



RESOURCE CONSERVATION & DEVELOPMENT COUNCIL

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*School to Work Alliance Program coaches and participants receive training in field data collection from Painted Sky Executive Director Mike Drake.*

## **Tamarisk Beetles Producing the Next Generation**

This summer Painted Sky Resource Conservation & Development staff released tamarisk beetles at five sites in the North Fork Valley and Delta area to battle tamarisk, an invasive shrub from Eurasia. The beetle populations appear healthy and are reproducing well, according to monitoring observations conducted in mid-August.

The release sites, all on private property, range from Bell Creek and Back River Road between Paonia and Hotchkiss on the east to G Road and the Gunnison River northwest of Delta. Properties at the end of Horn Road near Austin and the Gunnison River and Highway 65 and the Gunnison River also received beetles. The fifth site, Confluence

Park in Delta, is on public land. The average number of beetles released at each site is about 6,000.

Beetles are the last stage of the life cycle. After hatching from eggs, larvae go through three stages from tiny worms to larger worms or larvae. You can easily identify the third and final stage larvae by a “green racing stripe” on each side of its body. Beetles released earlier this summer have produced the next generation, which are in the third larval stage now.

It’s the larvae, not the adult beetles that do the most damage to the plant. Like teenagers with insatiable appetites, they eat 24 hours per day, seven days per week.

The beetles may cause browning of tamarisk by next summer, but it will take up to five years for them to kill the tamarisk.

As the beetle populations grow and exhaust their food supply at the release sites, they’ll fly up and down the river drainage in search of fresh tamarisk to eat. Eventually, they’ll distribute themselves throughout the area. Flying from tamarisk to tamarisk shrub, beetles have moved up the Dolores River from near Moab, Utah to just south of Gateway without ever hitching a ride with humans.

Painted Sky plans more releases in the area in 2010, including the Surface Creek area, Smith’s Fork and along the Uncompahgre River. Landowners with tamarisk can ask to be put on a waiting list to receive beetles.

Tamarisk or salt cedar has spread too successfully in the West over the past century. It out-competes native plants and trees, such as cottonwoods, creating a monoculture. A landscape dominated by only one plant hurts wildlife diversity.

Colorado’s Department of Agriculture’s Insectary in Palisade provided 6,000 beetles for the initial release. Painted Sky RC&D and Colorado Tamarisk Coalition staff collected about 5,000 beetles from an established population near Mack for a second release. Dr. Dan Bean and Nina Loudon from the Insectary, Painted Sky staff and Natural Resources Conservation Service (NRCS) staff and NRCS Earth Team volunteers collected approximately 80,000 beetles near Loma west of Grand Junction on the Colorado River. The Insectary donated thirty thousand of those beetles for Painted Sky’s final three releases.

Eighty thousand beetles may sound as though it could devastate a site’s population, but Bean says it is only a small percentage of the tens of millions in that area.

Insectary staff and interns trained Painted Sky staff near Gateway on beetle monitoring protocols, including how to identify different larval stages, estimating percentage of damage to tamarisk shrubs, estimating numbers of larvae and beetles and identifying the best locations for monitoring trees.

Just as tamarisk is a native of Eurasia, so are the beetles, which have the scientific genus name of *Diorhabda*. Years of laboratory work preceded releases in the U.S. to insure the beetles feed only on tamarisk. Over the past decade, beetles released in Utah and Nevada have shown they’re a danger only to tamarisk.

Natural Resources Conservation Service (NRCS) and Delta County are funding the project run by Painted Sky RC&D in partnership with Colorado Department of Agriculture's Palisade Insectary and the Colorado Tamarisk Coalition.

In 2009, Painted Sky partnered with the State of Colorado's Division of Vocational Rehabilitation, and Delta County School District's "School to Work Alliance Program" to train young job seekers to conduct field evaluation and monitoring of the tamarisk beetles within the County. During the summer field season, Painted Sky's Executive Director worked with two job coaches and two program participants to collect and record data. With so much public land in Delta County, the partners see natural resource field work as a viable career path in the region. Helping recent graduates to learn science-based field techniques, preparing them for careers in resource management, is another key benefit of this project.

For more information, contact Mike Drake, Painted Sky Executive Director at 970-874-5735 ext 135 (office) or cell 801-710-8372 or NRCS RC&D Coordinator Paul Van Ryzin at 970-874-5726 ext. 133. <http://www.paintedskyrccd.org>.



*Mike Drake, Executive Director of Painted Sky RC&D Council, during a beetle release at Confluence Park in Delta, at the confluence of the Gunnison and Uncompahgre Rivers. The park has been overgrown with tamarisk trees, which displace native vegetation.*