

The Granite State Geologist



Newsletter of the New Hampshire Geological Society

Suite 133 * 26 South Main Street * Concord, NH 03301

Number 1 * March 1992

President's Message

Dick Lane

This past year was a great year for the New Hampshire Geological Society. Incorporated on Oct. 24, 1990 the Society has grown to over 100 members. The membership is diverse, representing a broad spectrum of disciplines and interests. Affiliations include consultants, governmental agencies, academia, self-employed, students and others. They all have one thing in common, an interest in geology.

Highlights include the election of officers, quarterly dinner meetings with guest speakers, a field trip to the Palermo mine, establishment of committees, and publication of our first newsletter. With the organizational structure in place, it is time to focus on the purpose of the Society. That purpose is to disseminate knowledge on New Hampshire geology, to contribute to public education on geology, to promote public awareness of geology and to strengthen the role of geology in the environmental concerns of the state. The Society's first priority should be to keep its members informed. The Board will establish a committee to monitor existing and proposed legislation that had geological significance or could potentially impact the geological profession in New Hampshire. Input from all members will be needed.

These are tough times with large cuts in state and federal budgets, with economic hardship in the private sector, and with State Geological Surveys on the chopping block. It is critical that all members make an effort to become better informed on state budget problems, on professional registration, on complex environmental issues and other matters related to geology. I believe that the Society can make a significant contribution to geology in New Hampshire. To be a viable and active organization, all members must be involved. We encourage and need comments, input and criticism from the membership. As a strong and united group, we can make a difference.

I wish to express my thanks to all the officers and members who have made the Society a success.

About the Newsletter

Tim Allen

The newsletter should serve to keep the membership informed about the Society and about geology in New Hampshire. With that in mind, in this premiere issue you'll find:

- a welcome message from the Society president
- a historical note from Linc Page
- the Membership Committee Report
- the Treasurer's Report
- Help Wanted

- announcements for upcoming meetings

The NHGS is a member organization, and your involvement is important. In addition to your service on one of the committees, your contributions of articles, editorials and news-bits to the Society's newsletter are needed. These contributions might include:

- opinion pieces, controversial or otherwise
- humorous stories
- historical anecdotes
- technical articles

You can help shape future issues with your comments, suggestions, ideas or by helping edit and publish the newsletter (call Tim Allen 603-646-3356).

Name This NewsLetter

We're looking for an official title for this publication. This is your newsletter, so you get to choose the name. Some ideas:

- New Hampshire Geological News
- The New Hampshire Geologist
- The Granite State Geologist
- Granite and Glaciers
- NHGS Bulletin, News Bulletin, NewsLetter,...

What's your favorite? Or can you think of a better title? Submit your suggestions at the next meeting (see the announcement inside).

The New Hampshire Highway Department's Gravel Survey of 1930

Lincoln R. Page

In the spring of 1930 Professor James W. Goldthwait of Dartmouth College, then State Geologist (I believe), offered me a job as geologic assistant on the N.H. Highway Department's Gravel Survey. I was surprised because I was not majoring in geology but rather in chemistry and had taken mineralogy to learn the source of the compounds in the lab. After some thought I gave up the offer to help Charlie Proctor look for what is now the Sun Valley Ski Resort and started to study rocks in preparation for making stone counts.

Early in July Richard (Dick) Lougee met me at my home in West Benton and we started mapping the sand and gravel in the Connecticut and Androscoggin Valleys. Professor Goldthwait and his son, Richard (Dick), mapped the area from the White Mountain divides south to the sea and west to the Merrimack. Professor George White of UNH and Seth Lamson of New London had mapped the area between the two rivers. For the last 2-3 weeks of the summer I became "boss" and Seth the assistant. (I received \$4.50 per day; Seth, \$5, because his uncle was Commissioner!) He and I mapped in the Keene-Newport area.

Everyone used the same system--the "boss" had the "new" 15-minute topographic map together with yellow (sand), orange (gravel), and green (till) pencils and mapped as the assistant drove 20 miles/hour down all passable roads. When the "boss" couldn't see gravel in the roadcuts, at the base of telephone poles, or in woodchuck holes, we would stop. The assistant dug 18" holes with a trench shovel; if all gravel, it was mapped as gravel one yard deep, otherwise sand, or till. In critical places we went into the brush to map deposits and stream channels.

At each pit we estimated yards of gravel, type, etc., took stone (or pebble) counts, and filled out a sheet with all the details needed by the engineers. Richard Flint of Yale had just published his thesis on ablation as the main process of retreat for continental glaciers; Prof. Goldthwait at the time believed the ice front retreated from southeast to northwest, sort of like a mountain glacier front. Goldthwait, being a true scientist, said "I don't believe it, but to be sure we find everything, melt the ice down from the top and then back from the southeast." Thus, every night was spent doing just that, to locate marginal stream valleys and stratified deposits. The next day we checked all those deposits for gravel and sand.

Most of the state was covered that summer. The assistants were changed every couple of weeks, so we were educated by each "boss." Lougee (and Antevs) taught varved clays, delta tops, lake levels, and pot holes, as well as marginal channels and deposits. Goldthwait emphasized stone counts and rock fans, deltas in marginal lakes, eskers, and sea level relationships. White taught us about the Great Lakes glacial history, boulder and sand deposits, and the difference between deposits formed on low relief as against those on high relief areas to the north. Ernst Antevs visited the party and I had two days of measuring varves in the Connecticut Valley under his direction.

I was told this survey cost \$6000. On my first visit to the Concord office I overheard a contractor saying to the commissioner that, "if the gravel is where the professor says it is, I'll cut my price by \$10,000." I was told he did just that! A concrete example of the value of geologic maps--they are still useful! One more comment about cost--about 5 years later I was paid \$75 and provided maybe \$25 in expense money to make a surficial map of the Rumney quadrangle with Lawrence Goldthwait as my assistant. The 1930 maps were the basis of the later NH State Map of Surficial Deposits prepared by the Goldthwait boys in memory of their father, who steered me to become a geologist.

Membership Committee Report

Ray Talkington

The purpose of the committee is to solicit new members, maintain lists of active and non-active members and individuals contemplating joining the Society. At present (March 6, 1992) our membership consists of 117 active members and no non-active members. The breakdown in members by category is: 113 Full Members and 4 Student Members.

The membership is made up of individuals from seven states around the United States and represents government, industry, academia, and the consulting industry. As expected our membership is principally active in the environmental and hydrogeological fields.

The membership committee consists of two persons: Raymond Talkington and William Gibbons. However, in order to keep us strong and growing, we should all consider ourselves part of this committee.

If you have any questions regarding the membership list or the committee, please contact Ray Talkington at (508) 692-1913.

Treasurer's Report

Thomas C. Shevenell

The following table summarizes the income collected and expenses incurred through March 1, 1992. All the monies collected to date have been allocated to the Current Fund. The Current Fund is used to pay the general operating expenses of the Society. To date no other Funds (such as an Education Fund, Research Fund, Endowment Fund, etc.) have been established. The Society has established a checking account and a savings account, both at the Olde Port Bank in Portsmouth, New Hampshire.

The financial position of the Society is excellent in that expenses to date have been paid with revenues from the meetings, student memberships and interest collected. This has allowed for the use of the first full-membership dues to create working capital for the Society. This financial position will allow the Society to use the subsequent funds received from the annual memberships for activities which will benefit the general public.

The Board of Directors of the the Society have established a Finance Committee. The activities of this committee are as follows:

1. Provide oversight to the Society's financial transactions by the Treasurer at the direction of the Board of Directors.
2. Prepare annual budgets for the Society activities.
3. Review annual balance sheet and statement of expenses and income for presentation at the Annual Meeting of the Society.
4. Prepare IRS and State of New Hampshire filing documents for submittal by the Society.
5. Review and provide advice for other financial activities of the Society.

Anyone interested in being on the Finance Committee should contact me at the next meeting.

TREASURER'S REPORT for the CURRENT FUND (through March 1, 1992)

INCOME

Memberships	
113 Full	\$2,260.00
4 Student	\$40.00
Meetings	\$5,180.00
Interest And Misc Income	\$133.17
Total Income	\$7,613.17

EXPENSES

Meetings	\$4,457.66
Insurance	\$173.00
Post Office Box	\$99.00
Certificates	\$269.00
Postage	\$260.09
Office Supplies	\$56.21
Incorporation Fee	\$25.00
Professional Services	\$133.00
Bank Charges	\$7.95
Total Expenses	\$5,480.91

CURRENT FUND BALANCE	\$2,131.26
Savings Account	\$1,999.63
Checking Account	\$400.94
Accounts Payable	(\$266.21)

Help Wanted

Get involved with your New Hampshire Geological Society! Be an active, contributing member. There are openings for members to serve on the following committees:

- Finance: see the Treasurer's Report, above.
- Membership: see Committee Report, at left.
- Program: plans and organizes the speakers, programs and menus for Society meetings. Speakers are always needed--if you have a talk to present, or if there is a topic that you would like to hear about, please let the Program Committee know (call Joanne McLaughlin at 603-224-7979).
- Education: develops geologic educational programs for schools and the general public. This committee will hold its kick-off meeting immediately following the Society's quarterly meeting on April 9. Presently,

only three people are on this committee--if you are at all interested in the mandate of this committee, please attend this meeting or call Bob Luhrs at 603-880-6962.

- Legislative Watch: monitors local, state and federal regulatory agencies and law-making bodies for items of interest to the New Hampshire geological community. This committee has a big job to do, and we desperately need input and help from all members. Regular updates will be made to the membership both at the quarterly meetings and through this newsletter. Please help keep us all up-to-date by sharing any information you may have regarding these issues (call John Cotton at 603-225-4681).
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NHGS News and Events

- Please make a note of the Society's New Mailing Address, below.
 - The Spring Meeting will be on Thursday, April 9, 1992 (Cash Bar @ 6, Dinner @ 7) at the Howard Johnson's in Nashua (Exit 5E off the Everett Turnpike). Call Joanne McLaughlin (603-224-7979) for more information.
 - The New Hampshire Geological Society's Annual Meeting will take place on Thursday, October 8, 1992. Elections will be held for the 1993 Board of Directors; all members are urged to attend and cast their vote. Nominations for the 1993 Officers and Directors will be solicited in June along with this year's annual Membership Renewal; the candidates will be announced at the August 1 field trip. Only members can nominate or be nominated for the board. Volunteers to coordinate nominations and the election are needed--any member interested in working in this capacity cannot be a current Board member nor be considered for nomination. Please contact any Board member if you wish to serve on the nominating committee.
 - The Yankee Section of the American Institute of Hydrology (AIH) and the US Army Cold Regions Research and Engineering Laboratory (CRREL) will host a Conference on Trichloroethylene Contamination on June 23, 1992, at CRREL in Hanover, NH. The morning sessions will focus on a TCE contamination problem at CRREL, including a tour of the facility. Afternoon sessions will include a discussion of soil chemistry and volatile organic compounds in general, as well as case histories of TCE-related groundwater problems in the New England area. The registration fee is \$20 (includes lunch) until June 1, \$30 thereafter. Registration forms are available from W. Brad Caswell at Caswell, Eichler & Hill, Route 1, Box 36, West Topsham, VT 05086.
 - Tentative plans for this summer's Field Trip take us to look at the Ossipee Mountains Ring Dike Complex, with a family picnic at Ellacoya State Park in Gilford. The trip is definitely planned for August 1, 1992, so mark the date on your calendar, and look for more information in the June mailing.
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