

THE GREEN MOUNTAIN GEOLOGIST



QUARTERLY NEWSLETTER OF THE VERMONT GEOLOGICAL SOCIETY

VGS Website: <http://www.uvm.org/vtgeologicalsociety/>

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ANNUAL MEETING AND ELECTION

No Annual Meeting will be held this year. Four Officers, three Directors, and two Chairs of two Permanent Committees will be elected by a combination of electronic and paper ballots. The ballot is included at the end of this issue. Members are encouraged to vote electronically by clicking on the link <http://www.surveymonkey.com/s/RH7NGC9>. Members without access to e-mail should send their voted paper ballots to David West, Dept. of Geology, Middlebury College, Middlebury, VT 05753. The deadline for the receipt of both electronic and paper ballots is December 4, 2010 at 5:00 PM.

PRESIDENT'S LETTER

[Unavailable at publication time]

SUMMER MEETING MINUTES

No Executive Committee Meeting was held following the Society's Summer Field Trip to the Knox Mountain Granite Pluton, Northeastern Vermont area on July 31, 2010.

TREASURER'S REPORT

The financial condition of the Society continues to be very strong. As of September 30, 2010, the checking account balance was \$6,194.80. To my knowledge, there are no outstanding bills. A financial statement for the period 10/1/09-9/30/10 is indicated below.

The Society has seven student members, four of whom received free membership for one year as an additional benefit of having been awarded Research Grants. Expenses exceeded income during this 12-month period, primarily due to significantly increased Research Grant awards that more than offset moderately higher income from membership dues and voluntary Research Grant contributions. The *Green Mountain Geologist* was printed this year at no cost to the Society due to the generosity of the Department of Geology at Middlebury College. In addition, the Society did not incur any VGS Lecturer expenses this fiscal year. Although Winter Meeting expenses increased significantly, the Society incurred no Spring Meeting expenses, again due to the generosity of the Department of Geology at Middlebury College. The Treasurer has previously cautioned the Officers and Board of Directors that the current level of Research Grant awards cannot be sustained unless additional sources of income are developed.

The following members have been approved for membership in the Society since the last report: Dennis S. Albaugh, Meredith, New Hampshire, and Alex G. Czuhanych, Schuylerville, New York.

The 2011 membership renewal and directory information form will be mailed to all members by December 31, 2010. The deadline for renewal will be January 31, 2011.

As noted in the Minutes published in the Summer 2010 *Green Mountain Geologist*, this will be my last report to you as Treasurer of the Vermont Geological Society. I have been Treasurer for the past eight years, after an earlier stint from 1992 to 1995, and although it has been a privilege to have served the Society in this capacity, the time has come for me to turn over the reins to someone else. I do so with the knowledge that the Society is in sound financial shape.

Respectfully submitted,
Stephen S. Howe, Treasurer

Income and Expenses
10/1/09-9/30/10

INCOME

Total Dues (2010 membership)		\$1,584.00
Member	\$1,155.00	
Family	\$300.00	
Student	\$24.00	
Institution	\$105.00	
Student Research Grant Contributions		\$790.00
TOTAL INCOME		\$2,374.00

EXPENSES

<i>Green Mountain Geologist</i> Printing		\$0.00
Postage		\$94.67
Office Supplies		\$15.88
Post Office Box Rental (to 2/1/11)		\$30.00
VGS Lecturer Reimbursement		\$0.00
Winter Meeting Speaker Reimbursement		\$274.50
Winter Meeting Refreshments		\$121.48
Spring Meeting Refreshments		\$0.00
Awards		\$2,568.50
Research Grants	\$2,343.50	
Spring Meeting Student Talks	\$225.00	
TOTAL EXPENSES		\$3,105.03
TOTAL INCOME – TOTAL EXPENSES		(\$731.03)

ADVANCEMENT OF SCIENCE COMMITTEE REPORT

The Advancement of Science Committee received four Research Grant applications before the Fall 2010 submission deadline. We have not yet begun to review these applications. The grant titles and awards will be listed in the next issue of the *Green Mountain Geologist*. We are currently looking into potential ways to increase the funds available for research grants; one idea is a Vermont geology calendar where part of the proceeds would benefit the Research Grant fund.

Respectfully submitted,
Jon Kim, Chair

STATE GEOLOGIST'S REPORT

Vermont Geological Survey Status

I last reported that the Vermont Geological Survey (VGS) was under consideration for a transfer to the University of Vermont. The University finds that the VGS program is valuable and important, but the transfer will not go forward as budget issues cannot be resolved without general fund (State) dollars to match other sources. The VGS is now funded through June 30, 2011 but faces an uncertain future during the next Vermont fiscal year that starts July 1, 2011. Following this decision, the University has been helpful. We have quantified the time Professors Keith Klepeis and Laura Webb spend as partners on Statemap geologic mapping projects. We have worked with their students and developed cooperation on mapping details and geophysical testing, and the time they spend on these projects can now be used as match. *However, this does not solve the overall general fund shortfall.*

Kristen Underwood, as the new Chair of the Statemap Geologic Map Advisory Committee, plans to be an *outside voice for the VGS* as we go through the transition to a new administration and during budget deliberations in the Legislature from January through May. I encourage you to contact her as a fellow Society member to lend support. State geological surveys are an integral part of the geologic community in any state. Vermont is no exception. Our work serves the citizens of the State, as well as those who know the value of geologic information and use it in support of their professional endeavors. I am excited that Kristen has agreed to chair the Statemap Committee. The Statemap grant program asked us to establish a chair from outside of the State Geological Survey. However, the impetus to make such a change is very welcome. Those using geologic maps can best speak for such maps and for the importance of geoscience research and information to our state. Kristen is keenly aware of the use of geologic maps to set the framework for the applied studies she undertakes. Please see Kristen's bio at the end of this report.

Statemap Projects Delivered – September 30, 2010

See <http://www.anr.state.vt.us/dec/geo/mapsonlineinx.htm> for more details.

Bedrock Geologic Map of the Town of Craftsbury, Vermont

Authors: Jonathan Kim, Marjorie Gale, Maggie McMillon, Scott Zolkos, and George Springston

Surficial Geologic Map of the Town of Craftsbury

Authors: George Springston and Donald Maynard

In addition, Marjorie Gale pulled together the following groundwater resource map delivered to the Town of Charlotte on May 31, 2010 [also at the website above]:

Hydrogeology of Charlotte, Vermont, VG10-1 by Springston, G., Gale, M., Kim, J., Wright, S., Earle, H., Clark, A., Smith, T., and Petersen, K., 2010, 7 plates, scale 1:24,000.

Groundwater

Professor Peter Ryan of Middlebury College is working with students in his environmental studies class to develop information on Vermont's groundwater quality. A class session was held with the Department of Health, State Senator Virginia Lyons, and the Vermont Geological Survey to present different aspects of groundwater quality issues and data collection. We have worked with Middlebury on radionuclide and arsenic data collection and analysis but a larger

goal of the class effort is to show how a range of groundwater quality data can be integrated through GIS. Rutland County is a test area.

Professor Ryan and the State Geologist appeared on VPR's Vermont Edition on October 20, 2010 to discuss the "Science of Groundwater." See <http://www.vpr.net/episode/49708/>

Geothermal

The State Geologist has obtained a three-year \$160,000 grant to place Vermont geologic and geothermal information into the U.S. Department of Energy's National Geothermal Data System. The grant will begin with document management of archived geologic reports, data, and maps. The State Geologist, with Marjorie Gale, developed preliminary maps to integrate geologic information with "Existing Transmission Line Constraints and Projected Areas of Generation Need" to better understand the geology under such corridors.

Hazards

As the result of the earthquake event of June 23, 2010 [Editor's note: The epicenter of this magnitude 5.0 earthquake was in Val-des-Bois, Quebec, 55 km north of Ottawa. See <http://earthquake.usgs.gov/earthquakes/recenteqsww/Quakes/us2010xwa7.php> - [summary](#)], Vermont Emergency Management included the State Geologist as a contact in a press release. The State Geologist was interviewed by Vermont Public Radio, WCAX, WPTZ, and Fox44 News. He was invited back to the WCAX 6:00 PM news on June 24th to answer questions about why some people feel such events and others do not. (This, in part, relates to the amplification of earthquake waves and building heights as they react to a variety of wave periods emanating from the epicenter). On August 25, 2010, the Vermont State Geologist received a certificate of appreciation from FEMA "in recognition of his dedication to improving the identification of Seismic and other Natural Hazards Risks in the State of Vermont."

Professor Charlotte Mehrrens of the University of Vermont and the State Geologist appeared on the VPR's Vermont Edition on May 17, 2010 to discuss "Landslides and Regional Geology." See <http://www.vpr.net/episode/48603/>

Kristen L. Underwood, PG, is President/Founder and Principal Hydrogeologist of South Mountain Research & Consulting Services, a Vermont company based in Bristol. She holds a M.S. in Geosciences from Pennsylvania State University and a B.S. in Environmental Science: Aquatic Environments with a Geology Minor from Allegheny College, Meadville, Pennsylvania. Ms. Underwood has 22 years of experience in the environmental field, serving early in her career as quality assurance manager for RCRA facility investigations in the Mid-Atlantic States. Later, she was Supervisor of Environmental Programs for a Williston-based environmental firm conducting contaminated site investigations and remediation in New England and New York, including geologic mapping and fracture trace analysis to define hydrogeologic setting and contaminant migration. Since founding SMRC in 2000, Ms. Underwood has completed geomorphic assessments along more than 250 river miles in Addison, Bennington, Chittenden, Franklin, Lamoille, Rutland, and Windsor Counties of Vermont. Kristen served on the Board of Directors of the Vermont Geological Society from 1998-2002, also serving as Treasurer from 2000-2002.

Respectively submitted,
Laurence R. Becker, State Geologist

ANNOUNCEMENTS**VERMONT GEOLOGICAL SOCIETY LECTURER PROGRAM**

The goal of the Vermont Geological Society Lecturer Program is to offer local colleges, universities, and high schools the opportunity to invite a member of the VGS to speak at their institution on timely topics within the broad realm of earth and environmental sciences. The program is primarily intended to reach those departments which either do not hold a regularly scheduled seminar series or whose finances do not permit them to invite external speakers to present talks on a regular basis. Any costs associated with the Lecturer's travel, lodging, and meals are borne entirely by the Vermont Geological Society.

Stephen Wright, Ph.D., Department of Geology, University of Vermont, is our 2010 Lecturer. Stephen is offering the following lecture topic: "Glacial Geology of Northern Vermont: Ice Flow, Water Flow, and Glacial Lake History." For scheduling information, see the Society's website at http://www.uvm.org/vtgeologicalsociety/lecturer_program.html

VERMONT GEOLOGICAL SOCIETY CALENDAR

3/20-22/11 Geological Society of America Northeastern/North-Central Combined Meeting,
Pittsburgh, Pennsylvania

The **Vermont Geological Society** is a non-profit educational corporation comprised of academic, industry, and state government members interested in promoting the study of geology in the State of Vermont.

The **Executive Committee** of the Society is comprised of the Officers, the Board of Directors, and the Chairs of the Permanent Committees.

Officers

President	George Springston	(802) 485-2734	gsprings@norwich.edu
Vice President	John Van Hoesen	(802) 287-8387	vanhoesenj@greenmtn.edu
Secretary	David West	(802) 443-3476	dwest@middlebury.edu
Treasurer	Stephen Howe	(518) 442-5053	showe@albany.edu

Board of Directors

Richard Dunn	(802) 485-2304	rdunn@norwich.edu
Les Kanat	(802) 635-1327	les.kanat@jsc.edu
Jon Kim	(802) 241-3469	jon.kim@state.vt.us

Chairs of the Permanent Committees

Advancement of Science	Jon Kim
Geological Education	Christine Massey
Membership	Stephen Howe
Public Issues	Laurence Becker
Publishing	Stephen Howe

VERMONT GEOLOGICAL SOCIETY BALLOT

This year, Members will be voting for four Officers, three Directors, and two Chairs of two Permanent Committees. Associate Members, Student Members, and Honorary Members are not eligible to vote per Society Bylaws.

Returning Permanent Committee Chairs are:

Advancement of Science Committee: Jon Kim

Geological Education: Christine Massey

Public Issues: Laurence Becker

Please enter your name and address here:

Officers

President	George Springston	_____
Vice-President	Keith Klepeis	_____
Secretary	David West	_____
Treasurer	David Westerman	_____

Board of Directors

Richard Dunn	_____
Les Kanat	_____
Jon Kim	_____

Chair, Membership Committee

David Westerman	_____
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Chair, Publishing Committee

Richard Dunn	_____
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Members voting electronically should click on the link <http://www.surveymonkey.com/s/RH7NGC9> to record their vote. Members without access to e-mail should send their voted paper ballots to David West, Dept. of Geology, Middlebury College, Middlebury, VT 05753. **The deadline for the receipt of both electronic and paper ballots is December 4, 2010 at 5:00 PM.**

Vermont Geological Society
P.O. Box 1224
Saint Albans, VT 05478-1224

ADDRESS CHANGE?
Please send it to the Treasurer at the above address

Don't forget to vote!

