

Ephemeral Flow

A NEWSLETTER ABOUT SAHRA

FEBRUARY/MARCH 2005

Welcome to the February/March issue of Ephemeral Flow, a newsletter for sharing information within the SAHRA community. Ephemeral Flow is sent to SAHRA researchers, staff, and students at all participating institutions approximately every two months. Your contributions and suggestions are always welcome. Please send items to Mary Black at mblack@sahra.arizona.edu.

UPCOMING EVENTS

Meetings, Workshops, Seminars, Short Courses

Feb. 28 - March 1: SAHRA Executive Retreat, Holiday Inn Palo Verde, Tucson

March 3: El Día del Agua, University of Arizona

October 26-28: SAHRA Annual Meeting and NSF Site Visit, Tucson

FEATURES

But Don't Drink the Water...



Governor Janet Napolitano shares a moment of water levity with Sharon Megdal and Dana Flowers

On January 25, Gary Woodard, Elizabeth Hancock, Jim Shuttleworth, and Kathy Jacobs represented SAHRA at the Water Expo to Benefit Arizona Lawmakers at the Arizona State Capitol in Phoenix. The goal of the event was to educate legislators about current efforts to support water sustainability. The event included 40 displays hosted primarily by University of Arizona entities and Maricopa County municipal water suppliers. In addition to the displays, 46 lawmakers and many of their staff members were treated to a luncheon

with guest speakers, including Governor Janet Napolitano. Ironically, the Expo coincided with issuance of an advisory by the City of Phoenix to its 1.5 million water customers (including those in the Capitol complex), that Phoenix water should be boiled before use in cooking or drinking.

SAHRA Website Update

The SAHRA website has been completely overhauled and updated. Project summaries for research, knowledge transfer, and education now pull information directly from SAHRA's Online Management System. The new front page has self-updating content for Global Water NewsWatch and Sabino Canyon. The SAHRA news interface can be easily updated by SAHRA administrators and other authorized users. Your suggestions for news and calendar items are solicited; contact Brad James (bjames@sahra.arizona.edu) or Mary Black (mblack@sahra.arizona.edu).

RESEARCH

Field Notes from the Rio Grande

Students from NMT and UA completed their semiannual Rio Grande sampling this January starting in Del Norte, CO and continuing south to Ft. Quitman, TX. The trips have taken place every January and August since January 2000. This Upper Rio Grande synoptic sampling is revealing trends in the river's chemistry, specifically trends in salinity and nutrients.

Past sampling trips have been performed by representatives from both universities, including James Hogan and Suzanne Mills. Participants in this January's trip included Heather Lacey and Shannon Ferrell, both



A couch frozen in a drain near Alamosa Colorado.

Master's students at NMT, and Gretchen Oelsner, a PhD student and Sandia Fellow at UA. Heather and Gretchen sampled the main stem of the Rio Grande every 10 to 100 km as well as the major tributaries, drains, and the Low Flow Conveyance Channel. Samples were collected with



The mighty Rio Grande south of Las Cruces, NM.

a higher frequency along the stretch between Cochiti Dam to Elephant Butte Reservoir because this region is the focus of Gretchen's nutrient work.

Overall, sampling conditions were good. The only weather-related problems occurred in Colorado where it was cold

RESEARCH (continued)

enough for the river to be frozen at several sampling locations and for samples collected early in the morning to freeze in the filter cartridges. After one chilly day of sampling, the temperature followed the trend of the electrical conductivity of the river samples, increasing steadily as they progressed downstream to a balmy 70 degrees in Ft. Quitman, TX. North of Elephant Butte Reservoir, water levels in the river were higher than in previous years, but low releases from the reservoir reduced the river to a meandering trickle south of Elephant Butte.

SAHRA Research Applied at Indiana University

Constance Brown reports from Indiana University that this semester she is teaching an upper-level seminar on hydrometeorological issues in the semi-arid Southwest, looking at issues related to vegetation dynamics/change/decline/invasion, precipitation and ET, soil moisture, urban population, and management. In reviewing the literature, she is drawing heavily on SAHRA research that looks at integrative and interrelated processes that sustain or initiate change within ecosystems. Undergraduates in the class also are gathering water-related news items, relying to a great extent on SAHRA's Global Water News Watch (www.sahra.arizona.edu/newswatch/).

ANNOUNCEMENTS

Stakeholder Engagement Facilitation

Holly Hartmann has joined SAHRA to facilitate stakeholder engagement and integration, particularly in New Mexico. She has a background in hydrologic modeling, water resources management, and water policy and has been a participant in the CLIMAS project (Climate Assessment for the Southwest) since its inception, assessing hydroclimate forecasts, their communication, and their use in making real-world decisions.

Holly will be brainstorming with SAHRA researchers over the next month to learn more about their research and products, thoughts about stakeholder interaction, and past/current stakeholder interactions.

R & R

Match the SAHRA Author to Their Publications

The answer can be found at www.sahra.arizona.edu/newsletter/

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| 1) Gretchen Oelsner | — “Electroproduction of pie zero mesons in the second resonance region,” <i>Nuovo Cimento Letters</i> . |
| 2) Louise Shaler | |
| 3) Gary Woodard | — “Ammonia oxidation on the Pt(111) and Pt(S)-12(111)x(111) surfaces,” <i>American Chemical Society Meeting</i> . |
| 4) Jim Shuttleworth | |
| 5) Fred Phillips | — “Waiting for the full truth on Guatemala,” <i>Washington Report on the Hemisphere</i> . |
| | — “Age and geomorphic history of Meteor Crater, Arizona, from cosmogenic ³⁶ Cl and ¹⁴ C in rock varnish,” <i>Geochimica et Cosmochimica Acta</i> |
| | — “A Study in Scarlet in the Utah Territory,” <i>The Sherlock Holmes Journal</i> . |

PEOPLE

We would like to hear from those of you outside the UA and from new students. And if you know of a SAHRA participant who did not receive this newsletter, please send his/her email address and name. If you have something to announce – honors, grants, research, new babies, etc. – please send your news to Mary Black at mblack@sahra.arizona.edu.

New SAHRA Students

SAHRA welcomes **Shannon Ferrell**, a new MS Hydrology student at NMT who is working with Fred Phillips on extending the chloride budget for the Rio Grande to reactive solutes, continuing the work of Suzanne Mills and complementing the work of Heather Lacey. Shannon received a BS in materials engineering at NMT in May 2004. Shannon and her husband, Paul, are the proud, busy parents of a 5-month-old baby boy, Marcellus.

New SAHRA Staff

Kat Wilson has changed positions, moving from a graduate assistant position in the SAHRA Education macrotheme to program coordinator for the WATER kits project. Kat expects to receive her MA in teaching and teacher education at the UA in Spring 2005. She can be contacted at katw@email.arizona.edu.

Recent Graduates

Congratulations to **Mary Ewers**, who completed her Ph.D. in Economics at the University of New Mexico in December. Her dissertation title is “Valuing our Water Resources and Modeling Water Markets.” Mary has accepted a postdoc position at Los Alamos National Laboratory, where she is working on “ZeroNet,” a dynamic systems model of the San Juan River Basin that includes both the hydrologic flows and economic benefits derived from those flows. The project is looking at ways to increase power production with “zero net” freshwater withdrawals from the basin. More information on the project is available at www.zeronet.lanl.gov.