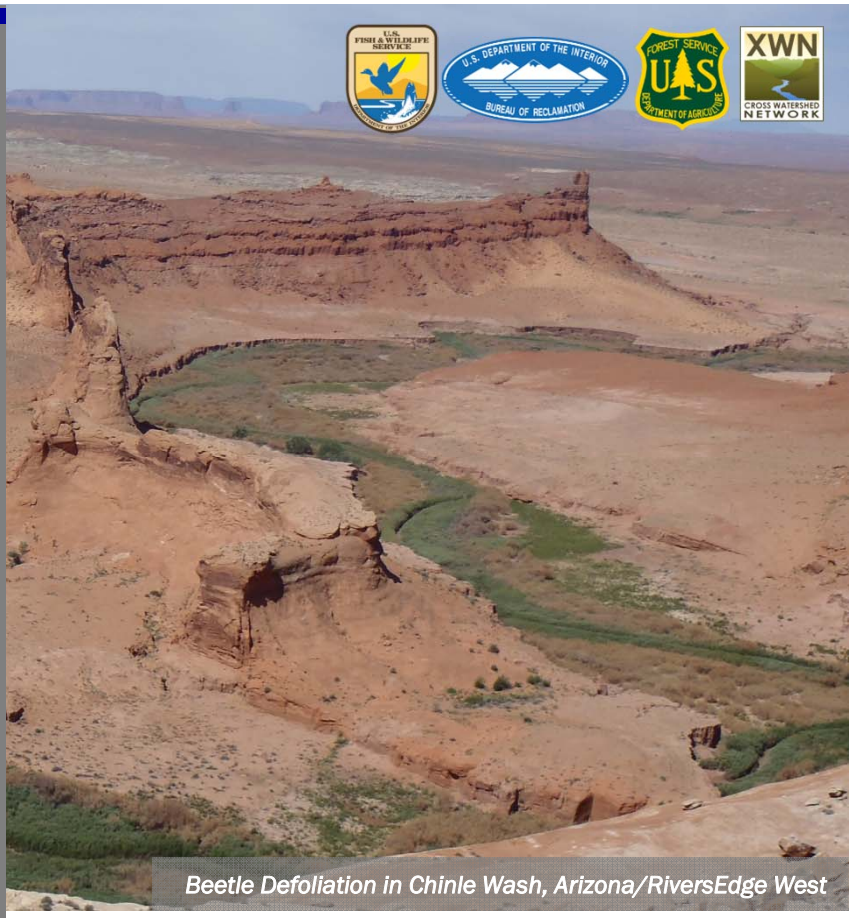
ACTIONABLE SCIENCE

Landscape-Scale Monitoring of the Tamarisk Leaf Beetle

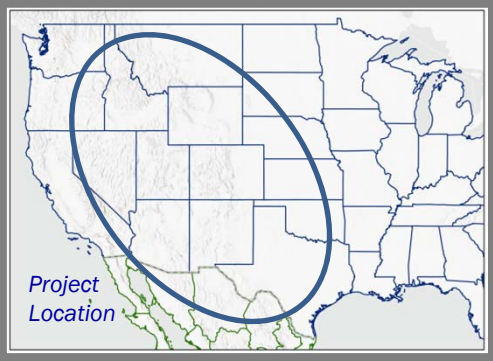
RiversEdge West

RESTORE + CONNECT + INNOVATE



Beetle Defoliation in Chinle Wash, Arizona/RiversEdge West

Non-native tamarisk has spread to become one of the most dominant plant species in riparian ecosystems of the Southwest. The tamarisk beetle was introduced in the early 2000s as a biocontrol. In 2007, RiversEdge West began working with the Colorado Department of Agriculture's Palisade Insectary and the University of California at Santa Barbara to develop monitoring protocols for tracking the movement of the tamarisk beetle. The program began with staff monitoring the Colorado and Green rivers, but has expanded across thirteen states and Mexico thanks to data contributions from partners. All data are shared publicly through the production of an annual map.



KEY ISSUES ADDRESSED

The main issue that needed to be addressed was that of tracking the actual movement of the tamarisk beetle across western North America and providing this information as quickly as possible to restoration practitioners. The arrival of the beetle into an ecosystem can result in dramatic changes to floristic composition and habitat for many wildlife species. As beetle populations quickly expanded, land managers needed to understand the timing and expected arrival of the beetle so that they could incorporate the beetle into their Integrated Pest Management planning or restoration activities.

PROJECT GOALS

- Effectively collect data on tamarisk beetle movement and provide it to land managers in a timely manner via an annual map
- Establish a reliable framework of partners to provide data
- Share seasonally obtained data through both traditional and online mapping platforms

DON'T BE AFRAID TO ASK FOR DATA

Effective data sharing partnerships can be developed and maintained through initial personal contact followed by multiple communications throughout each season and direct asks for data.

Defoliated Tamarisk Near Potash, Utah/ Tim Carlson

PROJECT HIGHLIGHTS

Outreach and Education: We developed workshops, training, and webinars for beetle monitoring and dissemination of beetle-related information that have provided a base for partnership development. We have thus far hosted 9 workshops in 7 states with approximately 500 attendees.

Regional Data Assimilation: We successfully developed partnerships with more than 80 partners across 13 states and the country of Mexico that have provided data throughout the years of the project.

Usable Products: We have been able to provide seasonal maps and ongoing beetle presence and absence location updates to partners for the past 11 years. The online interactive version of the map generates an average of 1,500 views per year.

Collaborators

- Colorado Department of Agriculture Palisade Insectary
- University of California at Santa Barbara
- More than 80 additional partners from 13 states and Mexico

Funding Partners

- Walton Family Foundation
- Central Arizona Project
- US Army Corps of Engineers
- National Fish and Wildlife Foundation

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LESSONS LEARNED

In order to develop effective partnerships for data provision, relationships must be established and maintained through regular emails at the beginning, during, and at the end of the data collection season.

Relationships developed with partners can establish a basis for more targeted data asks during the data-collection season.

Existing partners can help develop new partnerships and expand the areas for data collection. While many project partners are trained scientists, validated citizen science data are also extremely valuable.

Coordinators must be able to accept data in all forms with an understanding that integration will require work on the back-end. Requiring data in a particular format discourages partners from sending in whatever they may have and reduces the amount of contributed information.

NEXT STEPS

- Continue to host workshops and training forums to increase partners across the landscape
- Maintain open lines of communication with partners each data-collection season
- Develop an app for easier data-collection and reporting directly into our format and storage platform

PROJECT RESOURCES

For more information on this project, contact Ben Bloodworth: bbloodworth@riversedgewest.org

For additional project resources and case studies, visit the Collaborative Conservation and Adaptation Strategy Toolbox: WWW.DESERTLCC.ORG/RESOURCE/CCAST

Tamarisk Leaf Beetle/Ed Kismicki