THE MAINE GEOLOGIST
NEWSLETTER OF THE GEOLOGICAL SOCIETY OF MAINE

October 2013
Volume 39
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THE PRESIDENT'S MESSAGE

I would like to take this opportunity to thank Bev Johnson (Bates College), Steve Dickson (Maine Geology Survey), and Art Hussey (Bowdoin emeritus)/Pike Industries for the wonderful field trips they led in August. The weekend started off with Bev leading the group of about 30 people to an overlook of the Sprague River saltwater marsh where the recent geologic history of Maine coastal wetlands was discussed. Bev explained how past owners cut channels in the marsh perpendicular to its long axis to drain it for the marsh grass. More recently, the National Fish and Wildlife Service installed "ditch-plugs" in some of the channels in an attempt to restore natural conditions that would be more favorable for birds. Based on groundwater and vegetative studies, Bev suggested that the ditch plugs may be having an adverse effect on the hydrogeology and plant communities of the marsh. Not one participant at this location was lost to the abundant mosquitoes, either.

The group then moved down to the marsh itself and Joe Kelley (UMO) assisted Bev in the collection of a core sample of the marsh. According to Joe, the bottom of the several-meter core was about 3,000 years old. The group discussed the possible origin of a clay layer in the core. At this point the sun came out and all headed to Popham Beach for lunch.

The weather was perfect when Steve Dickson walked the group out onto the beach at low tide. Steve explained the dramatic changes in beach morphology over the past five years. A bath house building constructed in 2009 hundreds of feet from the beach was almost lost from the Morse River that began to flow parallel to the shore. Ultimately, the river shifted and a large barrier island formed the currently protects much of the beach. The amount of sand transported in this area over such short periods of time was impressive. Steve augmented his presentation with an excellent set of large air photos on poster board that were passed around the group.
The group enjoyed a very nice lobster bake Saturday night at the Recompense Campground in Freeport.

Sunday morning the group reconvened at a large bedrock quarry in Wells owned and operated by Pike Industries. A Pike representative gave the group a brief description of operations and then we were turned loose on the rocks. Art summarized the type and age of exposed rocks consisting of the Devonian Webhannet granite, the Silurian Kittery Formation, and the Cretaceous Tatnic gabbro. Pounding of rocks, hand lens inspections, and discussions followed for several hours (if I have the rock types wrong the mistake is totally mine) .

Plan on attending the fall GSM Meeting on **Thursday November 14th in Augusta** – you will see from the following articles that there will be much to talk about!

Keith Taylor
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207-591-7000

105th NEW ENGLAND INTERCOLLEGIATE GEOLOGICAL CONFERENCE
North Central Maine - Katahdin Region

October 11, 12 & 13th
Big Moose Inn, Millinocket Lake, Maine

Salem State College is hosting the 105th New England Intercollegiate Geologic Conference on Columbus Day weekend. There are several great field trips to Baxter State Park , Katahdin Ironworks, Gulf Hagas an the Shin Pond region of north central Maine. Some trips have limits on the number of participants. Check out the NEIGC website at for more information

http://w3.salemstate.edu/~lhanson/NEIGC/2013/NEIGC2013_agenda.htm

THE STATE GEOLOGIST'S MESSAGE

GOVERNMENT REFORM: PART II

ROBERT G. MARVINNEY, STATE GEOLOGIST

Last year I wrote of several government reform efforts then underway that would impact the Maine Geological Survey. Most important at that time was the dissolution of the State Planning Office and subsequent move of the Maine Coastal Program to our agency. We have worked collaboratively with the MCP for many years and have worked together on many coastal projects. We are now seeing benefits from this closer alignment of the MCP and the MGS.

The lingering reform effort that was not fully resolved last year was the merger of the Departments of Agriculture and Conservation into one department – Agriculture, Conservation, and Forestry. Although the groundwork had been done in the 125th Legislature, it would be up to the 126th Legislature to finalize the merger. What looked like a done deal at the end of last summer became, after November 2012, the subject of contentious debate.

Commissioner of the new department, Walt Whitcomb, has done an admirable job bringing together the disparate programs of the department and developing an unconventional organizational chart that shows the divisions directors working as part of one large team. Unfortunately, the unconventional nature of the organization did not resonate well with the newly reconstituted Agriculture, Conservation, and Forestry committee of the 126th Legislature. Through many public hearings and work sessions, the ACF committee heard from many interest groups regarding the structure of the merged departments. What has prevailed is an organizational structure that looks very neat on paper – four nearly evenly balanced Bureaus with Directors that report to the Commissioner, and programs beneath that report to Directors. Parks, Forestry, and all the Agricultural programs remain in their three respective bureaus. All the remaining programs are lumped into the fourth bureau titled "Resource Information and Land Use Planning." This includes MGS, MCP, the Natural Areas Program, the Floodplain Program, the Land for Maine's Future Program, the Land Use Planning Commission (formerly known as LURC), and the Municipal Planning Assistance Program.

The Commissioner was directed to adopt this new structure with no additional personnel, even though the structure clearly inserts another layer of bureaucracy (the Bureaus) into the organization. To meet this requirement, the Commissioner scavenged Director positions from several of the Divisions to populate the Bureau Director positions. For better or worse, the State Geologist position has morphed into the Bureau Director of that fourth catch-all bureau, and I remain in that position. It certainly is not the Bureau anyone with detailed knowledge of programs would design, but it's what we have been dealt and we'll make lemonade from it. Over the next few months, I'll begin a strategy process for the Bureau centered around the theme, "Science for landuse planning, conservation, and natural resource management." Stay tuned.
-Bob Marvinney

More Government Reform ?

A PROPOSAL TO DISCONTINUE LICENSING OF GEOLOGISTS IN MAINE

Check out the recent **Report of the Director of the Office of Policy and Management Findings and Recommendations Part F of the Biennial Budget (**http://www.maine.gov/economist/Part%20F/Final%20Report%20with%20Cover.pdf) released on September 30, 2013. The Office of Policy and Management (OPM) was established by the Maine Legislature in 2012 to help improve the efficiency and effectiveness of Maine's government. In this report OPM has identified $11,255,673 in potential administrative savings for FY14 and $24,276,592 in potential savings for FY15, achievable administratively and through legislative action. OPM identified four licensing programs currently operating within the Department's Office of Professional and Occupational Regulation for discontinuation. One of those programs is the **Board of Certification of Geologists and Soil Scientists.** There is no reference in the report to cost savings achieved by eliminating this Board (in fact, it appears that income from our license fees significantly exceeds any costs to the state).

In any event, according to the OPM report:

"*The Board of Certification of Geologists and Soil Scientists was established in 1973. There are currently 332 individual licensees—257 geologists and 75 soil scientists. On average, one new applicant is licensed annually. The State Geologist and State Soil Scientist, both employees of the Department of Agriculture, Conservation and Forestry, are ex officio members of the board…….*

The program's complaint history is minimal. Between 2000 and 2013, three complaints have come before the board. Two complaints were dismissed and the third complaint filed in January 2008 that resulted in a board decision and order after hearing is on appeal to the Law Court. The board met twice to discuss the 2008 complaint filed by the Department of Environmental Protection against a licensee. The Board did not meet in 2009. The Board met once in 2010 to conduct an adjudicatory hearing on the 2008 complaint. The board did not meet in 2011. The Board met twice in 2012, once to discuss the Superior Court remand on the 2008 case and once to review the decision and order on the remand.

OPM and the Department can discern no need to continue regulating this profession. The Department receives no inquiries from the public about licensees or the program itself. Although the administrative complaint process is available to the public, consumers have had no need to use the complaint process. OPM and the Department recommend discontinuation of the licensing program for geologists and soil scientists without jeopardy to public safety"

What do you think about this proposal ?

Public Hearing on the Maine Mining Rules

The Maine Department of Environment Protection has been tasked with developing new rules to implement the Maine Metallic Mineral Mining Act, 38 M.R.S. Section 490-ll. Recently the Department released the DRAFT Rules for public review.

On October 17, 2013, the Board of Environmental Protection will hold a public hearing on the Department's draft mining rules. The hearing will be held at the Augusta Civic Center, and will begin at 9:00 AM. All interested parties may attend the public hearing, or submit their comments in writing no later than 5:00 PM on October 28, 2013

For more information, including a copy of the draft rules, go to the Department's metallic mining webpage: http://www.maine.gov/dep/land/mining/metallic-mineral.html

PROFILES OF MAINES COLLEGES AND UNIVERSITIES

This column is the first in a series highlighting the many Maine's colleges and universities that offer undergraduate and graduate programs in Geology and/or Earth Sciences. In the last decade there have been a lot of changes in geologic education in Maine at post secondary level including curriculum, research emphasis and faculty. The aim of this column is acquaint you with each of our Maine academic institutions offering geoscience programs.

School of Earth and Climate Sciences

5790 Bryand Global Sciences Center
University of Maine, Orono, ME

The School of Earth and Climate Science is located on the University at Maine Orono campus, the flagship institution in the University of Maine public university system. The University of Maine has a current enrollment of 11,168 total undergraduate and graduate students. According the University website

> "The School of Earth and Climate Sciences conducts a balance of teaching, research and service as part of the University of Maine Land Grant and Sea Grant missions. Our primary goal is to develop better understanding of Earth as a complex and dynamic system, including how humans interact with Earth's environments, hazards and resources."

Location and Facilities

The School of Earth and Climate Sciences is housed in the newly constructed Edward T. Bryand Global Sciences Center. This building was designed specifically for Earth and Climate Sciences teaching and research. Additional offices and laboratory facilities are located in the adjacent Sawyer Environmental Research Center.

History

The geology program at University of Maine Orono has evolved from its early days when it was part of the Department of Civil Engineering at the University. One of the first geology faculty members, Dr. Joseph M. Trefethen was hired by 1938. During his tenure at the University, Dr. Trefethen also served as State Geologist and from 1942 to 1956 the Maine Geological Survey was housed on the Orono campus. Eventually geology major was established within the Department of Civil Engineering and the program graduated many students with a Bachelor of Arts degree in geology and a few with the Master of Science degree.

In the late 1960's the geology group left the Department of Civil Engineering to form the Department of Geological Sciences, with Dr. Philip H. Osberg at the helm. Recognizing the need to identify a unique research focus the fledgling Department chose to specialize in glacial and Quaternary geology and the Institute for Quaternary Studies was formed (which later became the Climate Change Institute). The Institute was designed as separate administrative research/teaching unit with joint appointments initially with faculty in Geology, Anthropology, History and Botany. Through the late 1980's and 1990's the Department of Geological Sciences expanded its faculty to broaden its base of subdisciplines and initiated a doctoral degree program. As part of a University-wide restructuring effort the Geology Department was re-assigned to the newly established College of Natural Sciences, Forestry and Agriculture as the **Department of Earth Sciences**. Finally, in 2012, the Department became

the **School of Earth and Climate Sciences** and began offering concentration in both Earth Systems and Climate Systems.

Academic Programs

Like many colleges and universities UMaine has expanded its geology curriculum to include more than just strict geology courses. In 2009 the undergraduate degree requirements were modified to include courses

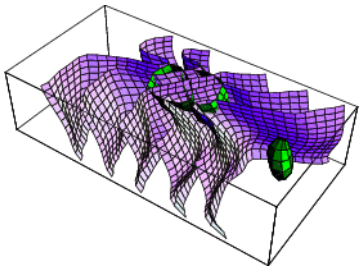
in climate and earth systems. Currently the School of Earth and Climate Sciences offers a four year, undergraduate degree culminating with a B.S. in Earth Sciences. The graduate program includes both a master's and doctoral. The School has an active Geology Club which hosts local and national field trips. According to Dianne Perro, the department administrator, in the fall of 2013 a total of 37 undergraduate majors and 30 graduate students are enrolled in the School of Earth and Climate Sciences.

Faculty

Currently there are 25 full time faculty members in School of Earth and Climate Sciences. The Geological Society of Maine has benefitted from the active participation of several of the faculty members including current Vice President Marty Yates, former newsletter editor Dan Belknap, past President Alice Kelley and Joseph Kelley who has led numerous field trips for the Society.

Research

The School of Earth and Climate Sciences is recognized for world class research in broad array fields with a special emphasis on climate change, environmental geology, geodynamics and marine geology. Collaborative research activities include field, laboratory, and modeling studies that focus on the timing, causes, and mechanisms of natural and anthropogenically forced climate change, and on the effects of past climate changes on the physical, biological, chemical, social, and economic conditions of the planet. Research is supported by grants from a variety of sources including the National Science Foundation, the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration.



Many of our GSM members are graduates of the Orono Geology program. For more information check out the Departments website and facebook page at http://umaine.edu/earthclimate/

2013 GSM Fall Meeting

Thursday November 14, 2013
Augusta Civic Center
Tentatively scheduled to start at 2 pm

The focus of the fall meeting will be a digital mapping, aerial imagery and LIDAR applications for Maine geology. The program is still under development, but we hope to provide a series of presentations from local experts on the latest sources of digital data for Maine as well as software tools and applications. Stay tuned for more information on the fall meeting.

UPCOMING MEETINGS OF INTEREST

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2013 NEW ENGLAND INTERCOLLEGIATE GEOLOGICAL CONFERENCE
North Central Maine - Katahdin Region

October 11-13 Columbus Day Weekend
Big Moose Inn, Millinocket Lake, Maine

http://w3.salemstate.edu/~lhanson/NEIGC/

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PUBLIC HEARING
Maine Department of Environmental Protection
Chapter 200 Metallic Mineral Exploration, Advanced Exploration and Mining

Thursday October 17, 2013 9:00 AM
Augusta Civic Center
Civic Center Drive
Augusta, Maine

http://www.maine.gov/dep/land/mining/metallic-mineral.html

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2013 GSA ANNUAL MEETING

125th Anniversary
27-30 October
Denver, Colorado USA

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E2TECH is sponsoring a talk on the:

Modernization of Maine's Mining Rules & Development

Thursday, November 21, 2013
7:15 AM - 9:30 AM

University of Southern Maine
Wishcamper Center
26 Bedford Street, Portland

http://www.e2tech.org/

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Grand Canyon Raft Trip –July 6 to 13, 2014

2013 Grand Canyon Field Trip

Many Maine, Arizona and Colorado geologists completed another 8-day raft trip through the Grand Canyon at the end of July and early August. This was the third trip organized by Maine geologist Fred Beck and former Maine geologist Alison Jones. The 100% outcrop exposure of Precambrian and Paleozoic rocks contrasts sharply with the less that 5% outcrop exposures of bedrock in Maine and, according to USM geology student Denise Bluhm who was on this year's trip, is an awesome introduction to hands on geology. Pictured above, Denise points to the "Greatest Unconformity", a hiatus in deposition and erosion of 1.2 billion years between the overlying Cambrian Tapeats sandstone and the underlying Precambrian Vishnu schist. Any GSM members interested in joining next trip scheduled for July 6-13, 2014 should contact Fred at fmbeck@fmbeck.net.

Year to Date
Fiscal Year August 1, 2013 to July 31, 2014

	Budget	Actual
Income		
Dues	$2,750	$170.00
Dividends	$75	$0.00
Anderson Fund	$100	$0.00
Other Income		
Meetings	$600	$0.00
Field Trip	$1,600	$500.54
Copyright fees	$50	$65.40
Subtotal	**$5,175**	**$735.94**
Expenses		
Newsletters	$1,200	$0.00
Meeting Expenses		
Field Trip '13	$1,500	$1,551.33
Fall '13	$300	$0.00
Spring '14	$700	$0.00
Executive Comm.	$20	$0.00
Field Trip '14	$1,000	$0.00
Anderson Fund Awards		
UMPI Geology field trip	$1,000	$0.00
Spring Meeting	$200	$0.00
Web site	$100	$0.00
Miscellaneous (10%)	$230	$0.00
Subtotal	**$6,250**	**$1,551.33**
Net Gain (Loss)	**($1,075)**	**($815.39)**

Asset Summary

Account	Sub-Account	**August 31, 2013**
General Fund		
	Basic Savings	$1,602
	Money Market	$2,520
	Checking	$3,355
	Certificate of Deposit	$3,804
Anderson Fund	General Fund	**March 31, 2013**
	Prime Share	$7,236
	Certificate of Deposit	$6,069
Total Assets		$24,586
Liabilities[1]		*$0*

GSM TREASURER'S REPORT

Bruce Hunter has kindly offered to take over the duties of GSM Treasurer while Lois is recuperating from a recent illness. On the left is an interim summary of GSM finances to date, including income, expenses and the assets of the Society. Your dus supports the society and its programs. I expect we will be mailing or emailing a notice for the next meeting this fall. We will include information about your dues status with that mailing. Please check to see if you dues is paid up. If you owe dues kindly send Bruce check to his home address on the last page of the newsletter or pay in person at the fall meeting.

GSM SECRETARY'S REPORT

The Secretary begins with an apology for an error in the June report: University of New England graduate student Timothy Harder presented his research at the spring GSM meeting. Many apologies for my mistake in the last newsletter, and many thanks again, Tim, for your excellent presentation.

The GSM Summer Field Trip is summarized above – thanks to Keith Taylor for a great report. No official GSM business was conducted during the field trip.

The GSM Executive Committee met on September 16 to discuss current business and planning for the fall meeting. The committee discussed the process for requests from students or student groups for grants from the Anderson Education Fund, voted to grant a request for funding from the Geo-Ecology Club at UMaine Presque Isle, and did some preliminary planning for the spring meeting and summer 2014 field trip. Items of business for GSM membership consideration will be discussed at the fall meeting, to be held November 14 in Augusta. See the meeting notice above.

Submitted by Lisa Jacob, Secretary
ljacob@sanbornhead.com
207-347-4723 (office), 207-272-2275 (cell)

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 modem 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:

FEE SCHEDULE AS OF February, 2008

$20.00	REGULAR MEMBER	Graduate geologists, or equivalent, with one year of practice in geology, or with an advanced degree.
$20.00	INSTITUTIONAL MEMBER	Libraries, societies, agencies, businesses with interests in or practicing geology and related disciplines.
$10.00	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	$20.00	$__________
Institutional Members	$20.00	$__________
Associate Member	$10.00	$__________
Student Member	$ 5.00	$__________
Contributions to GSM		$__________
(please write gift or fund on check)		
TOTAL ENCLOSED		$__________

Name ____________________________________

Address ____________________________________

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Make checks payable to:
Geological Society of Maine
Lois K. Ongley, Treasurer
Unity College
90 Quaker Hill Road
Unity, ME 04988

Email Address ____________________________________

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

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2012/2013 SOCIETY YEAR BEGAN SEPTEMBER 1 - PLEASE SEND DUES TO TREASURER.

THE GEOLOGICAL SOCIETY OF MAINE
c/o Carol White, Newsletter Editor
C.A. White & Associates
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Yarmouth, Maine 04096
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Please Pay Your Dues

Return Service Requested

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:

Carol White, cawhitemaine@gwi.net; C.A. White & Associates, 1 Main Street, Yarmouth, Maine, 04096

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

Bruce Hunter ,; Bruce.E.Hunter@maine.gov;; Bruce Hunter, GSM Treasurer, 44 Old Fairgrounds Rd., Readfield, ME 04355

Geological Society of Maine Officers 2012-2013

President	Keith Taylor	(12-14)	St. Germain Collins
Vice President	Marty Yates	(12-14)	University Maine-Orono
Secretary	Lisa Jacob	(12-14)	Sanborn Head
Treasurer	Bruce Hunter	(12-14)	Maine DEP
Newsletter Editor	Carol White	(12-14)	C.A. White & Associates
Directors	Tom Weddle	(10-13)	Maine Geological Survey
	Alice Kelley	(12-15)	University Maine-Orono
	Steve Kelley	(12-15)	Haley & Aldrich