Penn State News, Highlights, and Announcements

- **Chris Forest quoted in NY Times article**
  Chris Forest, associate professor of climate dynamics it the College of Earth and Mineral Sciences, was recently quoted in the *New Your Times* article “A Change in Temperature.”

- **Deadline extended to May 31, 2013: Sustainability Institute seeks proposals for graduate research contest**
  For the second year, Penn State will participate in the 2013 Dow Sustainability Innovation Student Challenge Awards. SISCA is designed to promote forward thinking in social and environmental responsibility; while also acknowledging the energy, commitment, and enthusiasm of students and their professors who support their innovations. Graduate students and faculty from Penn State are encouraged to join an international field of universities that are involved in the program.

- **Study confirms U.S. amphibian populations declining at rapid rate**
  The first-ever estimate of how fast frogs, toads, and salamanders in the United States are disappearing from their habitats reveals they are vanishing at an alarming and rapid rate.

- **Study suggests dairy herd water quality linked to milk production**
  A recently completed study of water supplies on Pennsylvania dairy farms found that about a quarter of those tested had at least one water-quality issue. And average milk production for these farms was about 10 percent lower than farms with good water quality.

- **Mosquito behavior may be immune response, not parasite manipulation**
  Malaria-carrying mosquitos appear to be manipulated by the parasites they carry, but this manipulation may simply be part of the mosquitos’ immune response, according to Penn State entomologists.

- **Turgay Ertekin named new head of energy and mineral engineering department**
  Turgay Ertekin has been named the new head of the John and Willie Leone Family Department of Energy and Mineral Engineering (EME) at Penn State, effective July 1.

- **Students and faculty discuss the latest Shale Hills research at annual meeting**
  A 100 foot core extracted from the south ridge of the Shale Hills CZO catchment in central Pennsylvania was one of the items on display at Penn State’s Earth and Environmental Systems Institute recently during this year’s Susquehanna Shale Hills Critical Zone Observatory “All Hands” meeting.

- **David Hughes: Getting to the bottom of the zombie ant phenomenon**
  While unraveling a dramatic case of mind control, biologist David Hughes is taking calls from Hollywood—and gaining new insights into the role behavior plays in spreading disease.
Architecture professor James Wines to receive lifetime achievement award
Penn State professor of architecture James Wines, founder and president of SITE, will be honored this fall with the National Design Award for Lifetime Achievement from the Smithsonian’s Cooper-Hewitt, National Design Museum. He is being recognized for his work in design of site-specific structures that engage information about the environment, including buildings, public spaces, environmental art, landscapes, master plans, interiors, video productions, graphics and product designs.

Rob Brooks: Environmental Law Institute recognizes Penn State wetlands scientist
The Environmental Law Institute has announced that Robert P. Brooks, a wetlands scientist at Penn State, has received the 2013 National Wetlands Award for Science Research. Brooks and six other award recipients were honored at a ceremony at the U.S. Botanic Garden in Washington, D.C., on May 9.

New minor in sustainability delivers green education (Dubois)
A new minor available to all Penn State Dubois bachelor’s degree students will provide them with the tools to be a champion for the environment, while also making them more appealing to future employers. The minor in sustainability leadership allows students in any four-year major to incorporate sustainability as a significant theme in their undergraduate degree program.

Sue Brantley and Dave Yoxtheimer: Review finds need for more water quality data in the Marcellus shale region
What to do with Marcellus shale wastewater is one of the biggest concerns in Pennsylvania, and few published studies have evaluated such wastewater effects on regional waters, according to a review co-authored by professors at the University of Pittsburgh and Penn State.

Road research center receives environmental quality award
The Thomas D. Larson Pennsylvania Transportation Institute's Center for Dirt and Gravel Road Studies at Penn State was selected by the Pennsylvania Association of Environmental Professionals (PAEP) to receive the 2013 Karl Mason Environmental Stewardship Award. The award was presented at the PAEP award banquet on May 9, at the Toftrees Golf Resort and Conference Center in State College, Pa.

GridSTAR Net Zero Energy Demonstration Project under way at The Navy Yard
A powerful collaboration of researchers, manufacturers and economic development officials are embarking on a groundbreaking demonstration project for smart-grid, net zero energy buildings called the GridSTAR Center — a Smart Energy Campus initiative at The Navy Yard in Philadelphia.

Navy rear admiral appointed to direct new center on weather risk solutions
Rear Adm. David W. Titley has been appointed as a faculty member in the College of Earth and Mineral Sciences at Penn State, beginning July 1. Titley will serve as senior scientist and director of a new center being formed on weather and climate risk solutions in the Department of Meteorology.

Tapia heads to Costa Rican jungle to join discussion on sustainability
Sustainability research, which examines the complex interactions between humans and the rest of nature, has the potential to bring economic and social benefits to the developing world and tropical countries such as Costa Rica. However, sustainability research in the tropics has been slow to develop. Andrea Tapia, an associate professor in Penn State’s College of Information Sciences and Technology (IST), is one of about 30 people worldwide who have been invited to participate in a consortium that will hold its first planning meeting in June in the jungle of Southern Costa Rica, where they will discuss issues of sustainability and biodiversity conservation in the tropics.

Energy business and finance major offers new energy and land management option
Beginning in the fall of 2013, the Penn State John and Willie Leone Family Department of Energy and Mineral
Engineering (EME) will be offering a new energy and land management option as part of the bachelor of science degree in energy business and finance (EBF).

- **Logan appointed deputy editor of new online journal**
  Bruce Logan, Evan Pugh Professor and the Stan and Flora Kappe Professor of Environmental Engineering in the Department of Civil and Environmental, has been appointed deputy editor of a new online journal *Environmental Science & Technology Letters (ES&T Letters)*.

- **Freeman elected to National Academy of Science**
  Katherine Haines Freeman, professor of geosciences, Penn State, has been elected to membership in the National Academy of Sciences for her excellence in original scientific research. Membership in the NAS is one of the highest honors given to a scientist or engineer in the United States.

- **Faces of Biology Photo Contest - Communicate Science through Imagery**
  Biological research is transforming our society and the world. Help the public and policymakers to better understand these broader impacts in biological research by entering the Faces of Biology: Broader Impacts Photo Contest. Deadline: September 30, 2013.

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**Featured Events Calendar**

### May 28, 2013

- **Millennium Café**
  Donghai Wang, "Harnessing Materials for Electrochemical Energy Storage"
  David B. Saint John, "Open Source 3D Printing for Education and Research"
  10:00 - 11:00 a.m.; 3rd Floor - MSC Café Commons

- **Special Polymer Physics Seminar/Department of Materials Science and Engineering**
  Rakesh Chandra Agrawal, Pt. Ravishankar Shukla University, India, "Polymer Electrolytes: Materials and Device Aspects"
  10 - 11:00 a.m.; 301 Steidle Building

### May 29, 2013

- **Penn State Water Resources Extension Webinar Series**
  Speaker TBA, "Keynote Topic from the PA Ground Water Symposium"
  Noon - 1:00 p.m.

- **SCRIM seminar series**
  Jim Kasting, "How Close is Earth to a Runaway or Moist Greenhouse?"
  12:00 noon; 117 EES

### June 1, 2013

- **Trash to Treasure**
  7:30 a.m. - 2:00 p.m.; Beaver Stadium

### June 4-6, 2013

- **Summer Symposium in Molecular Biology**
  Sensing and Signaling Across the Mucosa: From Homeostasis to Pathogenesis
  1:30 - 9:00 p.m. (Registration Fee)

### June 6-7, 2013
NewBio Webinar

John Ackerly, President, Alliance for Green Heat, "The Future of Residential Wood Heating: Growth or Collapse?"
1:00 p.m.

Featured Conferences/Short Courses/Symposia Information

- **6 Complimentary Registrations Available for Graduate Students**
  Complimentary registrations are available for graduate students to attend the 32nd Summer Symposium in Molecular Biology - Sensing and Signaling Across the Mucosa: From Homeostasis to Pathogenesis. Symposium will be held June 4-6, 2013. If you are interested please contact Nancy J. Wilson at njw12@psu.edu or call 863-1918. First come, first serve!

- **Energy Path 2013: Limited number of student scholarships available**
  The Sustainable Energy Fund is offering paid scholarships for educators and students to attend EnergyPath 2013. This includes room, board and full access to all events and classes. There will be dozens of seminars led by sustainability professionals and academics on a wide range of relevant topics. After successful completion of our "energy camps," participants can get professional certifications in sustainable energies such as solar, wind or bio-mass. If interested, Walter Diehl at 610-264-4440 x7017 to obtain a promotion code exempting you from fees during registration.

Select recent funding opportunities ([View all 22 recently added announcements](#))

- **Phenotyping Embryonic Lethal Knockout Mice** (June 5)
- **REDD+ Stakeholder Engagement in Support of the Forest Carbon Partnership Facility** (June 14)
- **Geospatial Modeling Grant** (June 21)
- **Special Research Grants Program Potato Breeding Research** (June 27)
- **Collaborative Research in Support of GOAmazon Campaign Science** (June 28)
- **Regional Agricultural Integrated Pest Management (IPM) Grants** (July 1)
- **EarthScope** (Aug. 23)
- **Clean Energy Manufacturing Innovation Institute** (July 11)
- **FY 2013 Methane Hydrates** (July 26)
- **Supplemental and Alternative Crops** (June 14)
- **Collegiate Inventors Competition** (June 14)
- **Rural Business Opportunity Grants** (June 24)
- **Collections in Support of Biological Research** (July 16)
- **ECPA Energy Efficiency Competition** (June 19)
- **NSF Earth Sciences Postdoctoral Fellowships** (July 18)
- **Domestic Nuclear Detection Office-National Science Foundation Academic Research Initiative** (July 10)
- **Rural Cooperative Development Grant Program** (July 10)
- **Instrument Development for Biological Research** (July 31)
Opportunities for Promoting Understanding through Synthesis  (Aug. 1)
Advances in Biological Informatics  (Aug. 13)
NSF Scholarships in Science, Technology, Engineering, and Mathematics  (Aug. 13)
Dynamics of Coupled Natural and Human Systems  (Nov. 19)

(View all 200 funding announcements)

Special Announcements

RFI - Hydrogen Delivery Technologies
The Department of Energy (DOE) seeks feedback from stakeholders for hydrogen delivery research and development activities aimed at lowering the cost of hydrogen delivery technologies in order to reach the threshold cost goal of $2-4 per gallon of gasoline equivalent (gge) produced, delivered and dispensed of hydrogen. The purpose of this Request for Information (RFI) is to gather feedback from stakeholders prior to DOE potentially issuing a Funding Opportunity Announcement (FOA). Due June 13, 2013.

RFI - Manufacturing and Supply Chain Barriers and Opportunities for Wind Technologies
The Department of Energy (DOE) seeks input from the public related to the manufacturing and supply chain for both land-based & offshore wind turbines. Improvements in manufacturing processes could significantly improve the viability of next-generation turbines and reduce the levelized cost of energy (LCOE) for these technologies, as well as increase U.S. competitiveness in clean energy technologies. DOE seeks to improve these areas and is requesting information to identify the most promising investment opportunities based on industry needs. The information collected by this RFI will be used for market baseline information and internal DOE planning. Interested parties to this RFI might include, but are not limited to original equipment manufacturers (OEMS), developers, state development agencies, and suppliers in the Wind markets. The sole purpose of this Request for Information (RFI) is to gain public input regarding manufacturing challenges and opportunities for land-based and offshore wind technologies. Due June 30, 2013.

RFI - Rotating Disk Electrode Experiments for PEMFC Electrocatalyst Screening
The Fuel Cell Technologies Office is a key component of the Department of Energy's Energy Efficiency and Renewable Energy (EERE) portfolio. EERE seeks to provide clean, safe, secure, affordable, and reliable energy from diverse domestic resources, along with the benefits of increased energy security and reduced criteria pollutants and greenhouse gas emissions. The U.S. Department of Energy (DOE) is issuing a Request for Information (RFI) seeking input from stakeholders on the use of Rotating Disk Electrode (RDE) experiments and best practices for experimental conditions for characterization of the activity and durability of Proton Exchange Membrane Fuel Cell (PEMFC) electrocatalysts.

We welcome your input!
In order to make this listserv useful for our subscribers, we appreciate your feedback! Please send your comments/suggestions to Patricia Craig at plc103@psu.edu. Please use “PSIEE listserv” in the subject line. If you have information that you would like us to distribute please send that as well. Thanks!

Thank you for your continued interest in the Penn State Institutes of Energy and the Environment!
Best regards,
Patricia Craig

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