... working globally on the frontiers of tectonics, geodynamics, energy, natural hazards, and sustainability
Supporting efforts to enhance and strengthen relationships with our alumni and friends, Hilary Diekow, Assistant Director of Alumni Affairs and Development in the College of Engineering, has partnered with EAS and others to connect with and visit alumni and friends on and off campus. EAS has identified a number of funding priorities that will enable successful transformation for the future. Some department goals include Graduate Fellowships, Teaching Assistantships, Experiential Learning, Laboratory Renovations and Field Equipment, as well as Faculty Recruitment and Retention. We are asking you to Invest in the Future of Your Earth. Giving is easy; you can make your gift online at: https://www.giving.cornell.edu/give/. If you have any questions or would like more information, please contact Hilary at (607) 220-4066 or had1@cornell.edu.
Uncertainty and Opportunity have been the watch words for EAS over the first half of 2009. Cornell’s response to the global financial meltdown that began last fall is still being formulated, but the immediate impacts on Cornell have been very real in terms of reductions in both personnel and financial resources. Fortunately EAS entered this turbulent period relatively well positioned. Not only had EAS already completed a number of strategic faculty hires (5 over a period of 4 years), we were one of the few departments allowed to pursue an additional hire because the research area involved, Climate Change, was a University priority. Thus, Art DeGaetano and I are especially pleased to announce that Dr. Gang Chen, a recent graduate of MIT specializing in climate modeling has accepted an offer from the College of Agriculture and Life Sciences to become the latest member of the EAS faculty.

Another key asset to EAS in the current environment is its expanded web of research collaborations, especially within the College of Engineering in the area of energy. Not only has Snee Hall been chosen to host Cornell’s new Center for Sustainable Energy, but EAS faculty have played key roles in a number of major new energy initiatives, ranging from enhanced geothermal systems to carbon sequestration to nanoparticle tracers. Energy extraction and its environmental impact are also now very much a “backyard” issue for EAS, with the gas industry seeking to ramp up its exploitation of the Marcellus Shale (a “tight gas” formation) while environmental groups are responding with concerns over the potential impact of this activity on local water resources and community infrastructure. Our own Water Resources Institute (Prof. Susan Riha, Director) and the Museum of the Earth (Prof. Warren Allmon, Director) have taken leading roles as neutral brokers of the scientific information needed by the public to make informed decisions on this and other energy issues at the state and local level. Our researchers are viewing this resurgence of energy exploration in our area as a new opportunity to pursue fresh lines of research while strengthening our ties to both the energy industry and environmental interests.

Exciting local opportunities are just part of the future: EAS continues to strive for international prominence, with our faculty and research staff playing leading roles in major projects around the globe. From the Himalayas to the Andes, from the deep interior to the edge of space (and beyond!), our researchers and students are pushing at the frontiers of our science. Our curriculum is responding to the demand by students for a broader view of our home planet and its processes, while our faculty seek to maintain the depth of training needed to ensure that our graduates are prepared for leadership whatever their ultimate career choice.

In spite of notable progress, this is no time for complacency. The University is taking a hard look at how its units perform, the needs they address, and how they may be reorganized to ensure efficiency and competitiveness in the future. As a multi-college department, EAS is especially sensitive to both the dangers and opportunities that any potential reorganization represents. Given the unprecedented environmental and energy challenges we now face as a society, we believe that our Department’s contributions to Cornell are more critical than ever. You can help us seize the opportunities swirling amongst the current uncertainties by reconnecting, by giving (see opposite page), by expressing your opinion. Go to www.eas.cornell.edu/shapethefuture.html/ to find out how you can become part of the future of EAS.
Faculty news...

Chaired Professorships for three EAS faculty went into effect November 1, 2008. Congratulations to these well deserving faculty on their elections:

- Larry D. Brown - first Sidney Kaufman Professor in Geophysics
- Teresa E. Jordan - J. Preston Levis Professor
- Suzanne M. Kay - William and Katherine Snee Professor in Geological Sciences

EAS retired professor Sidney Kaufman passed away at his home in Houston on October 23, 2008, at the age of 100. Sid will be remembered for his brilliant mind and generosity to the Department which continues to benefit our students. His final sign of dedication to EAS came in the form of an endowment which is now the Sidney Kaufman Chair in Geophysics.

Natalie Mahowald has been promoted to Associate Professor with indefinite tenure, effective February 1, 2009.

Congratulations to Muawia Barazangi on his appointment as Emeritus Professor. Barazangi retired at the end of December 2008, but has not been idle. He remains actively involved with the Institute for the Study of the Continents (INSTOC) and continues to contribute in many ways to the department.

New Faces in EAS...

Tom Fournier and Mike Willis joined EAS in 2008 as Postdocs working with Matt Pritchard and Rowena Lohman. Fournier defended his thesis at the University of Alaska, Fairbanks in 2008, where he worked with Jeff Freymueller and others to use GPS data to understand the active deformation processes at Alaskan volcanoes and from the subduction zone. Tom also spent time working closely with the Alaska Volcano Observatory and helped to respond to volcanic crises like the 2006 Mount Augustine eruption. At Cornell he will continue to study deformation caused by volcanoes and subduction throughout the Americas.

Willis recently completed his PhD and a short postdoc at the Byrd Polar Research Center at The Ohio State University. Mike will be using remote sensing data to study glacier change in Alaska and Patagonia and will be involved in some field work.

In August 2009, Dr. Gang Chen will become the newest member of the EAS faculty. Chen, a recent graduate of MIT, specializes in Climate Modeling.

Department News...

EAS Prof. Steve Colucci and graduate students Nick Frankoski and Steve Jessup presented talks during the 14th Cyclone Workshop in Sainte-Adele, Quebec, September 22 - 26.

The EAS Advisory Committee met November 6 - 8, 2008 at Cornell. The committee reviewed the progress of our new EAS Strategic Plan and heard faculty presentations on current research and curriculum. An Advisory Committee panel held a discussion for students about careers and answered questions the students asked following the session. Our Department appreciates the Committee’s time investment and looks forward to continued interactions.
AAPG Invited Speaker, Robert Ostrander (B.S. Cornell ’52) visited EAS on November 3. Ostrander spent 38 years in the petroleum business in 48 countries. His final position was Interregional Advisor for the United Nations Department of Technical Co-Operation for Development. Robert led a lunchtime discussion for graduate students to discuss opportunities in industry, as well as an afternoon talk covering a broad range of topics including the “Old” Cornell Department, synergism, global warming, sequestration of CO₂, Marcellus Shale, and the connection between sources of alternative energy and economics. The Ostranders are local residents.

**SPRING NEWS**

Matt Pritchard’s 3.5 million dollar proposal for detailing volcanic studies in Bolivia and Chile will be funded by NSF. Pritchard received word that the continental dynamics project of which Cornell is a Co-PI, will continue for the next five years. Adjunct Professor Martyn Unsworth, University of Alberta, is also part of this research. The project involves institutions in Chile, Argentina, and Bolivia, and six institutions in the U.S. and Canada.

NSF Geosciences and SeaWeb recently highlighted the work of Chuck Greene and colleagues. They reconstructed the patterns of climate change in the Arctic from the Paleocene epoch to the present.

Since the start of the academic year, Larry Cathles has been working with a research group to develop non-sticking nanometer-diameter particles to employ as non-diffusing tracers in ground water flow. Because the nano-particles do not diffuse away from the flow fractures, they arrive much more quickly than a chemical tracer. Comparison of the chemical and nano-particle arrival curves provides a direct measure of fluid bypass - one of the most important parameters for assessing contaminant transport and water flooding to enhance oil and gas recovery. Base funding is provided by KAUST (King Abdullah University of Science and Technology). Additional funding has just been received from Saudi Aramco.

Lou Derry was featured in the April 2009 issue of Geochemical News. The article, *Five Questions with Louis Derry*, by Stephen Komor, gives readers insight into Derry’s current research, his approach to the work, questions he is trying to answer, and where he thinks the field is heading in the next three years.

The geological sciences field course in which Cornell has been participating with the University of Buenos Aires since 1996 was once again held in July with 13 students registered in the Cornell summer session and some 25 students from the Universities of Buenos Aires and San Juan in Argentina. The course is headed by Cornell Professor Suzanne Kay and Oliver Professor Victor Ramos. Former Cornell PhD student Matthew Gorring (Montclair State University) will also participate with three of his students in this year’s group.

Muawia Barazangi and George Hade, along with PRI volunteer Curt Banta, were honored at the Paleontological Research Institution in April for their years of service to the Seismology Outreach Program at the Museum of the Earth. Hade and Barazangi have developed, implemented, and maintained the seismology program at the Museum over the past several years. Rob Ross, Associate Director for Outreach (education and exhibits) at the Paleontological Research Institution, was on hand to make presentations.
EAS: The Global Enterprise Continues

Tibet and the Andes are just two of the many international venues for research by the scientists of our Department. Recent projects have also taken us to Taiwan, Indonesia, the Caribbean, Siberia, Alaska, Honduras, the Indian Ocean, and the Middle East. The entire globe is a laboratory for our geodynamic and climate modelers, while other faculty look to the moon and beyond. At the same time, we are finding world class research opportunities in our backyard related to tight gas, enhanced geothermal systems and carbon sequestration.

Snee Hall is proud to display works of art by local artist and cartographer, Jay Hart. Hart uses digital terrain models (DEM) to create his art. EAS Prof. Emeritus, Bryan Isacks, worked with Jay in 2008 to have a custom map created for the north wall of the Snee Hall Reading Room. The topography captured in the piece is that of the Andes Mountains in Western South America. The result was so impressive that Larry Brown enlisted Hart’s expertise to produce a map of the Tibetan Plateau which now hangs on the north wall of the third floor corridor in Snee Hall.
Working with graduate student R. B. Hedden and colleagues at the Jicamarca Radio Observatory in Lima, Peru (J. L. Chau and F. R. Galindo), the Air Force Research Laboratory (P. A. Roddy), and the NASA Goddard Space Flight Center (R. F. Pfaff), D. L. Hysell has made the first simultaneous observations of ionospheric plasma density irregularities using a satellite in conjunction with ground-based radar imaging. The satellite in question is the Air Force Communication Navigation Outage Forecast System (C/NOFS) satellite. This satellite has a low-inclination orbit and an altitude which places it in the F layer of the Earth’s ionosphere. The Plasma Langmuir Probe (PLP) instrument on C/NOFS was used to measure ionospheric electron density. Irregularities in plasma density are produced by plasma instabilities that often occur just after sunset. They act as a diffraction screen for passing radio waves and interfere with communication and navigation systems, including GPS.

The radar for this investigation is the Jicamarca Radio Observatory, a 50 MHz radar which is operated with support from NSF through Cornell. It is by some measures the world’s largest radar, with a peak power approaching 4 MW and an antenna composed of nearly 10,000 crossed dipole elements. The radar uses interferometry and aperture synthesis techniques to create images of the ionospheric scatterers in its field of view. The figure shows a radar image from Jicamarca plotted beneath plasma density data recorded by the PLP instrument aboard C/NOFS. The satellite and radar data are plotted such that their abscissas span the same range of longitudes. The midpoint time for the satellite data plot also matches the midpoint time of the 4 sec. “exposure time” of the radar image. The start and end times of the radar data integration correspond to the times when the satellite entered and exited the region illuminated by the radar.

Comparing the radar image to the PLP plasma density measurement, it was found that bright scatterers in the image correspond closely with density depletions within the fine resolution limits of the experiment. This is significant, as it helps to define the scattering mechanism responsible for the strong radar echoes observed. It also points to ways in which ionospheric irregularities can be monitored and diagnosed quantitatively using ground-based remote sensing.
Natalie Mahowald never lets the dust settle around her. Promoted to Associate Professor with tenure in the Department of Earth and Atmospheric Sciences this year, Mahowald has also become invested in the Cornell Center for a Sustainable Future (CCSF). The Center serves to focus and integrate the growing interest across departments in sustainability, as well as to generate real-world impacts. Mahowald serves on the Faculty Advisory Committee of CCSF in the area of Energy.

Cornell University recently established a Climate Change Initiative as part of its Center for a Sustainable Future and began their search to fill two faculty positions as part of this initiative. Mahowald, Art DeGaetano and Susan Riha represented Earth and Atmospheric Sciences on the search committee this spring. These searches were among the few that moved forward in spite of the economic crisis which called for measures to cut budgets campus-wide and put holds on new hires. CCSF looks to add two experts in the fields of Atmospheric Science and Terrestrial Biogeochemistry whose work will cross disciplines. They will address regional and global scale issues by employing theoretical and empirical approaches such as modeling, earth-observing systems and/or spatial information technologies, data-assimilation, spatial statistics, and time-series analysis.

Mahowald continues her research in global aerosols, desert dust, fire aerosols, sea salt aerosol, and nutrients in aerosols as part of the Cornell Aerosol Research Group which also includes two of her postdocs, Sebastian Engelstaedter and Silvia Kloster. Engelstaedter studies desert dust in the climate system, controls on emission, transport and deposition, and climate feedbacks. Kloster studies the role of fire in the Earth system, biomass burning aerosols, aerosols and air pollution, and aerosol-climate interactions.

In addition to her teaching responsibilities and independent research mentoring of several undergraduate students and graduate students at Cornell and elsewhere, Mahowald serves on numerous committees at the international, national, university and department level - among these are:

- Analysis, Integration and Modeling of the Earth System (AIMES) Scientific Steering Committee of the IGBP
- Co-Chair - Young Scientists Network of AIMES
- Co-Chair - National Center for Atmospheric Research, Community Climate System Model, Biogeochemistry
- Member - North Pacific Marine Science Organization (PICES) Working Group on Iron Supply and its impact on biogeochemistry and ecosystems in the North Pacific Ocean
- Curriculum Committees of both the Atmospheric Sciences and Science of Earth Systems undergraduate majors

"Desert Dust" and its Impacts on Climate"

"Broadly speaking, my research area is atmospheric biogeochemistry. I am interested in the causes and consequences of atmospheric transport of important aerosols and gases, as well as the variability and how they react to different climates and human perturbation to climate. I think that many of the most interesting questions in earth sciences are questions that require knowledge across disciplines, and I love to work on those problems. My ideal project is one in which several experts from different disciplines sit down and work together on a project that none could do as well alone. I think it is difficult to become an expert in many different areas, so I have focused on atmospheric aerosols and transport as my primary area, and work with collaborators in the other necessary fields."

Mineral aerosol or desert dust is thought to impact climate and biogeochemistry through several different mechanisms: direct radiative forcing, indirect radiative forcing, ocean biogeochemistry, terrestrial biogeochemistry and atmospheric chemistry. Mahowald's group is trying to understand both the causes of variability in mineral aerosols on short and long time scales, as well as the impacts of this variability on climate and biogeochemistry.
“It has been proposed that the CO$_2$ emissions from the burning of fossil fuels could be minimized if CO$_2$ from power plants were “sequestered” in one of many possible manners, one of which is by injecting it into deep aquifers that are now filled with salt water. An EAS research group that is assessing the potential for, and geological consequences of, sub-surface sequestration of CO$_2$ in central New York is now fully staffed and at work. Graduate students Katie Tamulonis, Greg Kirkpatrick and Gregg McElwee are working with Professors Terry Jordan, Jason Phipps-Morgan, Lou Derry, and Larry Brown. Tamulonis with Jordan has assembled and is analyzing publicly available and gas exploration industry data sets, to define the distribution of porosity and permeability in Paleozoic units that are located beneath about 2600 ft. (800 m) depth. McElwee with Derry is modeling the chemical interactions that might occur between injected CO$_2$ and the rocks and pore fluids. Kirkpatrick with Phipps-Morgan is modeling the flow of the CO$_2$ and saline water mix through fracture systems. Brown is looking ahead to a potential future central New York pilot study by developing a strategy for geophysical monitoring of an injection project. This EAS project was initiated with funding from generous donations by alumni to the College of Engineering. Knowledge of the system will be deepened over the next two years in collaboration with colleagues at SUNY Buffalo, with funding from NY-SEERDA and partner corporations AES Corporation (owner of coal-fired power plants) and gas exploration companies Anschutz, Fortuna, and Nornew.”

~ Teresa Jordan

For more information about this project and others, see Professor Jordan’s Home Page: http://www.geo.cornell.edu/geology/faculty/TEJ/research/current_research/carbon_dioxide_sequestration.html
Professor Suzanne Kay recently returned from an extended trip to Argentina in March and April of 2009. The primary purpose was to service the 75 station passive seismic array that Cornell has in the southern part of the Central Andean plateau in conjunction with the University of Missouri (Cornell Adjunct Professor Eric Sandvol) and the GeoForschungsZentrum, Potsdam, Germany (former Cornell Oliver Professor Rainer Kind). Other Cornell investigators include Professor Larry Brown, Neil McGlashan (Ph.D. 2009), current graduate student Chen Chen, and incoming graduate student Patrick Mulcahy. Kay also presented a paper at the Argentine Association of Geophysics and Geodesy in Mendoza, Argentina on April 16.

Clockwise starting at the top: EAS Graduate Student, Chen Chen (CC) beside the solar panel. Below: The seismic crew - Alejandro Perez, Jujuy, and Nicholas Cosentino, Buenos Aires, and Suzanne Kay. Below: CC and Cornell Adjunct and University of Missouri Prof. Eric Sandvol work with Suzanne Kay to service seismic station. Left: Kay poses with Patricia Alvarado from the University of San Juan and a U of Arizona student in front of our long-term collaborators’ INPRES logo. INPRES is the National Earthquake Institute in Argentina.
Two volumes recently published by the Geological Society of America are follow-ups to the ‘Backbone of the Americas: Patagonia to Alaska’ conference organized by Professor Suzanne Kay with current Cornell Oliver Professor Victor Ramos. The conference, which occurred in the city of Mendoza in Argentina in April 2006, was run under the auspices of a Specialty Meeting of the Geological Society of America (GSA) and the Asociación Geológica Argentina and was attended by more than 400 earth scientists from along the entire Americas. The first volume entitled, “Field Trip Guides to the Backbone of the Americas in the Southern and Central Andes”, was edited by Kay and Ramos and published as Volume 13 in the Geological Society of America Field Guide Series. This 2008 volume contains field trips in South America that address the meeting themes. Cornell affiliated authors in addition to Kay and Ramos include former Cornell students Matthew Gorring, Tomas Zapata, and Andreas Folguera and long term research colleagues and frequent Cornell visitors Constantino Mpodozis and Beatriz Coira.

The second volume entitled “Backbone of the Americas: Shallow Subduction, Plateau and Ridge and Terrane Collisions” edited by Kay and Ramos with William M. Dickinson (University of Arizona) is slated to appear in July as Geological Society of America Memoir 204. Most of the papers in this volume evolved from the overview presentations of the invited plenary speakers.

Along with long time colleagues Beatriz Coira and Alejandro Perez, Suzanne Kay visited the giant Los Frailes ignimbrite province near Potosi, Bolivia in April with the goal of beginning a project to compare this ignimbrite with the giant Cerro Galan ignimbrite complex in Argentina. Suzanne Kay along with Beatriz Coira, Robert Kay and former Cornell visitor Gerhard Wörner have recently contributed a paper on the geochemistry of the Cerro Galan ignimbrite to a special volume in the Bulletin of Volcanology on the Cerro Galan Complex.
12th Annual Graduate Symposium Held

First year EAS graduate students Naomi Kirk-Lawlor and Will Guerra co-organized the 12th Annual Graduate Symposium held in Snee Hall on January 16th. Students invited participants and guests to a welcome reception in the Snee Hall Reading Room prior to the presentations. Nineteen EAS graduate students presented their research throughout the day in one of four sessions. Following each talk, a brief period of time was given for questions from the audience. Symposium presentations included, but were not limited to, topics such as microstructural and lattice-preferred orientation of ductile shear zones, weathering fluxes from volcanic and ultramafic terranes, hydrometeorology of flash flooding in the Northeast US, implications from xenoliths, geologic carbon dioxide storage, uplift within an environment of tectonic erosion, and distinguishing biotic vs. abiotic breakage of the quahog, *Mercenaria mercenaria*, by the stone crab, *Menippe mercenar*.

**Graduate Student Accomplishments...**


**Nicholas Frankoski** passed his M.S. Thesis defense in January. The title of his thesis was: an East Coast Winter Storm Precipitation Climatology.

**David Wolf** received an Outstanding Paper award from AGU for his submission to the AGU Fall Meeting in San Francisco.

**Will Guerra** was recently awarded a LacCore visiting graduate student award. Willi submitted a proposal to the National Lacustrine Core Repository (LacCore), at the University of Minnesota, and was given the award based on the intellectual merit of his project and the extent to which the proposed project would make effective use of LacCore facilities and provide the student with new training and skills. Guerra will receive funds for travel and lodging to and from Minnesota.

**Naomi Kirk-Lawlor** has been selected to receive a 2009 National Science Foundation (NSF) Graduate Research Fellowship (GRF) award. This award is based on her abilities and accomplishments as well as her potential to contribute to strengthening the vitality of the U.S. science and engineering enterprise.

In July, **Herdis Schopka**, with co-workers at the University of the Philippines, Dili-man City, will finish a one-year sampling campaign where they monitor six rivers draining volcanic areas and the Zambales ophiolite in order to investigate seasonal fluctuations in stream chemistry and weathering rates. This is the first study of its kind in the Philippines, and is a follow-up to two field seasons (2007 and 2008) since the 1980’s that geologists from Cornell have done research there.

In April 2009, **Tiffany Tchakirides** was invited to present her research at a 3D Archaeology and Cultural Heritage Management in Honduras Workshop in Copán, Honduras. The paper she presented will be published in *Yaxkin*, the Honduran journal of anthropology and history, in December 2009.
Diplomas were awarded to the following in Earth and Atmospheric Sciences:

- B.S. in Atmospheric Sciences - 16
- B.S. in Science of Earth Systems - 10
- B.A. in Science of Earth Systems - 5
- M.S. in Atmospheric Sciences - 1
- M.S. in Geological Sciences - 1
- Ph.D. in Geological Sciences - 5

Awards given to graduates:

- Bryan Isacks Excellence in Teaching Award..........Gabriela Depine
- CALS Academic Excellence Award, AS..................Jeffrey Zuczek
- CALS Academic Excellence Award, SES..............Susan Riddick
- Chester Buchanan Memorial Award.....................Erika Knight
- Estwing Award.............................................Kathryn Tamulonis
- Forecasting Awards.....................................Dean Fogaras/Leon Nguyen
- Frank H.T. Rhodes Award................................Jennifer Bailard
- Meyer Bender Memorial Scholarship..................Phoebe Judge
- Michael W. Mitchell Prize.................................Morgan Fitzgerald

Student News...

Over fifteen student members of Cornell’s Chapter of the American Meteorological Society (CCAMS) attended the 89th Annual Meeting of the American Meteorological Society held in Phoenix, Arizona in January. Presentations at the meeting focused on topics from space weather to atmospheric chemistry. While in Phoenix, the students also attended an Alumni dinner where they had a chance to meet and speak with some of our Cornell alums.

Robert Gottlieb ’09 attended the 34th Annual Northeastern Storm Conference in March with Sr. Lecturer, Mark Wysocki, in Springfield, Massachusetts. Keynote speaker was Dr. Joshua Wurman, who stars on the “Storm Chasers” series on the Discovery Channel.

Students in the Hawaii Program, directed by Sr. Research Associate Alex Moore and in cooperation with the Kohala Center, had the opportunity to be involved in several projects during their Spring ’09 experience. One such project was working with two alumni of EAS: John Pipan (SES ’06) of the Soil and Watershed Conservation District and Matt Patrick (Geo ’99) of the Hawaii Volcano Observatory. Pipan directs student projects in watershed management and Patrick directs a student project in eruption monitoring at Kilauea volcano. Another ongoing goal this semester was to offset carbon emissions by running a carbon-neutral program; eating local, organic food, using alternative energy, and working with island conservation organizations on projects that restore native forest habitat.

Two Science of Earth Systems majors received Spring 2009 research awards. Engineering Learning Initiatives announced in January that Kelly Thomas, an SES major in Arts and Sciences, and Jon Kimchi, an SES major in CALS were both awarded research money for proposals submitted. Kelly worked with faculty advisor, Lou Derry, on an Intel funded project titled: Germanium Partitioning in Hydrothermal Fluids. Jon’s proposal: Development of a High-resolution Vegetation and Paleoclimate Dataset for Purvis Road Bog, NY, was advised by Sr. Research Associate, Michelle Goman.

Eowyn Connolly-Brown, ’10, Atmospheric Sciences, was awarded a 2009 Goldwater Fellowship. The Barry M. Goldwater Scholarship is a national award that supports college sophomores and juniors who intend careers in the natural sciences, mathematics, or engineering. Recipients are selected on the basis of academic merit and research experience. The sponsoring foundation is a federally endowed agency established in 1986 to honor Senator Barry M. Goldwater.

Molly Moynihan ’11 was awarded the Hollings Scholarship from NOAA. This scholarship provides two years of partial tuition support during the junior and senior years and a paid internship in a NOAA laboratory.
Cornell Giving is a Bender Family Tradition

20th Anniversary of the Bender Award

This year’s Diploma and Awards Ceremony is especially meaningful for Stephen Bender, class of 1958. The Meyer Bender Memorial Scholarship, given annually to a deserving graduate student, was created in honor of Stephen’s father, Meyer “Mike” Bender ’29. The Bender family has supported and cared for the Department for many years with their gifts. It is because of their generosity that we have continued to enjoy our annual department holiday celebration and are able to enjoy the Cornell Rock Parks, three of which were made possible by Gertrude and Meyer Bender, and a fourth created with the help of Gertrude, Stephen, and sister Alice Bender Klausner and family.

Alumni Tidbits... Alan Sealls, B.S. (CALS), ’85, received the 2009 Award for Excellence in Science Reporting by a Broadcast Meteorologist from the American Meteorological Society. Sealls won the award “for outstanding commitment to the Station Scientist concept through his extensive and comprehensive three-part news series, The Truth About Global Warming.” Alan is Chief Meteorologist at WKRG-TV, Mobile-Pensacola.

Although Diana Roman graduated from Cornell with a degree in Applied Economics in 1997, the classes she took in EAS made a lasting impact, which lead her back to graduate school at the University of Oregon where she studied volcanology and received her Ph.D. in 2004. After spending two years as a postdoc at the University of Leeds, Roman joined the faculty at the University of South Florida where her research group focuses on volcano seismology and volcano monitoring. In 2008, she received the George Walker Award by the International Association of Volcanology and Chemistry of the Earth’s Interior (IAVCEI) which is given every four years to a deserving Ph.D. graduate.

If you watch PBS, you may have seen the recent episode of Nature featuring research of Kilauea, the world’s most active volcano, on Hawaii’s Big Island. Cornell alum Matt Patrick ’99, geologist at the Hawaiian Volcano Observatory, and Ben Brooks ’00 appeared on this episode which featured cutting edge research on volcanic processes.

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DeGaetano Testifies

EAS Co-Chair and Director of the Northeast Regional Climate Center at Cornell, Professor Art DeGaetano was invited to testify before the House Committee on Science and Technology’s subcommittee on Energy and Environment the first week in May. The subject of his testimony was **Expanding Climate Services at the National Oceanic and Atmospheric Administration (NOAA): Developing the National Climate Service.**

DeGaetano spoke about the key characteristics of climate services based on the accumulated experience of the Regional Climate Center (RCC) program being enumerated. He used examples to illustrate existing features that could be incorporated into an expanded National Climate Service. As established, efficient and relied upon providers of basic climate services, the RCC’s vision for a National Climate Service includes 1) providing services based on direct interaction with climate stakeholders 2) enhancing established climate service partnerships 3) distributing accurate and unbiased climate data, data-products, and summary information in response to changing user needs via innovative environmental data management systems 4) adapting to changing environmental, technological and societal conditions 5) developing decision support tools through interdisciplinary applied research and 6) educating stakeholders on emerging regional climate issues.

“There exists a need for a comprehensive National Climate Service that can address a broad spectrum of climate needs facing the nation. The existing core set of organizations and capabilities provides a useful and functional initial framework. However, this infrastructure requires consistent and reliable support, augmentation of capabilities, and better integration across a wide variety of boundaries. An effective National Climate Service will synthesize the set of widely scattered government and non-government participants that currently conduct climate service.”
Exhibits at PRI - A Forest Journey: The Franklin Institute Science Museum and Wood Sculpture by June Szabo - June 20-Sept. 20, 2009
EAS Fall Seminar Series - Theme: Geoengineering - September 2 - December 2, 2009
Fall INSTOC Workshop - Why Mountains? : Tales and Timescales of Their Birth and Death - September 12, 2009
EAS Advisory Committee Meeting September 17 - 19, 2009
Cornell’s Homecoming - October 16 - 18, 2009

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EAS Photo Contest Entries