

# THE MAINE GEOLOGIST

THE NEWSLETTER OF THE GEOLOGICAL SOCIETY OF MAINE

OCTOBER 1982

VOL. 9 NO. 1

#### MEETING ANNOUNCEMENTS

TIME - 3:00 PM, FRIDAY, NOVEMBER 12, 1982
PLACE - ROBERTS UNION, 2nd FLOOR
COLBY COLLEGE
WATERVILLE, MAINE

SCHEDULE - 3:00 - 5:00 PM : MINI-SYMPOSIUM

NEO-TECTONICS - DOWNEAST MAINE

5:15 PM : Dinner and Business Mtg.

Association of Engineering Geologists

Maine Subsection Fall Meeting

Look for Early November Meeting

TOPIC: Geology of Seabrook, N.H.

1982 Annual Meeting Held at Machias by Robert G. Gerber, Retiring President

The Annual Meeting of the Society was held at the University of Maine at Machias on August 1, 1982, after dinner and blueberry pie at the local diner. The meeting began with a thank you to the summer field trip leaders, Dave Wones, Marc Loiselle, and Bill Holland, who provided two very stimulating days of field tripping at its best.

The Treasurer's report was read and accepted (see report elsewhere in this Newsletter). Outgoing Treasurer, Fred Beck, transmitted a report that there were 156 members in the Society, including 118 Regular, 18 Associates, and 20 Students. I can't fault Fred's count, but after just updating the list and putting it on the computer, I find that we now have a total of 232 members who are 2 years or less in arrears in paying their dues. The bank balance as of the Annual meeting was \$1147.

The Nominating Committee provided its report and an additional nomination for president was made from the floor before the closing of nominations. The slate of officers that was elected for the coming 1982-83 year follows:

President John Tewhey
Vice President Florence Hoar
Treasurer Robert Gerber
Postal Chairman Arthur Hussey, II
Secretary Archie Berry
Director (1984) Roy Farnsworth
Director (1985) Al Eggleston
Interim
Newsletter Editor Dave Westerman

Since there was no nomination for Newsletter Editor for the full term, Dave Westerman agreed to produce the next issue. It was moved and voted that John Tewhey would be responsible for appointing the Editor to succeed Dave. (Continued on page 2)

#### **FALL MEETING ANNOUNCEMENT**

TIME - 3:00 PM, FRIDAY, NOVEMBER 12, 1982

PLACE - ROBERTS UNION (2nd floor)
COLBY COLLEGE, WATERVILLE, MAINE

PROGRAM - NEOTECTONICS OF COASTAL MAINE
A progress report on the ongoing multidiscipline studies being done to characterize vertical crustal motion on the
Maine coast.

SCHEDULE - 3:00-5:00 PM: Harold Borns, UMO, and Woody Thompson, MGS, will present and moderate a program in which a number of speakers will present the current status of work in the areas of salt marsh stratigraphy, glacial geology, historical, archeological, radiometric and microfossils studies, geodetic leveling and tectonic/seismic activity.

5:15-6:30 PM: Following the technical program, a business meeting and dinner will take place concurrently on the 2nd floor of Roberts Union. Dinner is optional and will be the bill-of-fare for the day from the dining room in Roberts Union.

NOTE: The initial symposium on neotectonic activity of coastal Maine was held at the Northeastern Section Meeting of GSA in April 1981 in Bangor. A substantial amount of work has been done since that time and Hal and Woody feel that it is appropriate to have a follow-up forum.

#### PRESIDENT'S MESSAGE

John D. Tewhey

The responsibility for the delay in getting out the "September" newsletter rests in this corner. There has been ample coordination and cooperation between the outgoing editor, Dave Westerman and the incoming editor, Roy Farnsworth. Both have been waiting for the information on the Fall meeting in order to put the newsletter to press.

In the months since the summer meeting, I've talked to a number of people to get ideas for the year's programs. As of now, a tentative schedule of programs has been developed. Neotectonics of coastal Maine will be the subject of the Fall meeting; deep seismic reflection profiling in Quebec, Maine, New England and the Appalachians will be on the agenda for the Winter meeting; and the Spring meeting will adhere to the tradition of student papers. It was suggested at the Summer GSM meeting (continued on page 2)

## (ANNUAL MEETING REPORT cont.)

Bulletin Editor Art Hussey gave an update on status of the Bulletins. Volume 2 is now being sold. Volume 3 is in preparation and will consist of a compilation of all GSM field trips to date, including this summer's trip. Authors have been given the opportunity to update and edit their trip guides.

Out-going President Gerber told of a June meeting of about 15 geologists who met at the Maine Survey's offices to begin compilation of an atlas of buried valley locations in Maine with supporting data. At that meeting, Gerber took notes and has the responsibility of preparing a draft map of buried valley locations for circulation to interested and knowledgeable parties who would be asked to submit hard data to support or refute the inference of the buried valley locations. The data will be keypunched and stored in computerized format.

With the beginning of the new fiscal year for the Society, members who have not paid their 1982-83 dues should now check their wallets and send their money to the new Treasurer, Bob Gerber, Ash Point Road, South Harpswell, Maine 04079. To determine your dues status, check the year dates placed just after your name on this mailing label. If the numbers 82/83 appear, you have already paid all dues to date; if 81/82 appears, you now owe for 1982-83; if 80/81 appears, you owe for two years. All persons in arrears three or more years have been removed from the membership rolls and will not receive this newsletter. They may get back in good standing by either paying 3 years dues or by starting over with the payment of this year's dues and the \$2 sign-up fee.

Walter Anderson gave a report on the status of Maine Geological Survey activities, which I will not try to duplicate here. Perhaps a summary appears elsewhere in this Newsletter. Of particular interest, however, was the announcement of the appointment of the new state Marine Geologist, Joseph Kelley, who will spend part of his time at UMO and the other part at the Survey office.

It was announced that the 1983 NEIGC meeting would be held in Greenville, Maine, and that volunteers were needed to lead field trips.

There was a discussion about moving the GSM Annual Meeting to the Fall Meeting, rather than holding it during the Summer Field Trips. It was moved, by Westerman and seconded by Farnsworth to make this change, but it was moved by Koons and voted to table the motion until the next meeting, with the provision that a notice be put in this Newsletter to the effect that a vote would take place on this motion at the next meeting. You are now on notice.

No time or place was set for the Fall Meeting. It was left to the new President, John Tewhey, to make the arrangements and agenda for the next meeting.

This being my last chance to report on events that took place while I was President, I have been asked by Editor Westerman to deliver some words of wisdom. Although being President of GSM certainly does not rank along side being President of the United States, or General Motors, it does have its own share of burdens that become tiresome after awhile. Therefore I recommend that the members make frequent elections of a new President to keep the organization moving forward with new ideas. I shall probably only serve as Treasurer for several years as well. -Just long enough to get the membership records and accounting on a computerized basis, so that the job will be that much easier for the next Treasurer. If we could each put in just a few years in one part or another of the management of the Society, it would be that much easier, and probably more interesting, for everybody else. I hope that you will all think seriously about taking on some official role in the Society at some time in the future.

that the three geological societies in the state, i.e., the Geological Society of Maine, the Maine Mineral Resources Association (MMRA) and the Association of Engineering Geologists (AEG), try to come closer together for the good of each society and the profession as a whole. I have spoken to Fred Beck of MMRA and Garrett Morrison of AEG and they agree that more interaction would be beneficial. Putting thoughts to action, the Winter meeting, to be held in January, will be a joint GSM-MMRA-AEG effort. The proposed subject matter, deep seismic reflection profiling is a subject of much current interest to all three societies.

A few notes on the other societies . . . the MMRA Fall meeting in Nov-Dec time frame will feature a report on Russian mining activity and technique by Joe Kowalik, who recently visited the USSR. The notice on the AEG Fall meeting will be put out in late October says Garrett Morrison.

Roy Farnsworth is already thinking about the winter newsletter. Please drop him a line at Bates if you've got an informational or technical article for that issue.

## Geologist Certification: Reciprocity with California Fails!

by Robert G. Gerber, Past Chairman, State Board of Certification

At the Annual Meeting we learned that the planned reciprocity agreement between the States of Maine and California for Geologist Certification did not culminate as reported in an earlier Newsletter. According to Certification Board member Walter Anderson, the agreement was ready to be signed by the California Registration Board, when the California Registration law was changed in a manner that made California Registration requirements incompatible with the Maine Certification requirements. This writer does not know the specifics of the changes that prevented the reciprocity agreement from taking effect. I suggest that future Newsletter Editors ask Geologist Board members Barry Timson, Stephen Norton, or Walter Anderson to contribute articles to this Newsletter from time to time in order to keep the members aware of changes in the Certification process. I understand that the Geologist exam was just re-written so that people who were taking the test for the second time would not have to answer all of the same questions over again.

Another note of interest, related to the Certification process, is that some or all of the Maine Department of Transportation (DOT) geologists refused to renew their Certifications when they came due at last year's end. This occurred because of a dispute between the DOT geologists and the DOT management and the Maine Dept. of Personnel. There is a law which requires each Maine Department who has geologists on the staff to have at least one Certified Geologist and that all geologists in that department who are not Certified shall work as a subordinate to a Certified Geologist. The DOT geologists interpret this to mean that one of their Certified group should be a supervisor of the other geologists and should be paid commensurate with the duties and responsibilities that go with being in this type of responsible position. Apparently, DOT, which is run largely by engineers, does not see things quite this way. Furthermore, the DOT geo-logists have felt very frustrated in trying to work through the Personnel System for changes that they feel are justified and required by law. Although I understand that the DOT geologists did finally renew their licenses, I do not believe that there has been a satisfactory resolution of their grievances with the management of DOT and the Department of Personnel.

### SUMMER FIELD TRIP REPORT

Cranberry phenocrysts and blueberry pie were side-orders of the day on the annual GSM trip Down East.

David Wones and Mark Loiselle put together the first day geological feast. It started in a Brewer parking lot, without coffee and doughnuts (to the consternation of some), but with several appetizing foretastes of things to come. The essence of bedrock geology these days is always plate tectonics of course. For us, the day's menu consisted of the following questions and observations:

1) is the Norumbega fault zone the Acadian continentail suture or not, and if not, then where is the Acadian suture? 2) what is the sense of motion on the fault? All evidence in Maine points to it being right-lateral, but big arm-wavers elsewhere want it to be left lateral to fit in with paleomagnetic data, and supposed continental movements. But even if it is right lateral, it is difficult to explain why the plutons on one side of the fault do not match up geochemically with those on the other. 3) the geochemistry of the Down East plutons does not fit current models of geochemical zoning near a subduction zone (models based mostly on Mesozoic and Tertiary subduction zones around the world)

With such a menu to set the saliva sluicing, we proceeded to the first stop.

First course on the menu was an introduction to the kinds of mashed up mylonitic rocks which are usually associated with fault zones in Maine. We saw for instance the Passagassawaukeag gneiss, sheared so fine that it looked like a vitric intrusive. Thus the name pseudotachylite: tachylite implying igneous, and pseudo implying that we didn't really think it was. We found similar fine-grained rocks in a number of other places on the trip, including an association with a beautifully exposed sheared joint system across the Lucerne granite at stop

For the second course, we had it clearly impressed upon us that the local Bucksport Formation may be equivalent of the Vassalboro north of the Norumbega fault zone. But don't forget that the Bucksport is also equivalent to the Flume Ridge in Washington County. They are all more or less calcareous siltstones. They are, however, to be contrasted to the dark and pyritic nature of the Penobscot Formation, which is equivalent to the Cookson Formation of Washington County. Whether simplification or no, it reminds me of a visit to a chinese restaurant, where the thing to remember is that all chow meins are equivalent. But be sure to note the difference between chow meins and foo youngs. They may even have originated on different plates.

Which brings me to our post-lunch hike up one foothill of Lead Mountain. There was a double object to the exercise. First to work off our lunch (chow maine and foo wones, served in a cemetery). Second to investigate the reverse-faulted juxtaposition of the Bucksport (below) and the Penobscot. David Wones tried unflaggingly to convince us that not only was this a widespread reverse fault, but that it could mark the Acadian suture between the North American and Baltic plates. We were a skeptical bunch however, and decided privately that if the fault trace were a suture at all, it was more likely the boundary between North America and some unassuming little microcontinent.

Third course on our hard rock menu for the day was the characterization of the several large plutons in the area: the Lucerne, Lead Mountain and Cranberry Lakes. They are all very similar in composition, (seriate or porphyritic), trace element composition and isotopic distribution. And they all contain about 5% pretty rapakivi felspars. The last tells of a time quite early in the cooling history of the magma, when the chamber may have blown its top, thereby changing the stability field for precipitation from K-felspar to plagioclase by lowering water vapor pressure.

We brought the field day to a close perusing such phenocrystic points on a Cranberry Lakes pavement by a most delightful stream.

The second day began in style. Bill Holland took us to the grandest gravel pit known to him: The Addison Moraine at Columbia Falls. With the help of he and Hal Borns, we identified layers of sand and gravel, supposedly deposited in a submarine environment right beneath the submerged and melting snout of the ice sheet. These were iron cemented to maintain an extraordinary vertical pit face. What was more spectacular about them however was recumbent folding and thrusting in them caused by over-riding ice. Then there were till sheets interbedded with the sands and gravels. And all overlain by a somewhat sandy Presumpscot and capped by a beach. What an eyeful! This pit is definitely worth many return trips.

At stop 2, amid a temptingly tasty field of blueberries, we found stretches of striated pavement. The striations, if an agreeable pairing could be found, consisted of an early set indicating movement to the south, cut by a later set indicating movement to 15-30°E of S. The blueberries showed only one preferential movement direction--to the mouth. Both points of discussion produced mouth-fulls of comments.

To stop 3, whatever 4-wheel drive vehicle we could muster, took us through a most extraordinary assemblage of ice contact land forms. The bumpy drive came to a stop way in the back of beyond, at an innocent-looking small gravel pit. Its innocence became less apparent when Bill showed us air photographs of the area, in which the ice contact topography leapt out in glorious 3-D, made especially stark by the pacicity of trees. This surely is a text-book tract.

A few miles down the same dirt road, we came to a lonely lake. But what took our attention was a small cut into what Bill's friends from Scandinavia had clearly labelled as "Rogen" moraine, i.e. like the ones near Lake Rogen in Sweden. What was distinctive was the strong orientation of stones in the till and the lack of both ice margin symmetry and drumlin form. Debate was hot on the subject of whether these moraines are special because of ice acting in a certain way, or whether it had more to do with the mechanical properties of the till. There seems to be a lot that a research geologist with mechanical engineering leanings could contribute discussions.

A clear-cut forest is not most people's idea of beauty. But for one feature of this trip, the moraine lobes north of Lead Mountain, it afforded an exquisite view of an exquisitely symmetrical landforms. It was almost as good as the view to be had 12,000 years ago, when, backed by a wall of active ice, these moraines emerged pristine. Bill's problem for this place was how to reconcile an active ice margin at this point, with square miles of dirty rotting ice which we presume to have formed the stunning ice-contact topography of stop 3, some 11 miles to the southeast.

Finally, as if saving the unveiling of his masterwalk in landforms till last, Bill lead us to the Silsby Plain. There again, resplendent without trees (but with blueberries), were a whole series of features in text-book trim. The plain was clearly a proglacial alluvial and delta landform cut by meltwater channels, and only very gently sloping. But rising high above it was a sea serpent of an esker. Knowing no better, you might have said that the esker postdated the plain. But the reverse, of course, must be true.

The scene was impossible to photograph with justice from the ground. But the sea serpent gave a challenge of another kind. Archie Berry tried unsuccessfully to drive his 4WD truck up on its back, while the rest of us tried bravely to stuff one last blueberry down. Bill Holland didn't join us: perhaps he's too tall to bend down, or maybe he's sick of them. by Peter Garrett

## QUOTES

"...Obviously there are no well qualified students of the Earth, and all of us, in different degrees, dig our own small specialised holes and sit in them." Bullard, E.C. (1960), Proc. Vol. 1959, G.S.A.

"Discordant data are the stuff of great discoveries." Press and Siever (1978), Earth, p. 446.

"Too much of the geotectonic literature of the past was concerned with the theses of men rather than with the laws of nature. Speculation that does not lead to further search for facts and laws is idle. Bucher, W.

(conclusion concerning the project to drill to the MOHO) "Geophysicists and geologists dealing with the solid Earth have tended to be conservative in their objectives. Excellent though their projects may have been, no one or group of them could possibly break through to completely new ground. Let us "take the bull by the horns" and find out what this planet upon which we reside is really made of instead of relying on ethereal analogies. This is a courageous project which deserves support. Besides this it fits Revelle's classic definition of good research, it will be fun to carry out."

Hess, H.H. (1959), Trans. Amer. Geophy. Union.

"It has often and confidently been asserted, that man's origin can never be known; but ignorance more frequently begets confidence than does knowledge: it is those who know little, and not those who know much, who so positively assert that this or that problem will never be solved by science."
Darwin, C. (1871), The Decent of Man, and Selec-

tion in Relation to Sex.

"Our intellectual heritage is not a coordinated consistent body of knowledge and methods, it is a fortuitous assortment of highest excellence, tragic mediocrity and vicious fallacy."

Stamm, Sir Josiah

"Geology is a particularly alluring field for the premature attempts at the explanation of imperfectly understood facts." Dana

"Geology has to chose between the rashness of using imperfect evidence or the sterility of uncorrelated unexplained facts." Gregory

"...when you have excluded the impossible, whatever remains, however improbable, must be true."

Doyle, A. Conan, The Adventures of the Beryl Coronet

"The simpler things are, the more complex they get." (old geology adage, as related by P. Osberg)

"All this had taken place before the first age of which we have any geologic monuments and is known only to God and T. Sterry Hunt who has described it most magnificently in his Chemical Researches."

Lesley, in Vol. 1 of the Final Rpt. on the Geology of Pennsylvania

"...and then I realized that life is like a color index. The tendency is to overestimate the percentage of dark elements."

Pratt, M.

"ALLES TOURISTEN AND NON-TECHNISCHEN - Lookens Peepers! Das Machine control is nicht fur gerfingerpoken und mitten grabben, Oderwise is Easy Scnappen der Spriggenwerk, Blowenfuse, und Poppencorcken mit Spitzen-sparken. Der Machine is Diggen by Experten only. Is Nicht fur Gerverken by das Dummkopfen. Das Rubbernecken Sightseenen Keepen das Cottonpicken Hands in das Pockets. So Relaxen und Watchen das Blinkenlights."

"The real time scale of the universe that has been developed by science can be regarded as having liberated the perception of time from the limitations of the human mind."

Anderson, S.L. (1978), The evolution of man, Sci. Amer.

"When the work of the geologist is finished and his final comprehensive report is written, the longest and most important chapter will be upon the latest and shortest of the geologic periods... The changes of each period - its erosion, its sedimentation, and its metamorphism - obliterate part of the record of its predecessor and all the earlier periods, so that the order of our knowledge of them must continue to be, as it now is, the inverse order of their antiquity." Gilbert, G.K. - USGS

"The geologist can not escape dedication to history, and this makes him the epitome of Western man whose tragic sense of life comes from his awareness that he is not absolute and final but a part of nature that comes from somewhere and is going toward somewhere - but who knows where?"

Rene Dubos (1971), in A Sense of the Earth, by David Leveson, Anchor.

"Geology provides the opportunity, the necessity, indeed the obligation of showing the way. As the geologist geologizes, the manifestations of rock - whether textural details that his eye can see and his thumb feel in a hand specimen, or large-scale labyrinths through which he hikes and climbs - all gradually become part of him, intuitive knowledge that lets him know where he is and what he may expect. They form the basis of intimacy that springs up between him and the earth the intimacy that is, after all, his and, ultimately, humanity's major prize."

Levenson, David (1971), A Sense of the Earth: Doubleday & Co., New York.

"It has always amazed me that geologic maps work as well as they do when they have, in fact, been constructed from such a miniscule amount of evidence. What are the chances that one could correctly guess the nature of a jigsaw puzzle made of 10,000 pieces if only allowed to see 100 of them?"

Westerman

"To avoid this grave danger (of a single hypothesis becoming a 'ruling theory' and master of its author) the method of working hypotheses is urged where the conflicts of hypotheses whet the determinative edge of

Chamberlain, T.C. (1897), Jour. Geology

(the granite problem and the method of multiple prejudices) "It may be that the mutual conflicts of prejudicies (of the separate individual authorities) will dull the rabid edge of each, and the communal petrologic mind can eventually reach the truth by this sorry method as surely, if not as directly, as Chamberlain's ideal individual mind."

Bowen, N.L., Progress by mutual recrimination.

"The development of an observational science like geology depends upon the personal experience of individual workers. I suggest that with certain reservations the best geologist is he who has seen the most rocks." (H.H. Read)

"...with a maximum perspicacity as to what he has looked at looked for and looked where." (A.F. Budding-

"...it is less a question of sight than of insight." (N.L. Bowen) in Origin of Granites, G.S.A. Mem. 28

"There are superficial reasoning men who without truly knowing what they see, think they know those regions of the earth which can never by seen, and who judge of the great operations of the mineral kingdom from having kindled a fire and looking into the bottom of a crucible."

Hutton, James (1726-1797)

by Robert G. Gerber

You may have noticed the new look of the mailing label attached to this newsletter. After a slow start in taking over the office of Treasurer, I finally got my act together, put some membership dues in the bank, paid some bills, sent out some Bulletins that had been on order, and brought the membership records up to date. The hardest task, taking some 20 man-hours, was simultaneously bringing the membership records up to date and putting them into a computerized format. The task is now done, however, and it will make life simpler for all members from now on. Each membership record contains the name and address of the member, his membership type and date of joining, his date of last dues payment and amount, and the record of dues payment for each of the last three years. I can easily print summary, up-to-the-minute reports on individual or total membership status. One of the programs sorts the membership list by zip code and prints the mailing labels. On each label is the status of the members dues. At GSM meetings, I will bring a computerized list of membership information, sorted alphabetically by last name, so that attendees can check their status. If anyone finds errors on the mailing labels or status sheets, you should let me know the corrections to apply.

Also in the works is a computerization of the address list and sales records for the Bulletins. This will make sending out notices of future Bulletins quite easy in addition to facilitating the day-to-day accounting of Bulletin sales. Finally, I intend to put all of GSM's financial records on a computerized accounting system. Although the small level of activity in the GSM treasury may not seem to justify it now, it will make status reports and year end reports much easier to generate. The major reason for all this computerization is, however, that I like to play with my computer.

"Fifty percent of everything I tell you is probably false. I just wish I knew which fifty percent it was." anonamous geology professor

"Go my sons. Sell your lands, your houses, your garments and your jewelry; burn up your books. On the other hand, buy yourselves stout shoes, get away to the mountains, search the valleys, the deserts, the shores of the sea, and the deepest recesses of the earth; mark well the distinctions between animals, the differences among plants, the various kinds of minerals, the properties and mode of origin of everything that exists. Be not ashamed to learn by heart the astronomy and terrestial philosophy of the peasantry. Lastly, purchase coals, build furnaces, watch and experiment without wearying. In this way, and no other, will you arrive at a knowledge of things and of their properties."

Sevarinus, Petrus (1591), Danish Professor of Poetry, Meteorology and Medicine

"Learn the ABC of science before you try to ascent to its summit. Never begin the subsequent without mastering the preceding. Never attempt to screen an insufficiency of knowledge even by the most audacious surmise and hypothesis. Howsoever this soap-bubble will rejoice your eyes by its play it inevitably will burst and you will have nothing except shame."

Pavlov (1936), Bequest of Pavlov to the Academic Youth of His Country.

"The practice of geology is an art which requires the scientific or logical application of chemistry, physics, mathematics and common sense to be successful. For those fortunate persons who are members of the profession, there is rarely any question that it is the most satisfying way of life on earth".

John R. Rand (1959), Commercial rocks and minerals of Maine.

## M.G.S. NEWS

by Woodrow B. Thompson

The Maine Geological Survey, with funding provided by the Maine State Low Level (Radioactive) Waste Siting Commission, is studying areas within the state suitable for a low-level radioactive waste disposal site. Under a Federal law passed by Congress in 1980, the states must assume responsibility for low-level waste generated within their borders, effective January 1, 1986. Maine is considering several options, including joining with other northeastern states to establish a regional compact. Under a state law establishing the Siting Commission, the State Geologist was given the task of reporting on areas in the state geologically suitable for a waste site. The MGS is using existing geologic and hydrologic information to screen out areas with unsuitable characteristics (such as an insufficient thickness of surficial material or proximity to a sand and gravel aquifer). This initial screening is being done on a scale of 1:250.000. Areas with no unsuitable characteristics may then be examined on a more detailed level if it becomes necessary to more fully develop a potential site. The study will be completed in November. For more information on the issue of low-Tevel radioactive waste and a copy of the Interim Report prepared by the State Low Level Waste Siting Commission, contact Representative Judy Kany, State House, Augusta, Maine, 04333.

The Maine Geological Survey is close to finishing a comprehensive open-filing system for its maps and reports. Previously, certain reports and maps were available only in very rough draft, containing maps and photos that would not reproduce well. These problems have been corrected, and a complete listing of about 500 open-file products will be available from the Survey by early October. Following the U.S.G.S. format, an open-file number has been assigned to each map or report. This will facilitate formal citation of the reports that are referenced in other publications. Copies of individual maps will continue to be sold as they have been in the past, and written reports will be available to the public for the cost of reproduction. It is hoped that this system will greatly increase public awareness and availability of all the Survey's open-file products.

#### Geological Society of Maine Treasurer's Report

as of July 31, 1982 - Submitted by Fred M. Beck

Paid-up memberships (total 156):
Regular 118
Associate 18
Student 20

Members with dues paid through 1982-83 28 Members with dues paid through 1983-84 3

Receipts:
 Balance over from 3-11-82
 Dues and Application fees
 Bulletin #1 & #2 379.70
 Interest on NOW account
 Total Receipts \$562.55

Total Receipts \$\sqrt{\$562.55}\$\$ \$1451.77

Expenditures:
4/1/82 F.M. Beck (Reim. Exp) \$ 10.11
4/1/82 R.G. Gerber (Reim. Exp) 66.58
5/11/82 F.M. Beck (Reim. Exp) 27.29
5/11/82 J.H. French (Newsletter) 133.88
5/11/82 R.G. Gerber (Reim. Exp) 31.65

\$889.22

5.00

9.00

20.78

\$304.29

\$1147.48

5/11/82 B. Weed (check returned)
5/25/82 Helen Saunders (typing)
7/21/82 F.M. Beck (Reim. Exp)
Total Expenditures

Bank Balance on-hand 7/31/82

#### **MEMBERSHIP DUES STATEMENT**

THE GEOLOGICAL SOCIETY OF MAINE, INC. is a non-profit Maine corporation established as an educational Society to advance the professional improvement of its members; to inform its members and others of current and planned geologic 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 geologic processes which affect the Maine landscape and the human environment.

The Society holds three meetings each year, in the late fall, early spring and (with the Annual Meeting and sometimes field trips) in mid-summer. 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 annual memberships:

- \$5 REGULAR MEMBER Graduate geologists, or equivalent, with 1 year of practice in geology, or with an advanced academic degree in geology
- \$4 ASSOCIATE MEMBER- Any person or organization desirous of association with the Society
- \$2 STUDENT MEMBER Persons currently enrolled as students in college who are interested in geology
- \$2 APPLICATION FEE A one-time fee to all new members, payable when applying for membership

ANNUAL RENEWAL or APPLICATION FOR MEMBERSHIP - THE GEOLOGICAL SOCIETY OF MAINE

NAME	Regular Member \$5 per year \$
(Please print or type)	Associate Member \$4 per year \$
ADDRESS(Permanent Mailing Address)	Student Member \$2 per year \$
	Application Fee \$2 One-time \$
	TOTAL ENCLOSED : \$
Zip Code	MAIL TO: ROBERT G. GERBER, TREASURER Ash Point Road
Please make checks payable to:	South Harpswell, Maine 04079

THE GEOLOGICAL SOCIETY OF MAINE, INC.

## 82-83 SOCIETY YEAR STARTED AUGUST Ist - PLEASE SEND IN YOUR DUES

THE GEOLOGICAL SOCIETY OF MAINE c/o Arthur M. Hussey, Dept. of Geology, Bowdoin College, Brunswick, Maine 04011

THE MAINE GEOLOGIST is published four times a year, more-or-less, in early Fall, late Fall, late Winter, and maybe June or July, 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.

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