

Santa Cruz RIVER RESEARCH DAYS

MARCH 25–MARCH 26, 2021

Zoom Virtual Event

THE INFRASTRUCTURE OF A RESILIENT RIVER

The perennially flowing reaches of the Santa Cruz River are managed waterways, meaning human-made infrastructure and policies determine how much water flows in the river, and when. This year, Santa Cruz River Research Days will have a focus on the capital improvement projects that create flows, flood protection, and recreation opportunities. We have invited engineers, river managers, and scientists to discuss the capital improvement projects that created today's Santa Cruz River and that will continue to transform it in the future. We will also be exploring the culture, ecology, policy, history, and future of this desert river.

New this year: real-time English-Spanish translation. Speakers and attendees will be able to participate in the event in their preferred language, allowing new opportunities for discovery, networking, and community-building.

In place of the traditional field trip, we'll bring the river to you—through virtual tours of the Santa Cruz River.



Photograph by Charlie Alolkoy

PURPOSE

Santa Cruz River Research Days was founded in 2009 with the goal of sharing of experiences and results across diverse institutions and disciplines. Our program is designed to:

- identify new research questions,
- expand the Santa Cruz River research community,
- foster awareness of each other's research and conservation efforts, and
- catalyze new collaborative projects.

2021 STEERING COMMITTEE

Michael Bogan, University of Arizona

Luke Cole, Sonoran Institute

Cannon Daughtrey, Pima County

Roger Dorr, Tumacácori National Historical Park

Ben Lomeli, Friends of the Santa Cruz River

Claire Zugmeyer, Sonoran Institute



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THURSDAY / MARCH 25, 2021

morning schedule

9:50 a.m.	ZOOM MEETING OPENS
10:00 a.m.	Welcome Luke Cole and Claire Zugmeyer , Sonoran Institute <i>A Living River—Charting Santa Cruz River Conditions</i>
10:20 a.m.	Dawn Rocha , Tonto National Forest Tribal Monitor Program/Westland Resources Daniel McNair , Westland Resources <i>Culturally important riparian trees in southern Arizona: a behind-the-scenes look at ethnobotanical collaboration and research methods</i>
10:40 a.m.	Pablo Rocha , School of Natural Resources and the Environment, University of Arizona <i>Bird community structure within three distinct reaches of the lower Santa Cruz River</i>
11:00 a.m.	Michael Bogan , School of Natural Resources and the Environment, University of Arizona <i>Patterns of dragonfly diversity and recolonization along the effluent-dependent Santa Cruz River</i>
11:20 a.m.	BREAK
11:30 a.m.	Ian Murray , Pima County Office of Sustainability and Conservation <i>Gila topminnow expansion into the effluent Santa Cruz River highlights the importance of 'managed' waters for native fish conservation in southern Arizona</i>
11:50 a.m.	Eleonora Demaria , Pima County Regional Flood Control District <i>Using effluent water to preserve the Gila Topminnow habitat in the Santa Cruz River</i>
12:10 p.m.	Drew Eppehimer , School of Natural Resources and the Environment, University of Arizona <i>Lower Santa Cruz River flow intermittence: discharge fluctuations, stream drying, and fish death</i>
12:30 p.m.	BREAK

Creeping water primrose (*Ludwigia peploides*)
Photograph by Claire Zugmeyer/Sonoran Institute



THURSDAY / MARCH 25, 2021

afternoon schedule

1:00 p.m.	Virtual Tour—New Southern Arizona Heritage & Visitor Center
SPECIAL SESSION—INSPIRING NEW WORK	
1:20 p.m.	Jared Renaud , College of Architecture, Planning and Landscape Architecture, University of Arizona <i>Santa Cruz Food Sources: Regional Plant Education for a More Sustainable Future</i>
1:30 p.m.	Angelantonio Enriquez Breault , Ironwood Tree Experience <i>Reconciliación en El Río / Reconciliation on the River</i>
1:40 p.m.	Luke Cole , Sonoran Institute <i>A low-tech method to quantify trash in the Santa Cruz River and identify its sources</i>
1:50 p.m.	Carolyn Shafer , Town of Patagonia Flood and Flow Committee <i>The Sonoita Creek Watershed</i>
2:00 p.m.	Lee Ann Woolery , Citizen Artist™ <i>Citizen Artist™ a new participatory science research opportunity to study the Santa Cruz River</i>
2:10 p.m.	Ricardo Santos Hernández , Visual artist, protector of the Santa Cruz River <i>Bi-National Santa Cruz River Río Compartido/Shared River Exhibition</i>
2:20 p.m.	BREAK
2:30 p.m.	James G. Brown , Pima County Regional Wastewater Reclamation Department <i>PFAS in Biosolids: A Southern Arizona Case Study</i>
2:50 p.m.	Kelsey Hollien , School of Natural Resources and the Environment, University of Arizona <i>Microplastic pollution in the effluent-dependent lower Santa Cruz River during baseflow and post-flood conditions</i>
3:10 p.m.	Hamdhani , School of Natural Resources and the Environment, University of Arizona <i>Seasonal and longitudinal water quality dynamics in three effluent-dependent rivers in Arizona</i>
3:30 p.m.	CHAT WITH PRESENTERS HAPPY HOUR
4:30 p.m.	End of Day 1

FRIDAY / MARCH 26, 2021

morning schedule

9:50 a.m.	ZOOM MEETING OPENS
THE INFRASTRUCTURE OF A RESILIENT RIVER	
10:00 a.m.	Welcome
10:10 a.m.	Evan Canfield , Pima County Regional Flood Control District <i>Identifying Projects to Improve the Santa Cruz River Northwest of Tucson</i>
10:30 a.m.	Scott Altherr , CMG Drainage <i>The Multiple Uses of a Modeled Terrain in the Lower Santa Cruz River</i>
10:50 a.m.	Evan Canfield , Pima County Regional Flood Control District Kevin Payne , Kimley-Horn Will Wilhelm , Kimley-Horn <i>Santa Cruz River Corazon Reach Stream Restoration</i>
11:10 a.m.	BREAK
11:20 a.m.	Kevin Payne , Kimley-Horn John Spiker , Town of Oro Valley (formerly Pima County Regional Flood Control District) <i>El Corazon Bank Protection and River Park</i>
11:40 a.m.	Maya Teyechea and Dick Thompson , Tucson Water <i>Santa Cruz River Heritage Managed Recharge Project at 18 months</i>
12:00 p.m.	BREAK

Great blue heron (*Ardea herodias*)



FRIDAY / MARCH 26, 2021

afternoon schedule

12:30 p.m.	Virtual Tour—El Rio Preserve Bank Protection
12:50 p.m.	Luke Cole , Sonoran Institute <i>Survey results from resident engagement for the Pima County Santa Cruz River Management Plan</i>
1:10 p.m.	Kendall Kroesen , Mission Garden <i>Competing Visions for Capital Investment on the Tucson Reach</i>
1:30 p.m.	Francisco Lara-Valencia , Arizona State University <i>Borderless solutions for a bordered river: Green infrastructure in Ambos Nogales</i>
1:50 p.m.	Panel Discussion
2:20 p.m.	BREAK
2:30 p.m.	Elia M. Tapia Villaseñor , Universidad de Sonora <i>A Water Balance Model for the Santa Cruz River Aquifer in Mexico</i>
2:50 p.m.	Jennifer G. Duan , Department of Civil Engineering and Engineering Mechanics, University of Arizona <i>Incorporating Climate Change on Flood Magnitude and Frequency Analysis in the Upper Santa Cruz River</i>
3:10 p.m.	Eve Halper , Reclamation Phoenix Area Office <i>Projected Changes to the Lower Santa Cruz River Hydroclimate—Results of Collaborative Study between the Bureau of Reclamation and Local Partners</i>
3:30 p.m.	Justin Clark , Olga Hart , and Dianne Yunker , Arizona Department of Water Resources <i>Groundwater Modeling in the Santa Cruz River Basin: International Boundary to Picacho Peak</i>
3:50 p.m.	CHAT WITH PRESENTERS HAPPY HOUR
4:30 p.m.	Thank you for staying 'til the end!

THANK YOU TO OUR 2021 SPONSORS

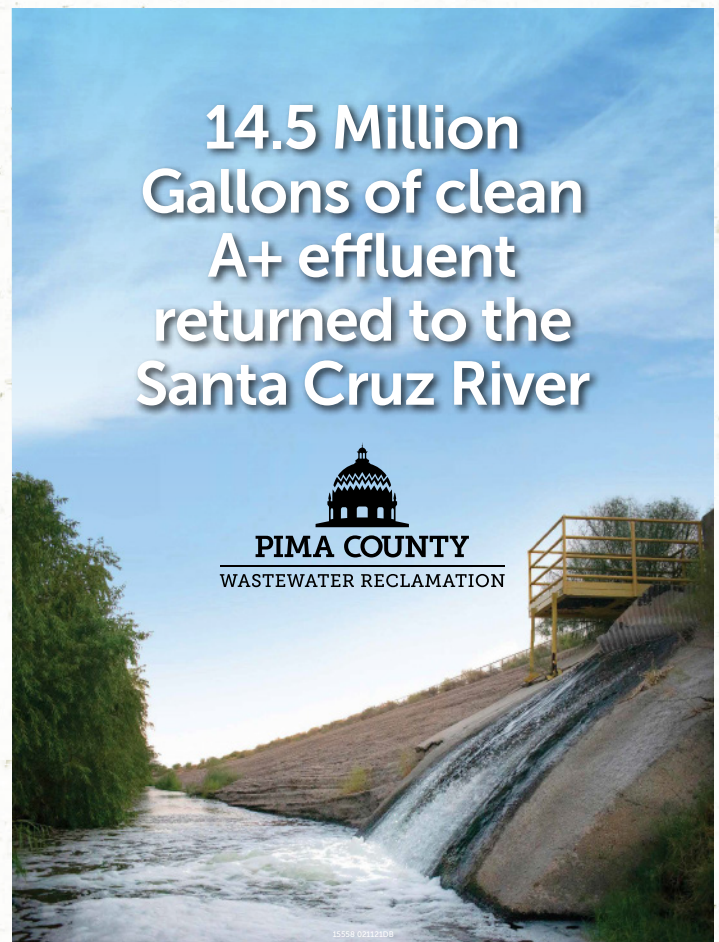
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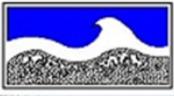
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SONORAN INSTITUTE has worked since our founding in 1990 to realize our vision that the Santa Cruz River, from Mexico to Marana, is a living, flowing river and the foundation of our community health and prosperity.



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