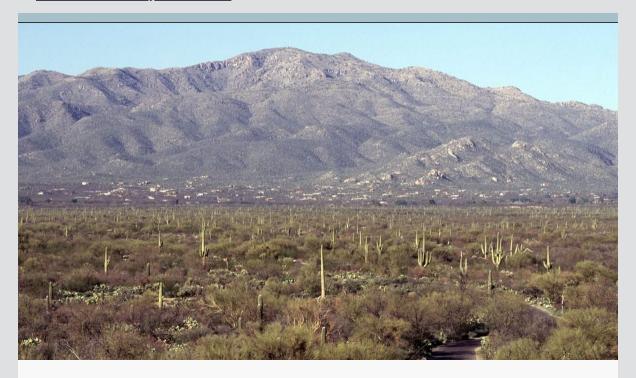
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EcoClimate News Southwest

April 2020

Reflections from SW CASC Federal Director, Stephen Jackson, PhD

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I'll use this month's space to provide perspectives on two unrelated events: recent reorganizations in the USGS National and regional CASC network, and the arrival of the Covid-19 wave in the United States. At the start of October last year, I assumed dual responsibilities as Director of both the Southwest and South Central Climate Adaptation Science Centers. The South Central (SC) CASC includes New Mexico, Oklahoma, Texas, and Louisiana, and shares Arkansas with the Southeast CASC. So now my 'territory' extends from the Tijuana estuary and the redwood forests all the way to the Mississippi Delta and the southern Ozark Mountains. I made several trips east between October and early March to visit SC CASC, staff, university partners, scientists, stakeholders, and field sites, getting to know the region and its climate challenges better.

We're fortunate that Dr. Carolyn Enquist has returned to her duties as Deputy Director of the Southwest CASC. She's taken over day-to-day management and leadership of the SW CASC. Carolyn is now the primary point of contact for our university partners and staff, and is responsible for developing and administering the SW CASC research portfolio.

Among my new responsibilities is to identify and implement linkages and collaborations between the SW and SC CASCs, and between those CASCs and others across the national network. Both the SW and SC CASCs are initiating strategic planning this year, which I'll be coordinating loosely between the two. The SW CASC has already sponsored several research projects that extend into New Mexico, and we're exploring collaborative projects with SC CASC that include New Mexico and western Texas as well as Arizona and other SW states. Carolyn and I will be providing updates as these efforts progress.

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only to keep us safe individually, but also to help slow and dampen the wave, allowing more time to prepare response measures and to avoid saturating response capacity. There are clear parallels with the wave of climate change that we've been experiencing across the Southwest, and the nation, and the world, over the past decade. Fundamental scientific understanding, effective translational science, active wave-dampening measures, preserving what we most value, adapting to a novel world in the aftermath – all are important to addressing both the virus pandemic and to climate change. We'll learn much about societal resilience and adaptive capacity in the coming weeks that we can apply to climate adaptation in the longer term. We'll have plenty of time to reflect on all that. In the meantime, what's most important is ensuring our own health and safety, and those of our broader communities and societies. Stay safe. Stay healthy. And for now, stay home!

Recently Published Research



Mountain Chickadees (Poecile gambeli) in southern California appear to select nest sites with relatively warm ambient temperatures. Photograph by Frank Fogarty

<u>Associations of Breeding-Bird Abundance with Climate Vary Among Species and Trait-Based Groups in Southern California</u>

Research funded by the SW CASC that recently was published in *PLoS ONE* suggests that in southern California, the abundances of breeding bird species in arid areas may be negatively affected by increases in temperature and aridity, whereas species in nearby areas that are cooler and less arid may be positively affected by the same changes in climate. The article's senior author, Frank Fogarty, is a Ph.D. candidate at University of California, Davis and a lecturer at Humboldt State University.

Upcoming Events

Webinar Series: Ecosystem Resilience

Co-hosted by the SW CASC &

The Center for Climate Adaptation Science and Solutions



Webinar #1: Extreme Heat & Ecosystems

David Breshears and Robbie Burger, from the University of Arizona will give an overview of the types of impacts extreme heat can have on ecosystems and humans, with a focused attention to extreme heatwaves and lethal limits of birds and mammals, and thermoregulatory adaptation of humans.

Date: May 1st, 2020 Time: 1-2 pm PDT

Register Today

Webinar #2: Ecosystem Transformation After Large-Scale Disturbance



This webinar is a two-day workshop focused on ecosystem transformations after large-scale mortality and disturbance events, as well as under the chronic stress of changing climate. The immediate objective of this event is to explore key uncertainties in the scientific understanding of ecosystem resilience, particularly with regard to providing guidance to the land management community. Don Falk (University of Arizona) will be leading the event.

Date: May 5th, 2020 and May 6th, 2020 Time: 1-3 pm PDT

Registration: <u>Information forthcoming</u>.

Webinar #3: Native American Cultural Burning



The severe impacts of wildfires are becoming ever more apparent. Meanwhile, California Indian tribes have been using fire for centuries to maintain ecosystems. Ron Goode (Tribal Chairman of the North Fork Mono Tribe) and Beth Rose Middleton (University of California, Davis) will share their experiences from recent cultural burns in California, and explain how the traditional Native American practice of burning grasslands and forests improves the resilience of ecosystems.

Subscribe Past Issues Date: May 12th, 2020 Trans

Register Today

Reflections on a Native American Cultural Burning Event



For many Native Nations, cultural identity and ways of life are directly tied to relationship with the land. Many tribes have long-established methods of land management and stewardship, including using fire to maintain the health of ecosystems that tribal members rely on for their well-being. Members of the SW CASC were fortunate enough to participate in a traditional burning workshop, the February 2020 Resource Restoration Cultural Burn in Mariposa, CA. The event was hosted by Ron Goode of the North Fork Mono Tribe and his family. Beth Rose Middleton, a professor at the University of California, Davis and a Principal Investigator for the SW CASC, also assisted in hosting and organizing the event. She was further supported by her graduate student advisees, Chris Adlam and Deniss Martinez in Ecology and Melinda Adams in Native American Studies. Over 70 people were invited, including members of the local and regional community, local and state officials, university affiliates, and members of the SW CASC.

I had the opportunity to speak with Anita Govert (SW CASC Assistant Director), Althea Walker (SW CASC Tribal Climate Adaptation Science Liaison), Dr. Beth Rose Middleton, Chris Adlam, and Deniss Martinez, about their experiences participating in this event. Answers have been edited for length and clarity. *Read the full blog post here*.

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How the SW CASC NRWD Fellowship has Prepared Us for Working in This New Reality



Josh Sturtevant and Ava Cooper at a precipitation gauge at the top of the Sagehen Creek Watershed in the northern Sierra Nevada, which is part of the UC Berkeley Sagehen Creek Field Station (https://sagehen.ucnrs.org/). Photo credit: Mackenzie Kohler (University of Nevada, Reno).

Josh Sturtevant is a Masters candidate at University of Nevada, Reno. Below are his experiences and insights as a SW CASC Natural Resources Workforce Development (NRWD) Fellow.

We have entered into new times of great uncertainty in which collaborative and interdisciplinary approaches to grand problems must be the standard. This is the reality ushered in by the global pandemic. In the United States alone, gruesome statistics of lives lost, public health systems stressed, and unyielding exponential growth of the novel coronavirus disease-2019 has brought the daily lives of hundreds of millions of Americans to a near stand-still. Similar realities have played out in countries including China, Italy, and Iran, with over 1.2 million cases and 60,000 deaths worldwide as of this writing (World Health Organization, 2020). In the words of the United Nation's Secretary General António Guterres: "Covid-19 is the greatest test that we have faced together since the formation of the United Nations," demanding collective world action not seen since World War II.

Read the full blog post by SW CASC NRWD Fellow Josh Sturtevant here.

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Partner Events

The Societal Impact of Your Research



Dr. Alison Meadow from Climate Assessment for the Southwest (CLIMAS) and a SW CASC principal investigator, and Dr. Gigi Owen from CLIMAS will be leading a workshop that will demonstrate an approach to help you craft future funding proposals, project reports, and discuss your work with diverse audiences.

Date: April 16, 2020 Time: 1-2:30 PM PDT

Register Today

Grass-Cast Virtual Stakeholders Workshop



The USDA Southwest and Northern Plains Climate Hubs, the University of Arizona, the Agricultural Research Service – Southwest Watershed Research Center, and others will host a virtual stakeholder workshop featuring a rangeland decision-support tool -- <u>Grass-Cast</u>.

Time: 9 AM-11:30 PM PDT

Please contact Lauren Kramer (LRKramer@fortlewis.edu) to register

Understanding Regional Linkages Between Production, Agriculture, Air Quality, and Climate



The USDA SW Climate Hub and the Climate Assessment for the Southwest are hosting Dr. David Dubois, New Mexico State Climatologist, to highlight the intersection of production agriculture, air quality and climate.

Date: May 18, 2020 Time: 2 PM MDT

Register Today

Other SW Science

<u>Climate Change is Increasing the Risk of Extreme Autumn</u>
Wildfire Conditions Across California

This study examines historic meteorological data in California using climate model simulations. They found that statewide increases in autumn temperature and decreases in autumn precipitation has led to an increase of extreme fire events in autumn. The authors predict that as climate change continues, California will continue to see an increase in the frequency and intensity of autumn fire events.

Job and Funding Opportunities

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	<u>The Arizona Department of Forestry and Fire Management (DFFM) - Hazardous Fuels Reduc</u> <u>Grant Program</u>			

Proposals should focus on mitigating the risk of fire in Wildland Urban Interface areas and/or for the protection of Arizona communities through reduction of hazardous forest and woodland fuels.

DEADLINE - May 15th, 2020

https://mailchi.mp/f7232093506f/ecoclimate-news-swwebinar-s...

Job Opportunities

Evidence Synthesis Support: Ungulates & Climate Change

The National CASC is seeking to hire a student or recent graduate from August-October 2020 to support a systematic review of the documented and projected impacts of climate change on ungulates in western North America.

DEADLINE - April 24th,2020

USDA Climate Hubs Southern Plains Director

This position is with the United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Grazing Lands Research Laboratory, Great Plains Agroclimate & Natural Resources Research Unit located in El Reno, Oklahoma.

DEADLINE - May 5th,2020

National Park Service Research Assistant

The NC CASC seeks the services of a full-time student contractor that will soon finish a Master's degree or will be within one year of completing a Master's degree upon the start date. The successful applicant will assist with National Park Service Climate Response Program scientific and support activities. Respondents should submit a resume and cover letter describing their education and work experience to Brian Miller, NC CASC Research Ecologist at bwmiller@usgs.gov

DEADLINE - Position open until filled

Program Coordinator

provide administrative, communications, and logistics support for ASAP programs, member groups, and events.

DEADLINE - Position open until filled

Science Translator

The South Central CASC is searching for a science translator to implement their science communications strategy, engage with stakeholders, and develop content for and update the website.

DEADLINE - Position open until filled

Program Manager

The North Central Climate Adaptation Science Center (NC CASC) is seeking applications for a program manager. This position will oversee the day-to-day university opporations for the NC CASC.

DEADLINE - Position open until filled

Post Doctoral Position

The USGS North Central Climate Adaptation Science Center (NC CASC) is hiring a Postdoctoral Scholar in Understanding and Managing Changing Wildfire Risk to lead an effort on generating the fire science needed for resource management decisions in the ecosystems of the North Central region.

DEADLINE - Position open until filled

Water Resource Manager

The Arizona Department of Water Resources (ADWR) is seeking a water resources manager. The successful applicant responsibilities include supervising and training staff, representing ADWR at public meetings and conferences, developing, organizing, and the dissemination of policies, procedures, and training materials.

DEADLINE - Position open until filled

Climate Adaptation Fellowship

The American Society of Adaptation Professionals is seeking applications for their fellowship program. Projects will be focused in the Great Lakes region. Topics include: connecting for-profit climate service providers with publicly available climate data and information as well as preparing for economic opportunities and climate migration.

DEADLINE - April 22nd, 2020

Evidence Synthesis Support: Ungulates & Climate Change

The National CASC is seeking to hire a student or recent graduate to assist with an evidence synthesis on ungulates and climate change.

DEADLINE - April 24th, 2020

Expanding Representation in the Geosciences (ERG) Scholarships

GSA's (The Geological Society of America) ERG Scholarships support students who are underrepresented in the geosciences by awarding up to six students with a \$1,500 scholarship, student membership, and full meeting registration for GSA's 2020 Annual Meeting & Exposition.

DEADLINE - May 15th, 2020

On To the Future Program (OTF)

Apply to OTF and gain friendships, mentorship, and knowledge of future opportunities in the geosciences. Awardees receive partial travel funding to the Annual Meeting, 25-28 October in Montréal, Québec, Canada; full meeting registration; and one-year membership. GSA encourages low-income, minority, first-generation, non-traditional, women, veterans, LGBTQ+, and students with disabilities to apply

DEADLINE - May 29th, 2020

Contact us at:

University of Arizona, ENR2 Building, 1064 E. Lowell St., Suite N441, Tucson, AZ 85721

