

# Lost Rivers CWMA 2009 End-of-Year Report



Lost Rivers Cooperative  
  
*"Protecting Our Lands"*  
Weed Management Area



## Part I: Introduction

The Lost Rivers Cooperative Weed Management Area covers approximately 2.1 million acres of the Big and Lost River Valleys including all of Butte County and portions of Custer and Lemhi Counties. The purpose of the Lost Rivers CWMA, as per the Strategic Plan, is “*To defend the landscape of the Lost River Valleys from invasion by exotic plants and noxious weeds.*” To assist in this objective the LRCWMA seeks participation of all who have a vested interest or responsibility in protecting these resources.

A majority of the LRCWMA is federally managed by the Bureau of Land Management, the U. S. Forest Service, the National Park Service and the Department of Energy. Representatives from each of these agencies are actively involved within the LRCWMA and have dedicated programs committed to the management of noxious weeds. Butte, Custer and Lemhi Counties are engaged, through respective weed departments, in supporting the CMWA. Numerous private landowners actively participate in LRCWMA noxious weed control projects by helping to identify and manage noxious weed infestations.

The presence and prevalence of noxious weeds varies throughout the LRCWMA. Prioritization of the use of limited resources for noxious weed control is based upon several factors including the potential for spread, rate of spread, species prevalence in an area and practicality in controlling a species. Management and priority of the various noxious weed species occurring within the LRCWMA varies within species of primary concern are (in order of prevalence):

1. Canada Thistle
2. Leafy Spurge
3. Spotted Knapweed
4. Whitetop
5. Russian Knapweed
6. White Bryony
7. Black Henbane
8. Houndstongue
9. Scotch Thistle
10. Musk Thistle
11. Diffuse Knapweed
12. Rush Skeletonweed
13. Saltcedar
14. Yellow Toadflax
15. Perennial Pepperweed
16. Dalmatian Toadflax
17. Dyer’s Woad

The Lost Rivers CWMA organization is as follows:

- Chairperson- Randy Purser (Private Landowner)
- Vice-chairperson- Brad Gamett (Butte County Weed Superintendent)
- Secretary/Treasurer- Frances Perkes (Butte-South Custer Soil & Water Conservation District)
- Advisory:
  - Scott Allen (Private Landowner)
  - John O'Neill (Idaho Department of Fish and Game)
  - Jim Gregory (Private Landowner)
  - Carmela Leavitt (US Forest Service)
  - Steven Beckendam (National Park Service)
  - John Powers (Private Landowner)
  - Kristy King (Private Landowner)
  - Logan Brower (Custer County Weed Superintendent)
  - Daniel Bertram (Lemhi County Weed Superintendent)
  - Alana Jensen (Stoller Corporation)
  - Brock Bassett (Idaho National Laboratory)
  - Ken Tuck (Idaho National Laboratory)

## Part II: 2009 Accomplishments

Through the efforts of Lost River Cooperative Weed Management Area Cooperators, the following accomplishments were achieved in 2009.

### Education/Awareness

The Lost Rivers CWMA sponsored advertisements in the Arco Advertiser in April, August and September. The focus of the August and September advertisements was the escalating spread of White Bryony throughout the Big Lost River Valley. July's flyer (at right) featured information on both houndstongue and white bryony, which are classified as new invaders within the LRCWMA. Several landowners contacted their respective county weed departments in response to the advertisements and treatment recommendations were conveyed.

The Butte-South Custer Soil Conservation District held the annual 6<sup>th</sup> Grade conservation day in September. The event was held at the Mackay Reservoir. Among the stations taught was an invasive species presentation where invasive plants were emphasized.



(Figure 1 New Invader Awareness Flyer)

Butte, Clark, Custer and Lemhi County Weed Departments with responsibilities within the Lost Rivers CWMA continue to work diligently to educate the public through various means to educate and spread awareness with regard to noxious weeds.

### **New Invader Program**

Those species classified as new invaders in the Lost Rivers CWMA are as follows:

- Dalmatian Toadflax
- Dyer's Woad
- Houndstongue
- Perennial Pepperweed
- Plumeless
- Puncturevine
- Rush Skeletonweed
- Saltcedar
- White Bryony
- Yellow Toadflax

(Table 1 Lost Rivers CWMA New Invader Noxious Weed Species)

New invader species are of special concern within the Lost Rivers CWMA. At present, these species are estimated to exist in acreages where potential eradication is feasible should immediate action take place. As such, all known infestations of Dalmatian toadflax, dyer's woad, perennial pepperweed, plumeless thistle, puncturevine, rush skeletonweed and yellowtoadflax were treated within the LRCWMA. A majority of infestations of houndstongue, white bryony and saltcedar were also treated in 2009.

Specific new invader projects for 2009 were the South-Custer Saltcedar removal and the Houndstongue/White Bryony treatment. Results of the projects were the extrication of or chemical application to a majority of all known occurrences of these species.



(Figure 2 South Custer saltcedar removal)

**Inventory**

The Lost Rivers CWMA conducted three noxious weed inventory projects in 2009. The Houndstongue/White Bryony project previously mentioned included an inventory aspect as well as many of the other noxious weed control projects. Those projects specific to the inventory of noxious weeds included a rush skeletonweed detection project funded by Montana State University. Through this project an estimated 9,900 acres were inventoried.

The US Forest Service Resource Advisory Council funded a helicopter mapping project for the Lost Rivers CWMA. This project took place on July 2, 2009. A total of 31 *aphthona* beetle releases were made from the helicopter and approximately 88,000 acres were inventoried on the Lost River and Pioneer mountain ranges.



(Figure 3 Leafy Spurge Aerial Inventory)

The White Bryony/Houndstongue new invader project involved the inventory of nearly 21,000 acres of mostly agricultural lands in the lower Big Lost River valley. The total area inventoried in these projects in 2009 was roughly 122,000 acres.

**Noxious Weed Control**

Through the efforts of Lost Rivers CWMA contributors a total of 1,266 acres of noxious weeds were treated within the Big and Little Lost River Valleys. A breakdown of these applications is listed in the table below.

Species	Acres
Black Henbane	0.9
Canada Thistle	201.75
Diffuse Knapweed	0.4
Field Bindweed	4.25
Houndstongue	41.1
Leafy Spurge	762.165
Musk Thistle	5.7
Perennial Pepperweed	0.8
Plumeless	0.1
Rush Skeletonweed	0.1
Russian Knapweed	24.13
Saltcedar	0.1
Scotch Thistle	2.6
Spotted Knapweed	120.975
White Bryony	39.625
Whitetop	61.25
Yellow Toadflax	0.5
<b>Total</b>	<b>1266.45</b>

(Table 2 Chemical Application Totals)

The Lost Rivers CWMA held 4 spray day events on 2009. Cooperators in these events included: the National Park Service, the Bureau of Land Management and Butte and Custer Counties Weed Departments. These spray days were held at the Idaho National Laboratory (Dept. of Energy), Martin Townsite (private), Willow Creek Summit (BLM/private) and Elkhorn Creek (BLM/private)

### Biological Control of Noxious Weeds

The Lost Rivers CWMA biological weed control program in 2009 involved releases of bio-control insects on Canada thistle, leafy spurge and spotted knapweed infestation sites. Both the Youth Conservation Corps and the War on Weeds youth program students were utilized in the collection of insects for these releases. A total of 220 acres of noxious weeds were treated with biological releases in 2009 within the Lost Rivers CWMA.



(Figure 4 *Larinus minutus* adult)

Several releases of *Larinus minutus* were collected in Lemhi County and then released on spotted knapweed infestations in South Custer County below Mackay. The continuing efforts to combat leafy spurge within the Big Lost River Valley involved the releases of approximately 40,000 *Aphthona nigriscutis*. These a majority of these insects were released on US Forest Service and Bureau of Land Management administered lands.

In addition to these releases, the Lost River Ranger District of the US Forest Service also released 10 releases of *Ceutorhynchus litura* or Canada thistle stem boring weevil on sites within the Lost Rivers CWMA.



(Figure 5 War on Weeds Students at Leafy Spurge Insect Collection)

### Part III: Goals for 2010

The Lost Rivers CWMA plans the continuation of programs and events that have proved to be successful in increasing the awareness of noxious weeds and ultimately the reduction of noxious weeds within the Big and Little Lost River Valleys. Significant headway has been made in the education, inventory and control of new invader species such as perennial pepperweed, white bryony and houndstongue. We plan to continue these preventative programs in 2010 and indefinitely. Programs to assist private landowners with the expense of noxious weed control will also be promoted in 2010. The LRCWMA plans to maintain the publishing of awareness materials where feasible to promote awareness and initiate resolve among the public to act in addressing noxious weed issues.

### APPENDIX

Table 3-Project Totals

#### **Lost Rivers CWMA Project Accomplishments**

Total Acres Treated-Chemical	1,265
Total Acres Treated-Mechanical	0.1
Total Acres Treated-Biological	220
Total Acres Inventoried	122,274
Total Number of Public Contacts	7,650

Table 4-2008 Lost Rivers CWMA Chemical Purchases with Cost Share Funds

Lost Rivers CWMA Chemical Purchases 2009

<b>Chemical</b>	<b>Amount</b>	<b>Purpose</b>
<b>Clean crop 2,4-D Amine</b>	210	General Noxious Weed Control
<b>Tordon 22K</b>	90	General Noxious Weed Control
<b>Milestone</b>	21.4109	Thistle/Knapweed Control
<b>Plateau (or equivalent)</b>	0	Leafy Spurge/Whiteweed Control
<b>Marker Dye (or equivalent)</b>	30	General Noxious Weed Control
<b>Alligare Marker Dye</b>	5	General Noxious Weed Control
<b>Panoramic</b>	20	Leafy Spurge/Whiteweed Control
<b>Picloram 22K</b>	10	General Noxious Weed Control
<b>Non-ionic surfactant</b>	50	General Noxious Weed Control
<b>Methylated Seed Oil</b>	20	Leafy Spurge Control
<b>Curtail</b>	10	Thistle/Knapweed Control
<b>MSM (oz)</b>	128	Whiteweed/P. Pepperweed/Houndstongue Control
<b>Telar (oz)</b>	48	Whiteweed/P. Pepperweed/Houndstongue Control
<b>Escort (oz)</b>	96	Whiteweed/P. Pepperweed/Houndstongue Control

Table 5-2008 Lost Rivers CWMA Estimated Infestation Totals

Common Name	Scientific Name	Gross Acres	Percent of Gross Acres Infested	Average Density (%)
1. Black Henbane	<i>Hyoscyamus niger</i>	100	5	50
2. Bohemian Knotweed	<i>Polygonum bohemicum</i>	N/A		
3. Brazilian Elodea	<i>Egeria densa</i> P.	N/A		
4. Buffalobur	<i>Solanum rostratum</i>	N/A		
5. Canada Thistle	<i>Cirsium arvense</i>	1,250,000	2	20
6. Common Crupina	<i>Crupina vulgaris</i>	N/A		
7. Dalmatian Toadflax	<i>Linaria genistifolia</i> ssp. <i>dalmatica</i>	0.2	10	10
8. Diffuse Knapweed	<i>Centaurea diffusa</i>	20	10	10
9. Dyer's Woad	<i>Isatis tinctoria</i>	2	5	10
10. Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>	N/A		
11. Field Bindweed	<i>Convolvulus arvensis</i>	10,000	5	50
12. Giant Hogweed	<i>Heracleum mantegazzianum</i>	N/A		
13. Giant Knotweed	<i>Polygonum sachalinense</i>	N/A		
14. Hoary Alyssum	<i>Berteroa incana</i>	N/A		
15. Houndstongue	<i>Cynoglossum officinale</i>	1,450	20	50
16. Hydrilla	<i>Hydrilla verticillata</i>	N/A		
17. Japanese Knotweed	<i>Polygonum cuspidatum</i>	N/A		
18. Johnsongrass	<i>Sorghum halepense</i>	N/A		
19. Jointed Goatgrass	<i>Aegilops cylindrica</i>	N/A		
20. Leafy Spurge	<i>Euphorbia esula</i>	480,000	0.75	25
21. Matgrass	<i>Nardus stricta</i>	N/A		
22. Meadow Knapweed	<i>Centaurea pratensis</i>	N/A		
23. Mediterranean Sage	<i>Salvia aethiopis</i>	N/A		
24. Milium	<i>Milium vernale</i>	N/A		
25. Musk Thistle	<i>Carduus nutans</i>	N/A		
26. Orange Hawkweed	<i>Hieracium aurantiacum</i>	N/A		
27. Oxeye Daisy	<i>Chrysanthemum leucanthemum</i>	0.25	100	50
28. Parrotfeather Milfoil	<i>Myriophyllum aquaticum</i>	N/A		
29. Perennial Pepperweed	<i>Lepidium latifolium</i>	4	100	50
30. Perennial Sowthistle	<i>Sonchus arvensis</i>	N/A		



31. Plumeless Thistle	<i>Carduus acanthoides</i>	1	1	1
32. Poison Hemlock	<i>Conium maculatum</i>	N/A		
33. Policeman's Helmet	<i>Impatiens glandulifera</i>	N/A		
34. Puncturevine	<i>Tribulus terrestris</i>	2	5	50
35. Purple Loosestrife	<i>Lythrum salicaria</i>	N/A		
36. Rush Skeletonweed	<i>Chondrilla juncea</i>	397,000	0.01	10
37. Russian Knapweed	<i>Acroptilon repens</i>	26,200	2	30
38. Saltcedar	<i>Tamarix</i>	75	10	5
39. Scotch Broom	<i>Cytisus scoparius</i>	N/A		
40. Scotch Thistle	<i>Onopordum acanthium</i>	500	20	30
41. Silverleaf Nightshade	<i>Solanum elaeagnifolium</i>	N/A		
42. Skeletonleaf Bursage	<i>Ambrosia tomentosa</i>	N/A		
43. Small Bugloss	<i>Anchusa arvensis</i>	N/A		
44. Spotted Knapweed	<i>Centaurea maculosa</i>	478,525	0.1	50
45. Squarrose Knapweed	<i>Centaurea squarrosa</i>	N/A		
46. Syrian Beancaper	<i>Zygophyllum fabago</i>	N/A		
47. Tall Hawkweed	<i>Hieracium piloselloides</i>	N/A		
48. Tansy Ragwort	<i>Senecio jacobaea</i>	N/A		
49. Toothed Spurge	<i>Euphorbia dentata</i>	N/A		
50. Vipers Bugloss	<i>Echium vulgare</i>	N/A		
51. Water Hyacinth	<i>Eichhornia crassipes</i> M.	N/A		
52. White Bryony	<i>Bryonia alba</i>	16,550	1	10
53. Whitetop	<i>Cardaria draba</i>	158,005	0.2	50
54. Yellow Devil Hawkweed	<i>Hieracium glomeratum</i>	N/A		
55. Yellow Hawkweed	<i>Hieracium caespitosum</i>	N/A		
56. Yellow Starthistle	<i>Centaurea solstitialis</i>	N/A		
57. Yellow Toadflax	<i>Linaria vulgaris</i>	1.25	25	10

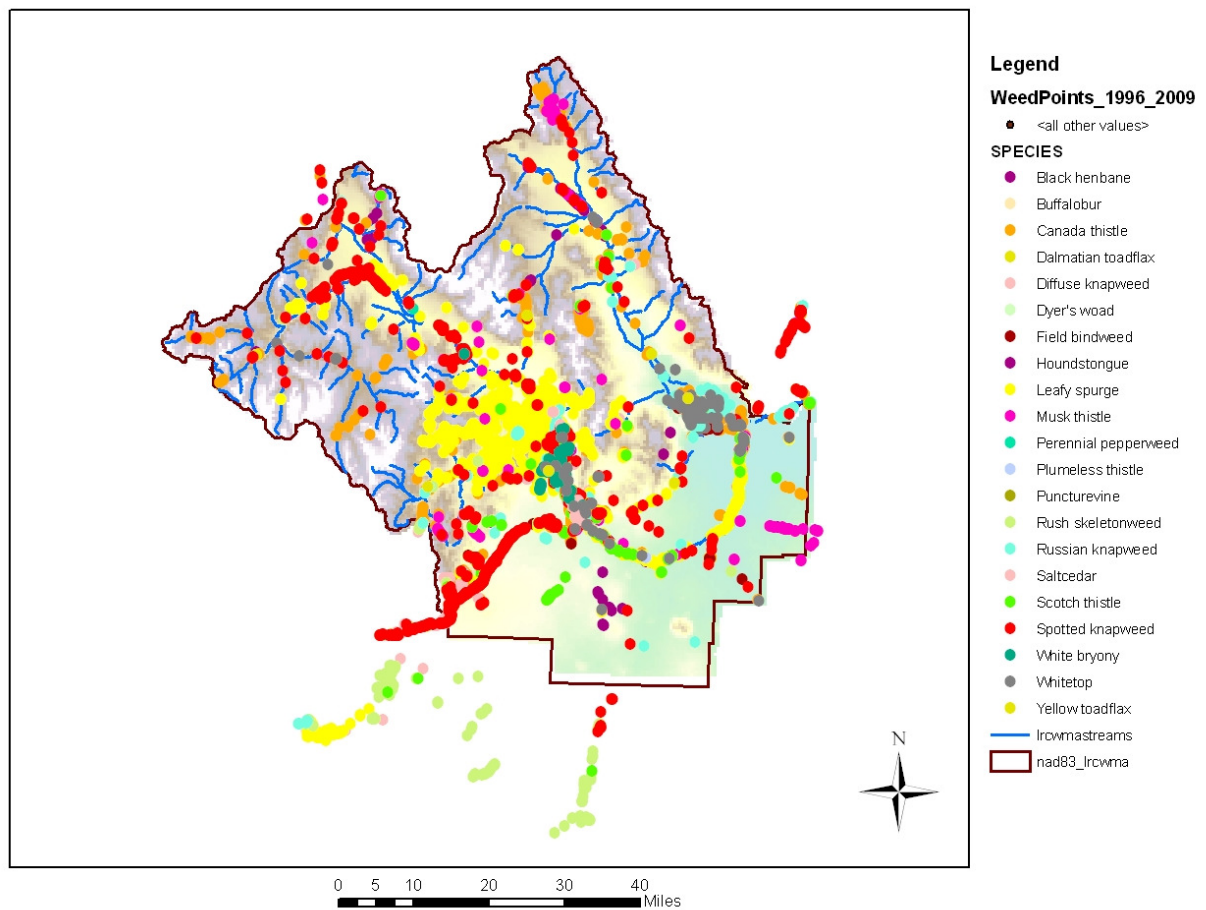
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8. Diffuse Knapweed	<i>Centaurea diffusa</i>	20	10	20
9. Dyer's Woad	<i>Isatis tinctoria</i>	2	5	10
10. Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>	N/A		
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14. Hoary Alyssum	<i>Berteroa incana</i>	N/A		
15. Houndstongue	<i>Cynoglossum officinale</i>	1,450	20	50
16. Hydrilla	<i>Hydrilla verticillata</i>	N/A		
17. Japanese Knotweed	<i>Polygonum cuspidatum</i>	N/A		
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51. Water Hyacinth	<i>Eichhornia crassipes</i> M.	N/A		
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Figure 6 Lost Rivers CWMA Noxious Weed Inventory 1996-2009

**Lost Rivers CWMA Noxious Weed Inventory 1996-2009**



## Lost Rivers Cooperative Weed Management Area 2009 Financial Contribution Report

<b>Amount Contributed</b>	<b>Contribution Category</b>	<b>Cooperator</b>	<b>Contact</b>	<b>Contact Phone</b>
\$ 3,800.00	Federal Government	USFS-YCC Insect Collection	Melissa Fowler	588-2224
\$ 924.00	Federal Government	National Park Service	Steven Beckendam	527-1351
\$ 19,615.50	Non-federal Government	Butte County-USFS	Brad Gamett	527-8595
\$ 432.00	Non-federal Government	Butte County Truck	Brad Gamett	527-8595
\$ 5,272.00	Non-federal Government	Butte County-Private	Brad Gamett	527-8595
\$ 5,258.00	Non-federal Government	Butte County-Rush Skeletonweed	Brad Gamett	527-8595
\$ 252.00	Non-federal Government	Butte County-Cypho	Brad Gamett	527-8595
\$ 642.75	Non-federal Government	Butte County-South Custer ROW	Brad Gamett	527-8595
\$ 3,658.50	Non-federal Government	Butte County-ITD	Brad Gamett	527-8595
\$ 2,540.47	Non-federal Government	Butte County-ROW	Brad Gamett	527-8595
\$ 5,809.65	Non-federal Government	Butte County-Spray Truck Construction	Brad Gamett	527-8595
\$ 1,056.00	Non-federal Government	Butte County-Grant Administration	Brad Gamett	527-8595
\$ 1,760.00	Non-federal Government	Butte County-Free Hay Program	Brad Gamett	527-8595
\$ 1,881.00	Non-federal Government	Butte County-Aphthona Releases	Brad Gamett	527-8595
\$ 4,413.00	Non-federal Government	Butte County-Bomb Insect Collection	Brad Gamett	527-8595
\$ 132.00	Non-federal Government	Butte County-Mark Wheeler	Brad Gamett	527-8595
\$ 1,825.84	Non-federal Government	Butte County-ATV Construction-1	Brad Gamett	527-8595
\$ 13,271.50	Non-federal Government	Butte County-BLM-Grant	Brad Gamett	527-8595
\$ 286.16	Non-federal Government	Butte County-ATV Construction-2	Brad Gamett	527-8595
\$ 1,276.00	Non-federal Government	Butte County-USFS2	Brad Gamett	527-8595
\$ 19,447.10	Private	BLRID-3	Jim Rindfleisch	588-2231
\$ 66.00	Private	Austin Platt	Austin Platt	554-4245
\$ 216.00	Private	Scott Allen	Scott Allen	767-1485
\$ 176.00	Private	Carmela Leavitt	Carmela Leavitt	588-2224
\$ 66.00	Private	Scot Parkinson	Scot Parkison	527-3921
\$ 220.00	Private	Sandy Smith	Sandy Smith	554-2504
\$ 2,871.63	Private	Jim Gregory	Jim Gregory	588-2447
<b>\$97,169</b>	<b>Grand Total</b>			

<b>Contribution Category</b>	<b>Grand Totals</b>
Federal Government	\$4,724.00
Landowner/Private Non-Federal	\$23,063
Government	\$69,382
<b>Grand Total</b>	<b>\$97,169</b>