

# *GEOBULLETIN*

## *November 30, 2007*

**FALL 2007 LECTURE SCHEDULE** ---- All lectures (unless otherwise noted) are held on **Fridays at 3:30 PM in AB20 (Laudon Lecture Hall)**. Coffee & cookies are served in the lobby starting at 3:15 PM.

**TODAY** ---- November 30 --- Jim Butler --- Kansas Geological Survey ----- 2007 Darcy Lecturer --- "Getting the Information Ground Water Modelers Need: A Report from the Field"

### **SPRING 2008 WEEKS LECTURE SCHEDULE**

January 25 ----- Clark Johnson ---- University of WI-Madison ---- Astrobiology

February 1 ----- Kate Freeman ----Penn State -----

February 8 ----- Neil Shuban ---- University of Chicago -----

February 15 --- Linda Hinnov ---- The Johns Hopkins University -----

February 22 ---- David Wesolowski ----- ORNL -----

February 29 ---- Gene Hunt -----Smithsonian -----

March 7th ----- Francesca Smith ----- Northwestern ----

March 28 ----- Carel J. van Oss ----- SUNY-Buffalo ----

April 4 ----- Martin Saar ----- University of Minnesota -----

April 11 ----- Laurie Brown ---- University of Massachusetts ----

May 2 ----- Board of Visitors' Meeting ---- date reserved ----

May 9 ----- Sean C. Solomon ----- DTM/Carnegie Institution of Washington -----

### **CONGRATULATIONS TO:**

Lee and Mary Powell on the birth of their granddaughter. Tegan Kenlee Cross was born on Thanksgiving Day (November 22). She weighed 5 lbs 14 ounces.

### **GEOCLUB ----- Message from the President (Emily Freeman)**

On behalf of the GeoClub, I'd like to invite all of you to the annual holiday party on December 7<sup>th</sup> at 6:30pm in the 9th floor lounge of Van Vleck Hall (where it was held last year). Since this will be a potluck event, there is no charge to attend. The GeoClub will provide beverages, as well as a deep fried turkey. Please take a moment to sign up in the office to bring an appetizer, entrée, or dessert. As usual, we will be joined in our merry-making by Santa and his elves. For those of you with children, please note: Santa will have a gift for each child and respectfully requests that parents do not bring additional gifts. If you have a gift for an *adult* that you would like Santa to give, please bring it with you to the party.

**EPA Summer Internships** ----- For students interested in working this summer in an office affiliated with the Environmental Protection Agency. EPA's National Network for Environmental Management Studies (NNEMS) Fellowship Program ----- Each year, the program offers research projects developed and sponsored by EPA Headquarters in Washington, DC and in EPA's regional offices throughout the U.S. The program is open to both undergraduate and graduate students. Opportunities exist for all levels, from freshmen through Ph.D. students. Recipients of

NNEMS fellowships receive a stipend based on the student's level of education and the duration and location of the project. The application deadline is Tuesday, January 22, 2008.

The purpose of the NNEMS program is to

- \* provide students with practical research opportunities & experiences in an EPA office or lab
- \* increase public awareness of and involvement in environmental issues;
- \* encourage qualified individuals to pursue environmental careers
- \* help defray the costs associated with the pursuit of academic programs related to the field of environmental protection.

Although these awards are labeled as fellowships, the appointments might be more accurately described as research internships. In 2008 it is anticipated that approximately 20-30 research projects will be offered in the following categories:

- environmental policy, regulation, and law;
- environmental management and administration;
- environmental science;
- public relations and communications;
- computer programming and development.

For more detailed information, including links to the program catalog, the list of research projects, FAQs, and the application form, see the web site at <http://www.epa.gov/enviroed/NNEMS/>

If you have project-specific questions, please check the web site for contact information regarding those research projects. For more general questions, send an email message to EPA-NNEMS advisor, Carolyn Pitera, [carolyn.pitera@ttemi.com](mailto:carolyn.pitera@ttemi.com), or call 1-800-358-8769.

**National Science Foundation** ----- Any students or former students who may be considering undergrad summer research and/or applying to graduate school. **FOR UNDERGRADUATES:** ----- Paid Summer 2008 Undergrad Research Placements!!! Over 600 programs -Undergraduate REU and Other Summer Research Opportunities: See [www.agep.us/summer.asp](http://www.agep.us/summer.asp) or [www.igert.org/summer.asp](http://www.igert.org/summer.asp) **FOR THOSE CONSIDERING GRAD SCHOOL in 2008** ----- Opportunities at over 100 colleges and universities. Professional Development and Support: Alliance for Graduate Education and the Professoriate (AGEP): see [www.agep.us](http://www.agep.us) For Financial Support in New Interdisciplinary PHD Programs Graduate School IGERT Opportunities: [www.igert.org](http://www.igert.org) IGERT programs provide generous stipend and tuition support for students through the National Science Foundation.

**Brown & Caldwell** ----- Two scholarships Brown and Caldwell offer annually. There is additional information and applications on website at [www.browncaldwell.com](http://www.browncaldwell.com)

**UROP International** ----- New undergraduate research internship program. UROP International is run by RWTH Aachen University in Germany, one of Europe's leading universities of technology. UROP International at RWTH Aachen University will give participants the chance to work closely with faculty on new research projects while also broadening their cultural horizons through German language instruction, activities, and excursions. Students will have a wide selection of internships to choose from in Mechanical Engineering, Computer Science, Chemistry, and many other departments. Program dates are May 19 to July 27, 2008. Participants must be enrolled at a US or Canadian university, have completed at least two years of their degree program, and still have undergraduate status upon return. Application deadline: January 31, 2008. More information and current project offers are available at [file://www.urop-germany.de](http://file://www.urop-germany.de) If you have any questions, contact Dr. Heide Naderer -- RWTH AACHEN UNIVERSITY ----- Dez. 2.0 - International Office ---- Dezernentin / Director ---- 52056 Aachen Germany -- Tel.: +49 (0)241 8024115 -- Fax: +49 241 8028544 -- Email: [heide.naderer@zhv.rwth-aachen.de](mailto:heide.naderer@zhv.rwth-aachen.de)

## **POSITIONS AVAILABLE ---- FURTHER DETAILS EITHER ON THE WEB OR IN THE OFFICE**

**Idaho National Laboratory (INL) -----** Two postdoctoral appointments are available to participate in Department of Energy sponsored research related to the stimulation of subsurface biogeochemical processes that can impact inorganic contaminant transport.

1). One position will focus on microbially facilitated mineral precipitation and will require expertise in characterizing microbial transformations. The candidate will work with other research team members to set up, conduct and analyze batch and column studies with variably saturated media and gas-phase amendments. Opportunities to participate in field-based research are also anticipated. For more information about the position, please contact Yoshiko Fujita (208-526-1242; [Yoshiko.fujita@inl.gov](mailto:Yoshiko.fujita@inl.gov)).

2). The other position will focus on the coupling between flow, solute transport and geochemical or biogeochemical processes that modify the properties of porous media by precipitation and biomass growth. The primary responsibility will be to conduct physical experiments although interaction with other research team members engaged in multi-scale model simulations will be critical. The ideal candidate will have a background in both aqueous geochemistry and hydrology. For this position, please contact George Redden (208-526-0765 [george.redden@inl.gov](mailto:george.redden@inl.gov)). General information about the program is available at <http://www.inl.gov/education/postgraduate.shtml>. The two positions are available immediately, although the candidates will have to go through the DOE security clearance process. Non-US citizens may have restrictions with respect to their access to facilities depending on the country of origin.

**Gemological Institute of America, Carlsbad, California -----** The Gemological Institute of America seeks an experienced technical editor for *Gems & Gemology*, an award-winning professional journal, to help communicate complex scientific information to a broad audience that includes gemologists and research scientists. Attention to detail and the ability to evaluate and streamline research results presented in text, table, and graphic form are critical. The position also involves researching and writing articles, news items, and website items. May travel domestically and/or internationally. Will have some supervisory responsibility. REQUIREMENTS: M.S. or M.A. in Geology, Physics, Chemistry, or Materials Science; a Graduate Gemologist diploma is preferred. Plus a minimum of 2 years of technical editing and writing experience; or 4-10 years related experience and/or training; or equivalent combination of education and experience. For more information, visit [http://www.gia.edu/careers/otherpositions/1990/8673/3/job\\_listing.cfm](http://www.gia.edu/careers/otherpositions/1990/8673/3/job_listing.cfm). If you are interested in this position, please attach your resume to an email and submit to [RecruiterLab@gia.edu](mailto:RecruiterLab@gia.edu).

**Paleontological Research Institution (PRI)**, a natural history museum in Ithaca, NY which has an active Earth system science educational outreach program; PRI runs the Museum of the Earth, an exhibits and education facility that opened in 2003.

**1. Position available:** Teacher Resource Developer in Earth System Sciences at the Paleontological Research Institution (PRI), This position is funded over the next five years by a NSF grant to develop teacher professional development resources to help teachers use real-world regional and local Earth system science as the focus of an inquiry-based, systems approach to teaching Earth science. The project expands upon existing "Teacher-Friendly Guides" to Earth science of the Northeastern and Southeastern U.S. and associated teacher professional development approaches. This position involves writing and page layout for Teacher-Friendly Guides to five other regions of the U.S. The project also incorporates facilitating teacher construction of interactive teaching tools such as virtual fieldwork, overseeing creation of a website for collaboration and sharing resources, and using the materials in the context of teacher workshops. Qualifications: MS or PhD in some area of Earth system sciences, and understanding of best practices in Earth science education and teacher professional development. This position is

best for someone who enjoys using web-based technology and has the capacity for traveling to numerous meetings and conferences. Position will begin in early 2008. More information about PRI can be found at [www.priweb.org](http://www.priweb.org) and [www.museumoftheearth.org](http://www.museumoftheearth.org). Applicants should send a cover letter describing your interest in and qualifications for the position, a resume/CV, and a list of three references (including address, phone number, and e-mail address) by email to [mr16@cornell.edu](mailto:mr16@cornell.edu) or by mail to: Director of Education, Paleontological Research Institution, 1259 Trumansburg Road, Ithaca, NY 14850. Review of applications December 10, 2007.

**2). A second position** --Teacher Development Coordinator in Earth System Sciences ---- focuses upon coordination of teacher participation in workshops and advisory panels and upon online interaction and resources. This position is funded over the next five years by a NSF grant to develop teacher professional development resources to help secondary school science teachers use real-world regional and local Earth system science as the focus of an inquiry-based, systems approach to teaching Earth science. The project expands upon existing "Teacher-Friendly Guides" to Earth science of the Northeastern and Southeastern U.S., creating Guides and teacher resources for each of five other regions of the U.S. Qualifications: Must have experience in secondary school science education, in use of online collaborative tools, and website development. Position will begin in early 2008. More information about PRI can be found at [www.priweb.org](http://www.priweb.org) and [www.museumoftheearth.org](http://www.museumoftheearth.org). Applicants should send a cover letter describing your interest in and qualifications for the position, a resume/CV, and a list of three references (including address, phone number, and e-mail address) by email to [rnr16@cornell.edu](mailto:rnr16@cornell.edu) or by mail to: Director of Education, Paleontological Research Institution, 1259 Trumansburg Road, Ithaca, NY 14850. We will begin review of applications December 10, 2007.

3). Post-doctoral position available: Teacher Professional Development Post-doctoral Fellowship in Earth System Sciences at the Paleontological Research Institution (PRI), Ithaca, NY Description: The Paleontological Research Institution (PRI) has an upcoming opening for a Teacher Professional Development Coordinator in Earth system science. This position is funded for two years of a five-year National Science Foundation grant to develop teacher professional development resources to help secondary school science teachers use real-world regional and local Earth system science as the focus of an inquiry-based, systems approach to teaching Earth science. Qualifications: Ph.D. in science education, preferably with emphasis in teacher professional development. Special knowledge of secondary school science education, online learning communities help. Position can begin as early as July 2008. Applicants should send a cover letter describing your interest in and qualifications for the position, a resume/CV, and a list of three references (including address, phone number, and e-mail address) by email to [rnr16@cornell.edu](mailto:rnr16@cornell.edu) or by mail to: Director of Education, Paleontological Research Institution, 1259 Trumansburg Road, Ithaca, NY 14850. Review of applications begins February 25, 2008.

**University of Nevada, Las Vegas** ----- The Department of Geoscience seeks candidates for a full-time, 9-month, tenure-track appointment at the Assistant Professor level in Soil Chemistry and/or Clay Mineralogy, commencing Fall 2008. The successful candidate is expected to teach effectively and perform service at all levels; and carry out an active, independent, and externally funded research program. Teaching duties include undergraduate/graduate level courses in soil chemistry, graduate courses in their research specialty, and an undergraduate introductory geoscience course. Preference will be given to innovative and dynamic researchers who use soil chemistry or clay mineralogy to solve global or interdisciplinary problems. Applicant must have a Ph.D. from an accredited college or university in Soil Science or related field. The department web site is: <http://geoscience.unlv.edu/>. Application materials must include a cover letter, curriculum vitae, proposed research plans (five page limit), statement of teaching philosophy and interests, and contact information for five referees. Review of application materials will begin on February 4, 2008. Materials should be addressed to Dr. Wanda J. Taylor ([wanda.taylor@unlv.edu](mailto:wanda.taylor@unlv.edu)), Search

Committee Chair, and are to be submitted via on-line application at <https://hrsearch.unlv.edu> . For assistance with UNLV's on-line applicant portal, contact Jen Martens at (702) 895-2894 or [hrsearch@unlv.edu](mailto:hrsearch@unlv.edu).

**University of Miami** ----- The Division of Marine Geology and Geophysics at the University of Miami's Rosenstiel School of Marine and Atmospheric Science is looking for a candidate to fill a tenure track position in the field of Geochemistry. The precise area of geochemical expertise is open. Areas might include, but are not limited to, radiogenic isotopes, isotope geochemistry of elements not analyzed in the gaseous phase, organic geochemistry, and biogeochemistry. Applicants are expected to develop a dynamic, externally-funded research program supporting PhD students, and interact with other interests in the division and school, particularly in the areas of sedimentology, global change, geochemical cycling, and paleoceanography. For details of existing faculty and research interests please visit our web site at <http://www.rsmas.miami.edu/divs/mgg/>. Anticipate filling this position at either the Assistant or Associate Professor Level. Send CV, names of four references, and statement of interest to: Chair Marine Geology and Geophysics, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149. Application deadline: Initial examination of applicants will take place after December 1, 2007 although the positions will remain open until suitable applicants are identified.

**Miami University** ----- The Department of Geology is seeking to fill an NSF-funded research assistant position in the field of radiocarbon geochronology. This research is focused on radiocarbon dating of terrestrial gastropod shells from wetland, loess, and glacial deposits from the Midwest. Applicants should have a background in Quaternary geology and/or geochronology. Review of applications will be on February 2, 2008. Research Projects :*Radiocarbon dating North American terrestrial gastropod shells, NSF Sedimentary Geology and Paleobiology (Collaborative Project; Jason Rech, Miami University, Jeff Pigati, USGS; & Jeff Nekola, University of New Mexico)* The aim of this research project is to determine which taxa of terrestrial gastropods do not ingest limestone and are therefore suitable for radiocarbon dating. If interested in these research opportunities, Contact Prof. Jason Rech [rechja@muohio.edu](mailto:rechja@muohio.edu)

**Drake University** ----- Pending final budgetary approval, full-time tenure-track Assistant Professor of Environmental Geology starting August 2008. PhD in the environmental geology field preferred, advanced ABDs will be considered. The successful candidate will be a member of an innovative and interdisciplinary undergraduate program in Environmental Science and Policy within a liberal arts setting. Expertise in one or more of the following areas is essential: geomorphology, hydrogeology, watershed systems or soil genesis. Teaching assignments will include Principles of Geology, Environmental Geology, and specialty courses. Strong multidisciplinary experience is necessary with ability to integrate environmental management and water resource issues into research and teaching. Proficiency in Geographic Information Systems is desirable. Applicants should submit a letter of application, curriculum vita, evidence of teaching effectiveness, statements on teaching philosophy and research agenda, and the contact information for three references to: Director, Environmental Science and Policy, Drake University, 2507 University, Des Moines, IA 50311. E-mail inquiries to [Thomas.Rosburg@drake.edu](mailto:Thomas.Rosburg@drake.edu). Review of applicants will begin December 1, 2007 and continue until the position is filled.

**Arapaho and Roosevelt National Forests, Pawnee National Grassland** ----- Fort Collins, CO --  
---- Supervisor's Office ----- Abandoned Mine Lands Program Manager GS-0810/0819/1301/1315-12 ----- This position serves as one of five program staff who report to the Engineering, Lands, and Minerals Group Leader on the Forest. The position serves as Abandoned Mine Lands program

manager on a complex Forest on the Front Range of Colorado. Responsibilities include program management for abandoned mine lands, budget planning and execution, providing input for long range planning and strategy, review and approval of technical reports and plans. The incumbent would direct all technical work (as an OSC) conducted at assigned Forest Service CERCLA sites, serve as the primary contact with Potentially Responsible Parties, State and Federal regulatory agencies, Federal trustees, and others involved with CERCLA response actions. The vacancy announcement for these positions, when open, will be posted at the USA jobs web site, the U.S. Government's official site for jobs and employment information, at <http://www.usajobs.opm.gov>. Additional Information about the Forests and Grassland can be found at: <http://fsweb.arnfpng>

Position Information Contacts: The purpose of this Outreach Notice is to determine the potential applicant pool for this position and to establish an appropriate recruitment method and area of consideration for the vacancy announcement (e.g., Region-wide, Service-wide, Government-wide, or DEMO). Responses received from this outreach notice will be relied upon to make this determination. If interested in this position complete an outreach form and return it to: Tim Sutton, Engineering, Lands, and Minerals Group Leader e-mail: [tsutton@fs.fed.us](mailto:tsutton@fs.fed.us) Phone: (970) 295-6650 Fax: (970) 295-6696 Address: Arapaho-Roosevelt NF/Pawnee NG, 2150 Centre Ave., Building E., Fort Collins, Colorado 80525. Please respond via email by January 11, 2008.