

RIVEREDGE WEST'S 21ST BIENNIAL
RIPARIAN RESTORATION CONFERENCE

RESTORATION FOR THE FUTURE:

Promoting resilience in our rivers and communities



MARCH 5-7, 2024

COLORADO MESA UNIVERSITY • GRAND JUNCTION, CO



RiversEdge West
RESTORE + CONNECT + INNOVATE

2024 Riparian Restoration Conference

Restoration for the Future

TUESDAY, MARCH 5 – DAY 1



9:00-10:00am MST **Check-in and Networking with Refreshments** (Room: Atrium)

WELCOME

10:00-11:00am MST
Room: North Ballroom

10:00-10:20am **Welcome and Overview**
Rusty Lloyd, Executive Director, RiversEdge West

10:20-11:00am **Keynote Address**
What's Data Got To Do With It? Connecting the Dots Between Research and Practical Applications
Anna Sher, Ph.D., Professor of Biology, University of Denver

SESSION

Restoration in the Age of Climate Change

Moderated by Rusty Lloyd, RiversEdge West

11:00am-12:30pm MST
Room: North Ballroom

11:00-11:20am **Building Climate Resilience in the Colorado River Basin**
Hannah Holm, American Rivers and Jordan Nielson, Trout Unlimited

11:20-11:40am **Wildfire Ready Action Plans**
Steven Reeves, Colorado Water Conservation Board

11:40am-12:00pm **When The Water Dries Up: Strategies for Implementing Riparian Restoration Projects Without Water**
Katelyn Cary and Linnea Spears-Lebrun, SWCA

12:00-12:30pm **Climate Change Panel**
Hannah Holm, American Rivers and Jordan Nielsen, Trout Unlimited
Steven Reeves, Colorado Water Conservation Board
Katelyn Cary and Linnea Spears-Lebrun, SWCA
Moderated by Rusty Lloyd, RiversEdge West

LUNCH

12:30-1:40pm MST
Room: Food Service in Atrium, Seating in South Ballroom

CONCURRENT SESSIONS

1:40-3:00pm MST

Diverse Stakeholder Engagement

Moderated by Shannon Wadas, RiversEdge West
Room: North Ballroom

Lessons Learned in Restoration

Moderated by Dave Bastian, American Conservation Experience
Room: South Ballroom

1:40-2:00pm **Multi-Dimensional Restoration of Pecos Canyon State Park (NM)**
Susan Sherrod, Biohabitats

1:40-2:00pm **Invasives and the Corps World: Movement, Methods, and Mayhem**
Dan McLendon and Dave Bastian, American Conservation Experience

2:00-2:20pm **Working Collaboratively For A Healthy, Flowing River System**
Tracy Stephens, Friends of the Verde River

2:00-2:20pm **Lessons Learned: Assumptions & Realities of Restoration Alongside the Beetle**
Sarah Sayles, Gila Watershed Partnership



CONCURRENT SESSIONS

(continued)

1:40–3:00pm MST

Diverse Stakeholder Engagement

Moderated by Shannon Wadas, RiversEdge West
Room: North Ballroom

Lessons Learned in Restoration

Moderated by Dave Bastian, American Conservation Experience
Room: South Ballroom

2:20–2:40pm

[The Value of Lived Experience in Environmental Flow Assessments: Overview of the Grand Valley Pilot Project](#)

Hannah Holm, American Rivers and Brian Murphy, River Network

2:20–2:40pm

[Russian Olive Treatment and Monitoring on the Escalante River: Lessons From 15 Years of Restoration](#)

Kevin Berend, Grand Staircase Escalante Partners

2:40–3:00pm

[Ecological Restoration with Tribes: Assessing Best Practices and Reflective Learning](#)

Nicholas Chischilly, University of Wyoming

2:40–3:00pm

[A Restoration Partnership at 5 Years: The White River Partnership](#)

John Leary, RiversEdge West

BREAK

3:00–3:30pm MST

Snacks available in Atrium

SESSION

Models for Scaling Local Capacity for Multi-Benefit Watershed Projects

Moderated by Stacy Beaugh, Strategic By Nature, Inc.

3:30–5:00pm MST

Room: North Ballroom

With billions of dollars flowing in from federal programs to support watershed restoration projects, an ecosystem of nonprofit organizations, local governments, and foundations throughout the state are coming together to figure out how they can best support each other to leverage these historic funds. At the center of these conversations is the recognition that holistic approaches to watershed health and sustainability require investments that build local and community capacity to navigate and pursue federal funds, and to build/sustain efforts over time. During this moderated discussion, panelists will present case studies and explore the opportunities and challenges in building local and community capacity to support multi-benefit watershed projects. Case studies and discussions will help participants discover opportunities for applying these concepts in their watersheds and provide an understanding of the suite of tools, resources, and funding available for support of the work.

Speakers and Panelists:

Alex Funk, Theodore Roosevelt Conservation Partnership

Melissa Wills, Colorado River District

Chelsea Silva, River Network

Anna Mauss and Ashley Garrison, Colorado Water Conservation Board

EVENING SOCIAL AT TRAIL LIFE BREWING

5:00pm MST

Trail Life Brewing Company – 436 Main St – 10% of proceeds will be donated to RiversEdge West



8:00–8:30am MST **Check-in and Breakfast** (Room: Atrium)

CONCURRENT SESSIONS

8:30–10:10am MST

Monitoring Changing Riparian Ecosystems

Moderated by Sharon Bywater-Reyes, University of Northern Colorado
Room: North Ballroom

Fish & Hydrology

Moderated by Tony Mancuso, Utah Department of Natural Resources, Division of Forestry, Fire & State Lands
Room: South Ballroom

8:30–8:50am	<u>Evaluation of the Ecological and Hydraulic Conditions of the Resilient St. Vrain Project (Longmont, Colorado)</u> Sharon Bywater-Reyes, University of Northern Colorado	8:30–8:50am	<u>Instream Flow Management for Listed Fish in the Upper Colorado River Basin: Water Year 2023 Example</u> David Graf, Upper Colorado River Endangered Fish Recovery Program
8:50–9:10am	<u>Monitoring Riparian Vegetation Response to Climate Conditions within the Upper Gila River Watershed to Inform Tribal Restoration Priorities: A Focus on Tamarisk Vegetation</u> Roy Petrakis, Western Geographic Science Center, U.S. Geological Survey	8:50–9:10am	<u>Rare and Native Fishes of the Upper Colorado River Basin</u> Tildon Jones, Upper Colorado River Endangered Fish Recovery Program
9:10–9:30am	<u>Trends in Vegetation Greenness-based Evapotranspiration Rates for Riparian Corridors</u> Pamela Nagler, Southwest Biological Science Center, U.S. Geological Survey	9:10–9:30am	<u>Native Fish Movements In The Dolores and San Miguel Rivers: A True Finding Nemo Story</u> Russell Japuntich, Bureau of Land Management
9:30–9:50am	<u>Vegetation Changes in the Middle Rio Grande Riparian Ecosystem</u> Jacob Lobato, Tetra Tech Inc.	9:30–9:50am	<u>Provo River Delta Restoration Project</u> Eric McCulley, Utah Reclamation Mitigation and Conservation Commission
9:50–10:10 am	Monitoring Q&A Moderated by Sharon Bywater-Reyes, University of Northern Colorado	9:50–10:10 am	<u>Dolores River Adaptive Management Support Project: Defining the New Normal for the Dolores River</u> Joel Sholtes, Colorado Mesa University

BREAK

10:10–10:40am MST
Snacks Available in Atrium



CONCURRENT SESSIONS

10:40am–12:20pm MST

Revegetation Strategies

Moderated by John Leary, RiversEdge West
Room: North Ballroom

Biocontrol & Threatened and Endangered Species

Moderated by Amanda Stahlke, Colorado Mesa University
Room: South Ballroom

10:40–11:00am	<u>Is Restoration Beating a Dead Horse In the Face of Climate Change? Using Genetics and Other Methods to Beat the Odds</u> Thomas Whitham, Center for Adaptable Western Landscapes and Department of Biological Sciences, Northern Arizona University	10:40–11:00am	<u>Biocontrol & Threatened and Endangered Species</u> Amanda Stahlke, Colorado Mesa University
11:00–11:20am	<u>Halophytic Plant Establishment in Playa Settings to Promote Dust Control at the Salton Sea, CA</u> Chris Sanderson, Tetra Tech Inc.	11:00–11:20am	<u>Integrating Behavioral Ecology and Conservation Science: Implications for Southwestern T&E Species</u> Sean Mahoney, The University of Arizona (pre-recorded)
11:20–11:40am	<u>Assisted Migration Experiments along a Distance/Elevation Gradient Show Limits to Supporting Home Site Communities</u> Art Keith, Department of Biological Sciences, Northern Arizona University	11:20–11:40am	<u>Applying Satellite-based Habitat Models to Inform Riparian Habitat Restoration and Management Actions for Two Listed Riparian Species, the Southwestern Willow Flycatcher and the Yellow-billed Cuckoo</u> Matthew Johnson, EcoPlateau Research Inc.
11:40am–12:00pm	<u>Pre-vegetated Coir Mats: When, Where, and How to Use Them</u> Rebecca Wright, North Fork Native Plants	11:40am–12:00pm	<u>Yellow-billed Cuckoo Breeding Phenology and General Nest Site Characteristics in Western Colorado</u> Adam Petry, Western Biology
12:00pm–12:20pm	Revegetation Q&A Moderated by John Leary, RiversEdge West	12:00pm–12:20pm	<u>Using Tamarisk Beetle Pheromone Lures to Reduce Re-growth of Tamarisk Following Tree Cutting</u> Cynthia Brown, Colorado State University



LUNCH

12:20-1:50pm MST

Room: Food Service in Atrium, Seating in South Ballroom

CONCURRENT SESSIONS

1:50-3:10pm MST

Plant Community Response to Climate Change

Moderated by Mike Wight, Great Outdoors Colorado
Room: North Ballroom

Process-Based Restoration

Moderated by Stacy Beough, Strategic By Nature, Inc.
Room: South Ballroom

1:50-2:10pm

[Source Climate Variability and Predictability Drive Phenotypic Plasticity in Fremont Cottonwood](#)

Hillary Cooper, Center for Adaptable Western Landscapes, Northern Arizona University

1:50-2:10pm

[The Original Ecological Engineer: How Can Beavers Help with Restoration and Resiliency of Streams and Riparian Areas](#)

Sydney Salzwedel, Biohabitats

2:10-2:30pm

[Hotter Temperatures Alter Riparian Plant Response to River Regulation and Environmental Gradients](#)

Emily Palmquist, U.S. Geological Survey, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center

2:10-2:30pm

[Adopting a Process-Oriented Perspective to Appreciate Natural Riverscapes](#)

Jessica Doran, EcoMetrics

2:30-2:50pm

[Downstream Decreases in Water Availability, Tree Height, Canopy Volume and Growth Rate in Cottonwood Forest Along the Green River, Southwestern USA](#)

Richard Thaxton, Department of Earth and Spatial Sciences, University of Idaho

2:30-2:50pm

[Monitoring Important Aspects of Beaver and Wetland Restoration: A Case Study](#)

Benjamin Jackson, EcoMetrics, Creighton University

2:50-3:10pm

[Rapid Spontaneous Restoration of Glen Canyon Ecosystems as Lake Powell Dries](#)

Seth Arens, Western Water Assessment, University of Colorado

2:50-3:10pm

[Employing the Principle of Charity to Understand Water-related Concerns with Wetland Restoration in Colorado](#)

Mark Beardsley, EcoMetrics

BREAK

3:10-3:40pm MST

Snacks Available in Atrium



SESSION

The Big Picture: Lessons from Large Scale Restoration

Moderated by Rusty Lloyd, RiversEdge West

3:40–4:40pm MST

Room: North Ballroom

3:40–4:00pm

[Restoration of the Colorado Watershed, From the Headwaters to the Delta](#)

Fred Phillips, Fred Phillips Consulting

4:00–4:20pm

[Two Decades of Restoration in the Middle Rio Grande](#)

Ondrea Hummel, Tetra Tech Inc.

4:20–4:40pm

[Taking Riparian Restoration Efforts to the Appropriate Scale](#)

Shannon Wadas, RiversEdge West

CLOSING REMARKS

4:40–5:00pm MST

Room: North Ballroom

Rusty Lloyd, RiversEdge West

POSTER SESSION & HAPPY HOUR

5:00–7:00pm MST

Room: Lounge and South Ballroom

Join us for appetizers and drinks at the poster session and happy hour! Discuss with poster presenters and exhibitors, catchup with familiar faces, and network with others in your field. Each attendee receives two complimentary beers or non-alcoholic beverages. Cash bar available. Posters will be displayed throughout the first 2 days of the conference. Student Poster Awards will be announced at the end of the session.

[Reintroduction of Beaver into Appropriate Habitat on BLM Land](#)

Alec Porterfield, Koby Kercher, Matthew Bair, and Milo Pohlen, Colorado Mesa University

[Impact Of Recreation Related Disturbance On Fungal Endophytes In *Bouteloua gracilis* Along A Disturbance Gradient In Browns Canyon National Monument](#)

Annika Revis, Northern Arizona University

[Assessing Sampling Methodologies Used to Monitor Riparian Plant Communities](#)

Aziz Syammach, University of Denver

[Olives in Overdrive: Spatial and Temporal Patterns of Russian Olive Establishment on the San Juan River](#)

Cassidy Goering, Fort Lewis College

[Changes in Soil Salinity and Plant Diversity After Tamarisk Removal: Seventeen Years of Monitoring by Undergraduate Students](#)

Deborah Kennard, Colorado Mesa University



POSTER SESSION & HAPPY HOUR

(continued)

5:00-7:00pm MST

[Genetic Monitoring of Tamarisk Biocontrol Agents \(*Diorhabda* spp.\) Along the Gila River Using Mitochondrial COI Barcoding](#)

Francisca Esquivel, Colorado Mesa University

[The Wandering Willow: Coyote Willow Growth Along the Dolores River, CO](#)

Hannah Holm, Fort Lewis College

[Balancing Act: Examining Mosquito Control's Hidden Ecological Costs on Macroinvertebrate Populations](#)

Holly Stanley, Samantha Hamilton, and Melanie Hoffman, Colorado Mesa University

[Working Collaboratively For A Healthy, Flowing River System](#)

Hudson Keffer, Friends of the Verde River

[Grand Valley River Corridor's Fluvial Opportunity Zone](#)

Joel Sholtes, Colorado Mesa University

[Strength of Top-Down Forces on the Establishment of *Diorhabda* spp. on *Tamarix* spp. in the Southwestern U.S.](#)

Kelly Tobin, University of Denver

[The Tamarisk Takeover: Tamarisk Invasion Along the Canyon Corridors of the San Juan River, SE Utah.](#)

Kennedy Perry, Fort Lewis College

[Field Tech Takeaways: Lessons From a Summer of Land Management](#)

Lauryn Dupaix and Becca Black, AmeriCorps

[Building and Utilizing a Skilled Volunteer Stewardship Corps](#)

Libby Collins, Colorado West Land Trust and Briana Board, EUREKA! McConnell Science Museum

[Pinus edulis Growth Using Common Gardens in Varying Arid Environments](#)

Mallory Decker, Northern Arizona University

[Novel Biochar Injection Concept - Water Conservation and the Impacts on Soil Health and Crop Yield in a Western Colorado Hay Field](#)

Michael Lobato and Holly Stanley, Matrix Resource Technologies

[Ecological Restoration with Tribes: Assessing Best Practices and Reflective Learning](#)

Nicholas Chischilly, University of Wyoming

[Planning an Aquatic Habitat Enhancement Project on the Lower Diamond Fork River in Utah County, Utah](#)

Paul Abate, Utah Reclamation Mitigation & Conservation Commission

[Conceptual Sector Partnership for Outdoor Regeneration](#)

Wano Urbonas, Colorado Workforce



8:00–8:30am MST **Check-in and Breakfast** (Room: Atrium)

FIELD TRIPS & WORKSHOPS

8:30–11:30am MST

Choose between the following four options during conference registration (continued on the next page).

Palisade Insectary Tour

Hosted by Dan Bean, Colorado Department of Agriculture

Time: 9:00–11:00am MST

Location: Meet at the Palisade Insectary at 9am—750 37 8/10 Rd, Palisade, CO 81526

Transportation is not provided but carpooling is encouraged.

Meet at the Colorado Department of Agriculture's Palisade Insectary for a walking tour. The Palisade Insectary has long been a promoter of the use of biological control in weed and insect pest management and is home to about 20 different species of biological control agents. Join us for a closer look at these insects and their unique rearing processes, as well as general information on past and future efforts by the Colorado Department of Agriculture's Biological Pest Control Program.

Just Trust Me: Exploring and Understanding the Role of Trust in Collaborative Efforts

Hosted by Shannon Wadas, RiversEdge West

Time: 8:30–11:30am MST

Location: Colorado Mesa University, University Center; Room: West Ballroom

Shawn Johnson, Director of the Center for Natural Resources and Environmental Policy, University of Montana, and chair of the Center's graduate certificate program in Natural Resources Conflict Resolution

Aireona Raschke, Associate Director of Practice, Center for Collaborative Conservation at the Warner College of Natural Resources CSU

Shannon Wadas, Associate Director, RiversEdge West

Restoration on any scale can be a daunting endeavor and one that is often more manageable and successful with a collaborative approach. Because collaborative efforts are largely supplemental to existing organizations, institutions, and structures, they rely on effective relationships rather than formal or hierarchical power to function. These relationships take many forms – interpersonal, interagency, cross-cultural – and include relationships to place and to process. Regardless of the type of relationship, it requires a certain amount of trust in order to unlock the promise of that relationship – whether that's greater knowledge and understanding, access to more capacity and resources, accountability to a process, or an abiding connection to place. We will dive into why trust matters and then explore approaches, tools, and skills for building, restoring, and communicating about the state of trust among partners. We will spend some time on peer-to-peer learning through the sharing of experiences and discuss how we have navigated the ups and downs of trust among our partnerships, coalescing the theoretical with the practical to provide some tangible skills and resources around engaging and sustaining your collaboratives.

[View Presentation Here](#)



FIELD TRIPS & WORKSHOPS (continued)

8:30–11:30am MST

Choose between four options during conference registration.

Integrated Woody Invasive Management Strategies: Perspectives from On-the-Ground Experiences

Hosted by John Leary, RiversEdge West

Time: 8:30–11:30am MST

Panel Discussion

8:30–9:55am

Location: Meet at Colorado Mesa University, University Center; Room: East Ballroom

This panel-style workshop is designed to present practical information from project managers' experiences using a variety of methods to treat tamarisk and Russian olive. Topics include prescribed fire, tamarisk beetles, and herbicide selection, timing, and application methods. This panel is aimed at restoration practitioners, land managers, and anyone who is interested in learning current tamarisk and Russian olive treatment approaches, success rates, and lessons learned. Discussion and Q&A will follow the presentations—attendees are encouraged to participate in the conversation and come prepared with additional questions/talking points from their own projects or research.

Moderated by: John Leary, Restoration Coordinator, RiversEdge West

Casey Cisneros

Land Stewardship Manager, Natural Resources Department, Larimer County

Herbicide selection, timing, and application method

Duncan Fuchise

Southeast Area WUI Specialist, Utah Department of Natural Resources, Division of Forestry, Fire & State Lands

Large scale tamarisk and Russian olive removal in Southern Utah

Jordan MacMahon

Wildlife Biologist, BLM Vernal Field Office

Utilizing a combination of prescribed fire and tamarisk beetles for tamarisk management on the Pariette Wetlands, Utah

[View Presentations Here.](#)

Site Visit

9:55–11:30am

Location: Carpool to 311 25 3/4 Rd, Grand Junction, CO 81507

(Transportation is not provided but carpooling is encouraged. 10–15 minute drive)

Following the discussion, attendees are invited to visit the Bureau of Reclamation's Grand Junction Wildlife Area, where USBR staff will discuss their long-term restoration plan and showcase their progress removing Russian olive, re-establishing native ecosystems, and a native perennial food plot.

Kyle Alstatt

Bureau of Reclamation

FIELD TRIPS & WORKSHOPS

(continued)

8:30-11:30am MST

Choose between four options during conference registration.

Horsethief Canyon State Wildlife Area Site Visit

Hosted by Scott Romatzke, Colorado Parks and Wildlife

Time: 9:00-11:00am MST

(Travel to HCSWA 8:30-9:00am)

Location: Meet at Horsethief Canyon SWA at 9am

(Limited transportation provided. Sign up for a van or carpool. 20-25 minute drive.)

Join Colorado Parks and Wildlife (CPW) and Ducks Unlimited (DU) for a site visit to Horsethief Canyon State Wildlife Area (SWA).

Horsethief Canyon SWA is located approximately four miles west of Fruita, CO. and sits astride the Colorado River. DU, in partnership with the Bureau of Reclamation, CPW, and others teamed up to restore, enhance and create a larger wetland footprint in western Colorado. The project decommissioned redundant levees, water-control structures and conveyance ditches that currently interfere with the efficient application, movement and drawdown of water supplies on the targeted units. These structures were left over from farming and fish-rearing activities in years gone by. The work resulted in a series of high-quality wetlands, growing plants that are preferred by non-breeding populations of waterfowl.

RiversEdge West's (REW) Private Lands Biologist, Christa Brown will also share about a wetland creation project on private lands in Loma, CO. REW teamed up with CPW and DU to bring the Bittle Family's vision for a shallow water wetland to life. The Bittles are avid stewards of their land to support wildlife and recreational activities. The 3.75-acre wetland was first filled in the fall of 2023 and since then, has supported a large diversity of waterfowl throughout the winter into 2024.

(please note that the site visit will not include a tour of the Bittle Wetland)

RIVERSEDGE WEST BIENNIAL CONFERENCE

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