

February, 2011 Volume 37 Number 1

#### THE PRESIDENT'S MESSAGE

I am very honored to be the new President of the Geological Society of Maine. Having completed her term as President, Julia Daly will continue to serve by devoting more time to the educational aspects of the Society. She has done an excellent job as President by keeping our group active and vibrant, and will certainly bring her many talents and creativity to our educational mission. Keith Taylor is our new Vice President. Martha Mixon holds the secretary's position, as well as managing our new website. Lois Ongley takes over as treasurer, replacing Rob Peale after his five years of service to the Society. Thanks, Rob! Directors include Cliff Lippitt, Rudy Rawcliffe, and Tom Weddle. historian remains Art Hussey, and Dan Belknap continues as the newsletter editor.

Thanks to all who organized and participated in the Fall Meeting at USM! The groundwater-focused technical presentations brought many of us up-to-date on current hydrological issues in the state. Following the minisymposium, the focus of the meeting switched to the other side of the world. Dr. Paul Marinos, representing the Environmental and Engineering Geology Division of GSA spoke on the geology of Athens, Greece. Thanks to Irwin Novak for arranging this presentation!

Our Spring Meeting will take place at Bates College on April 15th, and will again feature student presentations in the afternoon session. Please encourage students to submit abstracts for talks or posters. This is a great opportunity for them to gain presentation experience before a friendly audience. The Society will recognize outstanding student research presentations with awards supported by the Walter Anderson Fund.

It's also not too early to start thinking about our summer field trip! Bring your ideas and trip itineraries to the meeting.

In closing, the current economic and political situation has the potential to impact many of our members, from academia to public service, to private industry. Our Society's mission "...to further the public awareness and understanding of the geology of the State of Maine, and of the modern geologic processes which affect the Maine landscape and human environment" is especially important now. While we are not a political or commercial organization, it is important for us to support the science of geology within the State.

Alice R. Kelley, President (2011-2012) <a href="maine.edu">akelley@maine.edu</a>

#### 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

PLEASE CHECK THE DATE ON YOUR ADDRESS LABEL – THIS IS THE DATE TO WHICH YOUR DUES ARE PAID UP. MEMBERS MORE THAN TWO YEARS IN ARREARS WILL BE DROPPED FROM THE MAILING LIST.

## GSM WEBSITE: www.gsmmaine.org

The GSM website has been changed to a new provider, which we expect will result in better service. The web address (above) is unchanged.

Geological Society of Maine Spring Meeting Friday, April 15, 2005, 1:00 PM Bates College, Lewiston, ME

Department of Geology,

## Carnegie Science Hall, 44 Campus Avenue. Organizer:

Marita Bryant mbryant@bates.edu, 207-786-6473

The Spring Meeting of the GSM will be held at the Bates College on Friday, April 15, 2011. Following our 31-year tradition, this meeting will involve student presentations and posters in the afternoon, followed by a keynote speaker. All advisors of undergraduate and graduate students should encourage their students to participate and present their work orally or by poster. There are prizes for both best poster and best oral presentation. **Please submit your abstracts as soon as possible,** in the format shown below, by e-mail, to:

Daniel F. Belknap
Dept. Earth Sciences
University of Maine
Orono, ME 04469-5790 <belknap@maine.edu>

Abstracts will be compiled and handed out as a Program and Abstracts supplement to the newsletter at the meeting.

#### **FORMAT:**

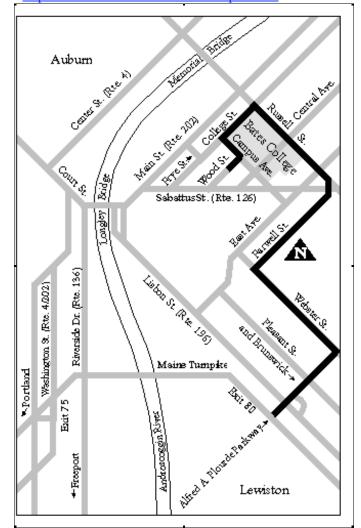
[Poster or Oral presentation]
DETAILED AND EXPLICIT TITLE, ALL CAPS
LAST NAME, First Name, Department, College,

AST NAME, First Name, Department, College, Address, <email.address>

Text of abstract describing the work succinctly, avoiding the form: "it will be shown that" and other fluff phrases. Please limit the abstract to 300 words, using GSA style.

**DIRECTIONS:** Bates College is located approximately three miles from Maine Turnpike Exit 80 (Lewiston Exit). Turn NE onto Alfred A. Plourde Parkway straight to stoplight at intersection of Plourde and Pleasant; continue on Plourde 0.6 miles to stoplight at Webster Street. Turn left onto Webster and travel 1 mile to stoplight at Farwell Street. Turn right onto Farwell and follow 0.6 miles to stoplight. Continue straight across intersection onto Russell Street and follow for 0.9 miles to the third stoplight. Turn left onto College Street and follow to second blinking stoplight; turn left onto Campus Avenue. There is parking along Campus Avenue or at the Admissions parking lot, 23 Campus Avenue. Carnegie Science Building is a newer, glass-atrium complex at 44 Campus Avenue on the SW edge of the main part of campus, midway down the road. Chase Hall is the Student Center, located at 56 Campus

Avenue, with large gables and gothic spires. <a href="http://www.bates.edu/GEO.xml?dept=GEO">http://www.bates.edu/GEO.xml?dept=GEO</a>>



<a href="http://www.bates.edu/bigger-directions.xml">http://www.bates.edu/bigger-directions.xml</a>

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#### THE STATE GEOLOGIST'S MESSAGE

# New Leadership at the Maine Department of Conservation

On January 25, 2011, Dr. William H. Beardsley was confirmed through a unanimous vote by the Maine State Senate as the Commissioner of the Department of Conservation. Readers will recall Dr. Beardsley as the former head of Husson University who ran unsuccessfully for the Republican gubernatorial nomination in June 2010.

Dr. Beardsley has broad experience in natural resources, energy, and education, and is no stranger to Maine. He graduated from Johns Hopkins University in 1970 with a dissertation focused on the resolution of conflicts in forest resource management in T16R4, Aroostook County. After graduation, he held various

academic, government, and private sector posts in Vermont through the early 1970s. In the late-70s, he was VP at Bangor Hydro. From 1981-1985 Dr. Beardsley held several positions in Alaska, notably as the director of the Divisions of Energy and Power Development, Finance and Economics, and the Office of Forest Products in the Department of Community and Economic Development. These experiences give him broad perspective on natural resource and energy issues.

Perhaps his greatest accomplishment was his 23 years at Husson. When he arrived, Husson was a small college struggling with its position among Maine academic institutions and facing dwindling enrollment. Under his leadership, Husson reinvented itself from College to University, focusing on programs in health, education, business, and legal studies, and such hands-on opportunities as boat building in Eastport. These programs provide students with many opportunities for employment in Maine and contribute to the expanding enrollment and success of the University.

Dr. Beardsley also understands the value of science – basic knowledge is necessary to make good decisions about natural resources or in any other policy area. In his first briefing as Commissioner before the Legislature's Agriculture, Conservation, and Forestry Committee, Dr. Beardsley introduced geology as the foundation upon which all the other functions of the Department are based! Undoubtedly we will get into differences of opinion regarding how society should respond to some of the science – sealevel rise and climate change, for example – because policy considers much more than just science. But it's clear that during Dr. Beardsley's tenure at the Department of Conservation, science will play an important role.

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

#### **GSM MEMBER NEWS**

**Lois Ongley** has been promoted to Professor of Geochemistry at Unity College.

**John Hopeck** and **Marianne Dubo**is have set up a Maine DEP Environmental Geology Facebook page, and are adding interesting stuff periodically.

In December, **Bruce Hunter** received the Evelyn Jepson award, which is given to the Maine DEP employee who exemplifies commitment to the environment.

**Bob Gerber** is now a Senior Consultant with Ransom Environmental Consultants, Inc., working out of Ransom's Portland office.

Mike Retelle (Bates College) led a November geology walk tracing the origins of the Thorncrag Nature Sanctuary. The Sanctuary occupies the highest point of land in Lewiston.

**John Tewey**'s lawn art was featured in the Your Turn: Reader Photographs section of the October 24<sup>th</sup> issue of the *Maine Sunday Telegram*. John's wife, Gloria, had submitted a picture of a large pumpkin face John had created on their lawn using fallen leaves.

**Todd Coffin** placed 7<sup>th</sup> out of 162 competitors in the Sugarloaf Uphill Climb held in October. The runners reportedly battled brisk 30-degree temperatures and strong winds during the annual Sugarloaf Homecoming Weekend event.

**Lisa Dickson** (Kleinfelder/SEA Consultants) was honored in September during Mainebiz's Women to Watch awards ceremony for her leadership contributions to Maine's economy.

Please send member news to:

Carolyn Lepage, Member News Correspondent (1996-present) <a href="mailto:calepage@roadrunner.com">calepage@roadrunner.com</a> or PO Box 1195, Auburn, ME 04211-1195 or

Phone: (207)-777-1049

#### **GSM SECRETARY'S REPORT**

Fall Meeting, October 15, 2010 University of Southern Maine, Portland

The executive board met from noon to 1 in Room 403 of Luther Bonney Hall. In attendance were Julia Daly, Rob Peale, Martha Mixon, Tom Weddle, and Cliff Lippitt.

The business meeting took place from 5:15 to 5:30 pm in Luther Bonney Hall. Approximately 50 GSM members were in attendance.

#### **Elections:**

The following slate of officers was nominated:

Alice Kelley, President
Keith Taylor, Vice President
Martha Mixon, Secretary
Lois Ongley, Treasurer
Tom Weddle, Director (until fall meeting 2013)
Rudy Rawcliffe, Director (until fall meeting 2012)

The nomination of two directors was to correct the error of last year when we forgot to elect a director. According to the bylaws, a director is elected each year for a three-year term.

Cliff Lippit continues in his term as Director for another year (until fall meeting 2011).

A motion was made by Bob Marvinney to accept the nominations. Bob Johnston seconded the motion. The slate was elected by a show of hands.

Julia Daly will continue her involvement with GSM as head of the education committee.

#### **Meeting Rotation and Locations:**

Bates College has agreed to host the spring meeting. The date is to be determined. Unity College (Lois Ongley) has offered to host the fall meeting 2011. Our tradition of holding fall meetings at Poland Spring, and rotating spring meetings among the college campuses is being adjusted. Poland Spring is closing earlier in the season, making it more difficult to schedule a time without conflicts. Alternative locations for fall meetings are sought. Members are requested to suggest possible venues that can accommodate 60 to 80 people at minimal cost. Contact one of the officers with suggestions.

Members are also requested to contact a GSM officer if they are interested in presenting at the fall meeting.

#### **Summer Field Trip**

Julia Daly presented an idea for a field trip to the Deboullie Public Reserve Land. The membership expressed general interest in pursuing this as a possible destination for summer 2011.

#### **Announcements:**

Bob Marvinney announced that the Department of Professional and Financial Regulation proposes to increase renewal fees for certified geologists from \$140 to \$200 annually, a 43% increase. The notice of this rule-making proposal came without any statement of Justification. A hearing was scheduled for Oct. 22, 1:30 PM at the PFR offices in Gardiner. Bob Requested members who are CG's to attend and express opposition.

Carol White announced that she is exploring the possibility of a joint meeting with the Irish geological society for Spring 2012, either in the US or Ireland. Topics to be covered at the meeting would include energy, water and bedrock geology. She requested GSM endorsement of exploration of the meeting. The membership in attendance supported the idea.

An announcement was made that the new Maine Geological Survey publication on the geology of Baxter State Park was completed, and available for \$10 per copy.

The meeting was adjourned at 5:30.

Submitted by Martha N. Mixon, Secretary. martha.mixon@gmail.com

#### **GSM TREASURER'S REPORT**

The Society currently has 229 members, of which 45% are up to date with their dues. In keeping with policy, we will drop any members more than two years in arrears at the end of this calendar year. The present membership is distributed as follows:

Students: 15 Associates: 16 Regular: 192 Institutional: 6

TOTAL: 229 Total Paid Up: 103

#### Balance On Hand: August 31, 2010

Balarioc On Hana. August 01, 201	•	
Anderson Fund Savings	\$	4,759.06
Anderson Fund CD	\$	5,985.59
Subtotal		10,744.65
General Fund Savings	\$	503.09
General Fund CD	\$	5,735.28
General Fund Money Market	\$	2,996.52
General Fund Checking	\$	142.46
Subtotal	\$	9,851.24
Total	\$	19,481.97
Income		
Dues	\$	1,079.00
Dividends	\$	20.76
Anderson Fund Donations	\$	446.00
Anderson Fund Dividends	\$	21.86
Other donations	\$	13.80
Publication Sales	\$	0.00
Subtotal	\$	862.57
Expenses		
Newsletters	\$	210.12
Honoraria	\$	150.00
Anderson Awards	\$	0.00

Other Awards	\$ 0.00
Meeting Expenses	\$ 325.27
Transfer to Anderson Fund	\$ 390.00
Postage	\$ 8.80
Web Site	\$ 0.00
Refunds	\$ 0.00
Miscellaneous	\$ 25.00
Subtotal	\$ 1,109.19

Balance On Hand December 31, 2010

Anderson Fund Savings	\$	5,199.21
Anderson Fund CD	\$	6,003.30
Subtotal	\$	11,202.51
General Fund Savings	\$	25.02
General Fund CD	\$	5,751.30
General Fund Money Market	\$	3,499.93
General Fund Checking	\$	102.47
Subtotal	\$	9,381.72
Total	\$ 2	20,584.23
Net gain [or loss]	\$	1,102.26

Respectfully submitted, Lois K. Ongley, Treasurer (2010 -present) <longley@unity.edu>

## New England Intercollegiate Geological Conference

Dr. Martin Yates Department of Earth Sciences University of Maine Orono, Maine 04469-5790

#### Dear Marty,

Please accept my congratulations to you and your colleagues for your superb organization and hosting of the 2010 New England Intercollegiate Geological Conference. By all accounts the meeting was a great success, including the rain-soaked Katahdin trip. It was interesting to see Dry Pond full of water! Reports on the variety of trips offered also were of high praise; I did not hear of any major malfunctions or delays. Certainly the weather couldn't have been better for the Saturday and Sunday trips. I was especially pleased that a contingent from the College of the Atlantic joined us for the meeting. Geology Professor Jaclyn Cockburn, who fills a newly created two-year position at the college in earth science and geology, brought a dozen students to the glacial geology trips offered over the weekend, and while they are not geology majors, they got down to the outcrops on hands and knees to find elusive striations

with the rest of us. I also want to thank Joe Kelley and Dan Belknap for their willingness to run the trip to Acadia National Park with short notice; I know that one was a winner. My gratitude is extended to all the trip leaders and co-leaders for providing the unique experience the NEIGC offers.

So far during my tenure over the last ten years, each yearly meeting has been a success and I always am amazed at how the meetings in some ways manage to run on their own. Yet it is always clear that the Conference has to have good organizers to get it to the point of running on its own, and you and all your colleagues are no exception; you know how to run a great meeting. Maybe we'll see you in another ten years!

Once more, I say thank you for your willingness to be the 2010 NEIGC host and please share this with the Department.

Best regards to all, Tom Weddle Secretary, NEIGC

PS - The 2011 NEIGC will be hosted by Middlebury College in western Vermont. Check the NEIGC website for more details in the future.

#### **NEWS FROM THE CAMPUSES**

#### Colby College, Waterville

Daren McGregor '12 won the Paleontological Society's Poster Award for 2010 at the Geological Society of America's annual meeting in Denver last November. Daren originates from Mt. Vernon, N.Y., and came to Colby thinking about majoring in history. He took an introductory geology course to fulfill a science requirement, but it was really the one-credit Geoseminar where students are introduced to the research of visiting scientists that intrigued him. Daren wanted to do summer field research following his sophomore year, and was accepted into UNC-Wilmington's REU program under the direction of Trisha Kelly. There he worked on a project near Wilmington, N.C., studying an extinction event around the Plio-Pleistoscene time boundary through bivalve and gastropod remains in "the fossiliferous Waccamaw Formation." Studying fossilized clams and snails from two million years ago, McGregor and his coauthors, professors from Cornell and UNC-Wilmington, filled in a piece of the puzzle about the extinction event when they found that the Cape Fear

river samples told a slightly different story from existing records from the western Atlantic. Five Colby students participated in this year's meetings, each as a senior author in a poster presentation.

JanPlan saw Bruce Rueger lead another student cohort to Bermuda for a "Geology of Bermuda" course. While we were hunkered down in front of a raging fire, Bruce and 13 students were mo-pedding it around the islands examining the Pleistocene history of the rise. First year to senior students made up the Colby contingent, each of whom worked on an independent project while basking in the sun.

Bill Sullivan is on sabbatical leave this year and his replacement, Jeff Marsh (UMaine-Orono) survived his first semester in the trenches. Jeff taught a field-based structure course, and now is in preparation for his heavy teaching semester. Sooner than he knows it, it'll be May and his Faculty Fellow year at Colby will have ended.

Submitted by: Robert Gastaldo <ragastal@colby.edu>

#### The University Of Maine, Orono

The Department of Earth Sciences at the University of Maine has added two new faculty members in the past year. Dr. Gordon Hamilton, a glaciologist who is also in the Climate Change Institute, began in September, 2010. Dr. Hamilton conducts field work on glacial movement in Greenland and Antarctica. Dr. Sean Smith will begin work in September, 2011. Sean's field is watershed modeling and fluvial geomorphology. He will also be associated with the Strategic Solutions Initiative, a National Science Foundation-funded project hosted by the George Mitchell Center.

### MORE FROM THE GSM SUMMER FIELD TRIP

We had a fantastic turn out for the summer field trip in the Lubec area this August! Many thanks are due to Joe Kelley and Bob Johnston for guiding us at the stops, and also to Bob and his family for a delicious cookout Saturday night. The crowd ranged in age from under two to distinguished, and the weather was spectacular for the walks along coastal exposures and through the woods. Many of us camped at the group site in Cobscook Bay State Park, and a few lucky folks stayed at Larry Dearborn's place in Cutler.

Joe began the trip at the reversing falls in Pembroke, just prior to high tide. As Joe was introducing the reasoning for the high tides in the area and the bedrock setting of the reversing falls, we were able to watch the flow of the water through the channel slow and the development, migration, and breakdown of small eddies created by movement of the water over bedrock ledges. Joe introduced the 1914 folio by Bastin and Smith, and also spoke about his research on the bathymetry, sedimentation, and circulation in the Cobscook area as it might relate to aquaculture management.

Stop 2 was on the road to West Quoddy Head lighthouse. We walked to the south side of the road leading to the lighthouse to look at the transition from beach to freshwater bog. Joe described an upcoming project that will investigate the transition from marine to freshwater environments at this location, and how it might be impacted by future increases in sea level. We crossed to road to the north side for along view of freshwater peat eroding along the back of the beach. There was a significant accumulation of peat overlying glaciomarine clays that is now being eroded and exposed in cross-section by the modern beach.

After lunch with a view to Grand Manan from the West Quoddy Head lighthouse, we had a brief look at the Quoddy Formation exposed below the light. Our last stop before heading to the state park was on the salt marsh behind the Lubec barrier-spit. A beautiful walk down the beach then over the dunes brought us to a series of salt marsh pools. Joe showed us several different types of pools, and explained how work by recent UM doctoral student Kristin Wilson indicates that the pools are a dynamic feature on the salt marsh surface, growing, connecting, then draining. We were able to see examples of incipient drainage connections, connected pools, and areas that were being revegetated following draining.

Saturday's final stop was in Cobscook Bay State Park. Bob described the volcanic rocks, mostly tuffs, exposed in the coastal exposures in the park. Doug Reusch summarized a new tectonic interpretation of the Coastal Volcanic Belt that places these rocks on the southern edge of Ganderia.

Saturday wrapped up with a delicious cookout organized by Bob, followed by marshmallow roasting and some guitar playing.

We woke to a foggy morning on Sunday, but met at the trailhead of the Bold Coast trail in the Cutler Coast Reserve at 9. A gentle mile and a half through the woods brought us out to the spectacular Bold Coast cliffs. The fog was still in when we arrived, but some of the group chose to continue along the coast trail and were rewarded with clearing views within the hour. The group dispersed gradually, some with longer drives than others and some continuing on the trail.

Submitted by Julia Daly <<u>dalyj@maine.edu</u>>











#### 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:

Annual dues and gift of fund contribution	s to the society are tax deductions. There a	are rour classes of memberships.
\$20.00REGULAR MEMBER\$20.00INSTITUTIONAL MEMBER\$10.00ASSOCIATE MEMBER	Graduate geologists, or equivalent, with practice in geology, or with an advanced Libraries, societies, agencies, businesses interests in or practicing geology and relading person or organization desirous of a with the Society.	degree. AS OF with February, 2008 ated disciplines.
\$ 5.00 STUDENT MEMBER	Persons currently enrolled as college or u	university students.
THE GEOLOGICAL SOCIETY (	OF MAINE ANNUAL RENEWAL / APP	LICATION FOR MEMBERSHIP
egular Member \$20.00 \$ Name		Geological Society of Maine Lois K. Ongley, Treasurer Unity College 90 Quaker Hill Road Unity, ME 04988
(GSM funds include the 2010/2011 SOCIETY YEA	mail Address, and discretion Walter Anderson Fund, and discretion R BEGAN SEPTEMBER 1 - PLEASE E on your mailing address refers to PAI	nary gifts as noted by contributor)  SEND DUES TO TREASURER.
THE GEOLOGICAL SOCIETY Of comparison of Earth Sciences 111 Bryand Global Sciences Center University of Maine Orono, ME 04469-5790		

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,

Orono, ME 04469-5790 <br/> <br/> <br/> delknap@maine.edu>

President Alice Kelley University of Maine

Vice President Keith Taylor St. Germain-Collins Consulting

Secretary Martha Mixon Consulting geologist Lois Ongley Unity College Treasurer Newsletter Editor Dan Belknap, University of Maine Directors Cliff Lippitt, (08-11) S.W. Cole, Inc.

> Tom Weddle (09-12) Maine Geological Survey Rudy Rawcliffe (10-13) Northeast Geophysical Services