a pretty remote area. This memorable boat ride was made possible by a generous donation from the Geological Society of Maine and we would like to extend our thanks to GSM for funding that magnificent trip. We embarked on a 12-mile hike through the mountains to our destination at Sligachan. Again we had another glorious day to examine the igneous layering evident in the gabbros and peridotites and got to see many glacial landforms as well.

After completing our mapping on Skye we returned to Northern Ireland to the Mourne Lodge at the base of the Mourne Mountains. Before we knew it we were back at Dublin airport for our return flight. It was truly a once in a lifetime opportunity that enabled us to see and appreciate the beautiful scenery of Ireland and Scotland as well as being an exceptional learning experience.

Jennifer Richter and Murphy Doughty

University of Maine Presque Isle

I am in Poland this semester on a research sabbatical to study silicoflagellate skeletal morphology and early evolution. Arrived here in early September after making a presentation at the International Diatom Symposium. I will be co-teaching a short-course for grad students on siliceous microfossils. I have some field work planned for the Baltic and some talks are already scheduled at a couple of schools. I am maintaining a quasi-regular blog at <http://wp.umpi.edu/kevinmccartney/wp-admin/> where I talk about work, food and other experiences in Eastern Europe. Anyone who wants something from this area that can be carried in a travel bag let me know.

Kevin McCartney <Kevin.mccartney@umpi.edu>

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 Sept. 1 to Aug. 31. Annual dues and gift or fund contributions to the Society are tax deductible. There are four classes of memberships:

\$20.00	REGULAR MEMBER	Graduate geologists, or equivalent, with one year of practice in geology, or with an advanced degree.	FEE SCHEDULE
\$20.00	INSTITUTIONAL MEMBER	Libraries, societies, agencies, businesses with interests in or practicing geology and related disciplines.	AS OF
\$10.00	ASSOCIATE MEMBER	Any person or organization desirous of association with the Society.	February, 2008
\$ 5.00	STUDENT MEMBER	Persons currently enrolled as college or university students.	

THE GEOLOGICAL SOCIETY OF MAINE ANNUAL RENEWAL / APPLICATION FOR MEMBERSHIP

Regular Member	\$20.00	\$ _____	Name _____	Make checks payable to:
Institutional Members	\$20.00	\$ _____		Geological Society of Maine
Associate Member	\$10.00	\$ _____	Address _____	Lois K. Ongley, Treasurer
Student Member	\$ 5.00	\$ _____		Unity College
Contributions to GSM		\$ _____		90 Quaker Hill Road
(please write gift or fund on check)				Unity, ME 04988
TOTAL ENCLOSED		\$ _____		

Email Address _____

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

2011/2012 SOCIETY YEAR BEGAN SEPTEMBER 1 - PLEASE SEND DUES TO TREASURER.

The DATE on your mailing address refers to PAID UP DUES DATE

THE GEOLOGICAL SOCIETY OF MAINE

c/o Daniel F. Belknap, Newsletter Editor
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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.

Return Service Requested

Correspondence about **membership** in the Society, **publications** and **dues** should be mailed to:

Lois K. Ongley, Professor of Geochemistry, Unity College,
90 Quaker Hill Rd., Unity, ME 04988 <longley@unity.edu>

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

Daniel F. Belknap, Dept. Earth Sciences, University of Maine,
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President	Alice Kelley	University of Maine
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Newsletter Editor	Dan Belknap	University of Maine
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	Tom Weddle (09-12)	Maine Geological Survey
	Rudy Rawcliffe (10-13)	Northeast Geophysical Services