



# Granite State Geologist

The Newsletter of the Geological Society of New Hampshire, Spring-Summer (June) 2008 Issue No.61  
[www.gsnhonline.org](http://www.gsnhonline.org)

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## WELCOME SUMMER! *In this Issue:*

- *Message from the President*
- *8<sup>th</sup> Annual NHGS Mapping Workshop*
- *Regulatory Updates*
- *Capital Mineral Club News*
- *NHGS Spring Groundwater Levels*
- *GSNH 2008 Summer Field Trip – Isles of Shoals*



**Photo: Lighthouse, Isles of Shoals Location of the 2008 GSNH Summer Field Trip.** Source: <http://www.sml.cornell.edu>.

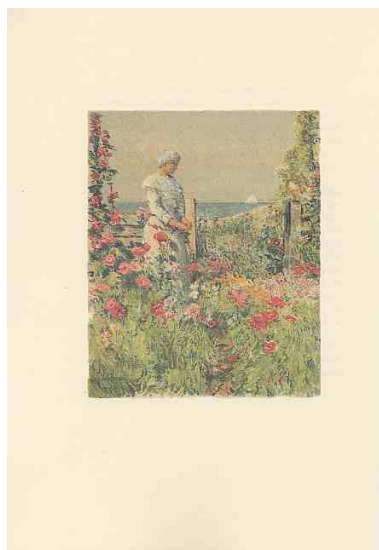
## MESSAGE FROM THE PRESIDENT

Regretfully I was out of town for the April 10<sup>th</sup> meeting, but I understand that it was most successful --79 attendees and a tight fit at the Cat and Fiddle for the talk by Jon Kim of the Vermont Geological Survey. Several exciting events are in store for the summer, including the New Hampshire Geological Survey's 8<sup>th</sup> Annual Geologic Mapping Workshop on June 23<sup>rd</sup> and, of course, our own summer field trip to the Isles of Shoals on July 13<sup>th</sup>. Notices for both these events are found elsewhere in the Newsletter. Our field trip should be well attended. We've already had requests for reservations even before the formal announcement has been posted. Kudos to Ralph Wickson and Lee Wilder for making all the arrangements for this very complicated trip. Also, best wishes to John Cotton on his retirement from the DES on May 1, 2008. Of course, we know that geologists never really retire.

*Jutta Hager, Hager GeoScience, GSNH 2007-2008 President.*

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## GSNH 2008 GEOLOGY SUMMER FIELD TRIP



**Photo: Celia Thaxter's Garden.**  
Source: <http://www.sml.cornell.edu>

If you like boating, rocks and flowers, keep your calendar clear for **Sunday, July 13, 2008!** This summer's GSNH field trip will be to the Isles of Shoals. Walley Bothner of the University of New Hampshire Earth sciences department will discuss the bedrock geology of Appledore Island which is part of 9-island archipelago located approximately 6 miles off the New Hampshire and Maine coast. In addition while on Appledore Island, we'll have a chance to visit Celia Thaxter's garden and the Shoals Marine Laboratory. Transportation to the island will be boat which will leave at 8:00 AM from the Ceres Street dock in Portsmouth Harbor. Morning treats will be served (coffee and donuts) and lunch will be included during the return boat trip back from the island at about 1:00 PM. There is limited space, so sign-up early. Please note that if you sign-up, you are making a commitment to pay, so please be sure when reserving a space. For more information and details about the field trip, please read the full announcement in this issue.

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## 8<sup>th</sup> ANNUAL NEW HAMPSHIRE GEOLOGICAL MAPPING WORKSHOP 2008

The Hampshire Geological Survey's 8<sup>th</sup> Annual Geologic Mapping Workshop will be held on Monday, June 23, 2008 from 8:30 AM to 2:30 PM at the DES Auditorium at 29 Hazen Drive in Concord. This workshop provides a forum for regional geologic mappers and map users to address mapping-related issues such as funding, methods, map standards, science, and land access. An update on NHGS programs and research activities will also be provided. A poster session and oral presentations will be open to the public. Certificates will be given for up to six (6) hours of continuing education for those in attendance seeking NH Professional CEU's (contingent upon number of sessions attended). Please respond by email if you plan to attend so we can anticipate the number of attendees. A driver's license is required in order to be admitted into the DES building. RSVP to [geology@des.state.nh.gov](mailto:geology@des.state.nh.gov).

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## REGULATORY UPDATES

Comprehensive Shoreline Protection Act: On May 5, 2008, the New Hampshire Department of Environmental Services announced that the changes to the Comprehensive Shoreland Protection Act (CSPA) enacted April 1, 2008 have been repealed and reenacted with a new effective date of July 1, 2008. The state is now operating under the pre-existing law and rules. New projects and activities conducted within the protected shoreland do not require a permit until July 1, 2008. Some elements of the CSPA enacted on April 1, 2008 were not repealed and will remain in effect, including: the minimum primary structure setback in all towns is 50 feet from protected waters. This provision supersedes local ordinances that maintain a lesser primary setback. The CSPA now applies to the Saco and Pemigewasset Rivers and all great ponds and 4<sup>th</sup> order or greater streams. The New Hampshire Legislature is considering additional amendments to the CSPA, which may also become effective July 1, 2008. For further information or clarification, visit the DES website at [www.des.nh.gov/cspa](http://www.des.nh.gov/cspa) or call Jason Aube, Shoreland Protection Outreach Specialist at 603 271-8176.

New VOC Analytical Requirements: On January 30, 2008, the NHDES Waste Management Division (WMD) sent out a letter to consultants and laboratories on changes in VOC analytical requirements for the “Full List of Analytes for Volatile Organics” for drinking water, groundwater and soil analyses. The new list includes revised performance standards for many existing compounds on the list compounds and the addition of a new compound - 1,4-dioxane. Existing compounds include and effected by the change include: bromodichloromethane (BDCM), dibromochloropropane (DBCP), 1,3-dichloropropene, ethylene dibromide (EBD), hexachlorobutadiene, 1,3,5-trichlorobenzene. The new VOC changes will affect both petroleum and hazardous waste sites. The WMD sent out a follow-up letter on February 28, 2008 to clarify the new VOC analytical requirements for 1,4-dioxane as it pertains to various sites. For more information on these changes or to obtain copies of these letters, please contact George Lombardo, PE of the NHDES Waste Management Division.

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## **NEWS FROM THE CAPITAL MINERAL CLUB**

June 28-29, 2008 - Gilsum, NH - 44th Annual Rock Swap, Gilsum Elementary School and Community Center. Jane Robert. Mitchell rmittchell60@gmail.com, 603-357-9636

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

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.

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## **AGI RELEASES GEOSCIENCE ENROLLMENT DATA**

The American Geological Institute (AGI) Workforce Program has announced the 2007 enrollment and degrees granted in the geosciences statistics in the latest Geoscience Currents. Enrollment rates have remained steady for 2007 with 19,216 undergraduate students and 7,944 graduate students enrolled. The geoscience degrees granted in 2007 also remained steady except for doctoral degrees which showed a large 30 percent increase, mirroring a surge in graduate enrollments in 2003 and 2004. AGI has compiled enrollment data since 1955 and tracked the number of geoscience degrees granted since 1973. The complete data set can be found at <http://www.agiweb.org/workforce/>.

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## **NHGS SPRING GROUNDWATER LEVELS**

Ground-water level measurements for April and May 2008 were collected by NHGS staff members Genevieve Al-Egaily and/or Kristen Svendsen.

April 28 – 30, 2008 - The statewide average ground-water level showed a 1.18-foot increase from March. This increase does not include measurements from the well at the Concord airport or Enfield as measurements were not taken in March because of inaccessibility (snow piles). When compared with April 2007, the statewide average ground water level decreased 0.04 feet. The wells near Albany, NH, showed the greatest increase in water level when compared with both March 2008 and April 2007. These are the only wells where a significant snow pack still remains, and recharge from snow melt may be a contributing factor.

May 27 – 30, 2008: The statewide average ground-water level showed a 1.22-foot decrease from April. When compared with May 2007, the statewide average ground water level decreased 1.67 feet.

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

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## UPCOMING EVENTS AND DATES TO REMEMBER

**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>.

**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.

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

Jules Verne's classic book *Journey to the Center of the Earth* (*Journey 3D*) has been remade in 3D and is coming out this summer – July 11, 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 goes to Iceland and makes a discovery that launches them on a thrilling journey deep beneath the earth's surface. For more information on the Journey to the Center of the Earth go to the website: [www.journey3dmovie.com](http://www.journey3dmovie.com).

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## GEOLOGIC PHOTOS OF INTEREST

Below is a very large glacial erratic/boulder that has been sculpted with a new texture (a golf ball!) by English artist Peter-Randall Page.



This work of art called "Give and Take" is. "made from the largest granite boulder Peter Randall-Page has ever worked from. It was found by chance through a personal friend during an excavation dig in Fort William, Scotland and was buried entirely under the ground. He has worked directly from the natural, weathered shape of this rock, using its bulges, dips and peaks to dictate the composition of the sculpture. These irregular qualities appealed to both the artist's love of organic forms and interest in the role of chance in the natural world".

There are more photos of this and other pieces by Peter-Randall Page at <http://www.sculpture.org.uk/work/000000100368/>.

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## **NHDES, ACE HARDWARE AND PSNH JOIN FORCES**

Ace Hardware stores, the New Hampshire Department of Environmental Services (NHDES), and Public Service of New Hampshire (PSNH) teamed up to create a system to collect, consolidate and recycle spent fluorescent lamps generated by homeowners and small businesses in New Hampshire and Vermont. Here's how it works: The Ace Hardware distribution center in Wilton, N.Y., stocks special lamp recycling boxes provided by Complete Recycling Solutions (CRS), a state-approved lamp recycling facility. Ace Hardware will use its product distribution system to send empty recycling boxes to participating, local Ace Hardware stores. Homeowners and small businesses may bring up to six fluorescent lamps to the local store where they will be accepted for free and stored in the recycling boxes. When the boxes are full, returning Ace Hardware distribution trucks will take them back to the distribution center where they will be picked up by CRS for recycling. Information on the program may be accessed from the "Mercury" section of the NH DES Pollution Prevention web page at [www.des.nh.gov/nhppp/Mercury/](http://www.des.nh.gov/nhppp/Mercury/).

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## Geological Society of New Hampshire

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### **GSNH Summer 2008 Geology Field Trip** *The Geology of the Isle of Shoals* Sunday, July 13<sup>th</sup>

Join us for a summer boat ride to the Isles of Shoals, where Wally Bothner, UNH Earth Sciences, has graciously agreed to show us some of the interesting geology of **Appledore Island**.

The MV Heritage and Gulf Challenger will depart from the Ceres Street dock\* at **0800 sharp** on Sunday the 13<sup>th</sup> of July, 2008. Coffee and donuts will be available as you board. The cruise out of Portsmouth Harbor and to the Isle is a real treat.

- Bring walking sneakers (smooth, rocky terrain)
- Trip is rain or shine. Dress appropriately. (The boat company does have the option of calling the trip if the weather should be too bad.)
  - Bottled water will be available during the trip
- \*Directions to the dock and parking information is available at:  
<http://www.portsmouthharbor.com/directions.php>

Upon arrival, we'll walk across glacially polished and wave washed outcrops to examine and review the island's geology and to discuss the relationships to the geology of coastal NH and ME. The NH Geological Society has donated complimentary copies of Katherine Fowler-Billings', *Geology of the Isle of Shoals*, and R.F. Novotny's. *Geology of the Seacoast Region, New Hampshire* for all of us. We will also tour Celia Thaxter's famous garden, as well as Cornell University's Shoals Marine Lab facilities ([www.sml.cornell.edu](http://www.sml.cornell.edu)).

Another great **GSNH Summer Geology Field Trip complimentary lunch** will be served, for you to enjoy as we return to the harbor. We should be back to the dock by 1 PM, leaving plenty of time for you and your guests to partake of the many summer sites Portsmouth has to offer.

Sign up is on a first come basis. Walk-ins may occur, but at your risk.  
Members—\$35, Non-members/guests—\$38, and walk-ins—\$40. **Registration is limited.**

Sign up\* now with Ralph Wickson at: [rwickson@des.state.nh.us](mailto:rwickson@des.state.nh.us)  
If you wish to mail a check, send it to: Rich Moore, GSNH Treasurer, 27 Bedford Center Rd., Bedford, NH 03110

**SEE YOU ON THE BOAT!!**

**\*Remember, signing up indicates your intent to participate in this field trip and obligates you to make payment for same.**



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**Issue No. 61 (Spring-Summer) June 2008**