Welcome from Center Director, Dr. Pieter T. Visscher:
Welcome to new and returning students, staff and faculty! The third year of the Center for Integrative Geosciences is off to a good start, with increased enrollment in undergraduate courses, new graduate students starting, and the appointment of a new faculty member. In January 2008, Dr. Christophe Dupraz will be joining as the Center’s new Sedimentologist/Stratigrapher. Dr. Dupraz is currently lecturer at the University of Lausanne in Switzerland, and works on organomineralization in carbonate systems. Please stay tuned for a profile in a future issue of this newsletter. Most of the graduate students spent the summer conducting research (see below), and most secured some level of extramural funding in support of their activities. We are looking forward to the graduate student presentations later this semester. Dr. Robert Thorson returned from his sabbatical and is putting the final touches to a book he is writing on kettle lakes. Dr. Patrick Getty has joined us from UMass as an adjunct teaching the dinosaur course (GEOL 111). Renovations of teaching lab and adjacent storage space are underway. In the spring of 2008, Beach Hall 128 and 130 will be ready to host geosciences and marine sciences lab classes. Additional renovations of laboratory and office space will commence soon for Dr. Dupraz. The seminar series is about to start (see inside), with the first lecture on September 18. Finally, Abigail Hastillo, our outstanding program assistant, without whom there would not be a Center, received a well-deserved promotion.
I hope that everybody will have a fruitful Earth science year! PV

Summer Fun!

Some notes from students and faculty about what they did this summer.

Dan Ferreira: Dan spent his summer working for the environmental consulting company Groundwater & Environmental Services in Windsor, CT. Dan performed the tasks of an environmental scientist, writing and reviewing many technical reports, and also worked as a field technician, collecting soil and groundwater samples at sites all across the state.

Denise Burchsted: My research highlight this summer came when EPA notified me that I have been selected to receive three years of funding as an EPA STAR fellow. Under this fellowship, I will be investigating pre-colonial river conditions and particularly the impact that beaver had on the flow and shape of rivers several hundred years ago. The award has accelerated my plans a bit: I had intended to take the fall off to be with baby Gabriel born last January, but now I am back in my office instead. My research this summer was somewhat limited as I spent much of my time with my family. Nonetheless, funding by UConn’s Center for Environmental Sciences and Engineering (CESE) enabled me to purchase most of the equipment I need to conduct my dissertation research, as well as to spend time in the office and field (continued pg. 2)

In the News for Geosciences:
• Woolly mammoths called the snowy landscapes of the northern continents home until roughly 11,000 years ago. At that time, their populations disappeared from all but a few island locales, coinciding with the large-scale migration of humans into these areas. Because of this correlation, scientists have long thought human hunting may have caused the woolly mammoth’s demise. Now, a new genetic analysis indicates that woolly mammoths were already on the decline by at least 40,000 years ago, suggesting their extinction was a long, gradual process in which humans were only a small player. “The $64,000 question,” says Ross MacPhie, a paleobiologist at the American Museum of Natural History in New York, is, if humans didn’t cause the extinction of woolly mammoths, then what did? Climatic and environmental changes are usually cited as the likely culprits, he says, but he remains agnostic. Studying a variety of ice age species will help pin down more specifically which factors may have contributed to the woolly mammoth’s extinction, he says.

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Faculty Contributions on Publications:
As a reminder, copies of these pubs are located in the 207 office, in a blue binder on the front counter, for anyone who would like to take a look or make copies.


Grants: Tim Byrne was awarded a 3 year grant through the National Science Foundation for his research on extrusion and exhumation in Taiwan. Congrats Tim!

Grad Student Announcements:
Take a break from your hectic schedule and join us for a coffee break! Graduate Student Coffee Hours in the Graduate Lounge, SU110, from 3-5PM. Tuesdays: October 3rd, November 6th, and December 4th!

Graduate Senate Office Hours for Fall 2007: Monday: Closed; Tuesday: 8:30-11 Wednesday: 4:30-6:30 Thursday: 8:30-11 Friday: 12-15

AAPG Grants-In-Aid program! The 2008 AAPG Foundation Grants-in-Aid Program is available to geoscience graduate students who may require funding for their research project. Grants are based on merit, and in part, on the financial needs of the applicant. The program focuses on support of qualified candidates for masters or equivalent degrees. Qualified doctoral candidates are also encouraged to apply. Monetary awards up to a maximum amount of $2000. Grants are to be applied to expenses directly related to the student’s thesis work, such as fieldwork, laboratory analyses, etc. Applicants are required to submit official academic transcripts by mail before the deadline. The deadline for the 2008 program closes on January 31, 2008. Applications are available online through http://foundation.aapg.org/gia/index.cfm

Graduate Thanksgiving Dinner will take place on November 14th. Find our more through the graduate student senate!


New ENVS Program Assistant: Ben Gahagan is the new ENVS program assistant who will be working in office 225 in Beach Hall. enviro-science@uconn.edu is the best way to get in touch with him if you need anything regarding the environmental science program. Feel free to stop by and welcome him to Beach!

New Classes:
New Fall 2007 class being offered- ENVE 303/PLSC 378 or SOIL 273. Soil Chemistry, Reactions & Equilibria -Physical chemical characteristics of soil minerals and soil organic matter, and their reactivity with compounds present in the aqueous and vapor phase. Topics include: redox reactions, adsorption and desorption measurements, electrokinetics, adsorption modeling, and basic principles of soil modification and remediation practices. Tu/Th 5-6:30pm Instructor: Cristian Schulthess

Grad Summers cont.
(continued from page 1) investigating potential study sites. Through this funding, I have taken myself on quite a tour of existing and abandoned beaver ponds in northeastern Connecticut!

Kristen Myshrall: I traveled to Highborne Cay, Exumas, Bahamas in July to work on the thrombolites growing there. I measured productivity in the various types of thrombolite mats for over a week to begin to unravel the mystery of what the microbial community is doing throughout the day and night. I'm currently processing all the data.

I also traveled to the University of South Carolina in August to collaborate with Dr. Sean Norman on molecular aspects of the Highborne thrombolite system. I've just returned from the Kennedy Space Center where I'm collaborating with Dr. Jamie Foster from the University of Florida on analyzing the community structure by running clone libraries of the Highborne thrombolites. Together with these scientists and others, I'm currently working on a papers summarizing the community structure and what these microorganisms are doing in this exciting sys-
Upcoming Events

- **Tuesday Sept. 18**—Geoscience Seminar Series: Dr. Lanbo Liu (CEE/GEOL) - “Delineation of Near-surface Geological Information with Microtremor Array”. 3:30pm, BCH library 233. Refreshments served!

- **Thursday Sept. 20**—Teale Lecture Series presents Dr. Geoffrey Heal, Columbia University “Corporate Environmentalism: Doing Well by Doing Good?” 4:00pm Konover Auditorium

- **Friday Sept. 21**—ENVE Seminar presents Dr. Enrique Vivoni, Department of Earth and Environmental Science, New Mexico Institute of Mining and Technology. “Ecohydrology of Seasonally-Green Desert Landscapes” 12noon CAST 212.

- **Tuesday Sept. 25**—Geoscience Seminar Series: Dr. Sally McBreaty (ANTH) - “First Fossil Chimpanzee”. 3:30pm BCH library 233. Refreshments served!

- **Thursday Sept. 27**—EEB Seminar Series presents Dr. Pieter T. Visscher “Microbial populations, metabolic processes and mineral products: 3.5 billion years of biomineralization?” 4:00pm BSP 130.

- **Friday Sept. 28**—ENVE Seminar presents Dr. Jeffrey Osleeb, Professor and Department Head of Geography, UConn, “Potential Sources of Air Contamination in the New York City Subway: A GIS Approach” 12noon CAST 212.

- **Tuesday Oct. 2**—Geoscience Seminar Series: Clara Chan, Woods Hole Oceanographic Title TBA. “Potential Sources of Air Contamination in the New York City Subway: A GIS Approach” 12noon CAST 212.

- **Tuesday Oct. 9**—Geoscience Seminar Series presents Dr. Sally McBreaty (ANTH) - “First Fossil Chimpanzee”. 3:30pm BCH library 233. Refreshments served!

- **Thursday October 4th**—Teale Lecture Series presents Ariel Lugo, International Institute of Tropical Forestry, "Emerging new forests in the shining star of the Caribbean" 4:00pm Konover Auditorium

- **Thursday October 9th**—Geoscience Seminar Series presents Clara Chan, Woods Hole Oceanographic Title TBA. “Potential Sources of Air Contamination in the New York City Subway: A GIS Approach” 12noon CAST 212.

- **Friday October 5**—ENVE Seminar presents Dawit Zeweldi & Tadesse Meskele , Civil and Environmental Engineering, UConn “Hydrological Field Experiment in Ethiopia”. 12 noon CAST 212.

- **Tuesday October 15th**—Teale Lecture Series presents Ariel Lugo, International Institute of Tropical Forestry, "Emerging new forests in the shining star of the Caribbean" 4:00pm Konover Auditorium

- **Thursday November 29th**—EEB Seminar William H. Schlesinger “The Global Carbon Cycle and the Duke Forest Free-Air CO2 Enrichment (FACE) experiment”. 4:00PM in BSP 130
Earth Science Picture of the Day

EPOD from 8/15/2007—The photo above was taken from Ligourio, Greece, at the local Natural History Museum. Ligourio is a small village near the ancient theatre of Epidaurus in Peloponnisos, Greece. It displays a unique fauna of fossilized ammonites that lived about 240 million years ago. Ammonites are index fossils. This means that we can determine the age of rocks based on the species of the ammonites found. The black crust covering the fossils indicates that at one time the sea where they were found was very deep.

In Epidaurus, fossils are literally packed together. As a consequence of the tremendous sea depths, most of the sediment dissolved before it could reach and cover the ammonite shells at the bottom. This resulted in fossil clustering from slightly different geological periods. Because the boundaries between epochs and periods aren't exactly clear, it's difficult for scientists who are trying to piece together species evolution and geological history. On the other hand, such a find is excellent for a museum display. The credit for the preparation of the specific specimen goes to Basilis Kotsiomitis, an inspired man who created this truly beautiful museum. Photo by Chris Kotsiopoulos, Hellenic Amateur Astronomy Association.
Announcing the New Theme for Earth Science Week: "The Pulse of Earth Science"
October 14-20, 2007
This year marks the tenth annual Earth Science Week. With this theme, Earth Science Week activities will promote public and profession awareness of the status of earth science in education and society. The theme will also focus attention on geoscience research, such as that associated with the International Polar Year (IPY) and the International Year of Planet Earth (IYPE), of which AGI is a Founding Partner. Through these major initiatives Earth Science Week will help spread understanding of the impact the earth sciences have on society.

Earth Science Week Activity Calendar:
http://www.earthsciweek.org/calendar/index.html

Earth Science Week Contests:
http://www.earthsciweek.org/contests/index.html

Stay Tuned for Possible Events here at UCONN!

Find out more at the Earth Science Week Website: http://www.earthsciweek.org/index.html

Did You Know?
A new feature for our Geoscience Newsletter that reminds us of past Earth events and milestones that occurred around the time our newsletter comes out!

⇒ August 27th, 1859. Col. Edwin Drake drills the first US oil well in Titusville, PA.
⇒ September 22nd, 1961. Hawaii Volcanoes National Park was established. Renowned for having the worlds most active volcano.
⇒ Happy Birthday! September 10th—Stephen Jay Gould was born this day in 1941. US paleontologist and evolutionary biologist, Dr. Gould passed away in 2002. (photo to right)

GeoTrivia!
Fun with Geoscience Trivia

1. What mineral is used to form isinglass? (hint—look at picture!)
2. What major group of animals do the linulids belong?
3. To what crystal system does the mineral manganite belong?

Check your answers here! http://www.geosociety.org/GSA_Connection/0708/trivia.htm

Photo of prepared isinglass
The Environmental and Engineering Geophysical Society (EEGS) invites you to submit an abstract for the 21st Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP) being held at the Marriott Hotel in downtown Philadelphia, PA April 6-10, 2008.

Abstracts not to exceed 200 words are due no later than September 14, 2007 and may be submitted electronically at http://www.eegs.org/sageep/index.html. Abstracts that focus on recent developments in near-surface geophysical methods, innovative uses of geophysics for challenging engineering and environmental problems and case histories are welcome. If accepted, full manuscripts will be due December 14, 2007.

The New England Intercollegiate Geological Conference (NEIGC) began in 1901 with a field trip led by William Morris Davis to terraces of the Westfield River in south-central Massachusetts. The conference has since met annually, with exceptions during World Wars I and II, and a two-year gap during 1913 and 1914. The NEIGC may be the oldest geologic “nonorganization” in North America. The largest number of meetings has been hosted in Massachusetts, followed by Maine, Connecticut, New Hampshire, Vermont, and Rhode Island. The conference has met outside of New England in New York, Quebec, and New Brunswick. Nonorganizational rules have been unofficially established and include no dues, evening papers, talks, or lectures. The sole purpose of the NEIGC is, as it has always been, to organize and present field trips in areas of recent geologic mapping or topical studies, as well as to classic localities of interest.

Registration is DUE BY SEPT. 15!

Register on line and find out more about field trips here:

http://kilburn.keene.edu/N_EIGC/
Welcome Picnic Photos!
The Center for Integrative Geosciences mission is to offer transdisciplinary programs of instruction and research that advance understanding of the interaction of biological, chemical, geological, and physical processes, including feedback mechanisms, at all spatial and temporal scales that have shaped Earth through geologic time, continue to shape the environment today, and which provide the basis for understanding the present and future impact of human activity on this planet.

*We will be issuing these newsletters monthly throughout the academic year to keep associated students, staff, alumni, and faculty up-to-date on the Center’s activities!*

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**GSA Annual Meeting: October 28-31, 2007**

Registration for GSA 2007 ends on September 24th! So register today to attend the top Geoscience meeting in the US! [http://www.geosociety.org/meetings/](http://www.geosociety.org/meetings/)

One of GSA’s core missions is to advance the geosciences in the service of humankind. In keeping with that mission and GSA’s motto, Science, Stewardship, Service, GSA has tied its 2007 Annual Meeting program to the themes of the International Year of Planet Earth.

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**Top 10 Reasons to Attend GSA!!!**


3. **Be Green.** Use our meeting bulletin board to network and carpool to the meeting. Save some green by finding roommates, too! Another way to be green: use Denver’s newly expanded light rail system, which stops right at the Colorado Convention Center.

2. **The Boulder Flatirons are just a drive away—waiting for you since the Laramide Orogeny.** Visit GSA Headquarters while you’re in Boulder and check out the other local geology.

3. **and the number one reason to attend the GSA Annual Meeting in Denver:** …

10. **Enjoy one of Denver’s newest hotels:** The Hyatt Regency’s geologically influenced architecture is a huge attraction. Check all rock hammers at the door.

9. **Denver is the Napa Valley of beer.** There are more local microbrews available at downtown bars than you can count on your fingers and toes!

8. **Reunite with colleagues, make new connections, and meet face-to-face with pre-eminent scientists who in the past may only have been a name in a journal.**

7. **Forensic Geology—see it first-hand at this year’s Public Forum.**

6. **Childcare—GSA has teamed up with KiddieCorp to provide assistance to working families attending the meeting.**

5. **Check out the two additions to the already successful Mentor Program: Women in Geology and Geology in Industry.**

4. **Get your holiday shopping done early when you visit more than 200 exhibitors in our Exhibit Hall.**