News Highlights and Announcements

- **Distinguished Lectures in Life Science to feature noted ecologist Shahid Naeem**
  Shahid Naeem, from Columbia University, will present "Ecological capacity and biological insurance: A trait-based approach to understanding why rare species matter" at 4:00 p.m. in 100 Life Sciences Building (Berg Auditorium). Naeem and his team are unwavering when it comes to the need for preserving biodiversity; their motto is “Ecology with no apology.” The planet is facing its sixth mass extinction, which means nearly half of all species could disappear in the next few decades. Director of Science at the Earth Institute’s Center for Environmental Research and Conservation (CERC), Naeem works with others to study the environmental consequences of declining biodiversity.

- **Watch Video: Faculty collaboration leads to possible leukemia cure**
  Penn State scientists in the College of Agricultural Sciences have developed an inspiring collaboration that may cure leukemia. Sandeep Prabhu, associate professor of immunology and molecular toxicology in the Department of Veterinary and Medical Sciences and PSIEE co-hire, specializes in the health benefits of fish oil. Robert Paulson, associate professor of veterinary and biomedical sciences, is studying the stem cells that cause leukemia. They connected their seemingly separate study areas during a weekly faculty lunch. The result? A possible cure for leukemia.

- **Heard on Campus: Michael Mann at the Forum**
  Michael Mann, professor of meteorology and geosciences at Penn State and author of the forthcoming book, "The Hockey Stick and the Climate Wars: Dispatches from the Front Lines." Mann spoke Thursday, Feb. 9, on Penn State's University Park campus as part of the University's Forum Speaker Series.

- **Dave Mortensen: Integrated weed management best response to herbicide resistance**
  Over-reliance on glyphosate-type herbicides for weed control on U.S. farms has created a dramatic increase in the number of genetically-resistant weeds, according to a team of agricultural researchers, who say the solution lies in an integrated weed management program.

- **Center for Private Forests created by College of Ag Sciences**
  The focus of the center will be applied research, education and outreach to students, forest
landowners, the forest-products industry, loggers, conservation districts, agencies, land trusts, nongovernmental organizations and the public.

- **Michael Mann: Tree rings may underestimate climate response to volcanic eruption**
  Some climate cooling caused by past volcanic eruptions may not be evident in tree-ring reconstructions of temperature change, because large enough temperature drops lead to greatly shortened or even absent growing seasons, according to climate researchers who compared tree-ring temperature reconstructions with model simulations of past temperature changes.

- **Soil Genesis will be taught this year May 7 – May 11**
  Soils 516 - Soil Genesis is a one week intensive field study of soils from multiple perspectives. Students should have already had an introductory soil science class, or similar geoscience related course. Students can take the class for 1-2 credits. The class is by appointment only and capped at 15 students. To register contact Dr. Patrick Drohan at pd7@psu.edu.

- **15th Annual Environmental Chemistry Student Symposium**
  The symposium will be held March 30 - 31, 2012 on the University Park campus. They are currently accepting Abstracts and submissions for the Photo and T-shirt contests. The deadline for all submissions is February 24th 2012. Keynote speakers are Jizhong Zhou, Presidential Professor of Botany and Microbiology and Director of the Institute for Environmental Genomics at the University of Oklahoma, and Anne Thompson, professor of meteorology at Penn State. Any interested faculty and postdocs are invited to join the judging committee. If you have any questions please contact the 2012 co-chairs, Hengjing Yan (hxy159@psu.edu) and Daniel Veghte (dov5041@psu.edu).

- **Student Research Poster Competition at the 2012 Penn State Bioenergy Symposium**
  The contest is open to Penn State graduate students or undergraduate students who are working on bioenergy research. The entry deadline is February 15. If you have any questions, contact Daniel Ciolkosz at dec109@psu.edu or by phone at 863-3484.

- **SAVE THE DATE – E.O. Wilson Keynote for Colloquium!**
  E.O. Wilson will speak on the University Park campus on Monday April 16, 2012 as part of the annual 8th annual Colloquium on the Environment speaker series. His talk "The Social Conquest of Earth" is scheduled for 5:30 p.m. in 100 Thomas Building. A book signing and reception will immediately follow his lecture. Event is free and open to the public.

Select Campus Events (from Feb. 13 through Feb. 18, 2012)

**February 13, 2012**

- **Plant Biology Seminar**
  David Eissenstat, "Assessing Ecophysiological Functions in the Fine Roots of Woody Plants"
  12:10 p.m.; 108 Wartik Laboratory
- **Rock Ethics Food Lectures Series**  
  Bryan L. McDonald, *The Ethics of Food Security*  
  3:00 p.m.; Foster Auditorium, Paterno Library

- **Plant Pathology Seminars**  
  Claude DePamphilis, *Plants that Eat Other Plants: Evolutionary and Functional Genomics of Parasitic Plants*  
  3:35-4:35 p.m.; 112 Buckhout Laboratory

- **Earth Talks Series - Electronic Media and Environmental Science: e-Education to e-Data**  
  Rick Hooper, CUASHI, *Sharing Water Data for Research, Education, and Citizen Engagement: The web services revolution*  
  4:00 p.m.; 112 Walker Building

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**February 14, 2012**

- **BMB Seminar Series**  
  Tamara O'Connor, Tufts University School of Medicine, *Understanding How the Evolution of a Bacterial Pathogen Shapes Its Ability to Cause Disease in Humans*  
  11:30 a.m.; 101 Althouse Laboratory

- **Distinguished Lectures in Life Science**  
  Shahid Naeem, Columbia University, *Ecological capacity and biological insurance: A trait-based approach to understanding why rare species matter*  
  4:00 p.m.; 100 Life Sciences Building (Berg Auditorium)

- **Geosciences Colloquia**  
  Mark Patzkowsky, *Look Local, Think Global: Local and Regional Controls on Global Phanerozoic Diversity*  
  4:00 p.m.; 22 Deike Building

- **Mechanical and Nuclear Engineering Seminar**  
  William Colwill, Weir American Hydro, *Building a Technology-Based Business in a Mature Hydro Industry*  
  4:00 p.m.; 135 Reber Building

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**February 15, 2012**

- **Earth and Mineral Sciences Library Spring Film Series**  
  "Welcome to the Nanoworld" (Part 2)  
  (Applications of nanotechnology)  
  12:15 p.m.; 105 Deike Building
Meteorology Seminar Series
Mark Zelinka, Lawrence Livermore National Laboratory, "Progress on Diagnosing, Partitioning, and Understanding Cloud Feedbacks"
3:30 p.m.; John J. Cahir Auditorium (112 Walker Building)

February 16, 2012

Infectious Disease Dynamics Seminar
Julliet Pulliam, University of Florida, "Muizenberg Fever: Instructive outbreaks of a novel agent"
11:00 a.m.; 203 Millennium Science Complex

BMB Seminar Series
Nicholas Lanz, "Radical approaches for functionalizing unactivated sp2 and sp3 carbon centers: mechanistic analysis of key steps in the biosynthesis of lipoic acid and thiostrepton A"
11:15 a.m.; 101 Althouse Laboratory

BMB Seminar Series
Eric R. May, University of Michigan, "Two Sides of the Same Coin: Virus Maturation from Multiple Perspectives"
1:00 p.m.; 01 Althouse Laboratory

Extension Webinar
Scott Christy, Deputy Secretary for Highway Adminstration, PennDOT, and Mark Murawski, Lycoming County Planning and Community Development, "Transportation Patterns and Impacts from Marcellus Development"
1-2:15 p.m.

February 17, 2012

Entomology Seminar
Kirk Anderson, Carl Hayden Bee Research Center, "The honey bee microbiome: Niche, pathogen defense and genome function"
11:15 a.m. - 12:10 p.m.; 105 Forest Resources Building

Crop and Soil Sciences Seminar
Tom Richard, "Northeast Woody/warm-season Biomass Consortium"
12:20 p.m.; 101 Agricultural Sciences and Industries Building

School of Forest Resources Seminar
Duane R. Diefenbach, Tyler Wagner, and W. David Walter, "We're 90% Certain You'll Want To Be A Bayesian After This Seminar: Free Software and Modern Computers Make It Easy"
12:30-1:30 p.m.; 105 Forest Resources Building
Critical Zone Observatories Seminar
Tim White, Rudy Slingerland, and Eric Kirby, "Tree Throw Mini Symposium"
3:30 p.m.; 301 Steidle Building

Geography Coffee Hour
Tom Colledge, "Title TBA"
4:00 p.m.; 112 Walker Building

Saturday February 18, 2012

Lectures on the Frontiers of Science - Food: Strategies for Growing Enough for Everyone
Bruce McPheron, "Feeding the Future: From the Lab Bench to the Dinner Table"
11:00 a.m.; 100 Thomas Building

Highlighted Funding Opportunities

ARPA-E Releases Request for Information on Draft $150 Million Open Funding Opportunity Announcement

ARPA-E released a Request for Information (RFI) concerning a draft Open Funding Opportunity Announcement. ARPA-E intends to formally issue a revised version of this Open FOA in early March 2012. The Open FOA is expected to support transformational and disruptive high-impact energy R&D projects related to renewable power, bioenergy, transportation, conventional generation, the electrical grid, and building efficiency, among other technology areas.

ARPA-E’s first FOA, issued in 2009, was a similarly open call for the most transformative energy technology solutions to our nation’s most pressing security, economic, and environmental challenges.

The RFI provides instructions for submitting comments on the draft Open FOA, which must be received by 5 PM Eastern Time on February 29, 2012. Applicants must refer to the final FOA that is expected to be issued in early March 2012 for instructions on preparing and submitting an application and for the terms and conditions of funding.

(View all 45 recent funding announcements)

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Thank you for your continued interest in the Penn State Institutes of Energy and the Environment!

Best regards,

Patricia Craig