



YAMPA RIVER LEAFY SPURGE PROJECT

“... working together to establish an effective program of integrated management for leafy spurge...”

YAMPA RIVER LEAFY SPURGE PROJECT 5-YEAR UPDATE

THE BEGINNING: In 2015 John Husband, retired Field Manager BLM Little Snake Office, and Ben Beall, Former Routt County Commissioner, were rafting from the Yampa River State Wildlife Area’s Dorsey Beach to Loudy-Simpson Park. They started talking about all the yellow flowers along the banks of the Yampa River. John explained to Ben that they were leafy spurge, an invasive species. After further discussions, John and Ben decided that something needed to be done regarding these large infestations in the riparian areas of the Yampa River.

The Yampa River Leafy Spurge Project was formed as an ad hoc community organization with these partners: Moffat County Commissioners, Routt County Commissioners, Moffat County Weed and Pest, Routt County Weed Program, Routt County Weed Board, Bureau of Land Management, Colorado Parks and Wildlife, Dinosaur National Monument, National Resources Conservation Service (Steamboat and Craig), Friends of the Yampa, Colorado First Conservation District, Routt and Moffat County citizens, and northwest Colorado private property owners.

GRANTS AND FUNDING: For Project Goals

Colorado Department of Agriculture Weed Fund grants

(with assistance from Colorado First Conservation District)

2016 \$30,000 for public education, landowner coordination, chemical treatments in Tepee Draw and 115 acres of riparian habitat at “West of Hayden.”

2017 \$10,000 for horseback chemical treatments in Tepee Draw.

2018 \$5,816 for treatment West of Hayden (20 +/- acres) and website/outreach.

Colorado Water Conservation Board Grant

(Yampa-White-Green Basin Roundtable Water Supply Reserve Fund account)

2019–20 (two-year) grant of \$89,000 for leafy spurge research, education and outreach.

Two-year matching fund commitments were also made by Routt County (\$15,000), Moffat County (\$15,000), University of Wyoming (\$12,572), as well as in-kind fund commitments from partners and volunteers.

Routt County Weed Board grants

2018 \$10,000 for second chemical treatment of West of Hayden (115 acres)

2019 \$10,000 for third chemical treatment of West of Hayden (115 acres)

Friends of the Yampa

2018 Established a Fiscal Sponsorship Agreement with Friends of the Yampa to sponsor and maintain a YRLSP Donations Account. Total Donations through 2020: \$3,594.38

OUTREACH: To the Public and Landowners Adjacent to the Yampa River

YRLSP-sponsored "Show Me Floats"

2016 Yampa River State Wildlife Area's Dorsey Beach to Loudy-Simpson (18 participants)

2017 Dorsey Beach to Loudy-Simpson, hosted by the Parrotheads (24 participants)

2018 Dorsey Beach to Pebble Beach (23 participants).

2017 Created a website, yampariverleafyspurgeproject.com, with a Call to Action Video.

2018 Sponsored a Master's Thesis student from Western State University, who used a survey of landowners along the Yampa River (162 contacted, 56 responses) to make recommendations on management of leafy spurge with biological control.

2018 Educational outreach to groups in Routt and Moffat counties (158 total individuals), and created a Yampa River Adjacent Landowner Letter explaining the leafy spurge infestations and their threat to riparian habitats and agricultural lands (sent to 173 landowners).

2018 Presentation to Yampa Valley Fly Fishers (25 individuals).

2018, 2019 Presentations to Friends of the Yampa's "State of the Yampa Address" events (90+/- individuals each year).

2019 Field trip for education and outreach to youth in Northwest Colorado on biological control (as part of the CWCB Grant).

2019 Contacted landowners (180 letters) and held a Stakeholder Meeting in Craig (25 participants).

2020 Contacted landowners (173 letters) and held a Stakeholder Meeting in Maybell for western Moffat County landowners and the Maybell Ditch Owners (35 participants).

LEAFY SPURGE MAPPING: To Understand the Extent of the Problem

2016 Preliminary survey of the Little Yampa Canyon (30 miles) for leafy spurge infestations. Over 60 sites with leafy spurge were observed.

2019 Digitally mapped 50 miles of leafy spurge infestations, from Hayden through Duffy Mountain, including the Little Yampa Canyon.

2020 Digitally mapped an additional 42 miles of leafy spurge infestations between Duffy Mountain and east Cross Mountain in 2020. (Note: the project will be concluded when a final 5 miles of river in the Axial Basin will be mapped in 2021.)

2018–2020 Digitally mapped off-channel leafy spurge infestations in Colorado Park and Wildlife’s Yampa River State Wildlife Area.

Comprehensive leafy spurge infestation maps from the above mapping projects are available on the YRLSP website yampariverleafyspurgeproject.com for public review.

BIOLOGICAL CONTROL USING LEAFY SPURGE BEETLES: For the Management of Leafy Spurge

Biological Control Releases

2019 Approximately 7,300 leafy spurge biological control beetles (obtained from Colorado Department of Agriculture) were released at 5 new sites in or adjacent to the Yampa River State Wildlife Area.

2020 YRLSP volunteers traveled to the former Lowry Bombing and Gunnery Range, east of Denver, to collect leafy spurge biological control beetles (in partnership with the Colorado Department of Agriculture).

2020 Approximately 13,000 beetles (collected at Lowry) were released at 13 new sites in the Yampa Basin. Routt County: 10 sites on private properties (Earle). Moffat County: 2 sites on private property (McIntyre), one site on BLM lands (Fortification Creek).

2020 Approximately 10,000 beetles purchased by Colorado Parks and Wildlife were released by YRLSP volunteers at 6 new sites in the Yampa River State Wildlife Area.

Biological Control Monitoring

2018 Researched and compiled all available documentation of “legacy” (1989–2017) leafy spurge biological control beetle releases in Moffat and Routt counties. The locations of 45 legacy release sites were identified across both counties.

2019–2020 Developed a biological control monitoring protocol. Revisited 26 legacy biological control sites (all those in or adjacent to the riparian habitats of the Yampa River, Fortification Creek and Fourmile Creek) to establish the presence/absence of biological control beetles, and to collect environmental data for future monitoring. Leafy spurge biological control species were still active on 16 sites.

2019–2020 Collected biological control monitoring data for the 24 additional biological control release sites established in Moffat and Routt counties during this period.

PARTNER LEAFY SPURGE MANAGEMENT and RESEARCH: Integrated Management

Bureau of Land Management

2016 \$2,838 for contracted aerial herbicide applications to leafy spurge in Tepee Draw.
2019 \$7,500 for contracted ground herbicide applications to leafy spurge in Tepee Draw.
2020 \$10,000 for contracted ground herbicide applications to leafy spurge in Tepee Draw.

Moffat County Weed and Pest

2016 Approximately 7,000 leafy spurge beetles released at 7 new release sites.
2017 Approximately 2,000 leafy spurge beetles released at 2 release sites (one repeat site).
2017–2019 Assisted BLM and contracted with a private contractor for ground applications to leafy spurge in Tepee Draw (funded by YRLSP CDA Grants in 2017 and 2018, and \$2,807 in MC Weed and Pest funds in 2019).
2020 Assisted a Moffat County rancher on Four Mile Creek with leafy spurge treatments using a new chemical product in testing phase for use in riparian areas.

Routt County Weed Program

2015 Approximately 4,000 leafy spurge beetles released at 4 new release sites.
2016 Approximately 3,000 leafy spurge beetles released at 3 release sites (two repeat sites).
2016 Treated 40 Acres of new leafy spurge infestations near Stagecoach Reservoir (Iron Springs Ranch).

CO Parks and Wildlife

2016 Treated 7 acres of leafy spurge on the Yampa River State Wildlife Area, and monitored and treated the Yampa River State Park river access locations.

Dinosaur National Monument

2016–2018 Conducted comprehensive leafy spurge mapping on the on the lower 46 miles of the Yampa River. (These maps are available on the YRLSP website yampariverleafyspurgeproject.com for public review).
2018– Dinosaur National Monument has been mechanically removing leafy spurge from the Yampa River for two decades, but since 2018 their annual Weed Warrior trips have had leafy spurge as the principal focus.

University of Wyoming

2019–2020 Two graduate students, under the direction of Professor Daniel Tekiela of the Department of Plant Science, have been funded for leafy spurge research projects through the CWCB grant and the University of Wyoming's matching grant monies. Research has been focused on developing a remote-sensing leafy spurge mapping technology, predictive modeling for potential additional leafy spurge invasions, and integrated leafy spurge management (using different combinations of herbicides, and herbicides combined with targeted sheep grazing).

Note: Results of this research is being finalized and will be made available to the public.