

EDUCATION

From Monsoon Madness to Wildfire Adventures: Two Summer Camps

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Over the past two years, SAHRA and the Flandrau Science Center, both housed at the University of Arizona in Tucson, collaboratively designed and implemented hydrology-related camps for children of ages eight to 12.

Each of the camps, Monsoon Madness in 2003 and Camp Wildfire in 2004, was offered three times as a one-week, full-day camp at Flandrau.

Monsoon Madness provided students with an opportunity to learn about water in the Tucson area through the annual monsoon phenomenon. Specific themes explored were the water cycle, weather, the desert monsoon, and human dimensions of the monsoon. All students were provided with rain gauges and thermometers to install at home so that



Monsoon Madness campers make and decorate rain sticks.

data could be collected daily and recorded on a Tucson map. Camp activities included creating a cloud in a jar, decorating rain sticks, a visit from a local television weather forecaster, documenting learning in a field notebook, and visiting the National Weather Service. An additional field trip to the Santa Catalina Mountains north of Tucson to collect atmospheric data was planned but had to be cancelled due to the Aspen Fire.

Attempting to benefit from adversity, camp organizers selected wildfire as the theme of the 2004 camp. Camp Wildfire explored the causes and effects of the Aspen Fire, which burned approximately 85,000 acres in June and July 2003. Most

campers had witnessed the billowing smoke from the fire, which was visible in Tucson for weeks. Campers explored the following questions: What is the role of wildfire in our local ecosystems, and how has this changed over time? What conditions are



Camp Wildfire participant tries on fire gear.

necessary for wildfire? What is the role of humans in suppressing or encouraging wildfire? How will the ecosystems on the mountain change after the fire? How did the fire affect our water supply and recreation areas? Camp activities included creating sun prints, simulating how trees compete for essential needs, interpreting tree rings, exploring the chemistry and physics of fire, and using a computer simulation to manage a wildfire. Campers participated in on-campus field trips to the Tree Ring Laboratory and the Center for Creative Photography. Each week culminated in a field trip to the Santa Catalinas to observe and collect data in recovering burned areas.

Camp organizers put considerable effort into attracting participants from low-income families and provided full or partial scholarships to 30 percent of attendees in 2003 and 65 percent in 2004. A collaboration with U of A's Office of Early Academic Outreach provided transportation for many scholarship students.

Surveys from Monsoon Madness have been analyzed and indicate improvements in campers' self-reported knowledge of the monsoon and the activities of water scientists. Campers most enjoyed the art activities, field trip, and experiments.

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Selected recent USGS hydrology publications from around the Southwest:

Data from channel-change monitoring at selected sites in Maricopa County, Arizona, 1997-2002, by Christie M. O'Day.

<http://water.usgs.gov/pubs/of/2004/1230/>

Methods to identify changes in background water-quality conditions using dissolved-solids concentrations and loads as indicators, Arkansas River and Fountain Creek, in the vicinity of Pueblo, Colorado, by Roderick F. Ortiz.

<http://water.usgs.gov/pubs/sir/2004/5024/>

Occurrence, distribution, and transport of pesticides, trace elements, and selected inorganic constituents into the Salton Sea Basin, California, 2001–2002, by Lawrence A. LeBlanc, Roy A. Schroeder, James L. Orlando, and Kathryn M. Kuivila.

<http://water.usgs.gov/pubs/sir/2004/5117/>

Regional water table (2004) and water-level changes in the Mojave River and Morongo ground-water basins, southwestern Mojave Desert, California, by Christina L. Stamos, Julia A. Huff, Steven K. Predmore, and Dennis A. Clark.

<http://pubs.water.usgs.gov/sir2004-5187/>

U.S. Geological Survey, Arizona District • <http://az.water.usgs.gov>