

The Maine Geologist

September 1993

Newsletter of the Geological Society of Maine

V.19, No.3

PRESIDENT'S MESSAGE

by
Steve Pinette

Our Summer 1993 Field Trip was a success and for another year we were spoiled by good weather. Our tradition of organizing fine summer field trips is a gem for which we should all be proud. Thanks to Vice-President, Jim Hillier, we had a well organized weekend and great accommodations at Recompence Shore Campground on Wolf's Neck peninsula in Freeport -- complete with organically grown beef burgers from the nearby farm and Jim's version of an industrial meat cleaver. As he has done unselfishly for many previous field trips, Bob Johnston helped with field trip organization and guidebook preparation. Thank you, Bob. I want to thank all of the field trip leaders for their hard work and enthusiasm and for allowing us to share the products of their research. Tom Weddle, Cheryl Marvinney, Mike Retelle, and Kathy Bither led Saturday's trip through the Glacial Marine Invasion of the Lower Androscoggin River Valley. John Creasy gave a solo performance on Sunday detailing the geology of the anomalous Rattlesnake Mountain Igneous Complex. Those of us who attended got treated to both very interesting geology and stimulating discussions.

Next year's field trips will be led by Joe Kelley (marine geology) and Arthur Hussey (bedrock geology) in southern coastal Maine between Portland and Kittery. We have not yet identified a campground to host this event. If you know of a campground in this area that could accommodate us, please contact me.

The University of Maine Department of Geological Sciences is hosting the **Fall 1993 Meeting on Friday, November 5 at 100 Nutting Hall on the Orono campus**. The principal focus of the meeting will be a symposium titled "**Interpreting Maine's Complex Stratigraphy, Structure, and Tectonic History from Bedrock Mapping**". The meeting schedule and other details are presented elsewhere in the newsletter.

Please note that we have initiated the GSM Education Fund Donation "checkoff" approved by the membership at the 1993 Spring Meeting at Bates College. If you want to provide financial support to GSM's educational pursuits, please use the annual dues/donation statement to signify your contribution. During the upcoming year, the education committee will use your contributions for public earth science education outreach, including field trips and workshops. Through our outreach efforts, maybe we can combat the earth science "information asymmetry" (R.S. Raucher, *GSA Today*, July 1993) that exists in our schools and society. In the process, we can dispel some geological myths, such as the effectiveness of water dowsing. Maybe we can get our neighbors and friends to understand the rational basis for some of the environmental decisions they and the state face. Creating a better understanding of geological processes and the uncertainties inherent in some geological interpretations could improve our effectiveness with clients and the public.

We are looking to organize a short course for next spring that will focus on remote sensing in geology and the environmental sciences. If you want to have input in organizing this course or have suggestions for topics and instructors, please contact me soon.

GSM ANNUAL FALL MEETING Friday, November 5, 1993 University of Maine, Orono

The 1993 GSM Fall Meeting will be held on **Friday, November 5** and will be hosted by the University of Maine Department of Geological Sciences. The meeting will be held at **100 Nutting Hall on the Orono campus** (south end of campus). The principal focus of the meeting will be a symposium titled "**Interpreting Maine's Complex Stratigraphy, Structure, and Tectonic History from Bedrock Mapping**". Bob Marvinney of the Maine Geological Survey has organized a fine group of 8-9 to speakers. The symposium promises to provide some stimulating discussions about new revelations and interpretations of Maine's bedrock geology -- an opportunity for some of us to catch up. Dr. E-an Zen from the University of Maryland and former President of GSA will be our evening speaker with a talk focusing on granites of the world. The meeting schedule is as follows:

- 1:00 - 4:30** **Symposium speakers**
100 Nutting Hall
- 4:30 - 5:30** **Annual Business Meeting**
100 Nutting Hall
- 5:30 - 6:30** **Cash Bar**
Wells Commons
- 6:30 - 7:30** **Dinner**
Wells Commons
- 7:30 - 8:30** **Evening Speaker**

Please contact Steve Pinette if you have questions (work: 287-3901; home: 829-4395).

GSM SUMMER MEETING MINUTES JULY 24, 1993

submitted by
Marita Bryant, Secretary

A brief and informal business meeting was held Saturday evening before the cookout at the Recompence Shores Campsites. The following items were discussed.

- 1.) A request by the **Maine Naturalist Magazine** for use of the GSM mailing list to acquire articles for publication was denied because the magazine is not a non-profit organization.
- 2.) Patti Millette brought up the need to revise the certification requirements for earth science teachers in Maine.
- 3.) Tom Weddle and Marc Loisel will continue to compile the GSM Bulletin IV. As of August 30, four articles had been accepted. The final deadline for submission of articles was September 10, 1993.
- 4.) The Fall GSM Meeting will focus on the bedrock geology of plate margins. Bob Marvinney has taken over the organization of the program. Steve Norton and the University of Maine at Orono will host the event.

NOMINATING COMMITTEE REPORT

The nominating committee of Carolyn Lepage, Joe Kelley, and Pat Seaward respectfully submit the following slate of candidates for officers of the Geological Society of Maine:

President: Steve Pinette
Vice President: Jim Hillier
Secretary: Marite Bryant
Treasurer: Marc Loiselle
Newsletter Editor: Susan Weddle
Director: Bob Johnston

GSM SUMMER FIELD TRIP JULY 24 & 25, 1993

by
Marita Bryant

On a warm and sunny Saturday morning, a group of over 40 GSM members, including many families, gathered for the annual summer field trip. The day was spent looking at the glacial-marine deposits that record the retreat of the late Wisconsinan Laurentide Ice Sheet across southwestern Maine. Trip leader Tom Weddle began the day at the Seymour gravel pit in Freeport, where he showed the group an ice-marginal moraine-fan complex that exhibits ice-shove and ice-contact collapse features. The next stop was at the Maine DOT gravel pit south of Lisbon Falls to view distal fan sediments and a reworked Pleistocene nearshore deposit, indicative of the rise and fall of the glacial sea. At the Labbe pit in Brunswick, the group examined another large fan which marks the eastern end of a long, lobate grounding-line moraine complex.

After lunch, co-leader Cheryl Marvinney took over in Durham, where she guided the group to three more large glacial-marine fans. These fans represent successive northward-retreating ice-marginal positions along the western edge of the aforementioned grounding-line moraine.

The final stop was along the Androscoggin River in Lewiston at the Dube, Pike, and Lewiston gravel pits. There co-leader Mike Retelle pointed out sections of an ice-contact glacial-marine delta that had grown from a fan which had aggraded to sea level and prograded southward into the marine basin.

Co-leader Kathy Bither, who contributed to the field trip guidebook, was unable to be present for the trip due to the imminent delivery of son Matthew. Saturday evening the majority of the trip participants gathered for a cookout at the Recompence Shores Campsites, where many spent the night.

On Sunday, an equally beautiful day, a hardy group of about 15 followed leader John Creasy to Raymond and Casco to look at the feldspathoidal rocks of the Rattlesnake Mountain pluton and its associated dike swarms, known collectively as the Rattlesnake Mountain Igneous Complex and belonging to the White Mountain Igneous Province. At Pismire Mountain the group hiked down one of the numerous NE-trending trachyte dikes believed to be the precursors of the ascending magma chamber that produced the syenites of Rattlesnake Mountain. Aside from a brief stop at an exposure of the surrounding granitoid country rock, the remaining stops were on Rattlesnake Mountain itself, to look at some nepheline syenites with bostonitic texture and hybrid syenites.

Thanks to all the capable leaders for another successful GSM summer field trip!

TREASURER'S REPORT For the period 6/5/1993 to 9/9/1993

Beginning balance:	\$4144.99
Income:	
Dues, application fees, etc.	534.00
Publication sales	34.00
Short course registrations (late checks)	1400.00
Summer 1993 field trip	412.55
Miscellaneous	9.00
Subtotal:	\$2389.55
Expenses:	
Summer 1993 newsletter	352.00
Bank service charges	6.00
Short course expenses (late bills)	75.40
Summer 1993 field trip "Nitrogen in the Environment" conference	474.77 200.00
Subtotal:	\$1108.77
Ending balance:	\$5426.37

A note on dues: The Society year begins August 1; a "93" on your newsletter mailing label means you are delinquent in your dues. Please pay your dues promptly.

A note on mailing addresses: Once again I got a half-a-dozen newsletters returned because of unknown addresses or lapsed forwarding orders. Starting with the last newsletter, addresses will be updated but **returned newsletters will not be remailed**; if you want your back copies, send me an envelope with \$0.52 worth of postage.

Submitted by Marc Loiselle, Treasurer

LEGISLATIVE SENTIMENT

In recognition of three recently retired geologists who have made productive and outstanding contributions to Maine geology, the Maine Geological Survey arranged with the Maine Legislature to recognize Phillip H. Osberg, Olcott Gates, and Gary M. Boone for their outstanding geological research in Maine. The Legislative proclamation reads:

"Be it known to all that, We, the Members of the Senate and House of Representatives join in recognizing the above named for the many years of research, dedication and outstanding contributions to the geology of Maine.

And be it ordered that this official expression of sentiment be sent forthwith on behalf of the Legislature and the people of the State of Maine. Given this 16th day of March 1993 at the State Capitol, Augusta, Maine."

This proclamation was signed by Dennis L. Dutremble, President of the Senate; John L. Martin, Speaker of the House; Joy J. O'Brien, Secretary; and Joseph W. Mayo, Clerk. House and Senate representatives from the respective districts of Old Town, Wiscasset, and Shin Pond also signed these documents.

Although these creative men have retired, they continue their research in Maine and produce valuable information on Maine geology.

MAINE GEOLOGICAL SURVEY UPDATE

by
Walter A. Anderson, Director

A special thanks to GSM members and non-members who, during the last legislative session, expressed their vocal and written support of the Maine Geological Survey to the Governor and Legislature. As you know, the MGS and many other natural resource agencies were in line for substantial budget reductions which would have adversely impacted our core programs -- geologic mapping, groundwater, marine and mineral assessments. Because of your efforts, the legislature restored the important USGS/MGS stream gaging program and the groundwater monitoring network. While we remain constrained by a 25% reduction in our overall program, we are making every effort to continue a production level of work and at the same time deliver on heavy demands for technical assistance and information. We are redoubling our efforts to seek out opportunities by expanding existing or developing new partnerships in order to restore and improve our impacted programs. I will keep you informed of our progress. The emphasis for the next legislative session is uncertain at this time; but, we believe that program assessment, restructuring and budget matters will again appear on the state agenda.

GEOLOGICAL SOCIETY OF AMERICA 1993 Annual Meeting, October 25-28 Boston, Massachusetts

The Geological Society of America is holding its annual meeting in Boston, Massachusetts, October 25-28, 1993 at the John B. Hynes Convention Center with hotel headquarters at the Boston Marriot Copley Place. The last national meeting in Boston was in 1952, and the 1993 meeting will most likely be a once in a "professional-lifetime" opportunity to attend a national GSA meeting in our own backyard. There are numerous symposia, special theme sessions, and general discipline sessions scheduled in all geological fields, as well as many special social events scheduled. The central theme of the meeting is Geology and Health, focusing on the "centrality of geological knowledge and education to discussions of human interactions with global and local environments" (quoted from *GSA Today*, Vol. 3, No. 6, June 1993; check that issue and the latest September 1993 issue for more details on registration and events).

Students who are GSA members can apply for travel funds; contact the GSA Northeastern Section Secretary for information and application procedures (Kenneth Weaver; phone 205-934-5102). There also will be opportunities for students to discuss graduate school plans as there will be representatives from over thirty geology departments exhibiting at the meeting.

There are several scheduled field trips to Maine to see the bedrock, surficial, and coastal geology (trips are pre- and post-meeting; see *GSA Today* for details). Like this year's GSM field trip, some of these will be recycled for the future because the trip leaders live and work in Maine; others led by people from away may be prospects for future summer GSM field trips.

The Boston GSA meeting is co-sponsored in part by the Northeastern Section of GSA and by the New England Intercollegiate Geological Conference. The annual NEIGC meeting will be in conjunction with GSA this Fall as a series of co-sponsored field trips. The annual Northeastern Section of GSA, however, will be held March 28-30, 1994, in Binghamton, New York.

GSM Publications Sale

Bulletins:

- No. 2: Shorter Contributions to Maine Geology (1982)
\$5.00
- No. 3: Field Trips of the Geological Society of Maine:
1977-1983 (1983)
- Includes both bedrock and surficial geologic field trips, complete with discussions, references, road logs, and maps.
- Price for members: \$8.00
Price for non-members: \$10.00

Field trip guides:

A limited number of field trip guides to the Society's 1989, 1990, 1991, 1992, and 1993 summer meeting field trips are available while supplies last. The price is \$2.00 for the 1989, 1990, 1991 and 1993 guides, and \$5.00 for the 1992 guide.

1989:

Bedrock Geology of the Southeastern Margin of the Connecticut Valley-Gaspé Synclinorium in Somerset County, Maine, led by Robert G. Marvinney, Maine Geological Survey, Augusta

Late Glacial Stratigraphy of the Northern Kennebec River Valley from Skowhegan to Solon, Maine, led by Harold W. Borns, Jr., University of Maine, Orono

1990:

The Geomorphology and Sedimentology of the Northern Portion of Baxter State Park and Vicinity, led by D.W. Caldwell, Boston University

The Bedrock Geology of the Early Devonian Matagamon Sandstone, led by Stephen G. Pollock, University of Southern Maine

1991:

Field Guide to the Geology and Geomorphology of the Carrabassett Formation and Economic Deposits in Central Maine, led by Lindsley S. Hanson, Salem State College, and Scott A. Sauchuk, Integrated Geosciences, Salem, MA

1992:

The Geology of East Penobscot Bay, Hancock County, Maine, led by Robert G. Gerber, Robert G. Gerber, Inc., and Steven R. Pinette, Maine Department of Environmental Protection

1993:

The Late Glacial Marine Invasion of the Lower Androscoggin River Valley, led by Thomas K. Weddle, Maine Geological Survey, Michael J. Retelle, Bates College, Cheryl L. Marvinney, Maine Geological Survey, and Katherine M. Bither, Robert G. Gerber, Inc.

The Geology of the Rattlesnake Mountain Igneous Complex, led by John W. Creasy, Bates College

Short course notes:

Notes for short course on geophysical methods in water resources exploration, held in the spring of 1993; price: \$10.00

Orders must be accompanied by payment in **U.S. funds**; send orders to

Geological Society of Maine
c/o Maine Geological Survey
State House Station 22
Augusta, ME 04333

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 three times a year. 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**

Application Fee	\$2.00 (one time)	\$ _____	NAME _____
Regular Member	\$7.00/year	\$ _____	
Associate Member	\$6.00/year	\$ _____	
Student Member	\$4.00/year	\$ _____	MAILING ADDRESS _____
Education Fund Donation		\$ _____	_____
TOTAL ENCLOSED		\$ _____	_____

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

1993/94 SOCIETY YEAR BEGINS AUGUST 1 - PLEASE SEND IN YOUR DUES

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

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THE MAINE GEOLOGIST is published three times a year, in early Fall, mid-Winter, and 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 Marc Loiselle, 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.

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|-----------|----------------|
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| | Joe Kelley |

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9/93

Address correction
 requested