

# GEOSCIENCES NEWSLETTER



VOLUME 6, ISSUE 1

SEPTEMBER 4TH, 2009



## WELCOME TO A NEW ACADEMIC YEAR

**Dear students, alums, faculty and friends of Geosciences,**

This summer, the sad news of Ted Apotria's passing away reached us. Ted graduated with a Master's degree from the Geology and Geophysics program in 1985 and worked with Prof. Norm Gray. His most recent work for Exxon Mobil took Ted to Indonesia, but he remained in close contact with UConn and was one of the most significant donors to our Nugget fund. Ted passed away on June 6, 2009 at the young age of 48. The obituary of this remarkable geologist can be found on page 6.

In addition to the return of

many familiar faces, the new academic year brings us several changes. Eben Rose has joined the faculty as Instructor-in-Residence. Eben, ABD at Yale, recently taught at Bowdoin College in Maine. He will fill several niches in support of the new undergraduate major. We also welcome 4 new graduate students: James Cassanelli continues his studies at UConn working on an MS with Gary Robbins, Chung Huang arrived from Taiwan where he attended Taiwan National University and will work towards a PhD with Tim Byrne and Jean Crespi, Lexy Fowler joins us from Hartwick College in upstate New York to work

on an MS with Christophe Dupraz and Pieter Visscher, and Natalie Stork comes to us from UC Davis and will also work with Christophe Dupraz and me on a PhD Degree. Please stay tuned for upcoming graduate student profiles in future newsletters.

Finally, Abi Hastillo is back fulltime to remain her strategic position in holding the Geosciences fort. We are grateful for Rose Karosi's diligent work and assistance during most of the previous academic year.

Welcome back and best wishes for a successful year ahead.

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### INSIDE THIS ISSUE:

ANNOUNCEMENTS	2
EVENTS	3
EPOD	4
GEOTRIVIA	5
NEWS/UPDATES	8

### IN THE NEWS FOR GEOSCIENCES:

- *Giant retailer Wal-Mart is looking to get greener, starting with a new plan to use wind power to supply 15 percent of its energy needs. The energy will come from Texas wind farms constructed by Duke Energy, which went online this spring. That avoids releasing more than 139,000 metric tons of carbon dioxide emissions per year — the equivalent of taking about 25,000 cars off the road. The move could push Wal-Mart up to 15th on the Environmental Protection Agency rankings of green-powered companies.*

## GEOSCIENCE MAJOR IN FULL SWING

Fall is here, and with it the Geoscience major at UConn is off and running! Already 14 students have declared Geoscience as their major since last semester, and we hope there's many more that will be joining us this year.



Students interested in the major or wanting to declare can talk to undergraduate coordinator Jean Crespi (486-0601 or [jean.crespi@uconn.edu](mailto:jean.crespi@uconn.edu)), or Pro-

gram Assistant Abi Hastillo (486-4432 or [geology@uconn.edu](mailto:geology@uconn.edu)). Students can also look for us at the fall Majors Fair for more information.

## ANNOUNCEMENTS, AWARDS, PUBLICATIONS, ETC...

### **Presentations:**

Burchsted, D., Daniels, M.D., Thorson, R.M., 2009. Including beavers in the river restoration baseline. GSA Abstracts with Programs Vol. 41, No. 3.

Burchsted, D., 2009. Geomorphology of beaver activity and river restoration goals. Connecticut Conference on Natural Resources, March 2009.

Mullins, D., Ruta, M., Burchsted, D. 2009. The Willimantic River: opportunities for restoration, recreation & revitalization. Connecticut Conference on Natural Resources, March 2009.

Burchsted, D. A conceptual model of the reference beaver-dominated headwater system. Diadromous Species Restoration Research Network (DSRRN) Science Meeting, July 2009.

Obeysekara, P.T. Freshwater mussel distributions: geomorphology & ecology. Connecticut Conference on Natural Resources, March 2009.

Witharana, C. Estimating water depths and evacuation

routes for coastal flooding events with ArcGIS. Connecticut Conference on Natural Resources, March 2009.

Visscher, P.T. Keynote at "Calibrating Geological Records of Environmental Change from Lakes to Oceans", Centro Stefano Franscini, Monte Verità, Ascona, Switzerland entitled: *Microbial Records in Sedimentary Systems: What is biotic and how can we know?*

Glunk, C., Dupraz, C., Braissant, O., Verrecchia, E.P., and Visscher, P.T., 2008. The onset of biogenic calcium carbonate precipitation in hypersaline microbial mats (Eleuthera, Bahamas). AAPG, Colorado Convention Center, Denver, June 7-10, 2009.

### **Other Announcements:**

Prof. Tim Byrne is quoted on 'Wired.com' for his work with IODP: Scientists Drill a Mile Into Active Deep Sea Fault Zone

<http://www.wired.com/wiredscience/2009/07/nankai/>

### **Publications:**

Xu, L., Hu, Y-L., Pelligra, C., Chen, C-H., Jin, L., Huang, H., Sithrambaram, S., Aindow, M., Joesten R., and Suib, S. L., 2009, *ZnO with different morphologies synthesized by solvothermal methods for enhanced photocatalytic activity*. Chemistry of Materials 21, 2875-2885.

Stolz, J.F., R.P. Reid, P.T. Visscher, A.W. Decho, R.S. Norman, R.J. Aspen, E.M. Bowlin, J. Franks, J.S. Foster, D.M. Paterson, K.M. Przekop, G.J.C. Undewood, L. Prufert-Bebout. *The microbial communities of the modern marine stromatolites at Highborne Cay, Bahamas*. J. Atoll Research 567:1-29.

Baumgartner, L.K., D.H. Buckley, C. Dupraz, J.R. Spear, N.R. Pace, and P.T. Visscher. 2009. *Spatial and temporal changes in the microbial communities of lithifying and non-lithifying microbial mats*. Environmental Microbiology. doi:10.1111/j.1462-2920.2009.01998.x



*Multnomah Falls in Oregon.*

## GRAD STUDENT'S ICELAND EXPERIENCE

This summer Geological Sciences PhD grad student Kristen Myshrrall traveled to Iceland for 3 weeks to participate in the Nordic-NASA Summer School: Water, Ice and the Origin of Life in the Universe.

The summer school consisted of lectures from scientists all over the world on topics ranging from the wa-

ter chemistry of molecular clouds to the origins of life, lab work using computer programming and geomicrobiological and molecular protocols, and field trips. While there, students saw many volcanoes, beautiful columnar basalts, geysers, waterfalls, and the Mars-like landscape in the central highlands, stood in a vol-

canic crater, climbed a glacier, hiked in to collect samples from hydrothermal hot springs, and got to stand in the rift valley between the European and North American plates.

Kristen reports that it was an amazing trip where she learned many new things and made many new friends and contacts.



*Kristen on an Icelandic glacier during NASA Summer School.*

## SCHEDULE OF EVENTS

- **Thursday, Sept. 24. Teale Lecture Series:** Dr. Kerry Emanuel, MIT “*A Sober Look at Global Warming*” 4:00pm Konover Auditorium (Dodd Ctr.)
- **Thursday Oct. 4. EEB Seminar Series:** Mark Burtness, Brown University “*Why Experimental Ecology Matters to Conservation Biology*” 4:00pm BPB 130.
- **Thursday Oct. 22. Teale Lecture Series:** Dr. John Elder “*Literature and Sustainability*” 4:00pm Konover Auditorium (Dodd Ctr.)

Algae growth in hydrothermal waters of Yellowstone.



## SCHEDULE OF EVENTS

- **Thursday Nov. 5. EEB Seminar Series:** David Jablonski, University of Chicago “*Out of the Tropics: Paleontological insights into the dynamics of the latitudinal diversity gradient*” 4:00pm BPB 130.
- **Thursday Nov. 19. Teale Lecture Series:** Dr. Stephen Polasky “*Coming Down to Earth: Valuing Nature to Improve Decision Making*” 4:00pm Konover Auditorium (Dodd Ctr.)

## DEPARTMENTAL SEMINARS

- **EEB seminars take place on most Thursdays at 4:00pm in BPB 130.**
- **Physics seminars take place on most Fridays at 4:00pm in Physics building P038.**
- **Chemistry seminars take place Wednesdays at 4:00pm in Chem A203.**
- **MCB seminars take place on most Tuesdays at 4:00pm in BPB130.**
- **Marine Science seminars take place on Fridays at 3:00pm at the Avery Point campus in room 103. \*Seminars students are interested in? We can see about setting up a webcam to cast the seminar here in the Beach Hall library.**

## MEETINGS AND MEMBERSHIPS

### **Student Memberships:**

Undergrads and Grads alike should belong to professional societies—they offer many student perks (travel grants, discounts) as well as look great on a resume. See below for some societies to consider along with their student dues!

**GSA:** \$30/year for student membership. Sign up:

<http://www.geosociety.org/members/student.htm>

**AGU:** \$7/year for student membership.

<http://www.agu.org/about/membership/index.shtml>

**SEPM:** \$25 for online student membership.

<https://www.sepm.org/students/studenthome.htm>

**AAPG:** \$10—however Chevron will pay for student memberships! See their website for more info.

[http://www.aapg.org/member/application\\_student.cfm](http://www.aapg.org/member/application_student.cfm)

**National Groundwater Association:** \$25 for stu-

dent membership.

<https://info.ngwa.org/servicecenter/membership/joinrenewagwse.cfm>

**SEG:** \$21 for student membership.

<http://www.seg.org>

### **Meetings:**

NE GSA Meeting this year will combine with SE and take place in Baltimore, MD. 13-16 March 2010—we will post more information as it becomes available.



## EARTH SCIENCE PICTURE OF THE DAY



***EPOD from 7/23/2009***— While doing some landscaping at my home in Hot Springs, South Dakota, I discovered the palaeoniscoid fish fossil above in pallets of recently delivered limestone slabs. The rock was from a quarry that's about 3 miles (5 km) from my home. Note that the fish is exceptionally well preserved with scales, fins and skull features clearly visible. It's preserved in a 30 lb (13.5 kg) slab of Minnekahta limestone, which has been dated to 260-270 million years ago (mya). According to Dr. Jim Martin, executive curator of the South Dakota School of Mines and Technology, "What David found appears to be a palaeoniscoid fish, a primitive ray-finned fish, which was within the group that may have given rise to later ray-finned fish, such as herrings and minnows." Palaeoniscoids lived in a shallow, brackish sea that covered much of what is now South Dakota approximately 270 mya. This fossil has been loaned to the South Dakota School of Mines for display in their Museum of Geology. Photo taken on July 29, 2008.—**Photo by David Brown**

## EARTH SCIENCE WEEK 2009

AGI invites you to take part in Earth Science Week 2009! Being held October 11-17, Earth Science Week 2009 will encourage people everywhere to explore the natural world and learn about the geosciences.

*“Understanding Climate,”* the theme of Earth Science Week 2009, will promote scientific understanding of a timely, vital topic:

Earth’s climate.

AGI hosts Earth Science Week in cooperation with sponsors as a service to the public and the geoscience community. Each year, local groups, educators, and interested individuals organize celebratory events. Earth Science Week offers opportunities to discover the Earth sciences and engage in responsible stewardship of

the Earth. The program is supported by the U.S. Geological Survey, NASA, the National Park Service, the AAPG Foundation, and other geoscience groups.

If anyone is interested in an event here at UConn for Earth Science Week, talk to Abi and we can set something up. Some ideas include a geode breaking table in the



hall, Earth Science movie showings, free rock/mineral identifications, or speaking to local high school Earth Science classes.

## GEOSCIENCE CURRENTS AND GEO-TRIVIA

**Geoscience Currents #25** takes a close look at the State University of New York College at Oneonta’s Earth Science Outreach Program (E.S.O.P.) and how it approaches recruiting new geoscience majors from the pool of high school graduates. Since its inception in 2004-2005, 402 students from 10 high schools across New York

have taken advanced geoscience elective courses in their high schools through E.S.O.P. A snapshot of the most recent year for 5 schools shows 13 of 67 students (19.4%) have decided to major in the geosciences as a result of participating in E.S.O.P.

[Read more in Geoscience Currents #25](#) (click for

link)

### Fun with Geoscience Trivia.

- \*\*\*\*\*
1. What term is given to the slow movement of water-saturated material down slopes?
  2. In what type of rock would you find stylonites developed?

3. In what period is the Turonian?

**Check your answers:**

[http://www.geosociety.org/GSA\\_Connection/0907/trivia.htm](http://www.geosociety.org/GSA_Connection/0907/trivia.htm)

## GEO-WEBSITES

• **Earth Science Animations:** This will open as a word document that links to many useful animations such as: strike/dip, Pangea formation, Mohs Scale, hurricanes and more. Over 400 available!

[http://geography.cst.cmich.edu/FrancIM/Animations/animation\\_list\\_posted.doc](http://geography.cst.cmich.edu/FrancIM/Animations/animation_list_posted.doc)

• **NASA’s Earth Science Page:** Find our more about how

NASA contributes to the Earth Sciences - missions, satellite imagery, and other research information!

<http://nasascience.nasa.gov/earth-science>



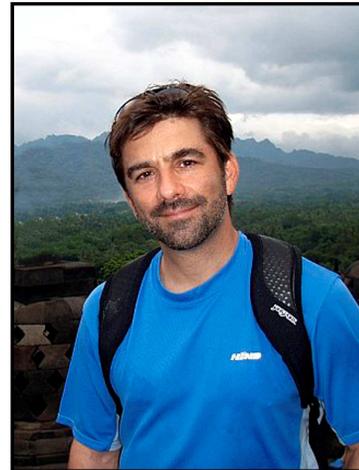
## PASSING OF A NOTABLE ALUMNUS

Theodore George (Ted) Apotria passed away in Houston, Texas, on June 6, 2009, after a struggle with a cancer, aggressive and difficult to treat, that had spread to his brain. He was surrounded by family and friends in the final moments of his life.

Ted is survived by his wife, Amy Ruf, of Houston, TX, and their dear golden retriever, Greta; his mother Cleo (Fanolis) Apotria, of Hamden, CT; his brother John Apotria and John's children, Alexa and Michael, of East Haven, CT. Ted is also survived by many in-law family members, and his life-long closest friend Bart Anderson of Sydney, Australia. He was preceded in death by his father George T. Apotria of Hamden, CT. A memorial was held on June 9 at Ted and Amy's home in Houston, where family, friends, and co-workers, near and far, gathered and paid their respects.

Ted was born in New Haven, Connecticut, on August 1, 1960, to Cleo and George T. Apotria. He spent his childhood in Connecticut and graduated from Hamden High School in 1978. He finished a BS and an MS in geology at the University of Connecticut in 1982 and 1985, respectively. In 1985 Ted moved from Connecticut to Texas. In 1990 he completed his Ph.D. in geology at Texas A & M University. He began his professional career in the Houston area as a geologist with Shell Research in 1990, moving to Exxon Research in 1993. He worked with ExxonMobil Exploration Company from 2000 to 2007. In 2007 he and Amy accepted an assignment with ExxonMobil Oil Indonesia, relocating with Greta to Jakarta, Indonesia for a project that was to have lasted three to four years. On September 11, 2009, Ted and Amy would have celebrated their 10th wedding anniversary.

Ted was recognized in his company and in the petroleum community as an expert in his field of Structural Geology. He shared his expertise in geology as a teacher, mentor, and advisor for others in his company, and received special recognition for his teaching abilities. He was the author and frequent editor of many professional and technical papers and had presented numerous papers at international conferences and meetings. He was the co-editor and a contributing author for a special edition of the Journal of Structural Geology published in May 2004. While conducting geoscience research at ExxonMobil, Ted co-authored two patent applications that were subsequently accepted.



Ted Apotria  
August 1, 1960 - June 6, 2009

Friends remember Ted for his passion for professional and intellectual pursuits, as well as his love for outdoor activities and his devotion to those closest to him. Ted's varied interests included geology, golf, fitness, food, family, politics, philosophy, and people. In high school and college Ted was an accomplished competitive gymnast and diver who won many trophies. As an adult, he became an inspired and expert golfer, who had shot a hole in one. Hearing of Ted's passing, a golfing buddy emailed friends a scanned copy of a scorecard he had saved as a memento of the day Ted golfed a nearly flawless 18 holes for a score of 69 at the Wildcat Golf Club in Houston. Ted shared his skill and his love of golf with those less fortunate, mentoring children of all backgrounds (some of whom had never even seen a golf course) as part of The First Tee program at Houston's Redstone Golf Club.

Ted was an avid reader and independent thinker who took pleasure in lively discussions of a political and social nature. He and Amy traveled the world for work and pleasure, visiting every continent except for Antarctica. He invariably enjoyed the local golf wherever he went, whether it was Scotland and Ireland or Lagos, Nigeria, and Doha, Qatar. He leaves behind friends in every corner of the U.S. and the world, from Australia to Norway, Greece, Egypt, Canada, and Southeast Asia. He will be remembered by everyone close to him for his tireless love of learning, and his constant thirst for knowledge and meaning.

Friends who wish to commemorate Ted Apotria with a charitable contribution may choose to donate funds or volunteer services to The First Tee program at Houston's Redstone Golf Club or to Make-A-Wish Foundation. Both are non-profit organizations concerned with helping children in need, and contributions to both groups are tax deductible. Please specify that you are making a contribution in memory of Ted Apotria.

Contact information is as follows:

The First Tee:

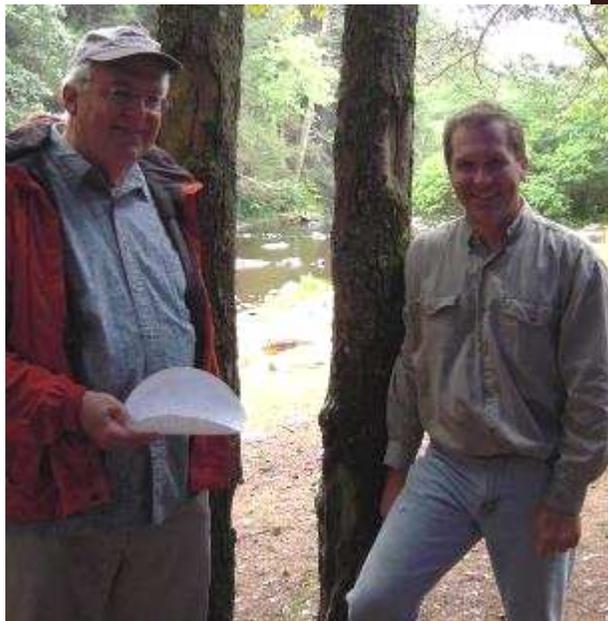
Tel. 281-454-700 - [www.thefirstteehoustonredstone.org](http://www.thefirstteehoustonredstone.org)

Make-A-Wish Foundation:

Tel. 866-880-1382 - [www.wish.org/help/donate](http://www.wish.org/help/donate)

## WELCOME PICNIC PICS!

*Even the rain and shutting down of Rt. 44 couldn't keep some people away from our annual picnic! Thanks to all who made for a fun evening this year!*





## UNIVERSITY OF CONNECTICUT

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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!*

## NEWS AND UPDATES

### **Some updates for everyone on things going on around Beach Hall:**

**Computer Lab:** Beach 243, our computer lab, has been updated and had some decorating done. This room is not for general use, it is for Geoscience majors and Grad students. Items have gone missing, and the lab has been left in disarray in the past. The lock code on the door has changed, so see Abi for access and please DO NOT give this code out to anyone else or leave the door propped open. If someone wants access they can come see me! Thanks!

**Cavern:** The cavern now has some working computers!

They aren't the fastest in the world, but they work. This door will be open daily during office hours, or see a grad lab instructor or faculty member for access if it is locked. Again, this room is a lounge for our majors, and study area for our intro labs. Please use it with respect!

**UConn GeoClub:** Interested in starting one up? Come to an informational meeting on Tuesday September 22 at 3:45pm in Beach Hall 233 (library). This is for both undergrad and grad students, as well as non-majors—anyone interested at UConn can join!

**Geological Society of CT Meeting:** This newly formed

group aims at bringing together people in the field of geoscience from around the state. The preliminary meeting will be held in November. For more information you can talk with Christine Witkowski, who runs the Dinosaurs Course in the fall, or email Abi and I can put you in touch with the organizers to join the group (\$20/year dues) and get on their mailing list.

**Nature Geoscience Magazine** is available through Babbage Library! From its first issue in 2008, the journal and archive is available to download online. Log into HOMER and search for journal title Nature Geo-

science and a link will come up. All UConn students and faculty/staff can access the journals if they are logged in to the library system.

**AGI Glossary of Geology** available online: As Academic Associates of AGI, we have access to the new online Glossary of Geology. 2 of the computer lab computers have access, and are labeled so you can recognize them. Those computers are also bookmarked (in Mozilla) with the URL!

[http://glossary.agiweb.org/  
dbtw-wpd/glossary/  
search.aspx](http://glossary.agiweb.org/dbtw-wpd/glossary/search.aspx)