

THE MAINE GEOLOGIST

THE NEWSLETTER OF THE GEOLOGICAL SOCIETY OF MAINE

FEBRUARY
1990
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NO. 1

President's Message

by Carol White

In my last message as president of the Society, I would like to thank everyone who participated in the Society's activities over the past few years. Most meetings have been very well attended and our membership has increased by about 10% over in the past year. Both Carolyn Lepage and Bob Johnston deserve special thanks for their efforts in organizing regular meetings and the annual summer field trips. Due to their efforts, the members enjoyed excellent field trips, detailed trip logs, and highly informative and enjoyable meetings.

I urge both new and old members alike to lend a hand in planning and organizing the future activities of the Society. If there are topics or speakers that you think might be of interest to the membership, please suggest them to the officers at our regular meetings or whenever is convenient. Any assistance in organizing meetings and speakers is always appreciated. Finally, in addition to informing the membership of upcoming events and meetings, the Society newsletter is intended for publishing short papers, findings, questions and even cartoons relating to geologic topics in Maine. So if you have encountered something unusual in the field and were wondering if anyone else has seen something similar; or if you have collected some interesting data that may be of interest to other members, please write it up and sent it in to the newsletter editor - Susan Corderman Weddle. Thanks.

Status Report on the Maine Geological Survey's Sesquicentennial Volumes

by Robert Marvinney

Final editing and typesetting of the Maine Geological Survey's Sesquicentennial (a.k.a. Jackson) Volumes - Studies in Maine Geology - were completed in November. The nearly 1000 page volumes are currently being bid on for printing, a step we had hoped to avoid but which our purchasing office has required because of the sheer size of the volumes.

Although our intent was to have these available for the GSA meeting in March, the bidding requirement and temporary restraints on budgeted funds force us to

fall just short of achieving this target date. To all those who have quietly awaited the completion of the volumes, we extend many thanks and reassurances that victory is at hand!

Status Report on GSM Bulletin Number 4 Hydrogeologic Topics in Maine

Over a decade ago the Society recognized that much worthy research relating to various aspects of geology of the state was available and in need of an appropriate vehicle for presentation. Consequently, the Society formally voted to occasionally publish a Bulletin of Shorter Contributions to the Geology of Maine. We are in the process of compiling manuscripts for Bulletin No. 4. This Bulletin will be devoted to hydrogeologic topics in Maine. We have received abstracts for eight papers covering a wide variety of topics. Final draft manuscripts are due April 15th and publication is planned for early summer 1990. Arthur Hussey, John Tewhey and Carol White will act as editors for the Bulletin. Any questions concerning the Bulletin should be directed to Carol White at (207) 846-5599.

GEOLOGICAL SOCIETY OF MAINE SPRING MEETING BATES COLLEGE MARCH 23, 1990

- | | |
|--------------|--|
| 1:00-2:30 pm | Student Oral Presentations
Room 204, Carnegie Science
Center |
| 2:30-3:00 pm | Student Poster Presentations
2nd Floor Lobby, Carnegie
Science Center |
| 3:00-4:15 pm | Student Oral Presentations
Room 204, Carnegie Science
Center |
| 4:15-5:00 pm | Business Meeting
Room 204, Carnegie Science
Center |
| 5:00-6:00 pm | Social Hour*
Rowe Room, Chase Hall |
| 6:00-7:00 pm | Dinner*
Rowe Room, Chase Hall |
| 7:00 pm | Evening Program - "New
Thoughts on Sea Level Change
and Maine's Beaches" by Dr.
Joseph Kelley |

*Tickets for the social hour may be purchased at the meeting; dinner cost will be \$5.00, payable in cash directly to the dining service.

Annual Student Presentations
GSM Spring Meeting

Attention: Upper Class Geology and
Earth Science Majors

Students in Maine colleges are invited to present papers on their geologic projects, generally following the style of the Geological Society of America technical sessions. The thought here is to provide students an opportunity to discuss their work before a group of "outside" geologists, to give them some experience in preparing a technical paper, in writing a concise and informative abstract, and in making an oral or poster presentation before a professional audience.

In connection with this program, you are invited to consider preparing a paper on such of your projects as may be far enough along to be shaped up for a formal presentation either orally or in a poster session. Oral presentations will be limited to 15 minute length with an additional 5 minutes for open discussion. Poster sessions will be displayed during the coffee break and after the oral presentations. Limitations on number and information regarding available space will be determined on the basis of number of submissions.

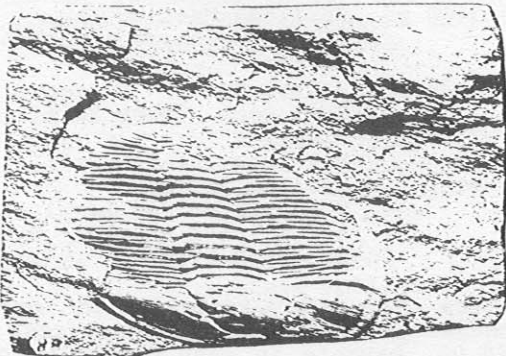
An important part of the student presentations will be the preparation of abstracts for publication in THE MAINE GEOLOGIST in a subsequent issue of the newsletter. Depending on the size of type used by the author, the space will permit a 200-250 word abstract, with a column width of 4-1/2". Abstracts should use the Geological Society of America format, and be neatly typed with black mylar ribbon on white bond paper or with word processor (near letter quality printer). Do not fold.

DEADLINE: MARCH 2, 1990

Submit an original and two copies (unfolded) of CAMERA READY ABSTRACT to:

Professor Dykstra Eusden
Department of Geology
Bates College
Lewiston, ME 04240

For more information call 207-786-6152. Students planning to participate should contact Professor Eusden as soon as possible.



Consulting Engineers of Maine DEP Task
Force

by Carolyn A. Lepage

As part of an effort to "improve the professional practice environment relative to the regulatory functions of the Maine Department of Environmental Protection (DEP)", the Consulting Engineers of Maine (CEM), an organization of over 30 privately practicing, Maine-based consulting engineering firms, has formed a DEP Task Force Committee. The mission of CEM's task force is to "establish a forum and process to effect productive dialogue between Consulting Professionals (Engineers and Scientists) and the Department of Environmental Protection, creating a positive atmosphere to resolve technical issues in a timely manner". The organization hopes to accomplish this by establishing regularly scheduled meetings with their counterparts at DEP to discuss areas of mutual concern, offering training in various technical areas to DEP staff, providing suggestions for improvements in rule-making and other administrative procedures, and assisting with the improvement of career ladders within the State personnel system.

CEM believes that including representatives from other Maine-based environmental professional organizations in the task force would add substantially to its successfully addressing and resolving issues of mutual concern with the DEP. To that end, they have invited the Geological Society of Maine (GSM), the Maine Mineral Resources Association (MMRA), and the Maine Society of Professional Engineers (MSPE) to participate in deliberations with the DEP. I attended a couple of task force committee meetings in December and January, as well as a meeting with DEP Commissioner Dean Marriott and Deputy Commissioner Liz Armstrong on December 20, 1989. The issues brought forward by CEM at the latter meeting included perceived problems with the permit-by-rule and public hearing processes, regulation of professions through DEP regulations, development and retention of DEP staff through training and career path improvements, accountability of DEP staff for technical decisions, deficiencies in the Peat Marwick report concerning staffing needs, and development of a parallel DEP committee with which the CEM task force could meet on a regular basis to discuss training needs and other issues of mutual concern. At each of these meetings, I explained that it was unclear what role, if any, GSM would play in CEM's task force.

The subject of how much involvement the GSM should have with the CEM DEP Task Force will be discussed at the Society's spring meeting on March 23, 1990. If possible, a representative of CEM will attend to explain more completely the goals of the task force and how GSM could help attain these goals.

Geological Society of Maine

Secretary's Notes on the Fall 1989 Meeting

Solid Waste Management in Maine

Mark Hyland gave us an overview of the Solid Waste Regulations from earliest times until now, including the following curious facts:

(1) Because open burning used to be regulated by the Fire Marshall's Office, towns were encouraged to locate their dumps in old gravel pits or quarries. (2) The initial regulations in 1970 were only 23 pages long. In 1983 they grew to 87 pages. The current regulations come in two books, with the basis statement taking up 100 pages all on its own. (3) All landfills must become relicensed. This process will probably reduce the number of landfills from close to 300 down to fewer than 200. (4) All landfills must be monitored for at least 30 years; this is the same as used to be required of hazardous waste landfills. (5) Mark expects that despite their length and sophistication, the regulations now on the books will be changed even more rapidly than the older set.

Florence Grovesnor gave first a straight-forward, then a provocative account of the siting requirements for future landfills. She asked the leading question which has often been posed to her: "Is it possible to site another landfill in Maine?"

In reply, she noted that the regulations require that landfills be sited on tight soils, and are best sited in groundwater discharge zones. The problem is that tight soils and discharge zones are often combined as wetlands, which are disallowed for siting.

Siting is also disallowed over any fractured bedrock aquifers capable of producing sufficient water for household use!

David Burns, engineer for the Solid Waste Bureau, described, with a remarkable set of air photos, the trash-slide at the CWS landfill in Norridgewock. This spectacular landslide was caused by removing the toe of native material on the west side of the landfill, preparatory to laying plastic liner for landfill expansion. Trouble came because the toe was functioning as the counterweight to the pile of trash to the east.

One of the fascinating observations made was that deep within one trash chasm, newsprint in 1970 magazines was quite legible. So much for our notion that biodegradable items biodegrade rapidly within landfills.

Tom Weddle gave an amusing and informative account of the Brunswick recycling program, which has been in existence since 1980 and is now mandatory.

He made the point that quite apart from the value of recycled materials, recycling can be part of a landfill conservation program. In fact, because of the present low value of paper for recycling, this may now be the best reason for Brunswick to continue the program and encourage its better implementation.

Eric Root told about the initial permitting of a new landfill for the Portland area. This particular landfill is designed only for demolition debris and stumps. Yet, despite this limited use, the landfill will probably cost \$10,000 in all to buy, permit, construct and close. \$800,000 will go for the application for a permit alone! It transpires that one pressing reason for the development of this landfill, is to have a place to dispose of the "million dollar bridge" between Portland and South Portland. Are we moving into an era when disposal costs will be greater than construction costs?

Sherry Huber concluded the evening with a description of the tasks of the Maine Waste Management Agency, delivered in her usual charming and thoroughly optimistic manner. She reminded us of the landmark nature of the legislation, which is based upon prevention, and is designed to reduce both the amount and toxicity of wastes.

She also reminded us of the several parts of the waste management equation: The composting of organic wastes can probably best be managed at regional facilities, and which can make soil of the highest quality. We must create new markets for recycled materials to encourage reuse in every sense of the word. There will continue to be a need for waste-to-energy recycling facilities, despite their present financial woes. And last but never to be completely eliminated: landfills.

She told us about her three senior staff: Denise Lord (formerly of the State Planning Office) to head up Planning. Jody Harris (formerly Town manager of Millinocket and South Berwick) to head up the Office of Waste Reduction and Recycling (because municipalities must play the most important role in this effort). Ken Young (formerly DEP Commissioner) to head up the Office of Siting and Disposal. These are all very well qualified people, but Sherry emphasized that they could not be expected to successfully carry out their tasks without public participation from the likes of us.

Though Sherry did not say so in so many words, the message was clear that there is plenty of room for us all to get involved.



**GSM Treasurer's Report
Period Ending 9/15/89**

Total members: 281

Balance on hand 3/31/89	\$3532.71
Receipts:	
Dues and Application Fees	\$1016.05
Guidebook Sales	80.00
Keeley Lecture Receipts	5711.00
Receipts Subtotal	\$6807.05
Disbursements:	
Address labels	\$ 10.30
Carl Francis Reimbursement	120.00
Postage	93.92
July Newsletter Printing	220.00
Letter Systems - Guidebook	201.40
Keeley Lecture Expenses	4867.15
Annual Field Trip Expenses	69.00
Accounting Services	670.00
Letter Systems - Newsletter	220.25
Disbursements Subtotal	\$6472.02
Net Change	+\$335.03
Balance on hand 11/15/89	\$3867.74

s/Irwin Novak, Treasurer

Upcoming Events

**Northeastern Undergraduate Arctic Studies
Symposium
THE ARCTIC ENVIRONMENT AND ENVIRONMENTAL
CHANGE**

**March 2-3, 1990
Carnegie Science Center
Bates College**

The recent concern about global climate change has focused public and academic attention on past and future environmental changes in the arctic. The arctic areas are particularly sensitive to future human-induced environmental change and also contain important detailed records of past climate changes. Members of several northeastern undergraduate institutions involved in research in arctic areas are interested in an annual forum where faculty and students can share information on research in the arctic. Bates College will host a two-day colloquium where faculty and senior personnel can present overview talks of their research programs and research opportunities and undergraduates can present the results of independent research undertaken in the arctic regions. We hope to encourage interdisciplinary collaboration between faculty and students at the various undergraduate institutions. For further information contact:

Professor Michael Retelle
Department of Geology
Bates College
Lewiston, ME 04240
(207) 786-6155

**Economic Geology Society Distinguished
Lecture Program
March 27-28, 1990**

On March 27 and 28, 1990, the University of Maine at Orono's Department of Geological Sciences will host two presentations by Dr. Pat Shanks, Economic Geologist with the U. S. Geological Survey in Reston, Virginia. Dr. Shanks is sponsored by the Thayer Lindsley Distinguished Lecture Program of the Economic Geology Society. He will discuss sulfide deposits associated with iron formations on the afternoon of the 27th, and sulfur isotopes on the morning of the 28th. Please contact the UMO Geology Department at (207) 581-2152 for details concerning time and location.

**Maine Mineralogical Symposium
April 21-22, 1990**

Nationally significant mineral discoveries in western Maine during the last two years, including the Sweden amethyst find and crystal pockets at Bennett Quarry in Buckfield, have generated much excitement among mineral enthusiasts. This interest has spilled into the media, as recent newspaper articles have delved into the personal problems of the miners who are attempting to sort out and market the treasures found at Bennett Quarry last fall. Many other mineral collectors have taken to the woods in efforts to make their own fortunes.

Prompted in part by this renewed interest in Maine minerals, the Harvard University Mineralogical Museum Association and the Maine Geological Survey are co-sponsoring a symposium this spring. Details are still being worked out, but the first day of the conference will be held Saturday, April 21, in Jewett Hall at the University of Maine at Augusta. Speakers are being invited to give talks on a wide variety of topics. Professional collectors and dealers will discuss past and present mining projects, and there will be overviews of Maine pegmatite and metallic mineral deposits. It is hoped that these talks will appeal to a broad audience ranging from mineral hobbyists to professional geologists.

Field trips are being organized for Sunday, April 22. They will be held in the Oxford County region, and will likely visit the rich mineral deposit being worked at Bennett Quarry. The symposium is timed to coincide with other Earth Day activities in Maine, and will draw attention to the state's mineral resources. Members of the Geological Society of Maine, Maine Mineral Resources Association, mineral clubs, earth science teachers, and all other interested persons are invited to attend. A small registration fee will be collected at the meeting to cover expenses. For more information contact:

Woodrow Thompson
Maine Geological Survey
State House Station 22
Augusta, ME 04333
(207) 289-7178

**FRIENDS OF THE PLEISTOCENE FIELD TRIP
May 25-28, 1990**

Led by Ralph Stea and Bob Mott

Nova Scotia, Canada is the next venue for the Friends. The trip will focus on the record of the last 120,000 years in Nova Scotia. Organic beds of the last Interglacial and Late Glacial will be highlighted. Of particular interest will be evidence for the Younger Dryas-Allerod climatic oscillation. Twenty four sites have been discovered revealing a widespread organic horizon covered by a variety of sediments relating to remnant glaciers and periglacial solifluction activity. The beds record changing plant communities relating to rapid climatic changes. Debert, a PaleoIndian habitation site, dates from this interval. Climate change during the period from 14,000 to 10,000 years BP is of unique interest to the Quaternary community of North America because of the likelihood of non-orbital forcing mechanisms, and its bearing on the problems of mammalian extinction and the dispersal of early man in North America. Nova Scotia provides a unique laboratory for the study of this important time in the earth's history. For further information contact:

Ralph Stea
Nova Scotia Dept. of Mines & Energy
P.O. Box 1087
Halifax, Nova Scotia B3J 2X1
or
Bob Mott
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario K1A 0E8

**GEOLOGICAL SOCIETY OF MAINE
ANNUAL SUMMER FIELD TRIP**

BAXTER STATE PARK AREA

July 28 and 29, 1990

Dee Caldwell, Boston University
**Geomorphology and Sedimentology
of Northern Baxter State Park**
Saturday, July 28

Steve Pollock, University of
Southern Maine
**Bedrock Geology of the Early-Devonian
Matagamon Sandstone**
(Weather permitting, some stops by canoe)
Sunday, July 29

Lodging will be at the Boom House near Ripogenus Dam and a Saturday evening banquet will be provided. For further information contact:

Bob Johnston
Maine Geological Survey
State House Station 22
Augusta, ME 04333
(207) 289-2801

William R. Holland Memorial Trust Update

William R. Holland, a geologist and friend, was killed in April 1989 in a climbing accident on the Columbia ice fields in Jasper National Park, Alberta, Canada. Bill was a senior geologist with Robert G. Gerber, Inc., and was a long-time member of the Geological Society of Maine. A trust fund has been established in his memory by his friends and colleagues. The purpose of the fund is to provide for the college education expenses of Bill's six year old daughter, Laurel Taggart Holland.

Robert G. Gerber, Inc. has pledged to match, dollar for dollar, the first \$5,000 received by the fund. If friends and institutions contribute \$5,000, Gerber will match that contribution and the fund will total \$10,000. As of February 5, 1990, the fund totaled \$2,542 (unmatched).

Contributions to the trust can be sent to:

William R. Holland Memorial Trust
Robert G. Gerber, Inc.
Attn: Pat Gerber
17 West Street
Freeport, Maine 04032

Checks should be made payable to: William R. Holland Memorial Trust.

The Geological Society of Maine newsletter is planning a memorial issue in honor of Bill Holland and his contributions to geology in Maine. Anyone who has a personal experience, recollection or anecdote about Bill that they wish to share with others should submit it to the newsletter editor. We are also looking for pictures to illustrate the issue. All submissions should be sent to:

Susan Corderman Weddle
GSM Newsletter Editor
11 Beech Drive
Brunswick, Maine 04011



Northeastern Section

March 5 - 7, 1990

Syracuse, New York



MEMBERSHIP DUES STATEMENT

The GEOLOGICAL SOCIETY OF MAINE, INC. 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 dialogue 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 field trips). A newsletter, THE MAINE GEOLOGIST, is published for all members four times a year (more or less), approximately on a quarterly basis starting in September. The Society year runs from August 1st to July 31st. Annual dues and gift contributions to the Society are tax deductible. There are three classes of memberships:

\$7.00	REGULAR MEMBER	Graduate geologists, or equivalent, with one year of practice in geology, or with an advanced degree.
\$6.00	ASSOCIATE MEMBER	Any person or organization desirous of association with the Society.
\$4.00	STUDENT MEMBER	Persons currently enrolled as college students.
\$2.00	APPLICATION FEE	A one-time fee to all new members, payable when applying for membership.

ANNUAL RENEWAL/APPLICATION FOR MEMBERSHIP THE GEOLOGICAL SOCIETY OF MAINE

Regular Member	\$7.00/year	\$ _____	NAME _____ (Please print or type)
Associate Member	\$6.00/year	\$ _____	ADDRESS _____
Student Member	\$4.00/year	\$ _____	(Permanent mailing address & zip code)
Application Fee	\$2.00 one time	\$ _____	_____
TOTAL ENCLOSED		\$ _____	_____

Please make checks payable to: THE GEOLOGICAL SOCIETY OF MAINE, INC.
c/o Michael Foley
Maine Geological Survey
State House Station 22
Augusta, ME 04333

89/90 SOCIETY YEAR STARTED - AUGUST 1st - PLEASE SEND IN YOUR DUES

THE GEOLOGICAL SOCIETY OF MAINE
c/o Arthur M. Hussey, II, Department of
Geology, Bowdoin College, Brunswick, ME
04011.

THE MAINE GEOLOGIST is published four times a year, more-or-less, in early Fall, mid-Winter, Spring, and maybe Summer, for members of the Geological Society of Maine, a non-profit educational Maine corporation interested in all aspects of the geology of the state of Maine.

Correspondence about membership in the Society should be mailed to Michael Foley, Maine Geological Survey, State House Station 22, Augusta, ME 04333.

Items for inclusion in the newsletter may be directed to Susan Corderman Weddle, 11 Beech Drive, Brunswick, ME 04011.

President	Carolyn Lepage
Vice President	Arthur Hussey
Treasurer	Michael Foley
Secretary	Robert Johnston
Newsletter Editor	Susan Corderman Weddle
Postal Chairman	Arthur Hussey

Directors	Ollie Gates
	Steve Pollock
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