



SWES SOUNDS



The Heartbeat of the Department of Soil, Water & Environmental Science

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TONES FROM THE TOOTH

Water resources in Arizona and the desert Southwest represent a critical area of management. In 1889 John Wesley Powell (the famous one-armed Civil War veteran that explored the Southwest and particularly the Colorado River through the Grand Canyon) made the prophetic statement: "ultimately the true value of the western territories will be measured in terms of acre-feet". We have reached the point that John Wesley Powell foretold where water will govern development and success of communities in the west. To this end, I've always felt that the University of Arizona, CALS, and particularly the Soil, Water and Environmental Science Department should have an extension program directed in water resource management. Until very recently we have not been able to develop a program explicitly oriented toward water resource management.

A few years ago we had the opportunity to work with ISPE and the CALS Administration to develop an extension program in water resource management. We were able to gather the resources to initiate the position and we were very fortunate in being able to recruit Ms. Kathy Jacobs into our department in January 2004. Kathy joined our faculty following approximately 20 years experience working with the Arizona Department of Water Resources (ADWR). Her knowledge and expertise in water issues, garnered from her work with ADWR, proved to be extremely valuable. Kathy began immediately to develop an outstanding extension program in water resource management with the primary focus on bringing good science into the policy and decision-making process in Arizona and this region.

Recognizing the need for bringing good science and factual information into the water policy arena and the fact that we have an extensive amount of information currently available among our three universities in Arizona (UA, ASU, and NAU), Governor Janet Napolitano put forth a plan to develop a Virtual Water University. In this day and age and with the capacities that we have technologically, the Governor's office envisioned developing a state-wide water resource management entity that could collect and disseminate information relative to water-related issues from all three universities. This plan has continued to develop and has recently evolved into the Arizona Water Institute (AWI).

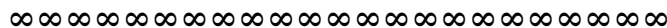
The first step in implementing the AWI was to find the appropriate person to serve as the Executive Director and to take the critical steps in developing this entity into a functional unit. Kathy Jacobs was recognized as the clear and distinct leader among the candidates that were under consideration for Executive Director for the AWI. Kathy was recently appointed as the Executive Director and has now assumed these professional responsibilities full-time.

This is an excellent opportunity for Kathy and a true honor for her to be recognized in this manner. Kathy faces a large and challenging task in developing the AWI. However, in working with Kathy, I have every bit of confidence that she is indeed the best person for this position and she will surely do an excellent job. Kathy will maintain her academic appointment with the UA in the SWES Department. Therefore, we will have the benefit of maintaining professional contact with Kathy through the Department and through her new position as Executive Director of the AWI. Please join me in congratulating Kathy on this outstanding opportunity and professional challenge.

Jeffrey C. Silvertooth,
Department Head

FEATURED FACULTY

*Katharine L. Jacobs,
Executive Director, Arizona Water
Institute;
Deputy Director of the National Science
Foundation Center for Sustainability of
semi-Arid Hydrology and Riparian Areas
(SAHRA), UA*



SWES REPORT CARD

PUBLICATIONS:



Omoike, A. and J. Chorover. 2006.

Adsorption to goethite of extracellular polymeric substances from *Bacillus subtilis*. *Geochim. Cosmochim. Acta* 70, 827-838.

Franklin, K., Lyons, K., **Nagler, P.**, Lampkin, D., **Glenn, E.**, Molina-Freaner, F., Markow, T., and **Huete, A.** 2006. Estimating buffel grass land conversion and productivity in the plains of Sonora, Mexico using satellite imagery. *Biological Conservation* 127: 62-71.

Glenn, E., P.L. Nagler, Brusca, R.C. 2006. Coastal wetlands of the northern Gulf of California: inventory and conservation status. *Aquatic Conservation: Marine and Freshwater Ecosystems* 16: 5-28.

Chetochine, A., Brusseau, M.L., Gerba, C.P., and Pepper. I.L. 2006. Leaching of Phage from Class B Biosolids and Potential Transport Through Soil. *Appl. Environ. Microbiol.* 72:665-671.

Rasmussen, C. 2006. Distribution of soil organic and inorganic carbon pools by biome and soil taxa in Arizona. *Soil Sci. Soc. Am. J.* 70: 256-265.

Rasmussen, C., M.S. Torn and R.J. Southard. 2005. Mineral assemblage and aggregates control carbon dynamics in a California conifer forest. *Soil Sci. Soc. Am. J.* 69:1711-1721.

PRESENTATIONS:

Sylvia Franke was invited to speak and display a poster: "New developments in understanding the role of CusF in *cus* mediated copper resistance in *E. coli*". GRC Metals in Biology, Four Point Sheraton, Ventura, CA



Raina Maier was invited to present "The Dark Wet Microbial World of Kartchner Caverns" at Purdue University, March 6.

Ian Pepper presented "Gene Transfer in Soils: Is It A Threat or Evolution in Action?" at the AAAS Annual Meeting, February 16-20, 2006 in St. Louis, Missouri.

Kelley Riley presented "Assessment of the Microbial Water Quality of Individual and Small Systems in Arizona" at the Fifth Annual on-site Wastewater Conference, sponsored by the Arizona County Directors of Environmental Health Directors Association. The Conference was held in Laughlin, Nevada, February 1st and 2nd, 2006.

Sylvia Franke presented a seminar titled "Mechanisms of microbial copper and zinc homeostasis" at Skidmore College, Saratoga Springs, NY January 4, 2006.

Martin Yoklic presented Water Harvesting Potential in an Arid City: A Quantity Assessment for Tucson, AZ, USDA-CSREES National Water Conference, San Antonio, Texas, February 5-9 2006.

Martin Yoklic also presented a poster titled "Residential Water Harvesting in Cold Climates: R&D at the Forest Products Laboratory (FPL)" at the USDA-CSREES Water Conference.

DEPARTMENT NEWS:





On February 9th through 12th the **UA Soil Judging Team** competed against Cal Poly and NMSU in the 2006 Southwest Regional Soil Judging Competition. This years contest was held in Las Cruces, NM and co-hosted by the University of Arizona and New Mexico State University. All team members participated and were successful. **The UA team took first place in the group judging competition and first place overall!!!** Currently the team is preparing for the 46th National Soil Judging Competition hosted by Cal Poly in California.

Individual Competition:

2nd David Watson
3rd Devin Gaugler
4th Raven Bolas
6th Christina Contreras
7th Edward Mitchell

Allan Matthias attended an Environmental Science Forum at Pearson, Benjamin Cummings Publishing Company in San Francisco, February 11 – 12, 2006.

Martin Yoklic, was invited to participate in a workshop on strengthening the connections between Land Grant institutions and the Federal Laboratories. The workshop was held at Oak Ridge National Laboratory on February 14-15, 2006.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
		<h1>March 2006</h1>					For CALS Events, click on Calendar @ http://www.az.arizona.edu/
			1	2	3	4	
5	6 SWES Dept. Seminar – 3p @ Marley – Rm. 230 <i>Mohamed Hereher, Ph.D. Student</i>	7	8		10 ETRs Due today at noon	11	
12	13 First day of Spring Break – NO SWES Dept. Seminar	14	15	16	17  St. Patrick's Day Conference 7:30a – 4:30p (UA Classified Staff - off site)	18	
19	20 SWES Dept. Seminar – 3p @ Marley – Rm. 230 <i>Barbara Blair, Ph.D. Student</i>	21	22 12th Annual Hunger Banquet @ 6:00 PM Tucson Room, SUMC	23	24 ETRs Due today at noon	25	
26	27 SWES Dept. Seminar – 3p @ Marley – Rm. 230 <i>Yongwook Kim, Ph.D. Student</i>	28	29 30 Extension Professional Development Working Group will host a workshop to help enhance management skills. The workshop will be held on March 29 and 30 at the Grace Inn in Ahwatukee (Phoenix).		31 UA Staff Advisory Council Presents “On Our Own Time” Staff Art Exhibit @ Student Union Gallery - Exhibit is Open to the Public		

NEWSLETTER TEAM: **Raina Maier, Ph.D.**
Editor

Robb Carlisle
Coordinator

Brooke McCord
Distributor

Karen Josephson
Webmaster

* For questions, comments, suggestions, or feedback contact Robb Carlisle at 621-1646 or carlisle@ag.arizona.edu