Welcome!

The Fall semester has started and the CiG is starting its first full academic year. We are celebrating this on October 8 (mark your calendars) with a day-long symposium entitled “Dimensions in Geosciences” in which we will try to illustrate the breadth of geosciences. Speakers include Dave Des Marais (NASA Ames Research Center), Elfatih Eltahir and Kip Hodges (MIT), Collin Roesler (Bigelow Laboratories), and Andrew Bush (UConn).

This newsletter would not have arrived in your (e)mail boxes with the help of Abi Howe. Abi is the CiG’s new Program Coordinator in charge of just about everything. She was previously working at the American Geological Institute, and has an undergraduate degree in Geology from St. Lawrence University. If you have not met Abi, please stop by BH 207 to do so.

Andy Bush is the newly appointed faculty member in EEB. He is the first of several bridge positions that will support CiG instructional and research programs. Andy is an invertebrate paleontologist and received his doctorate with Charles Marshall at Harvard. Andy will be offering a Paleobiology course next semester. He will also be one of the speakers at our symposium on October 8.

The new graduate student cohort has arrived: Januka Attanayake, Denise Burchsted, Caitlin Frame, Meghan McCusker, Jason Miller, and Kristen Myshrall have very diverse backgrounds and research interests, but a common passion for geosciences. They are the proverbial future of our Center, and can be found in their respective offices (232/234) on the second floor in Beach Hall.

Ari Epstein is a visiting professor, who is helping with the first graduate core course. Ari is one of the architects of MIT’s Terascope program and is using his experience with undergraduates from this program to provide the grad students with pertinent skills to become the first group of transdisciplinary geoscientists at UConn. Ari will be at UConn for the Fall semester.

Finally, we are fortunate to have the continuing support of the CLAS Dean’s Office. Dean Ross Mackinnon, Associate Dean Ron Growney and many others in the Dean’s Office are working with us every day. Although the financial near future of

(Continued on page 2)

Save the Date!

October 8, 2005, the Center will host a number of internationally renowned speakers during the “Dimensions in Geosciences” symposium. The symposium, which is sponsored by the Dean’s Office of the College of Liberal Arts and Sciences, will highlight transdisciplinary research in geosciences, combining geology, chemistry, biology, physics and more. Speakers include: Dave Des Marais (NASA Ames Research Center; Early microbial ecosystems, Martian rover mission), Elfatih Eltahir (MIT; regional climate regulation, biosphere-atmosphere interactions), Kip Hodges (MIT; continental tectonics, landscape development).

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In the News for Geosciences:

- Two major earthquakes struck the fault that lies beneath Tokyo in recent history, a magnitude-8 in 1703 and a magnitude-7.9 in 1923 that had massive fatalities. Many smaller events have happened since, including a magnitude-6.1 earthquake on July 23. The fault lies beneath the city of more than 33 million people, and seismologists now think it sits closer to Earth’s surface than previously thought. If the fault is indeed shallower, the new assessment has the potential to revise the projected hazards Tokyo may face in the future.
Faculty Contributions on Publications:

In order to increase our visibility, I have started with publication numbers, listed in the acknowledgements of peer reviewed papers. Abi will keep track of the numbers and can provide you a number upon request. We will keep hardcopies and pdf’s of the published papers in the Geosciences office, so they are available to interested students and faculty. I strongly encourage you to do the same, or at least provide Abi with a copy of your newly published papers. These two came out in September:


~Pieter Visscher

Faculty: Please tell your students (especially GEOL 103/105/111) about the Teale Lecture Series, specifically the talk on October 12th! Robert A. Berner from Yale will be here to talk about Trees and Late Paleozoic O2, CO2, Climate and Evolution.

New Class: NRME253: Introduction to Geodesy is being taught for the first time this semester. See Dr. Thomas Meyer in Geography for more details!

Interested in Field Camp?

There are several international geology/environmental science field camps that would be a great experience for students. See Dr. Tim Byrne for more information!

Our new website is up and running!

Check it out at http://www.geosciences.uconn.edu

Contact Abi Howe (geology@uconn.edu; 860-486-4432) for further information and to register.

Students—If you have a poster presentation you’ve done, we’d like to hang it up during the symposium - please bring it to Abi!

Register today for the 2005 Dimensions in Geosciences Symposium!

Mug Shots Needed!

Alright grads, undergrads, and faculty—it’s time to update our information boards in Beach Hall, and this means we need new photos of students and faculty members who are associated with geosciences!

Please come by Beach Hall 207 over the next week or two to have your photo taken—or if you already have one that you would like posted, even better! Bring it by or email it to Abi!
Rebecca, Kathy, David, and Rob work for environmental consulting companies. Ben is from Louisiana and hopes to move back there soon to teach or attend law school.

As this newsletter is being completed, graduate Allison Charney has given her M.S. defense and passed. Congrats!

The following geology/geophysics students have graduated from UConn:

Rebecca Bedaj (M.S.)
Kathy Lehnus (M.S.)
David Lehnus (M.S.)
Ben Cagle (M.S.)
Rob Sernoffsky (M.S.)

Rebecca, Kathy, David, and Rob work for environmental consulting companies. Ben is from Louisiana and hopes to move back there soon to teach or attend law school.

As this newsletter is being completed, graduate Allison Charney has given her M.S. defense and passed. Congrats!

For each newsletter that comes out, we will try to feature a few great sites related to geosciences that may be of interest to students and faculty associated with the Center. Please feel free to send any sites you find along to Abi, to be included in this section in future editions!

- The American Geological Institute Careers Site
  http://www.earthscienceworld.org/careers/

- DLESE—The Digital Library for Earth System Education with thousands of web resources for the earth sciences!
  http://www.dlese.org

- Mark Francek’s Resources for Earth Sciences and Geography Instruction—a great portal of websites related to earth sciences
  http://webs.cmich.edu/resgi/

- USA Geology Links by State
  http://skywalker.cochise.edu/wellerr/statelinks/List.htm

- Getty Thesaurus of Geographic Names, provides specific coordinates and geographic data for location searches
  http://www.getty.edu/research/conducting_research/vocabularies/tgn/

- USGS Photo library archive—over 26,000 images from 1868 to present, all in the public domain
  http://libraryphoto.er.usgs.gov/startlib1.htm

- Earth Science World ImageBank—free geoscience images for educational use!
  http://www.earthscienceworld.org/imagebank/

- More to come in the next edition!

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Congratulations Graduates!

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Upcoming Events

- **Monday September 12th:** Study Abroad Fair 5:30-7:30pm in Rome Hall Ballroom.

- **Sept. 30th—Oct. 2nd:** NEIGC 2005 Conference: The NEIGC is a series of field trips open to anyone interested in local geology. See website for more details and to register (September 19th is deadline)!
  http://earth.geology.yale.edu/neigc/

- **Saturday October 1st:** Dr. Thorson is giving a talk for CLAS family weekend on Mississippi Mud Lumps.

- **Saturday October 8th:** Geoscience Symposium 9am—4pm 317 Beach Hall. Registration Required!!!

- **October 9-15:** Earth Science Week!

- **Wednesday October 12th:** Teal Lecture—Robert A. Berner from Yale

  “Trees and Late Paleozoic O₂, CO₂, Climate and Evolution” 4pm, Dodd Center Konover Auditorium.

- **Friday October 14th:** Workshop “What Does Height Really Mean? How to Use GPS to Measure Orthometric Heights” Contact Dr. Thomas H. Meyer for more details:
  thomas.meyer@uconn.edu

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University of Connecticut
Center for Integrative Geosciences
presents:

“Dimensions in Geosciences”

~ From Prokaryotes to Planets ~

A symposium highlighting
Transdisciplinary Research

Saturday October 8th, 2005
Beach Hall 317, 9:00am-4:30pm

Keynote Address: Dr. Dave Des Marais
NASA Ames Research Center

Registration is Required:
Lunch provided for registered participants!
To Register Contact:
Abi Howe, CiG, 486-4432 or geology@uconn.edu

Sponsored by:
The College of Liberal Arts and Sciences
USGS Mendenhall Postdoctoral Research Fellowship Program

“Research is to a scientific organization what fuel is to the engine or food for the body. It is the source of power”

- W. C. Mendenhall

During Fiscal Year 2001 the U.S. Geological Survey (USGS) began the Mendenhall Postdoctoral Research Fellowship Program in honor of Walter C. Mendenhall, the fifth Director of the USGS. The Mendenhall Program provides an opportunity to conduct concentrated research in association with selected members of the USGS professional staff. The Program is intended to provide research fellows with experiences that enhance their personal scientific skills and accomplishments. Through the Mendenhall Program the USGS acquires current expertise in the earth sciences and other disciplines to assist in implementation of the science strategy of its programs.

Mendenhall Fellowships are 2-year appointments. The Fiscal Year 2007 (FY-07) program is now being advertised (see URL below). The application closing date is December 1, 2005. The earliest start date for the FY-07 Fellowships is October 2006. For details please visit the Mendenhall Program web site at the URL: http://geology.usgs.gov/postdoc.

Program contact: Dr. Rama K. Kotra, 703-648-6271, rkotra@usgs.gov (08-05)
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, and faculty up-to-date on the Center’s activities!

For the full article, see Dr. Thorson’s weekly column in the September 4th Hartford Courant.

Geology and Tragedy in the Gulf

In Dr. Robert Thorson’s recent column for the Hartford Courant, he explains the five geological factors that fated the lower Mississippi Delta to be struck so hard by Hurricane Katrina—

Rising seas: Sea level has been rising since the last Ice Age on low-latitude coasts throughout the world. The pace slowed about 9,000 years ago, creating the coastal deltas and marshes on which early civilizations arose. In the past few thousand years the pace slowed even more. But the pace has nearly doubled in the last century because of global warming, which melts glaciers and causes the ocean to expand.

Sinking land: Muddy deltas sink as they compact over time. This isn’t a problem as long as every layer that settles out is replaced by another, courtesy of seasonal flooding. This balanced was stopped by the dikes in the late 18th century. The sediment needed to keep a city alive is being wasted in a place where nobody lives.

Eroding riverbed: The sediment being forced to flow past the city is dumped where the dikes finally end. This creates miles of new land, meaning the river has to flow a longer distance before reaching its ultimate low, the sea. But rivers can’t flow where there is no slope. Any added length to the channel requires that its height be raised. The bed of the river at New Orleans must rise to make this happen.

Receding shoreline: With the sea coming up and land going down, the marshy shoreline of Louisiana’s south coast has no alternative but to emigrate inland via normal coastal erosion. This process has been accelerated by human activity: canals dug for oil exploration, starvation of delta vegetation of fertile mud, and more. As the shoreline moves closer to New Orleans, there’s less land to buffer storms before they hit. Shoreline loss causes incoming storms to have faster winds, stronger waves, and a higher flood surge.

Stronger storms: Still the topic of much debate, climate-change scientists ascertain that a warmer green-house Earth will offer up stronger more frequent hurricanes, which seems to be taking place. But it’s too early to tell for sure.

For information on how to help, see the UConn community service page: http://www.volunteer.uconn.edu/