Environmental science consists of a very broad array of basic science disciplines that are brought to bear on practical problems in the environment and in the natural world around us. Environmental science draws upon principles in physics, chemistry (including biochemistry), microbiology, climatology, meteorology, hydrology, etc. Soil science is a good example of an area in environmental science that draws upon many disciplines to address natural phenomena and practical applications. In relation to the very broad spectrum across environmental science, the physical sciences provide a foundation to our understanding of many processes and phenomena.

In the past year we have been very fortunate in our efforts to reinforce our physical science foundation in SWES. Drs. Marcel Schaap and Markus Tuller, both Environmental Physicists, joined SWES in August 2006 and January 2007, respectively. Dr. Schaap joins us from the US Salinity Laboratory and the University of California-Riverside and Dr. Tuller joins us from the University of Idaho.

We are extremely fortunate to have recruited two successful young faculty in Environmental Physics. They bring a necessary and important research and teaching dimension to SWES. They have complementary skills that will serve to broaden the SWES expertise in physics and they will provide tremendous opportunities for collaboration among SWES faculty as well as faculty from other Departments at UA. They are both actively engaged in their work and already contribute significantly to our programs. Dr. Tuller is leading the effort in the Soil Physics course (SWES 470/570), assisted by Dr. Schaap this semester. They are also developing plans to revise our Environmental Physics course and develop new graduate level courses in Environmental Physics.

I welcome both Dr. Schaap and Dr. Tuller to the SWES Department and I encourage all of you to get to know them, welcome them, and draw upon their knowledge and expertise. They are both excellent scientists and very good people to know and work with.

Jeffrey C. Silvertooth  
Department Head
SWES REPORT CARD:

PUBLICATIONS:


PRESENTATIONS:
I.L. Pepper presented "Influence of Twenty Years of Land Application of Class B Biosolids on Soil Microbial Properties" at the USDA CSREES Water Conference, Jan. 29, Savannah, GA.


J.C. Silvertooth presented “Nutrient Uptake in Chile” and was a Crop Management speaker at the Chile Pepper Institute 2007 New Mexico Chile Conference, Feb. 5-6, Las Cruces, NM.

J.C. Silvertooth presented “UA - The Future of Crop Production in the Desert Southwest” at the Environmental Breakfast Club, Feb. 9, Tucson, AZ.


J.C. Silvertooth presented “UA's College Academy for Parents” at the Challenger Middle School, Sunnyside School District, Feb. 20, Tucson, AZ.

R.M. Maier presented “The wet dark microbial world of Kartchner Caverns” as part of the University of Arizona Honors Forum Lunch Series, Feb. 7, Tucson, AZ.

R.M. Maier, B.M. Pryor, L.S. Pierson III, R. Wing, R. Toomey, and R.R. Casavant presented “Kartchner Caverns Microbial Observatory: Habitat Scale Community Structure and Function in Carbonate Caves” at the Microbial Observatories/Microbial Interactions and Processes PI Meeting and Workshop, March 1-3, Washington, DC.

The following were presented at "Looking Ahead: Managing Stormwater and Harvesting Rainwater for Conservation", Oct. 27-28, 2006 Tucson, Arizona. American Rainwater Catchment Association, Southwest Region and CATCH Water Coalition:


D. Confer, and M.R. Yoklic. Barriers to Commercial Scale Rainwater Harvesting and Management Systems Development or The many Reasons I Have Heard Why We Cannot Construct Buildings that Take Advantage of Rainwater.


R. Seaman, M.R. Yoklic, and K.A. Reynolds. Rainwater Harvesting for Potable Water Use

OTHER NEWS:
All employees on travel to SWES sponsored conferences must hand in the official conference agenda along with their conference expense report to the SWES Business Office.

Also, starting this month, the SWES Business Office must e-mail FRS and Payroll Expenditure Listing reports to the faculty, per U of A policy.

As you know SWES recently hired two new physicists, Marcel Schaap from the Netherlands and Marcus Tuller from Austria. This means that five faculty in the department are currently from Europe representing Wales, the Netherlands, Austria, Spain, and Germany. As such, you have probably noticed the recent increase in IQ within the department. Here at ERL we are happy to accommodate Marcel and Marcus in a new venture. They have acquired a “sandbox” for conducting studies on water movement through soil. This large piece of equipment will be installed in one of our buildings here at ERL, after the building has been upgraded and renovated. The facility will subsequently be used for both research and instructional purposes. Marcel and Marcus, welcome to ERL.

Now that we have returned from Spring Break and in anticipation of the semester’s end, I am including several important deadline reminders.

For M.S. Students:

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<th>Degree Requirements</th>
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<td>All degree requirements must be met by this date (including comprehensive exam, defense/revision of thesis, coursework, etc.)</td>
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All thesis (910) grades must be submitted on or before this date.

Submit Completion of Degree Requirements form (department must indicate the date requirements have been satisfied).

Submit Completion of Degree Requirements form

For Ph.D. Students:

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<th>Schedule the Oral Comprehensive Examination. The Application for Oral Comprehensive Examination is due at least seven (7) working days prior to the date of the examination.</th>
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Submit Advancement to Candidacy form

Last day to TAKE the Final Oral Examination/Defense. The Announcement of Final Oral Defense is due at least seven (7) working days prior to the date of the examination.

Last day to submit dissertations to Graduate Degree Certification

May 1, 2007 (by 3:00 P.M.)

Please remember to login to “My GradColl” for all necessary forms.

It takes eight and a half minutes for light to get from the sun to earth.

Just by recycling one aluminum can, enough energy is saved to have a TV run for three hours.

One tree can filter up to sixty pounds of pollutants from the air each year.

The Saguaro Cactus, found in South-western United States does not grow branches until it is 75 years old

The first subway system in America was built in Boston, Massachusetts in 1897.

There is no element on Mendeleev's (the current) periodic table of elements abbreviated, either partially, or fully, with the letter J.

Traveling by air is the safest means of transportation.

Please remember to login to “My GradColl” for all necessary forms.
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**April 2007**

1. **SWES Seminar**
   - Ann Russo, Ph.D. Student
   - Marley Bldg., Rm. 230
   - 3:00 PM

2. **SWES Seminar**
   - Syreeta Miles, Ph.D. Student
   - Marley Bldg., Rm. 230
   - 3:00 PM

3. **ETRs Due at Noon TODAY**

4. **SWES Seminar**
   - Hilary Janousek and Luis Javier Ransom Romo, M.S. Students
   - Marley Bldg., Rm. 230
   - 3:00 PM

5. **Faculty Meeting**, FCS Rm. 219, 11:00 am-12:00pm

6. **ETRs Due at Noon TODAY**

7. **SWES Seminar**
   - Sadie Iverson and Sky Dominguez, M.S. Students
   - Marley Bldg., Rm. 230
   - 3:00 PM

8. **SWES Seminar**
   - Amruta Moghe and Beth Scott, M.S. Students
   - Marley Bldg., Rm. 230
   - 3:00 PM

**NEWSLETTER TEAM:**
- **Raina Maier, Ph.D.** Editor
- **Melanie Ben** Coordinator and Distributor
- **Karen Josephson** Webmaster

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* For questions, comments, suggestions, or feedback contact Melanie Ben at 621-5980 or mlb5@email.arizona.edu

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April 2007  
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College of Agriculture and Life Sciences  
Department of Soil, Water, & Environmental Science