

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

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The [Water Resources Research Center](#) - a research and [Extension](#) unit of the [College of Agriculture and Life Sciences](#)

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The Resiliency of Hopi Agriculture Now on Display

On Saturday, April 14, the Arizona State Museum opened its latest exhibit, "The Resilience of Hopi Agriculture: 2000 Years of Planting". Michael Kotutwa Johnson, Hopi farmer, photographer, and Ph.D. candidate in the UA School of Natural Resources and the Environment, served as

guest curator for the exhibit. Kotutwa illustrates traditional Hopi farming practices based on spiritual beliefs, community values, and ancient, time-tested techniques. As a farmer, Kotutwa is able to continue the Hopi tradition of practicing culturally-based agriculture on his own land in Northern Arizona. He shows how he is able to grow corn, even in an environment that receives only 6-10 inches of rainfall per year. The exhibit runs through June 30, 2019.

[View YouTube Video](#)

OTHER EVENTS

Water Roots - Seeking Springs in Sonora: New Findings From Spring Surveys and the Students Working to Study Them

May 7, 2018



Time/Location: 6:00 p.m. / Exo Roast Coffee Co. (403 N. 6th Ave., Tucson)

Speaker: Mirna Manteca, *Mexico Conservation Manager, Sky Island Alliance*

Springs are where people and wildlife come together; they are the common language between conservation and human livelihood in the Sonoran Sky Islands. Young biologists from the University of Sonora have come together and are currently working with private landowners, ejidos (communal farmers), and federal agencies to locate and assess spring ecosystems in Sonora. By populating the map, the Sonoran Springs Exploration Group is creating baseline information that will help us better understand how to protect our critical water sources in the face of climate change.

UCOWR Webinar - Emerging Voices of Tribal Perspectives in Water Resources Webinar (FREE)

May 23, 2018

Time/Location: 9:00 a.m. - 10:00 a.m. (MST)

Speaker: Karletta Chief, *Assistant Professor and Extension Specialist, University of Arizona*

The Emerging Voices of Tribal Perspectives webinar is the second of two webinars, which highlight papers from the April Issue on tribal waters in the Journal of Contemporary Water Research & Education. Karletta Chief of the University of Arizona is the issue editor. Dr. Chief is facilitating each webinar and providing an introduction. Webinar #2 features two papers on tribes and water quality and quantity. First, Otakuye Conroy-Ben will discuss her paper "Disparities in Water Quality in Indian Country." Crystal Tulley-Cordova will follow with a talk on "Navajo Nation, USA, Precipitation Variability from 2002 to 2015." Stay tuned for more issues on Emerging Voices in Water Resources!



Photo credit Raina Ramirez Navajo

[View Webinar #1](#)

[Register for Webinar #2](#)

WRRC NEWS

World Intellectual Property Day 2018 Honors WRRC Employees

The University of Arizona celebrated World Intellectual Property Day on April 26. This year's theme was "Powering change: Women in innovation and creativity." WRRC Director Sharon Megdal and Arizona Project Wet Coordinator of Applied Programs Holly Thomas-Hilburn were two of over 100 women faculty, researchers, and staff at the UA who have disclosed inventions to the university. Both were recognized by Tech Launch Arizona, which works to ensure that technologies and innovations originating from UA researchers find meaningful application.



*Powering Change:
Women in Innovation
and Creativity*

Environmental Scholars Impress



In Mingus Mountain's backcountry, after two days of environmental fisticuffs, a team of high-school students from Prescott's Tri-City Prep won the 2018 Arizona Envirothon championship.

Against fourteen Arizona teams, they demonstrated expertise in aquatic ecology, water quality assessment, forestry & wildlife management, soil science, and land use planning. Teams also developed local strategies to address this year's theme - "[Western Rangeland Management: Balancing Diverse Views](#)".



Tri-City Prep (TCP) also took first place in the Aquatic Ecology Ecostation testing. Courtney, of the TCP team, credits Arizona Project WET and her experiences at the Verde Valley Water Festival. "I am always amazed at how many of our adult volunteers remember vividly, like Courtney, their 4th-grade water festival experiences," says Pam Justice, Arizona Project WET Program Coordinator, and Arizona Envirothon executive committee member.

TCP will represent Arizona at the National Conservation Foundation Envirothon, competing for scholarships and prizes at Idaho State University in Pocatello this July.

[Learn More About APW](#)

Dr. Alon Rimmer Remembered

We are deeply saddened to share the passing of our friend and colleague Dr. Alon Rimmer from the Lake Kinneret Limnological Laboratory, Israel. Alon spent



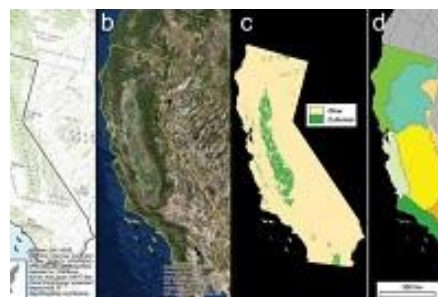
time with us at the WRRC during his sabbatical leave in 2015, when he took a deep dive into learning about Colorado River issues and shared his expertise with us. He was a leading expert on the complex hydrology and hydrogeology of the Lake Kinneret (Sea of Galilee) watershed. His generosity with his time and knowledge was also evident in the Fall 2015, when Cody Sheehy and WRRC Director Sharon Megdal were in Israel to film scenes for *Beyond the Mirage*.



An internationally recognized scientist in hydrology and physical limnology and author of more than 80 peer-reviewed articles, Alon was an advocate for environmental protection issues in Lake Kinneret and its watershed. Aside from his scientific activity, Alon was an avid swimmer and loved to take long hikes with his dogs. He is survived by his wife Tali and three children. We will miss his warm personality and smile.

Land Use Model Helps Identify Cropland

On April 26, we closed out our Spring WRRC Brown Bag Seminar series with a presentation by Cynthia Wallace, Research Geographer, USGS Western Geographic Science Center. Ms. Wallace provided an overview of her model, called FANTA (Fallow-land Algorithm based on Neighborhood and Temporal Anomalies), which can be used to remotely map planted versus fallowed croplands. The model was developed through work in the Central Valley of California, where over 250 different crops are grown and over 25% of the nation's food is produced. She described how the model used both temporal and spatial anomalies to determine if an area looks and acts like it is planted as cropland based on the land's history or as it compares to neighboring lands. For example, if an area greens and browns quickly as compared to the historical record for that land or as compared to neighboring lands, then it can be classified as an active crop area. To learn more about this unique and powerful model, visit the WRRC [website](#) to see the Powerpoint or view the recorded brown bag.



ANNOUNCEMENTS

- [May 5 C2E Volunteer Opportunity - Swan Wash Restoration](#)
- [May 6 CAP Seeks Water Resource Planning Analyst II - Application Due](#)
- [May 7 AWRA 2018 Annual Water Resources Conference - Call For Abstracts Deadline](#)
- [May 7 ADEQ Meetings for Triennial Review \(Phoenix\)- Outstanding Arizona Water](#)
- [May 9 Pima County Regional Flood Control District Monthly Brown Bag Series](#)
- [May 10 PNW WaterReuse Conference - Online Registration Ends](#)

- [May 10 ADEQ Meetings for Triennial Review \(Tucson\) - Outstanding Arizona Waters](#)
- [May 14 DOE Critical Water Issues Prize Competition RFI - Response Due](#)
- [May 17 Sonoran Institute Growing Water Smart Webinar - How Water Smart Are We?](#)
- [May 21-24 U.S. EPA Region 9 Tribal Drinking Water Symposium - Registration Open](#)
- [May 22 Water Conservation Field Services Grant - Applications Due](#)
- [June 15 WaterReuse AZ 2018 Scholarship - Application Due](#)
- [June 26-28 UCOWR/NIWR Annual Water Resources Conference - Registration Open](#)
- [June 29 MSSC Student Scholarship Program - Applications Due](#)
- [July 9-11 AWRA Summer Conference: The Science, Management, and Governance of Transboundary Groundwater - Registration Open](#)
- [August 2-3, 2018 Arizona Water Law Conference - Registration Now Open](#)
- [September 26 Innovations at the Nexus of Food, Energy, and Water Systems \(INFEWS\) - NIFA Grant Application Due](#)

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