

MAINE STATE LIBRARY



SPECIAL ISSUE
GSA - BANGOR

APRIL 9-11, 1981

LIBRARY USE ONLY

GSM WELCOMES YOU TO MAINE, GSA

The Geological Society of Maine is an association of geologists and others interested in furthering the public awareness and understanding of Maine geology; in developing and encouraging dialogue and social contact among geologists working in Maine; and in informing members and the public of current and planned geologic programs in Maine. The Society was formally organized in 1974, and was incorporated as a non-profit Maine corporation in 1977. Membership has historically ranged from around 150 to 200 members, with about 60% Mainers and the rest from widely-scattered U.S. and Canadian addresses.

The Society meets three times a year to hear technical presentations and news of current field programs, and to conduct its business, and also sponsors geologic field trips within Maine and special meetings on subjects of particular public interest. Field trip guidebooks are published for those events, and programs printed for the special meetings. A newsletter, THE MAINE GEOLOGIST, is published four times a year, containing announcements, pertinent news items, and short technical articles on Maine geologic subjects.

MAINE GEOLOGY

The bulletin, MAINE GEOLOGY, was established by the Society in 1977 to make available worthy research relating to various aspects of the geology of Maine. We have to date published one bulletin, containing five papers:

- Metzger, W.J., Stratigraphy and geology of the Bar Harbor Formation, Frenchman Bay, Maine.
- Gerber, R.G., Confined aquifers in glacial deposits in Freeport, Maine.
- Gilman, R.A., Geology of the Burnt Meadow Mountains igneous complex, Oxford County, Maine.
- Caswell, W.B., Maine's inland salt-water wells.
- Kasper, A.E., Jr. and W.H. Forbes, The Devonian Lycopod Leclercgia from the Trout Valley Formation of Maine.

Bulletin No. 1, edited by Arthur M. Hussey II & David S. Westerman, contains 59 pages and 15 black-and-white figures. With only about three dozen copies left, the issue is almost out of print. While they last, however, you may obtain yours from John R. Rand, Cundy's Harbor, RD2-Box 210A, Brunswick, Maine 04011, for \$2.85 plus 15¢ Maine Sales Tax for in-State sales. J. R. Rand also has 10 copies on hand in his room at the Holiday Inn, Main Street, for purchase during the GSA meeting.

Bulletin No. 2, scheduled for publication in

October, has space available for additional papers, and we invite inquiry from those giving papers on Maine subjects at the GSA meeting. Manuscripts should be double-spaced (three copies), should include an abstract and copies of all figures, and should follow the general style of the GSA Bulletin (except use a single column). Contributions will be reviewed by the editors and by specialists in the topic of each article. Details for final preparation of manuscripts will be forwarded to authors following review. Contributions (or inquiries) should be sent to the editors: (either one)

Dr. Arthur M. Hussey II Department of Geology Bowdoin College Brunswick, Maine 04011	Dr. David S. Westerman Department of Geology Colby College Waterville, Maine 04901
---	---

Field Trips '81

The Society's Annual Meeting and field trip weekend is August 1-2, 1981. Don Newberg will conduct a trip in the Gardiner quadrangle on one day, and Dave Westerman will show us Norumbega faulting in the Brooks area on the other. If you join the Society you'll get all the schedule details on trips and meeting in the June newsletter.

...SO SIGN UP TODAY!

Your membership in the Society is invited. There are three categories of membership, including REGULAR: Graduate geologists or equivalent (\$5 per year); ASSOCIATE: Anyone interested in the Society (\$4 per year); STUDENT: College-enrolled students interested in geology (\$2 per year). There is also a one-time \$2 Application Fee for new members. To become a member is really quite simple; merely send your check or money order, payable to The Geological Society of Maine, Inc., to

Frederick M. Beck, Treasurer
140 Main Street
Yarmouth, Maine 04096

MEMBERSHIP APPLICATION THE GEOLOGICAL SOCIETY OF MAINE		
Name _____	Regular	\$5 _____
Address _____	Associate	\$4 _____
	Student	\$2 _____
_____	Application	\$2 _____
Zip Code _____	Total Enclosed	\$ _____

THE MAINE GEOLOGIST

Now you get to the good part, where you don't have to bat at black flies any more, or ruin your eyes trying to take notes in the dim light from the projection screen, or pull a muscle sliding low in your seat when the Nominating Committee looks around for next year's Postal Chairman.

As a GSM member, every 3 months (more or less) you can relax, lay back (sic), take a sip & settle in with the latest issue of The Maine Geologist. Find out if there are in Maine more synformoria (Koons, 1981) than synclinoria. Or, learn how legally to expel your well-water Radon-222 from the kitchen to the atmosphere. And, keep up with the latest crustal subsidence in Quoddy Roads. Read about the meteorite that fell into the can of latex paint near Saco, York County. Be With It in Maine geology: be a regular Maine Geologist reader.

But that's only part of the good part. Maybe the best part is in the opportunity the newsletter offers as a ready, willing, EAGER outlet for your creative needs. Pertinent poems, noteworthy news, caustic cartoons, technical tales from field & lab, all are welcome candi-

dates for publication in The Maine Geologist. With a potential audience of several hundred kindred spirits, you can use the newsletter to tell of something interesting you have stumbled across; or of plans or questions you have that need others' assistance for successful resolution; or of things you're looking for and can't find; of theories you have dreamed up that could never see the light of day in our sober, serious, peer-reviewed technical journals. For the most part, our only peer review for the newsletter is comprised of the editor's unsplitting split infinitives, correcting typos, hyphenating chains of nouns used as adjectives; occasionally, giving sentences missing subjects, verbs or objects. There are a few copies of the April issue scattered around the convention hall. Look for one; read it; send us an article (JRR).

RADIOACTIVE GROUNDWATER

Back on details of the Maine program, Gary Boone outlines the geology of the Hampshire/Quebec boundary with New Brunswick. Radon-222 (Rn222) is a radioactive element derived from the decay of radium-226, in turn derived from uranium-238, a naturally-occurring element in the bedrock of Maine. Radon is not adsorbed or complexed by other substances in the water. It moves into groundwater, it remains in the water until the water is exposed to the atmosphere, where it escapes into the air.

Kirkby (1978b) developed a hillslope hydrology model to express the relationships between rainfall, topography, soil properties, and overland flow. Where overland flow is a small percentage of precipitation, the total annual overland flow contribution, q_{of} , from a point on a hillside can be estimated as follows:

$$q_{of} = R \cdot a \cdot h_c \cdot \phi \cdot (1 + s), \quad (Eq. 1)$$

where R = total annual rainfall
 h_c = daily average soil water storage (e.g., 10 mm on bare ground, 40 mm under grass, 100 mm under forest cover)
 ϕ = infiltration per rainfall, or R/N , where N = raindays per year
 s = shape factor, which for a vertical slope is equal to 1.

MARGARITE IN MAINE

Chuck Guidotti has sent us a note about the spectacular occurrence of the small's Falls formation (at the base of the maine state park) which has been completely replaced by margarite. This should be the first margarite in Maine. For more information on this, you may write to Chuck Guidotti, University of Wisconsin - Madison, or to the editor of the American Mineralogist. A short note on margarite in Maine is available for the phases of exploration and mining involved.

NEW CARBON-14 DATES

We have just received, simultaneously, from Bruce Nelson (Consulting Geologist, Augusta) and a new radiocarbon dates on saltmarsh peat samples, as shown on the following diagram from Barry.

THE PROPOSED MINERALS POLICY FOR THE STATE OF MAINE

Mineral resources are fundamental to modern civilization. Mineral resources have historically been a primary source of economic wealth. Development of this country's mineral resources has involved only a small portion of its land area and may be expected to involve resources small land area in Maine. Mining has impacts on natural and cultural environments. Similarly, Maine's nonrenewable mineral resources have a significant impact on the state's economy and environment. Tax laws have a significant impact on the state's economy and environment. It shall be the policy of the State to encourage the development of these resources will: to enter into and sustain.

THE GEOLOGICAL SOCIETY OF MAINE, INC.

The purpose of this corporation shall be to promote the study of geology in the State of Maine, to publish a newsletter, and to create new employment opportunities for geologists in the State of Maine.

THE MAINE GEOLOGIST is a newsletter published 4 times a year, in September, December, April and maybe June or July, for members of The Geological Society of Maine. Items for inclusion in the newsletter may be directed to J.R. Rand, Cundy's Harbor, RD 2-Box 210A, Brunswick, Maine 04011.

THE GEOLOGICAL SOCIETY OF MAINE

President	Robert G. Gerber
Vice-President	Florencé G. Hoar
Secretary	Archie W. Berry, Jr.
Treasurer	Frederick M. Beck
Director - 1981	Albert E. Eggleston
Director - 1982	Irwin Novak
Director - 1983	Walter A. Anderson
Newsletter Editor	John R. Rand
Assistant Editor	Robert G. Gerber
Postal Chairman	Arthur M. Hussey II