

Granite State Geologist

The Newsletter of the Geological Society of New Hampshire, Winter-Spring (March) 2008 Issue No.60 www.gsnhonline.org

2008 GSNH Officers:

President –Jutta Hager Hager GeoScience Woburn, MA hgi@hagergeoscience.com

Vice President-Council – Mike Burke JGI Eastern/Terracon mburke@jgieastern.com

Vice President –Society - Lee Wilder Colby-Sawyer College New London, New Hampshire lwilder@colby-sawyer.com

Secretary – Doug Allen Haley & Aldrich Manchester, New Hampshire dallen@HaleyAldrich.com

Treasurer – Rich Moore US Geological Survey Pembroke, New Hampshire rmoore@usgs.gov

Past-President – Julie Spencer Westford, Massachusetts jspencer@ensr.aecom.com

Members-at-Large:

Paul Rydel Sanborn, Head & Associates Concord, New Hampshire prydel@sanbornhead.com

Ralph Wickson NHDES Waste Management Division Concord, New Hampshire revickson@des.state.nh.us

Membership:

Doug Allen Haley & Aldrich, Inc. Manchester, New Hampshire dallen@HaleyAldrich.com

Website:

Rich Mechaber webmaster@gsnhonline.org

Newsletter:

Bettina Eames Loureiro Engineering Associates Merrimack, New Hampshire beeames@loureiro.com

WELCOME SPRING!

- GSNH 2008 Summer Field Trip First Announcement
- Winter 2008 and Spring 2008 GSNH Dinner Meetings
- Message from the President
- 2nd New Hampshire Annual Water Conference
- Remembering Gene Boudette Part II
- New Science Publications of Interest
- Capital Mineral Club News
- NHGS Fall and Winter Groundwater Levels
- Area Science Activities and Events
- Earth Science in the Movies and Much More!



Photo: Lighthouse, Isles of Shoals, Source: picasaweb.google.com

GSNH 2008 GEOLOGY SUMMER FIELD TRIP - FIRST ANNOUNCEMENT

Keep your calendar clear for Sunday, July 13, 2008! Your GSNH Board of Directors is in the process of organizing a geology field trip to the Isle of Shoals with Walley Bothner of the University of New Hampshire. Walley will share his wealth of experience on the bedrock geology of this archipelago of 9 islands situated approximately 6 miles off the New Hampshire and Maine coast. The field trip will specifically focus on the geology of Appledore Island which is rich in both nautical and geologic history. We invite you to accompany your GSNH colleagues as we make a number of field stops designed to allow a full interpretation of the complex geologic structure of the island. In addition, we are planning a visit to Celia Thaxter's garden and the Shoals Marine Laboratory, both located on Appledore Island. More information on the Field Trip will be provided via email to the GSNH membership in the near future. Let's hope for wonderful warm summer weather! It's never to early to start thinking about summer.

WINTER 2008 AND UPCOMING SPRING 2008 GSNH DINNER MEETINGS

On January 10, 2008, Dick Boisvert, New Hampshire's State Archeologist presented a talk entitled "New Hampshire Paleo-Indian studies from a geological perspective" at the Winter 2008 GSNH dinner meeting at the Cat-n-Fiddle Restaurant in Concord. We had a large turnout and thanks to all who made it. No snow this time! Dick's talk reminded us that the scant amount of data on the Paleo-Indian occupation of New Hampshire is lithic in nature and all of the sites are embedded in late glacial to early Holocene contexts. He reminded us that the archaeology of this period leans heavily on geological data. After the usual delicious dinner we had our traditional raffles - Vinnie DeHoRusso won the talc specimen and George Mavris won a copy of the new book "Maine's Fossil Record".

On Thursday, April 10, 2008 at the Cat-n-Fiddle in Concord, Dr. Jonathan Kim of the Vermont Geological Survey will present a talk entitled "Application of Tectonics to Groundwater Problems in Vermont". His talk will focus on the causes of naturally-occurring groundwater problems in Vermont and their relation to early Paleozoic tectonic events that affected the New England Appalachians. Few would suspect that the tectonics driving ancient rift basins, subduction zones, and unconformities would be a factor in modern groundwater contamination. This talk will focus on two current projects at the Vermont Geological Survey where tectonics are an integral part of the groundwater story.

Message from the President Submitted by Jutta Hager, Hager GeoScience, GSNH 2007-2008 President

For a change there was no snowstorm on our meeting date, and January 10th dinner meeting gave us the opportunity to listen to Dick Boisvert's presentation on the geological perspective of New Hampshire Paleo-Indian studies. The talk made it clear that although Dick masquerades as the NH State Archaeologist, he has spent enough time with geologists that he is fluent in our language as well as his own. The only downside of his excellent talk was that he'll have to prepare a new one is he is to remain our backup speaker!

Maine's Fossil Record, Lisa Churchill-Dickson's book published through the Maine Geological Survey, was such a hit at the raffle that we're thinking of getting another copy for a future raffle. Of course this time we probably won't get a signed copy.

The death of Gene Boudette in November was still fresh in our minds, and we spoke of his contributions and our memories of him.

As noted elsewhere in the Newsletter, Jon Kim of the Vermont Geological Survey is confirmed for his tectonics-groundwater talk at our April 10th meeting. This should be a good preparation for the following week's (April 16th) the 2nd Annual New Hampshire Water Conference. Also upcoming will be updates on the GSNH summer field trip and next fall's NEIGC.

Don't forget to check out news and information on our streamlined website. In the future we hope to develop an on-line dinner reservation system to make it easier to sign up for the meetings.

SECOND ANNUAL NEW HAMPSHIRE WATER CONFERENCE

The Second Annual New Hampshire Water Conference to be held on April 16, 2008 at the Grappone Center in Concord, NH. This year's theme will be Science, Policy, and Management of Water in New Hampshire. The 2008 conference committee is working on developing

sessions and a call for abstracts will be issued soon. Sessions will be organized around the following topics: Water, land use, and policy, Groundwater withdrawal issues and management, Water supply: resource assessment, usage, and needs and Flood forecasting, planning, and response. The first New Hampshire Water Conference in 2007 drew over 200 people, including researchers, legislators, water system operators, land use planners, and government officials and we expect a larger turnout in 2008. Visit the conference Web site for updates. For more information contact conference Chair Kevin McGuire, Assistant Professor of Hydrology, Center for the Environment, Plymouth State University and Northern Research Station, USDA Forest Service, kmcguire1@plymouth.edu or conference Co-chair David Wunsch, State Geologist and Director of New Hampshire Geological Survey, NH Department of Environmental Services, dwunsch@des.state.nh.us.

REMEMBERING GENE BOUDETTE PART II



As mentioned in the last issue former state geologist Dr. Eugene (Gene) Boudette passed away recently. Many members sent in personal reflections on their friendship with Gene and his many contributions to geology and science. These reflections were published in the previous issue. Some of you may remember, Gene gave two interviews for the GSNH newsletter in two parts one in 2000 and a second in 2001. If you would like to read these past articles and re-read about Gene's fascinating geological GSNH endeavors. please ao to the website http://www.gsnhonline.org/publications. Look at Issue 31 (Fall 2000) and Issue No. 34 (Summer 2001).

NEW SCIENCE PUBLICATIONS OF INTEREST

Well...What's All That Drilling About? By Andrew Stone and Jessica Bryan, Illustrated byRachel Pender (a children's storybook about well drilling), Reading Level: Grades 3-6, Water Well Awareness: K thru 6. 40 pages, 27 pictures, 28 term glossary, 2007. This storybook is a full-color illustrated narrative about two children watching the drilling of a home's water well and the installation of a water pump. In dialog with the well drillers, the children develop an understanding of the process and equipment used to make the well and how water is brought from the ground to the house. A glossary at the end of the story adds explanation of water well drilling specific words. The illustrations are watercolor and black pen. The book can be purchased and picked up at 16 Centre Street, Concord, New Hampshire for \$7.95 each or go to http://www.agwt.org/index.htm.

Maine's Fossil Record – The Paleozoic. By Lisa Churchill-Dickson, 500 pages (175-black-andiwhire fossil photos). Published by the Maine Geological Survey, this 500-page book is the most comprehensive treatise on Maine's bedrock fossils ever published. It is a standalone reference for the Maine'e Paleozoic paleontology for the layperson or professional geoscientist. Contact the Maine Geological Survey, Department of Conservation, 222 State House Station Augusta, Maine by calling 207-287-2801. Price hardcover (\$40.00 plus \$2.00 sales tax) or soft cover (\$30.00 plus \$1.50 sales tax).

Under New England - The Story of New England' Rocks and Fossils. By Charles Ferguson Barker, 72 pages, in full color 8.5 inches by 11 inches. Available April 2008. Published by University Press of New England. Explores the geology of New England in a colorful and kidfriendly format. For readers ages 7 to 12.

NEWS FROM THE CAPITAL MINERAL CLUB

April 10 - 13, 2008 Rochester Mineralogical Symposium, Rochester, NY. Radisson Hotel, Rochester NY. 301-294-1640, fax 301-294-0034, info@intergem.com, www.intergem.com.	July 26-27, 2008 Burlington, VT - 29th Annual Champlain Valley Gem, Mineral and Fossil Show, Sat. 10-5, Sun 10-5, Tuttle Middle School, 500 Dorset Street, South Burlington, VT
June 28-29, 2008 Gilsum, NH - 44th Annual Rock Swap, Gilsum Elementary School and Community Center. Jane Robert Mitchell rmitchell60@gmail.com, 603-357- 9636	September 27-28, 2008 Concord, NH—45th Annual Gem and Mineral Festival presented by the Capital Mineral Club, Sat. 9-5, Sun., 9-4, Everett Arena, Concord, NH, Adults – \$4.00, 12 and under free.

NHGS FALL AND WINTER GROUNDWATER LEVELS

Ground-water level measurements for November 2007, December 2007, January 2008 and February 2008 were collected by NHGS staff members Genevieve Al-Egaily and/or Kristen Svendsen.

<u>November 26 - 30, 2007</u>: The statewide average ground-water level showed a 0.64-foot increase from October. When compared with November 2006, the statewide average ground water level decreased 1.79 feet. Decreases were seen in all wells when compared with November 2006.

<u>December 24 - 28, 2007</u>: The statewide average ground-water level showed a 0.01-foot increase from November. When compared with December 2006, the statewide average ground water level decreased 0.98 feet.

<u>January 23 - 25, 2008</u>: The statewide average ground-water level showed a 0.27-foot increase from December. When compared with January 2007, the statewide average ground water level decreased 0.92 feet.

<u>February 25 - 27, 2008</u>: The statewide average ground-water level showed a 0.60-foot increase from December. Increases were seen in all wells except for the deeper Albany well and the Concord airport well which had decreases of 0.13 feet and 0.12 feet respectively. When compared with February 2007, the statewide average ground water level increased 0.45 feet.

If you would like to view historical groundwater data, please go to http://nh.water.usgs.gov/WaterData/2007/dec07gwmap.htm.

ITRC INTERNET-BASED MARCH 2008 TRAINING CLASSES

The Interstate Technology & Regulatory Council (ITRC) offers a wide variety of training courses on innovative environmental technologies and approaches specific to the areas of site characterization, monitoring and remediation as well as other environmental topics. ITRC's training courses consist of *free*, web-based internet seminars. The seminars consist of slide

presentations with a companion audio portion and can be accessed either by phone line or streaming audio simulcast. The upcoming offerings in March 2008 are as follows:

Upcoming ITRC Training Classes

Date	Topic	Time (EST)
Manak 40, 0000	arch 13, 2008 Real-Time Measurement of Radionuclides in Soil	11:00AM-1:15PM EST
March 13, 2008		15:00-17:15 GMT
March 18, 2008	Evaluating, Optimizing, or Ending Post-Closure	2:00PM-4:15PM EST
	Care at Municipal Solid Waste Landfills	18:00-20:15 GMT
March 25, 2008	Survey of Munitions Response Technologies	2:00PM-4:00PM EST
		18:00-20:00 GMT

To register for an ITRC training class today go to **www.itrcweb.org** or go directly to **http://clu-in.org/studio/seminar.cfm#upcoming** (you may need to scroll down to find the class of interest).

AREA SCIENCE ACTIVITIES AND EVENTS

Looking for things to do in the area with kids? You might be interested in checking out *The Little Nature Museum Programs 2008 Season*. Events are held on Saturdays at the community room in Hopkinton at the town library from 1:30 to 2:30 PM. Admission is free but donations are most welcome! For more details on the Little Nature Museum go to *www.littlenaturemuseum.org*. Talks and presentations may be canceled or rescheduled due to weather so call 746-6121 for cancellations: Two upcoming talks/presentations which might be of interest (Bring the Kids!) are listed below:

March 29, 2008 - **Mount Washington Observatory**. Bitter cold, dense fog, heavy snow, incredible weather with Michelle Cruz, Outreach Coordinator, Mt. Washington Observatory. Through images, demonstrations, and a video clip of a typical day atop Mt. Washington, you'll find out more about the weather that surrounds it as well as how meteorologists of the Observatory conduct daily operations in these extreme conditions.

April 19, 2008 - *Dig into the Past:* The Mystery of the Sites...a children's archeological program with Sheila Charles, M.A., historic and archaeological research consultant and Strawberry Banke archeologist in a hands-on and interactive introduction to archaeological research. Participants will be introduced to methods and concepts of archaeology, view an entertaining media presentation of an actual archaeological investigation and handle real artifacts in an attempt to solve the Mystery of the Sites.

UPCOMING EVENTS AND DATES TO REMEMBER

March 27 - 30, 2008 - *National Science Teachers Association Conference, Boston, MA.*. For more details go to *http://www.nsta.org/conferences/2008bos_*

April 5, 2008 - Association of Engineering Geologists, New England Chapter, Spring Engineering Symposium, Boston College, Chestnut Hill, Massachusetts.

June 23 - 24, 2008 – National Groundwater Association Conference on Eastern Regional Groundwater Issues, Ronkonkama, New York. For more information go to http://www.ngwa.org.

June 2008 - 8th Annual New Hampshire Geological Survey Geologic Mapping Workshop, DES Office, Concord, NH. Exact date and time to be provided in next newsletter.

October 12 - 18, 2008 - Earth Science Week 2008. The theme of this year's earth science week is "No Child Left Inside". The goal of this year's theme is to encourage young people to learn about the geosciences by getting away from the television, off the computer, and out of doors. For more information on Earth Science Week 2008 go to http://www.earthsciweek.org for more information.

DES COASTAL OIL SPILL RESPONSE PROGRAM – NEEDS YOUR HELP!

As part of the coastal oil spill program, DES is in the process of stockpiling equipment to increase readiness to respond to an oiled wildlife incident. DES would appreciate donations of some items (to save on cost but also to encourage recycling efforts!). The following items are needed: Flat (not fitted) bed sheets, twin and full, bath towels (100+), king size pillowcases (100+). Smaller sizes are no needed and all donations must be clean and have not been washed or dried with a fabric softener. For cleaning the coastal response vessel floors, DES is in need of rags. Old tee shirts work great. Please no rags of terry cloth type of material as it gets ripped up on the floor. If you have such items, DES could use your help. Please bag all items by category and label them so that we know what, and how many, items are in each bag. Please deliver your donation to DES office in Concord, Attention: Spill Response. For more information on what to donate contact: Carroll Brown, Coastal Oil Spill response coordinator, NHDES, 29 Hazen Drive, Concord, NH at 603-271-3000. Any help is much appreciated!



EARTH SCIENCE IN THE MOVIES – JOURNEY TO THE CENTER OF THE EARTH

Jules Vernes' classic book Journey to the Center of the Earth (Journey 3D) has been remade in 3D and is coming out this summer - July11, 2008. This exciting movie adventure stars Brendan Fraser (The Mummy, Crash) as a science professor whose untraditional hypotheses makes him the laughing stock of the academic community. The story revolves around the professor and his nephew who go to Iceland and make a discovery that launches them on a thrilling journey deep beneath the earth's surface. If you don't have time to read the book (and I am sure many geologist have), this movie is a must see! I saw the previews for Journey-3D during the Hannah Montana Movie in 3D this past February and it looks great! Tickets for the movie in 3D will be \$15, a little more than standard prices but well worth it but be sure to pick a good theatre! For more information on the Journey to the Center of the Earth go to the website: www.journey3dmovie.com.





Geological Society of New Hampshire

2008 SPRING DINNER MEETING

Speaker:

"Application of Tectonics to Groundwater Problems in Vermont"

Dr. Jonathan Kim, Ph.D., Geologist/Environmental Scientist

Vermont Geological Survey

Thursday, April 10, 2008

Cat-n-Fiddle Restaurant Exit 13, I-93, Manchester Street, Concord, NH

6:00 pm Social Hour, 7:00 pm Buffet Dinner, 7:45 pm Speaker

GSNH 2008 Spring Dinner Meeting, Thursday, April 10, 2008 Advance Reservations: _____Member (Dues Paid) @ \$20.00. • Member at the Door or Non-Member with Reservation (\$22.00). • Non-Member without Reservation (\$24.00). • Students \$10.00 with valid student ID card (Reservation Requested).

Note: GSNH will also accept dinner reservations by e-mail, which will then allow you to pay at the door. Please note that e-mail reservations constitute an agreement with the Society for which you will be responsible to pay, whether you are able to attend or not, unless you cancel your reservation by noon the day before the Dinner.

Reservations will be taken until Monday, April 7, 2008! Checks payable to GSNH.

Mail to: Lee Wilder, 477 Putney Hill Road, Hopkinton, NH 03229. Reply via e-mail to: boslwne@tds.net

Name(s):		
Address:		
Dhone and/or Email:		

Half the cost of the dinner may be tax-deductible as a business expense.

The lecture part of the program counts as 1 hour of CEU contact hour credit.



Geological Society of New Hampshire PMB 133, 26 South Main St. Concord, NH 03301