

2020 RIPARIAN RESTORATION CONFERENCE

FEBRUARY 4-6, 2020
COLORADO MESA UNIVERSITY
GRAND JUNCTION, CO



RiversEdge West

RESTORE + CONNECT + INNOVATE



SILENT AUCTION | FEB. 4th ONLY

Don't miss the unique items that will be up for grabs during our silent auction on February 4th!

Bidding will begin at 9:00 am and conclude at 6:45 pm on February 4th.

Stop by the registration table at 6:45 pm to claim your items. Any items not claimed by 1 pm on February 5th will be given to the next highest bidder.

1st PRESIDENT'S AWARD

Each year, RiversEdge West awards \$500 to a colleague or organization as part of RiversEdge West's 1st President's Award. This award is given in memory of Pete Larson, RiversEdge West's first board president, to honor his dedication to restoring natural resources through education, science, and volunteerism.

You are invited to nominate a colleague or organization for the 1st President's Award!

Pick up a nomination form at the registration table. The individual or organizational representative that you nominate must be present at the conference to accept the award. Submit your nomination to the registration table by the end of the afternoon break on Tuesday, February 4th. The recipient will be announced during lunch on February 5th.

FREE FUNDRAISING CONSULTATIONS



Strategic By Nature is offering complimentary one-on-one sessions for individuals and groups looking for professional or organizational support!

Each session is customized to the participant's needs and can cover topics such as leadership, team dynamics, communication, project outcomes, fundraising, board development and much more.

Formed in 2018 by Stacy Beough and Illene Roggensack of Third Sector Innovations, Strategic By Nature provides expertise and support to organizations striving for impact and effective outcomes around land and water resources, and outdoor recreation endeavors.

Stacy is available to meet on-site by appointment during the conference on Tuesday (2/4) and Wednesday (2/5).

Please email Stacy directly at stacybeough@gmail.com or call her at 630.854.5129 to schedule a time.

Space is limited!

ABSTRACTS

In an effort to save paper, abstracts for each presentation are available online to view from your mobile device or laptop.

To view a presentation's abstract, visit (and bookmark) our online agenda and click on each presentation's title to view its associated abstract.

You can easily access the agenda and abstracts via this link:

tinyurl.com/RRCagenda2020

Or visit riversedgewest.org/events/2020-riparian-restoration-conference.

EVALUATION

Please return your evaluation form (and your name tag) to the registration desk or fill out the online evaluation here:

www.surveymonkey.com/r/2020RRC

WI-FI

1. Go into your phone's settings and open Wi-Fi
2. **Select Visitor Wi-Fi**
3. Follow instructions: enter your email, phone number, and name
4. Press accept and register
5. A temporary access code will be sent to your phone
6. Use the access code for the password
7. Press the sign-in button and enjoy!



CONTINUING EDUCATION CREDITS

THE WILDLIFE SOCIETY – 16 CREDITS

- The Wildlife Society has approved the Riparian Restoration Conference for 16 Continuing Education Units (CEUs) in Category I of the Certified Wildlife Biologist® Renewal/Professional Development Certificate Program.
- To receive credit, list these CEUs on your Renewal or Professional Development Certificate application.

SOCIETY FOR ECOLOGICAL RESTORATION'S CERTIFIED ECOLOGICAL RESTORATION PRACTITIONER (CERP) PROGRAM – 8 CREDITS

- Attend the following sessions to receive 8 credits towards the CERP program:
 - Geomorphology and Invasive Vegetation Interactions - February 4th from 1:10 PM - 2:55 PM and 3:20 PM - 5:00 PM
 - Challenges of Implementing Sustainable Restoration and Mitigation in Highly Dynamic Riverine Ecosystems - February 5th from 8:10 AM - 9:50 AM
 - Considering Wildlife Studies in Restoration - February 5th from 10:20 AM - 12:00 PM
 - Frontiers in Understanding and Managing Riparian Invasions - February 5th from 1:00 PM - 2:40 PM and 3:10 PM - 4:50 PM
- To receive credit, sign-in at the registration table and initial next to each session you attend.

COLORADO DEPARTMENT OF AGRICULTURE – 2 CREDITS

- Licensed Colorado qualified supervisors, certified operators, and private applicators are eligible to receive 1 credit for Environmental Protection and 1 credit for Industrial and Right of Way for attending 1 of the 2 Frontiers in Understanding and Managing Riparian Invasions sessions on February 5th from 1:00 PM - 2:40 PM and 3:10 PM - 4:50 PM.
- You must attend both sessions to get both credits (2 total).
- To receive credit, fill out the carbon-copy verification form at the registration table and keep the pink copy.

SOCIETY FOR RANGE MANAGEMENT

- Continuing Education Credits from the Society for Range Management (SRM) are still in the evaluation process. SRM has provided forms to mark the sessions that you attend in order to award (potential) credits once the evaluation process is complete. If you are interested in potential SRM continuing education credits, fill out a form from the desk and submit them to SRM.
 - Use the Society for Range Management CEU form to mark the conference sessions that you attend.
 - Mail the form to Society for Range Management after the conference.
 - Upon review, the Society for Range Management will provide CEU credits.

2020 CONFERENCE EXHIBITORS



RIPARIAN RESTORATION CONFERENCE

TUESDAY, FEBRUARY 4, 2020

7:15-8:00 am **REGISTRATION AND LIGHT BREAKFAST**

SOUTH BALLROOM

8:00-8:40 am **Welcome**
RiversEdge West Staff

TAKING STOCK: HOW ARE WE DOING & WHERE ARE WE GOING?

Moderated by Rusty Lloyd, RiversEdge West

8:40-9:00 am **What Have We Accomplished? What Have We Learned? A Review of Walton Family Foundation Riparian Restoration Program**
Peter Skidmore, Walton Family Foundation

9:00-9:20 am **Collaborative Science on the Upper San Pedro River: Building the Blocks**
Brooke Bushman, The Nature Conservancy

9:20-9:40 am **Confluence for Success: Uniting Policy, Partnerships, and Restoration for Lasting Wins**
Abby Burk, Audubon Rockies

9:40-10:00 am **Think Like a Watershed, Act Like a River: The Culture of Community Based River Restoration in the AZ-Mexico Binational Watersheds**
Joaquin Murrieta, Watershed Management Group

10:00-10:30 am **BREAK**

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

CLIMATE CHANGE & ADAPTATION

Moderated by Rusty Lloyd, RiversEdge West

10:30-11:00 am **Our Climate - Where Is It Taking Us?**
Nolan Doesken, Colorado State Climatologist (retired)

11:00-11:25 am **A Genetics-based Approach to Restoration in a Changing Climate**
Sean Mahoney, Northern Arizona University

11:25-11:50am **Incorporating Climate Change Information into Stream Restoration Planning**
Sarah LeRoy, University of Arizona

REMOTE SENSING & MONITORING

Moderated by Rica Fulton, RiversEdge West

10:30-10:50 am **Supervised Classification of Russian Olive in the Animas Valley with NAIP Imagery and Object-based Image Analysis**
Anna Riling, University of Denver

10:50-11:10 am **Using Time-series Satellite Vegetation Indices to Assess Fractional Plant Cover, Greenness, and Evapotranspiration in Natural and Restored Western U.S. Riparian Sites**
Armando Barreto-Muñoz, University of Arizona

11:10-11:30 am **Dolores River Restoration Partnership Rapid Monitoring - Tracking Restoration Progress on a Site-by-site Basis**
Emily Kasyon, Dolores River Restoration Partnership/Conservation Legacy

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

CLIMATE CHANGE & ADAPTATION

Moderated by Rusty Lloyd, RiversEdge West

11:50-12:10 pm Q&A Panel

12:10-1:10 pm **LUNCH (SOUTH BALLROOM)**
FILL OUT 1ST PRESIDENT'S AWARD NOMINATIONS

REMOTE SENSING & MONITORING

Moderated by Rica Fulton, RiversEdge West

11:30-11:50 am Ultra-high Resolution Remote Sensing for Species Identification and Restoration Monitoring
Alicia Langton, EcoloGIS

11:50-12:10 pm Low-cost Aerial Mapping: Opportunities and Pitfalls
Luke Javernick, River Science

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

COLLABORATION & PLANNING

Moderated by Shannon Wadas, RiversEdge West

1:10-1:30 pm Common Things People do to Clobber Their Collaborative (And How to Avoid Them)
Stacy Beough, Strategic by Nature

1:30-1:50 pm Colorado's Water Plan: A Commitment to Collaboration
Russ Sands, Colorado Water Conservation Board

1:50-2:10 pm Managing Forward: A Tool for Adaptively Managing Watersheds in Colorado
Deb Hummel, Left Hand Watershed Center

2:10-2:30 pm Utah's Watershed Restoration Initiative
Nicole Nielson, Utah Division of Wildlife Resources

2:30-2:50 pm Cause Marketing for Healthy Rivers
Tim Carlson, Forever our Rivers Foundation

2:50-3:20 pm **BREAK**
1ST PRESIDENT'S AWARD NOMINATIONS ARE DUE

GEOMORPHOLOGY & INVASIVE VEGETATION INTERACTIONS

Moderated by Mike Scott, Utah State University

1:10-1:30 pm Channel Morphologic Changes Associated with Invasive Vegetation Removal
Celeste Wieting, Colorado State University

1:30-1:50 pm A Century of Tamarisk and Russian Olive Invasion, Removal Efforts, and River Response in Canyon de Chelly National Monument, Arizona
Lindsay Reynolds, Colorado State University

1:50-2:15 pm Geomorphic Consequences of Russian Olive Invasion and Prospects for Restoration Along the Escalante River, Utah
Mike Scott, Utah State University

2:15-2:35 pm Designing for Ecological Disturbance in River Restoration to Promote Native Species Regeneration: A Look at the River Bluffs Project on the Poudre River
Johannes Beeby, Stillwater Sciences

2:35-2:55 pm The Importance of Plant Traits on River Processes and How to Incorporate Them into Revegetation Strategies
Sharon Bywater-Reyes, University of Northern Colorado

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

RESTORATION APPROACHES FOR RIPARIAN AREAS ON MULTIPLE-USE PUBLIC LANDS

Moderated by Grand Canyon Trust

GEOMORPHOLOGY & INVASIVE VEGETATION INTERACTIONS

Moderated by Mike Scott, Utah State University

3:20-3:25 pm **Overview:** Attendees and presenters will share and discuss case studies for spring and related riparian restoration efforts on multiple-use public lands, where land managers are tasked with striking a balance between land uses and landscape health in an increasingly arid climate.

3:25-3:45 pm **Challenges Restoring Springs on Public Lands in Nevada**
Boris Poff, Bureau of Land Management

3:45-4:05 pm **If at First You Don't Succeed, Try Again: A Success Story**
Robin Wignall, U.S. Forest Service

4:05-4:25 pm **A Fire Ran Through It**
Robin Wignall, U.S. Forest Service

4:25-4:45 pm **Restoring Riparian Areas through Collaboration on Public Lands**
Cerissa Hoglander, Grand Canyon Trust

4:45-5:00 pm **Open Discussion**
Moderated by Cerissa Hoglander, Grand Canyon Trust

5:00-7:00 pm **EDDY OUT: POSTER SESSION, HAPPY HOUR, & SILENT AUCTION**
SEE PAGES 7 & 8 FOR POSTER PRESENTATIONS

Join us for appetizers and drinks at the poster session, happy hour, and silent auction! Discuss with poster presenters and exhibitors, catch up with familiar faces, and network with others in your field.

Each attendee receives one complimentary beer or non-alcoholic beverage. Cash bar available.

SILENT AUCTION BIDDING ENDS AT 6:45 PM.

3:20-3:45 pm **Applying Geomorphic Analysis and Plant Traits to Assess Success of the Little Thompson River Restoration Site**
Haylie Brown and Courtney Lanier, University of Northern Colorado

3:45-4:05 pm **Biogeomorphic Feedbacks in the Southwestern USA: Exploring the Mechanisms of Geomorphic Change and the Effectiveness of Mitigation Measures**
David Dean, U.S. Geological Survey

4:05-4:25 pm **Assessment of Geomorphic Impacts of Vegetation Removal on the Colorado River in the Grand Valley, Colorado**
Gigi Richard, Fort Lewis College

4:25-4:45 pm **A 184-Year Record of River Meander Migration from Tree Rings, Aerial Imagery, and Cross-sections on the Powder River, Montana**
Derek Schook, National Park Service

4:45-5:00 pm **Q&A Panel**
Moderated by Mike Scott, Utah State University

RIPARIAN RESTORATION CONFERENCE

WEDNESDAY, FEBRUARY 5, 2020

7:15-8:00 am **REGISTRATION AND LIGHT BREAKFAST**

SOUTH BALLROOM

8:00-8:10 am **Welcome**
RiversEdge West Staff

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

**WIN-WIN-WINS:
HOW SECURING WATER FOR THE
ENVIRONMENT CAN HAVE MULTIPLE BENEFITS**

Moderated by Hannah Holm,
Hutchins Water Center at Colorado Mesa University

**CHALLENGES OF IMPLEMENTING SUSTAINABLE
RESTORATION & MITIGATION
IN HIGHLY DYNAMIC RIVERINE ECOSYSTEMS**

Moderated by Bruce Orr and Julie Ash, Stillwater Sciences

8:10-9:50 am This interactive panel will explore strategies, approaches, and mechanisms that gain mutual benefit for diverse interests such as environmental flows, recreation, water for agriculture, municipalities, and wildlife habitat.

Panelists include:

- Ken Neubecker, American Rivers
- Season Martin, Martin & McCoy LLC
- Ondrea Hummel, Tetra Tech
- Jim Pokrandt, Colorado River District

[View speaker bios here.](#)

8:10-8:30 am **Protecting and Restoring Dynamic Riverine Ecosystems: A Case Study from Southern California**
Bruce Orr, Stillwater Sciences

8:30-8:50 am **Cosumnes River Mitigation Bank: A Case Study in the Approach and Challenge of Developing and Crediting a Mitigation Bank in a Dynamic Riverine System**
Matt Gause, Westervelt

8:50-9:30 am **Restoration in Dynamic Rivers: The Importance of Process-based and Multi-benefit Approaches Throughout Design and Construction**
Julie Ash, Stillwater Sciences and Corey Engen, FlyWater, Inc.

9:30-9:50 am **Case Study: Monitoring and Adaptive Management Saves Money and Extends Functional Life of Middle Rio Grande Habitat Restoration Projects**
Todd Caplan, GeoSystems Analysis

9:50-10:20 am **BREAK**

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

**GROW WITH THE FLOW
VEGETATION RESPONSES TO STREAM FLOWS**

Moderated by Derek Schook, National Park Service

CONSIDERING WILDLIFE STUDIES IN RESTORATION

Moderated by Sarah Wilson, RiversEdge West

10:20-10:40 am **Effects of an Environmental Flow Release and Active Revegetation on Riparian Seedling Establishment Along the Bill Williams River**
Patrick Shafroth, US Geological Survey

10:20-10:40 am **Changes in Large- and Medium-sized Mammals Associated with Riparian Revegetation Activities Along the Las Vegas Wash, Nevada**
Jason Eckberg, Southern Nevada Water Authority

10:40-11:00 am **The Root Race: Does Stream Type Affect Belowground Architecture of a Riparian Tree Species?**
Jackie Parker, Northern Arizona University

10:40-11:00 am **Incorporating Key Restoration Decisions into Habitat Suitability Models to Forecast Outcomes for Southwestern Willow Flycatchers**
Lisa Markovchick, Northern Arizona University

SOUTH BALLROOM**CONCURRENT SESSIONS****NORTH BALLROOM****GROW WITH THE FLOW
VEGETATION RESPONSES TO STREAM FLOWS**

Moderated by Derek Schook, National Park Service

CONSIDERING WILDLIFE STUDIES IN RESTORATION

Moderated by Sarah Wilson, RiversEdge West

11:00-11:20 am **Riparian Dependence Increases with Atmospheric Demand Among Species of Willows (*Salix*) in Western North America**
Brad Butterfield, Northern Arizona University

11:00-11:20 am **Predictors of Plant Functional Traits in a Novel Ecosystem**
Alex Goetz, University of Denver

11:20-11:40 am **Localized Performance of Fremont Cottonwood (*Populus fremontii*) Collected Across a Water Regime Gradient**
Abraham Cadmus, Northern Arizona University

11:20-11:40 am **Avian Study Shows Success of Urban River Ecosystem Restoration**
Lee Marlowe, San Antonio River Authority

11:40-12:00 pm **Frost, Heatwaves, and Declining Water Tables: Is There a Super Cottonwood Genotype That Can Cope with All Three?**
Kevin Hultine, Desert Botanical Garden

11:40-12:00 pm **Tamarisk Leaf Beetle Species and Habitat Analysis with Management Implications for the Middle Rio Grande, NM**
Ondrea Hummel, Tetra Tech and Matt Johnson, Northern Arizona University

12:00-1:00 pm **LUNCH (SOUTH BALLROOM)**
1ST PRESIDENT AWARD PRESENTATION

SOUTH BALLROOM**CONCURRENT SESSIONS****NORTH BALLROOM****FULL STREAM AHEAD
RESTORATION STRATEGIES & LESSONS LEARNED**

Moderated by Sarah Wilson, RiversEdge West

**FRONTIERS IN UNDERSTANDING AND
MANAGING RIPARIAN INVASIONS**

Moderated by Amanda Stahlke, University of Idaho

1:00-1:20 pm **Riparian Invasive Plants and Site Restoration: A Career's Worth of Perspective**
Curt Deuser, National Park Service

1:00-1:20 pm **Weed Management Social Dilemmas**
Alex Metcalf, University of Montana

1:20-1:40 pm **Leavenworth Creek Watershed Restoration Project**
Lauren Duncan, Trout Unlimited

1:20-1:40 pm **The Biology of Biocontrol: Enhancing the Biological Control of Tamarisk to Better Serve Riparian Restoration and Recovery**
Dan Bean, Colorado Department of Agriculture

1:40-2:00 pm **Evaluating Sod Mats as an Alternative to Plugs in Wetland Revegetation**
Susan Sherrod, Biohabitats

1:40-2:00 pm **Adaptation of Diapause Induction Cue Enables Range Expansion of the Tamarisk Leaf Beetle Across Latitude**
Eliza Clark, Colorado State University

2:00-2:20 pm **Planning for Linear Transportation with a Focus on Riparian Restoration: Challenges and Opportunities**
Haley Stratton and Tamara Keefe, Felsburg Holt & Ullevig

2:00-2:20 pm **Monitoring of *Diorhabda* spp. Along the Rio Grande**
Zeynep Ozsoy, Colorado Mesa University

2:20-2:40 pm **Rehabilitating Habitat on the Upper Gila River**
Bethany Drahota, Gila Watershed Partnership of Arizona

2:20-2:40 pm **Interactions Between Tamarisk, Russian Olive, Birds, and Biological Control**
Sean Mahoney, Northern Arizona University

2:40-3:10 pm **BREAK**

SOUTH BALLROOM

CONCURRENT SESSIONS

NORTH BALLROOM

RESTORATION WITH PRIVATE LANDS

Moderated by Stacy Beough, Strategic by Nature

**FRONTIERS IN UNDERSTANDING AND
MANAGING RIPARIAN INVASIONS**

Moderated by Amanda Stahlke, University of Idaho

- 3:10-3:30 pm **Private Lands Stewardship: Connecting People, Birds and Land**
Kelsea Holloway, Bird Conservancy of the Rockies
- 3:30-3:50 pm **What Constitutes Healthy Soil in Riparian Ecosystems? Contrasting and Relating Soil Properties Between Riparian and Upland Zones**
Charles Peacock, USDA NRCS
- 3:50-4:10 pm **Invasive Phreatophyte Removal in the Animas River Watershed: Community-based Stewardship**
Amanda Kuenzi, Mountain Studies Institute
- 4:10-4:30 pm **Public and Private Lands Collaboration on the Dolores River**
Sparky (Mark) Taber, Bureau of Land Management (retired)
- 4:30-4:50 pm **Misplaced Priorities: The Importance of Aligning Landowner Goals and Input in Restoration on Private Lands**
Shelly Simmons, RiversEdge West/Spanish Peaks -Purgatoire River Conservation District

- 3:10-3:30 pm **Tackling Russian Knapweed Biocontrol with New Tools in Riparian Areas**
Joseph Milan, Bureau of Land Management
- 3:30-3:50 pm **Choked Out: Battling Invasive Giant Cane (*Arundo donax*) Along the Rio Grande/Bravo Borderlands**
Mark Briggs, RiversEdge West
- 3:50-4:10 pm **Salinity-Herbivore-Plant Interactions: Effects of Plant Health, Beetle Defoliation, and Local Adaptation on *Tamarix* Growth**
Randall Long, University of California
- 4:10-4:30 pm **Environmental Determinants of Clonal Spread in Whitetop (*Lepidium draba*) in Northeast Colorado**
Amanda Stahlke, University of Idaho
- 4:30-4:50 pm **Why Do Some Restoration Projects Fail and Others Succeed? A Quantitative Look at 243 Sites for Environmental, Management, and Social Factors**
Anna Sher, University of Denver

4:50-5:00 pm **CLOSING REMARKS**

PLEASE TURN IN YOUR EVALUATION AND NAME TAG TO THE REGISTRATION DESK.

5:00 pm **HAPPY HOUR to raise money for RiversEdge West!**
JOIN US AT THE FEISTY PINT— 359 COLORADO AVE, GRAND JUNCTION, CO 81501 — AND 10% OF YOUR BILL WILL BE DONATED TO RIVERSEDGE WEST.

18th Annual RiversEdge West

RIPARIAN RESTORATION CONFERENCE

POSTER PRESENTATIONS

(PAGE ONE)

FEBRUARY 4-5, 2020

Posters will be displayed throughout the first two days of the conference.
Meet with poster presenters and exhibitors during the poster session, happy hour, and silent auction on
February 4th from 5 pm—7 pm.

2019 Annual Tamarisk Beetle Distribution Map

Ben Bloodworth, RiversEdge West

Water Quality and Riparian Ecosystem Monitoring in the Impaired Waters of the Verde River Utilizing Drone Technology

Jessica Stansfield and Adrienne Crawford, Grand Canyon University

20 Years of the National Park Service's Invasive Plant Management Team Program

Curt Deuser, National Park Service

Beware of the Ravenous Ravenna Grass: Early Detection and Treatment of the Invasive Exotic Ravenna Grass (*Saccharum ravennae*) in the Colorado River Watershed

Curt Deuser, National Park Service

Plant Community Response to a Second Cycle of *Tamarix* Biocontrol Defoliation in the Upper Colorado River Near Moab, UT

Eduardo González, Colorado State University

The Development and Application of Hydroseres for Riparian and Wetland Restoration on the Colorado River in Grand Junction: A Means of Increasing Resolution in the Design Phase and Enhancing Success in the Construction Phase

John Giordanengo, AloTerra Restoration Services, LLC

Riparian System Responses to Fire and Flood Disturbance in Capulin Canyon, Bandelier National Monument, NM

Jamie Gottlieb, Northern Arizona University

Plant Recruitment Under Beetle-defoliated Tamarisk in Grand County, Utah: 2009 to 2019

Tim Graham

Invasive Bivalve Establishment as a Secondary Effect of Eradication-focused Nuisance Aquatic Plant Management

David Holbrook, Consultant for the Department of Energy Office of Legacy Management

Private Lands Stewardship: Connecting People, Birds and Land

Kelsea Holloway, Bird Conservancy of the Rockies

Tamarisk Leaf Beetle Species and Habitat Analysis with Management Implications for The Middle Rio Grande, NM

Ondrea Hummel, Tetra Tech and Matthew Johnson, Northern Arizona University

Tamarisk Beetle Colonization of The Rio Grande in New Mexico: A Long-term, Multi-faceted Study Using Genetic Analysis and Field Surveys

Levi Jamison

18th Annual RiversEdge West

RIPARIAN RESTORATION CONFERENCE

POSTER PRESENTATIONS

(PAGE TWO)

FEBRUARY 4-5, 2020

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February 4th from 5 pm—7 pm.

A Dam Runs Through It: Balancing Science and Stakeholder Needs for the South Fork Republican River Stream Management Plan and Restoration Feasibility Assessment

AJ Keith, Stillwater Sciences

Vulnerability of Cottonwoods in Desert Canyons: A Look at the Colorado National Monument

Deb Kennard, Colorado Mesa University

Riparian Restoration Through Wetland Creation

Kristina Kline, Bird Conservancy of the Rockies

Riparian Vegetation Response to High-magnitude Dam Releases on the Dolores River, SW Colorado

Cynthia Dott, Fort Lewis College and Julie Knudson, Purgatoire Watershed Partnership

Northern Tamarisk Beetle Impact to Tamarisk and Phenology in Western Colorado on a Ten-year Scale

Nina Loudon and Dan Bean, Colorado Department of Agriculture

What Constitutes Healthy Soil in Riparian Ecosystems? Contrasting and Relating Soil Properties Between Riparian and Upland Zones

Charles Peacock, U.S. Department of Agriculture-Natural Resource Conservation Service

Local Southwest Utah Partnership Engages Youth to Mitigate Flood Damage, Control Invasive Species, and Restore Native Habitat

Wesley Pickett, American Conservation Experience

Common Reed (*Phragmites australis*): Nativity and Determining Lineages Using Genetics and Field Characters in Southeastern Utah (and Parts of Southwestern Colorado)

Kelli Quinn, Southeast Utah Group National Park Service

Riparian Assessments and Best Management Practices with Agriculturalists Along the Lower Animas River

Alyssa Richmond, San Juan Watershed Group

Supervised Classification of Russian Olive in the Animas Valley with NAIP Imagery and Object-based Image Analysis

Anna Riling, University of Denver

Using Restriction Enzyme Digests as a New Method for Species Identification in *Diorhabda* Species

Chris Schaaf, Colorado Mesa University

Endangered Species Recovery in an Urbanizing River Corridor

Joel Sholtes, Colorado Mesa University

Assigning Coefficients of Conservatism to the Flora of the Middle Rio Grande

Jessica Stern, University of Illinois at Urbana-Champaign

18th Annual RiversEdge West

RIPARIAN RESTORATION CONFERENCE

FIELD TRIP OPTIONS

(PAGE ONE)

THURSDAY, FEBRUARY 6, 2020

OPTION 1

TOUR | PALISADE INSECTARY AND RIVERBEND PARK

9:00 AM – 12:00 PM

FREE, TRANSPORTATION AND LUNCH NOT INCLUDED

MEET AT THE PALISADE INSECTARY AT 9 AM

Carpool to the Colorado Department of Agriculture's Palisade Insectary for a short walking tour and site visit to Riverbend Park. 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 the unique rearing processes, as well as general information on past and future efforts by the CDA's Biological Pest Control Program.

The insectary tour will be followed by a site visit to the nearby Riverbend Park to discuss ongoing restoration that has taken place through coordinated community efforts. In June 2011, flooding of the Colorado River caused significant bank erosion at the Park. After the flooding, Palisade's Town Board of Trustees set it as a priority to restore the vegetation that had been lost, and remove tamarisk and Russian olive.

The park illuminates many stages of restoration and bank stabilization efforts in a highly utilized area. Active revegetation, initial tamarisk and Russian olive removal, and maintenance are all happening today; a great example of the many stages of restoration. Choose to head home after the field visit or join us for lunch and beer around the corner at the Palisade Brewing Company. Attendees are on their own for food and drinks.

OPTION 2

SITE VISIT | POST-FIRE RESTORATION

8:00 AM ~ 12:00 PM

\$20, TRANSPORTATION PROVIDED

MEET AT THE LOBBY OF TRU BY HILTON AT 7:45 AM

Join Ivan Archer with Colorado Parks and Wildlife and Ellis Thompson-Ellis with the Grand Junction Fire Department/Two Rivers Wildfire Coalition for a discussion surrounding restoration and collaboration after fire.

On April 19th, 2018 a brush fire near I-70 on [Skipper's Island](#) burned 220 acres. By Thursday afternoon the fire was pushed by wind and began burning rapidly toward I-70 prompting a full shut down of the interstate.

The condition of the area pre-fire was of an aged and dying Cottonwood gallery, with very little new regeneration naturally occurring. Below the cottonwoods, the area included a tangled web of downed timber, Sumac, and Privet shrubs, as well as ground cover of Russian knapweed. Attendees will learn about the plans and funding set aside to rehabilitate the area after the fire, starting first with controlling the severe Russian knapweed, tamarisk, and Russian olive infestations before replanting and reseeding with native species.

Attendees will also learn about the Two Rivers Wildfire Coalition and how the collaboration is addressing invasive species removal and tackling restoration on a landscape-scale.

This site visit is limited to the first 25 people.

RIPARIAN RESTORATION CONFERENCE

FIELD TRIP OPTIONS

(PAGE TWO)

THURSDAY, FEBRUARY 6, 2020

OPTION 3

WORKSHOP | USING MYCORRHIZAL FUNGI IN RESTORATION PROJECTS OF THE SOUTHWESTERN U.S. WITH NORTHERN ARIZONA UNIVERSITY

8:00 AM ~ 12:00 PM
\$20, TRANSPORTATION PROVIDED
MEET IN THE WEST BALLROOM AT 8 AM

Most plants benefit from associations with mycorrhizal fungi that improve plant nutrition and stress tolerance in exchange for photosynthate. The abundance and diversity of mycorrhizal fungi can be altered following land-use changes including fuel reduction activities, fire, drought, tree mortality, invasive plant species, and grazing. Does that mean that restoration projects should include additions of mycorrhizal fungi? If so, are products available commercially likely to be helpful or should other approaches be used? Are there options that are biologically and financially effective? This workshop will explore those questions and provide examples of how mycorrhizal fungi and other soil organisms are being used to enhance restoration outcomes in the southwestern United States.

The workshop will include short talks and discussions, and a hands-on demonstration of the easiest inoculation method. Participants will have the opportunity to prepare their own riparian inoculation bin. This workshop will prepare land managers to collaborate with mycologists, and select and implement the best techniques for their own restoration projects.

This workshop is limited to the first 20 people.

OPTION 4

WORKSHOP | COLLABORATIVE RESTORATION WITH PRIVATE LANDS

8:30 AM — 12:30 PM
\$20, LUNCH PROVIDED BY NRCS
MEET IN THE EAST BALLROOM AT 8:30 AM

Join us for an interactive workshop and panel moderated by Stacy Beough from Strategic by Nature that will connect public land managers and private landowners; providing an opportunity to discuss projects, funding, and other resources as it relates to restoration on private lands.

Speakers include:

- Shane Burton, Private Landowner
- Bob and Liz Petrus, Private Landowners
- Sparky Taber, Bureau of Land Management (retired)
- Callie Hendrickson, White River & Douglas Creek Conservation Districts
- Sarah Wilson, NRCS/RiversEdge West
- Shelly Simmons, RiversEdge West/Spanish Peaks-Purgatoire River Conservation District

This workshop is free to private landowners. Contact Cara at Ckukuraitis@Riversedgewest.org to RSVP.



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