Graduate Student Profile

In Geoscience Newsletters throughout the year, we will profile of one of our geoscience graduate students, so that we can learn more about them!

Yongping Chen joined the Geoscience program in fall of 2006 as a PhD student studying under Dr. Lanbo Liu. Her research interests are predicting the subsurface structure by analyzing microtremor signals and evaluating the site effect of earthquake hazards in urban areas.

Yongping received her bachelors degree in Applied Geophysics from the Changchun College of Geology (in China). After that she worked as a research assistant and teaching assistant in the Geotechnical Engineering department of Southwest Jiaotong University. She also published two papers in the Water Resource Research journal and presented her research work at the American Geophysical Union (AGU) meetings. She has been the member of SEG (Society for Exploration Geophysics) and AGU since 2003.

During her masters degree studying in UConn’s Environmental Engineering program, she investigated the effect of interfacial polarization on the soil water content measurements, and won two pre-doctoral fellowship awards in School of Engineering. She also published two papers in the Water Resource Research journal and presented her research work at the American Geophysical Union (AGU) meetings. She has been the member of SEG (Society for Exploration Geophysics) and AGU since 2003.

On top of all this, Yongping is mother to a 5-year-old naughty and cute sweet-heart, James. She also likes to practice Taiji (a mysterious ancient Chinese martial art) and read novels about the legends of martial arts people in her spare time.

Sed/Strat Faculty Search in the Center

Assistant Professor of Geosciences (Tenure track)

The Center for Integrative Geosciences at the University of Connecticut invites applications for a tenure-track faculty member whose research interest focuses on ancient and/or modern depositional systems. We are especially interested in applicants whose research and teaching interests cross traditional discipline boundaries, and the successful candidate is expected to have a strong interest in building interdisciplinary partnerships beyond the geosciences core provided by the Center. Anticipated start date for this position is August 2007. Applicants should send a letter of application, statements of research and teaching interests, curriculum vitae, and contact information for three referees to Pieter T. Visscher, Search Committee Chair, Center for Integrative Geosciences, U-2045, Storrs 06269-2045. Ph (860) 486 4432. Review of applications will begin February 1, 2007. Full ad: http://www.geosciences.uconn.edu/documents/Sedad.pdf

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In the News for Geosciences:

- Earth’s magnetic field has done hundreds of somersaults over the last few billion years and if it flipped again tomorrow, compass needles would swing south instead of north. On average, these reversals happen only once every couple of hundred thousand years, but the number of switches has increased 100-fold during the last 10 million to 20 million years, leading researchers to wonder what has caused the recent surge in reversal rate. A new study, published Nov. 8 in Geophysical Research Letters, sheds some light on what causes the geomagnetic field to flip. Robert Coe and Gary Glatzmaier, geophysicists at the University of California at Santa Cruz, report a new analysis of computer simulations of the geodynamo — the process by which Earth’s magnetic field is produced — and found that the way the core transfers its heat to the mantle influenced the stability of the geomagnetic field, and hence the number of its reversals.
Announcements, Awards, Publications, etc.

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.


IMPORTANT ANNOUNCEMENTS!

Undergraduate Students—looking for scholarships to apply for? If so, check out UConn’s office of National Scholarships site: http://www.ons.uconn.edu—they have listings of current open scholarships to apply for along with criteria, website links, and application details!

Class for Spring 2007—Environmental Biophysics

NRME 328 Environmental Biophysics
Spring 2007, Xiusheng (Harrison) Yang
WBY 306, 6-0135 xiusheng.yang@uconn.edu
Time: By arrangement
Place: By arrangement

Course Description and Topics:
- Gas laws and transport processes
- Radiation environment
- Momentum, heat and mass transfer
- Steady-state and transient energy balance
- Crop micrometeorology
- Multimedia transport processes
- Biometeorology

Registration is now open for the Northeast GSA Section Meeting. There’s something for everyone at the Northeastern Section Meeting of the Geological Society of America, which will be held at the University of New Hampshire, Durham, from 12-14 March 2007. Theme session titles range from “From Rodinia to Pangea — The Lithotectonic Record of Plate Convergence in Eastern North America” to “Geologic Records of Biotic Change” to “Atmospheric–Earth Surface Interactions: Solid, Liquid, and Gas” to “Contaminants in Groundwater–Surface Water Systems: Sources, Pathways, and Toxicities” Check out http://www.geosociety.org/sectdiv/northe/07nemtgTP.htm - sym to see the entire list of symposia and theme sessions. The preregistration deadline is 5 February 2007. Check out http://rock.geosociety.org/registration2/secure.asp?meeting_code=07nescort for online registration.

If there is enough interest, a carpool may be arranged. If you would like to participate in a carpool, please leave your name with Abigail Howe (abigail.howe@uconn.edu).

Graduate Students: Apply for a GSA graduate student research grant today! Be sure to read the updated guidelines. Applications and advisor appraisals are due 1 February.

http://www.geosociety.org/GSA_Connect0n/0612/researchGrants.asp

Do you like science and love to write? We are currently accepting applications for our summer 2007 internship. The intern will work as a member of the Geotimes staff: writing for the News Notes section and other parts of the magazine, writing weekly Web Extras for Geotimes online, attending press briefings and science seminars in Washington, D.C., and helping to edit and produce the magazine for print and Web. Based at the American Geological Institute in Alexandria, Va., the internship is 12 weeks long and includes a $3,500 stipend. Starting time is flexible. All applications should be received by March 23, 2007. A background in the geosciences is a plus. Send a résumé, letter describing what you hope to gain from the internship, and writing samples (no more than three) via e-mail, fax or mail to: Attention: Geotimes Summer Internship—American Geological Institute 4220 King Street Alexandria, VA 22302 Fax: (703) 379-7563 E-mail: geotimes@agiweb.org

Jean Crespi was recently elected Vice Chair of the Northeastern Section Geological Society of America Management Board.

NAGT Field Scholarships: Applications for the NAGT 2007 Field Scholarship Awards will be due on February 16, 2007. Application forms are now available at the NAGT website http://www.nagt.org/files/nagt/programs/NAGT_Field_Application2.v3.pdf. Student applications must be endorsed by a NAGT member.

Contact Dr. Yang if you are interested in taking this graduate class!

Contact Dr. Yang if you are interested in taking this graduate class!
Geoscience Websites of Interest

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!

- Landscape Change Project: from Perkins Museum of Geology, University of Vermont. The University of Vermont is documenting 200 years of Vermont’s changing face with an on-line collection of ‘before and after’ images of natural and human-induced landscapes. Although the focus of the collection is to document geomorphic change, many users are also interested in the historical and social contexts of our historical images. http://www.uvm.edu/perkins/landscape/

- EPA Publications Search Engine: Search, view, and print from a collection of over 10,000 technical and public information publications’ dealing with the environment. http://nepis.epa.gov/

- NOAA Paleoclimatology Program: the study of past climate, for times prior to instrumental weather measurements.’ As you browse through this week’s annotated website, you’ll see clearly how ‘past climate’ influences the way we look at climate here and now. Famine-inducing droughts, global warming, monster hurricanes...climate-related issues are a media staple these days. Was the weather always this weird? http://www.ncdc.noaa.gov/paleo/paleo.html

More to come in the next edition!

Upcoming Events

- Friday Jan. 26, Environmental Engineering Seminar, Candidate talk: Shallow hydrologic systems: Biogeochemical processes controls and coupling... Adventures in eco-hydro-geo chemistry. Noon, CAST 212

- Friday Jan. 26, Marine Sciences Seminar: Mark Benfield (LSU) ‘Science in the Steel Archipelago: Cooperative Research with the Petroleum Industry’ 3:00pm MARN 103, Avery Point Campus

- Tuesday Jan. 30, Kick off to the Geoscience Seminar Series! Presents: Doug Thompson, Connecticut College, ‘Applied Geomorphology: The role of geomorphology in the restoration of our nation’s degraded rivers.’ 3:30pm in Beach Hall 233 (Reading Room). Reception to follow!

- Thursday, Feb. 1, Teale Lecture Series: Mark Klett, 'Ideas About Time: Recent Projects that Investigate the Relationship of Time, Space and Photography’ 4:00pm Konover Auditorium, Dodd Center.

- Wednesday Feb. 7, Geoscience Seminar Series Presents Ken Miller, IODP (Rutgers), ‘Phanerozoic sea-level changes: (i) ODP constrains the last 100 million years’ 3:00pm Beach Hall Reading Room (233). Reception to follow!

- Tuesday Feb. 20th, Geoscience Seminar Series Presents Dallas Abbot, Lamont-Doherty Earth Observatory. Title TBA, 3:30pm in Beach Hall 233 (Reading Room). Reception to follow!

- Thursday Feb. 22, EEB Seminar Series Presents Ann Bucklin (MARN) ‘Biodiversity of Marine Zooplankton: Barcoding the Global Assemblage’ 4:00PM in BSP 130

- Tuesday Feb. 27, Geoscience Seminar Series Presents Melinda Smith, Yale University. Title TBA. 3:30pm Beach Hall Reading Room (233). Reception to follow!

- Thursday, March 22, Teale Lecture Series: Richard Somerville - Distinguished Professor, Scripps Institution of Oceanography, ‘Climate, Climate Change, and the Intergovernmental Panel on Climate Change’, 4:00pm Konover Auditorium, Dodd Center.

- Tuesday April 17th Geoscience Seminar Series Presents: Frank Pazzaglia, Lehigh. Title TBA, 3:30pm Beach Hall 233. Reception to follow!
EPOD from 1/01/2007: The photo above shows the variegated slopes of Artists Palette in Death Valley, California. Various mineral pigments have colored the volcanic deposits found here. Iron salts produce the reds, pinks and yellows, while decomposing mica causes the green, and manganese supplies the purple. The colors tend to be more prominent in the late afternoon. The cobalt blue of the sky is courtesy of Rayleigh scattering. Shorter wavelengths of sunlight (blues and violets) are more effectively scattered by the molecules in our atmosphere than are the longer wavelengths. Additionally, the low humidity of the desert air means that there are fewer water molecules overhead -- less molecules render a darker sky. Photo by Sue Strickland.
Undergrads Graduate!

Congrats to our last 2 remaining geology and geophysics undergraduates:

Michael Louth (BA)
Caitlin Colwell (BS)

Both graduated with degrees in geology this December! Great job!

Appalachian Tectonics Study Group Field Trips

The ATSG has traditionally run low-cost field trips for the wider academic community during the third weekend in May but is currently experimenting with changing the meeting time to encourage broader participation by undergraduate and graduate students. The schedule for the next three years is below.

27-29 April 2007 -- Role of strike-slip faults in the development of the central Appalachian Piedmont -- David Valentino (trip leader).

late April or early May 2008 -- Deformation partitioning and the role of volume change in the Taconian orogen of New England/New York -- Art Goldstein and Jean Crespi (trip leaders).

late April or early May 2009 -- Tectonic unloading and the evolution of the central Appalachians -- Frank Pazzaglia (trip leader).

The field trips are run at cost (there is no registration fee) and usually follow a Friday to Sunday format. In addition to visits to field sites, the trips typically include part-day workshops and discussions. Please contact Jean Crespi (jean.crespi@uconn.edu), if you would like to provide input on meeting time, especially for the 2008 field trip, or if you would like more information.

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!

⇒ January 17th: Happy Birthday! Benjamin Franklin, US Scientist and Pioneering Inventor was born this day in 1706.

Did you know? January 18th, 1933. On this day White Sands National Monument was proclaimed. This is the world’s largest gypsum dune field.

⇒ January 23rd: Happy Birthday! Andrija Mohorovicic, Croatian Physicist, seismologist, and meteorologist was born this day in 1857. He is best known for being the namesake of the “Moho”, the term used for the base of the Earth’s crust.

⇒ January 29th: Happy Birthday! Friedrich Mohs, German geologist and mineralogist was born this day in 1773. Best known for being the creator of Mohs scale of mineral hardness.

GeoTrivia!

Fun with Geoscience Trivia

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1. What is the geophysical property of loadstone that made it important for some ancient civilizations?

2. What term is given to the distorted twig-like lateral formation of calcium carbonate found in areas of some caves?

3. What type of gemstone is a type of beryl that has been colored by the presence of chromium (hint: see photo to left)?

Check your answers:

http://www.geosociety.org/GSA_Connection/0612/trivia.htm

Question 3: This gem is a variety of beryl that has been colored by chromium...
The Connecticut Geological and Natural History Survey has an immediate opening for a Geoscience Information Technician. The successful candidate will assist survey staff with the Connecticut Geoscience Data Preservation Initiative. Duties will include cataloging geologic maps, thesis reports, images, and specimens as part of the CT Survey Library. Additional duties may include Survey web design and content development as part of the Department of Environmental Protection website.

**Qualifications:** Applicants should have a familiarity with geologic information, ability to work both independently and as a member of a team, be well organized. Some familiarity with MS Access, the Library of Congress catalog system, and experience with web publishing is desired.

**Duration:** This is a 6 month, part time or full time position with the possibility of renewal. Compensation is in the range of $10-14/hr. with a flexible work schedule.

**Applications:** Applications for this position can be made by email. Forward a resume with “GIT Application” in the subject heading to:

Margaret Thomas, CT Geological Survey  
Office of Information Management  
Department of Environmental Protection  
margaret.thomas@po.state.ct.us  
(860) 424-3583

12/29/2006
Environmental Leadership Awards

The Environmental Policy Advisory Council is now accepting nominations for the University's biennial Environmental Leadership Awards, to be presented during Earth Day celebrations (late-April 2007) to winners in several categories:

1. Undergraduate Student
2. Graduate Student
3. Faculty/Administrator
4. Staff
5. UConn-Affiliated Group, Center or Institute
6. Alumni
7. External Person or Organization

Nominations cover activities that have occurred during some part of the 2005-06 or 2006-07 academic years and will be accepted through March 15, 2007. Winners will be selected based on proven dedication and outstanding contributions to the principles of environmental leadership as outlined in UConn's environmental policy statement (http://www.ecohusky.uconn.edu/policystatement.html).

Emphasis will be on environmental sustainability or "green" campus activities and projects to: improve UConn's environmental performance; promote responsible management and growth of our campuses; demonstrate UConn's environmental stewardship through outreach activities; advance understanding of the environment through curriculum enhancements or academic programs; increase UConn's use of environmentally sustainable products, materials or services; expand recycling or minimize waste on campus; conserve or restore natural resources or wildlife habitat; or achieve shared environmental goals through teamwork.

A complete listing of the criteria and on-line nomination forms are available at the EcoHusky web site.

http://www.ecohusky.uconn.edu/2007ELA.htm

Please take a few minutes to submit a nomination and help us recognize UConn's environmental leaders! If you have questions, or for more information, contact Cherie Taylor at the Office of Environmental Policy (486-5446).

Wetland Biogeochemistry Symposium April 1-4th

Apr 01-04 10th International Symposium on Wetland Biogeochemistry; Frontiers in Biogeochemistry, Loews Annapolis Hotel, Annapolis, Maryland, USA, by the The Smithsonian Environmental Research Center Biogeochemistry Lab and by the University of Florida/IFAS Wetland Biogeochemistry Lab at the Soil and Water Science Department. (CONTACT: Patrick Megonigal, Smithsonian Environmental Research Center, P.O. Box 28, 647 Contees Wharf Road, Edgewater, MD 21037, Phone: (443) 482-2346 FAX: (443) 482-2380 EMail: megonigalp@si.edu Web: http://www.serc.si.edu/conference/)

The objective of the 10th anniversary of this international symposium is to reflect on the state of wetland biogeochemistry science. Recent years have witnessed a dramatic increase in our knowledge of microbial metabolic diversity that calls for revisiting the classical paradigms resource competition in soils and sediments. Discoveries have come from both traditional biogeochemical studies and novel molecular studies, and they demonstrate the power of integrating these fields. Many recent advances have important implications for the management of natural and created wetland ecosystems.

Interesting Publications to Check Out

Geoscience Handbook, AGI Data Sheets 4th Edition: One of the best-kept secrets in geology is this handy compilation of geological information. The essential reference for geoscientists in the field, office, or lab, The Geoscience Handbook provides quick reference for the key metrics and concepts, as well as short tutorials on subjects that may not be familiar to all geoscientists. The Handbook covers diverse subjects, from geophysics to geologic map symbols to GPS usage, and everything in between! Newly updated for 2006, The Geoscience Handbook is now a larger, but still portable, format for easier reading. Also now in full color, the Handbook uses color photos when possible to better illustrate geology in the real world. Each book comes with a handy fieldwork ruler and a grain-size scale, both supplied courtesy of the Society for Sedimentary Geology (SEPM.)

http://www.agiweb.org/pubs/pubdetail.html?item=300310
Environmental Internships and More!

SCA RESTORATION INTERNSHIPS
Currently looking for eager and qualified individuals to join our partners in their restoration efforts. Whether it's performing prescribed burns to lessen the effects of future wildfires in the West, or removing invasive salt cedar in the Mid-Atlantic, SCA is restoring our lands coast to coast. To find out how you can get involved, check out the positions below and visit our website to apply online: http://www.thesca.org/

2007 NATIONAL WILDLIFE FEDERATION CAMPUS ECOLOGY FELLOWSHIPS CALL FOR PROPOSALS
Deadline: January 31, 2007
Application Guidelines:

NWF is seeking undergraduate and graduate students who are dedicated to confronting global warming on campus and beyond. We encourage sustainability task forces, environmental committees, or similar groups to nominate one or more student applicants for the Fellowship. NWF’s Campus Ecology Fellows receive modest stipends, training, networking opportunities, and national recognition. NWF especially is seeking applicants from campuses interested in stepping up leadership to confront global warming. Projects may cover a range of approaches to confronting global warming, including transportation, energy, habitats, and planning. For more information contact Kristin Kranendonk at 703-438-6265 or campus@nwf.org

EPA’S NATIONAL NETWORK FOR ENVIRONMENTAL MANAGEMENT STUDIES (NNEMS) FELLOWSHIP PROGRAM
The NNEMS program provides associate, undergraduate, and graduate students an opportunity to participate in a fellowship project that is directly related to their field of study. The NNEMS website (www.epa.gov/environed/students.html) has been updated with the 2007 program information and materials. The deadline for submitting applications for 2007 fellowships will be Monday, January 29, 2007. All materials must be postmarked on or before Monday, January 29, 2007 to be eligible for consideration. If you have any questions or require additional information, please contact Amanda Fairley by email at amanda.fairley@ttei.com. NNEMS Fellowship Program 1-800-358-8769

2007 GEOCORPS PROGRAM SUMMER POSITIONS
The 2007 GeoCorps program is now open for application. Click on the website below to view 40 summer positions available with National Parks, National Forests, and BLM lands. Apply today! The application deadline is Fri, 2 Feb. To view positions and application instructions: www.geosociety.org/geocorps

INTEGRATIVE GRADUATE EDUCATION AND RESEARCH TRAINEE-SHIP IGERT’s undergraduate summer research webpage: http://www.igert.org/reus.asp.

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!