Workshop
Introduction &
Overview
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River
Management
Workshop
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Restoration Coordinator

Workshop
Introduction & Overview
Our Mission
Advancing the restoration of riparian lands through education, collaboration, and technical assistance

Our Vision
We envision a network of healthy riparian lands throughout the West
We promote cross-boundary conservation practices for working and wild lands.

Our Partners

Individuals, agencies, and organizations such as local, state, federal and tribal government, land managers, private citizens, watershed groups, universities, nonprofit organizations, and foundations.
### Our Strategies

#### Act as an Information Clearinghouse
- Web accessible information and resources
- Riparian Restoration Connection for links to training and funding opportunities
- Monitoring of the distribution and extent of the tamarisk leaf beetle

#### Empower Practitioners
- Host annual conferences and symposia
- Conduct and coordinate training and workshops
- Coordinate and support landscape-scale restoration partnerships

#### Enhance Frameworks for Restoration
- Improve access to funding opportunities
- Pursue tools, methods, and resources for private landowners to conduct riparian restoration
- Education and outreach

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**RiversEdge West**

*RESTORE + CONNECT + INNOVATE*
Workshop Overview

- Invasive Vegetation Control
- General Resource Updates
- Biocontrol
- Grazing
- Panel: Funding and Technical Resource
- Demonstrations!
- White River Watershed, Native Fish, and Riparian Corridor Restoration
Condition of western rivers

- 90% loss of riparian areas since pre-settlement conditions
- Approximately 1% of western lands are riparian
- 80% of vertebrate wildlife use riparian areas at some point in their life cycle
Western invasive riparian species

- Tamarisk
- Russian olive
- Phragmites australis
- Arundo donax
- Russian knapweed
- Hoary cress
- Perennial pepperweed
- Ailanthus altissima
• Tamarisk and Russian olive
  • Introduced woody trees now dominating and degrading many western rivers
• Increase wildfire risk
• Negatively impact wildlife habitat
• Impede agricultural and recreational uses of river systems
• These impacts collectively reduce the ecologic...
Tamarisk is a non-native phreatophyte that can dominate riparian lands.
Invasive Vegetation in the Riparian Corridor
Getting to know tamarisk...

In the U.S., tamarisk is an invasive species = non-native to the ecosystem in which they are found and cause environmental, economic, or human harm.

Leaves are scale-like with salt-secreting glands.

Produces 500,000 seeds/yr.

Dispersed by wind, water, animals.
How Does Tamarisk Affect the Ecosystem and Why?

Deep tap roots to get to water table – dense roots can draw moisture from all around it

Over 20 feet deep

Can remain submerged for 70 consecutive days!
Tamarisk Induced Changes in Channel Structure and Associated Habitats

Tim Carlson\textsuperscript{1}, Greg Newman\textsuperscript{2}, Tom Stohlgren\textsuperscript{2,3}
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\textsuperscript{2} Natural Resource Ecology Laboratory, Colorado State University
\textsuperscript{3} United States Geological Survey, Fort Collins Science Center, Fort Collins, Colorado

**Figure 1**

Before Invasion

**Floodplain**

**Historical Heterogeneous, Wide, Braided Channel Habitat**

- Upland: Mesquite, Saltbush, arrowweed, saltgrass: (Typical of CA, AZ, NM, TX)
- Riparian Zone: Cottonwood, Willow
- Willows

After Invasion

**Floodplain and Channel Modified by Tamarisk into a Homogeneous, Narrow, Deep Run Habitat**

- Tamarisk Thicket
- Sedimented Backwater
- Reduced Channel Width
- Aggrated Bank

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Key Partners: The Tamarisk Coalition, United States Geological Survey, National Aeronautics and Space Administration, Natural Resource Ecology Laboratory, Colorado State University
Many challenges and opportunities to restore riparian lands

Diverse group: private landowners, public land managers, nonprofits, and government agencies

Lack of resources (e.g., funding, access to information)

Tamarisk Coalition supports these people, groups, and organizations to achieve their goals by connecting people to tools and resources
Questions?

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