

APPENDIX III. DETAILS ABOUT THE DISTRIBUTION AND ABUNDANCE OF EACH EXOTIC SPECIES ON WEED TRANSECTS AND IN VEGETATION PLOTS

This is Appendix III to:

Jones, George P. 2014. Exotic Plant Species and Vegetation Features in the Wildhorse Basin and Sheep Mountain Fire Areas, BLM Rock Springs Field Office, Wyoming. Unpublished Report to the Bureau of Land Management, Rock Springs (Wyoming) Field Office from the Wyoming Natural Diversity Database, University of Wyoming.

Agropyron cristatum (L.) Gaertn. -- Crested Wheatgrass

Synonyms And Similar Species

Taxon may include these infra-specific taxa or similar species.

- *Agropyron cristatum* (L.) Gaertn. ssp. *pectinatum* (M. Bieb.) Tzvelev. PLANTS database shows it in Wyoming.
- *Agropyron cristatum* (L.) Gaertn. ssp. *cristatum*. Dorn (2001) lists it from SW Wyoming as *A. cristatum* var. *cristatum*, but the PLANTS database shows it as absent from Wyoming.
- *Agropyron desertorum* (Fisch. ex Link) Schult. PLANTS database shows it in Wyoming. Dorn (2001) includes it in SW Wyoming as *A. cristatum* var. *desertorum*.
- *Agropyron fragile* (Roth) P. Candargy. PLANTS database shows it in Wyoming. Dorn (2001) includes it in SW Wyoming, as *A. cristatum* var. *fragile*.

Designations

- None

Distribution

Sage Creek Basin Fire area only (Figure 1)

Table 1. Occurrence of crested wheatgrass in vegetation sampling plots in each year.

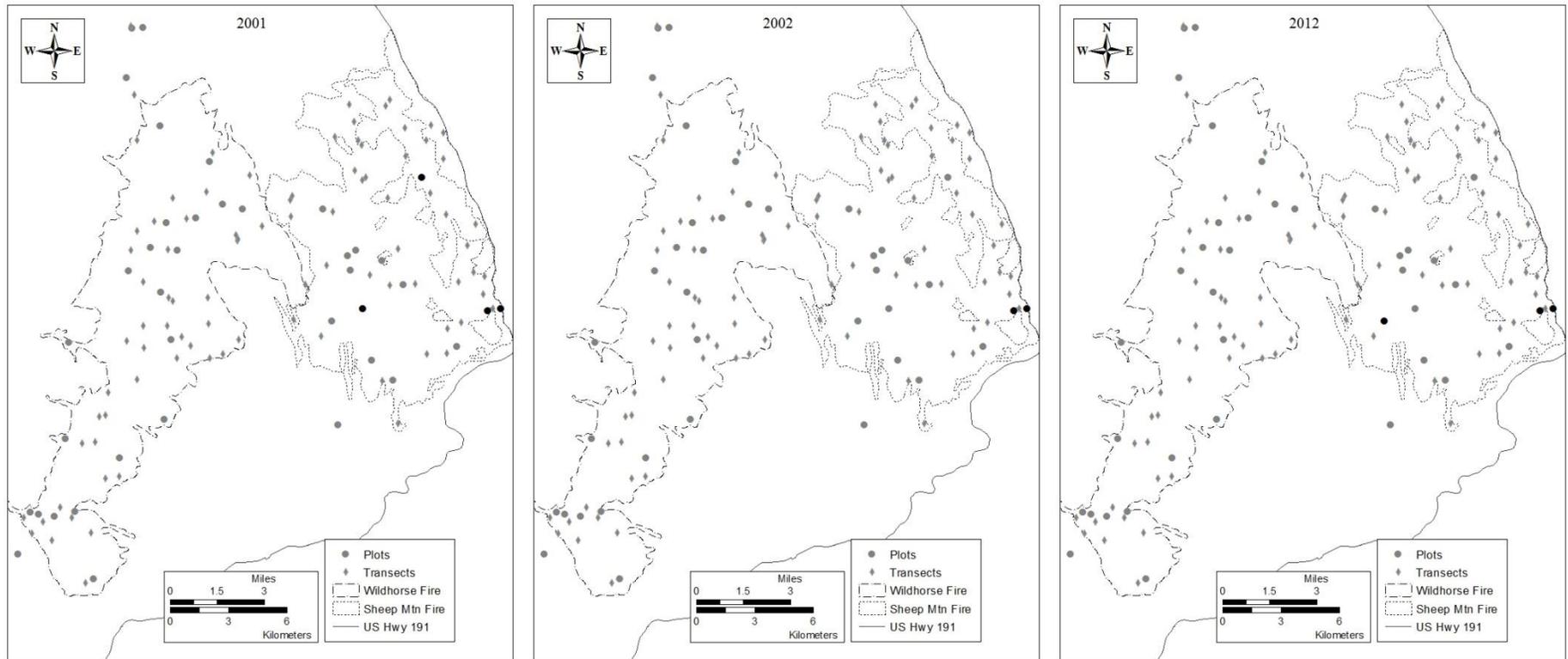
Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Agropyron cristatum</i> (perennial)	Burned	2	6.25%	1	3.13%	2	6.25%
	Unburned	2	18.18%	1	10.00%	1	11.11%
	Both	4	9.30%	2	4.76%	3	7.32%

Table 2. Occurrence of crested wheatgrass on weed transects
Crested wheatgrass was not recorded on the weed transects

Table 3. Individual vegetation plots with crested wheatgrass in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	04, 06
2001	Unburned (n=11)	03, 10
2002	Burned (n=32)	04
2002	Unburned (n=10)	03
2012	Burned (n=32)	04, 05
2012	Unburned (n=9)	03

Figure 1. Occurrence of crested wheatgrass (*Agropyron cristatum*) in vegetation plots in each year. The species was not recorded on weed transects. Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



Alyssum L. -- Madwort

Synonyms And Similar Species

Two species are found in southwestern Wyoming and both may have been encountered in sampling: *Alyssum alyssoides* (L.) L., pale madwort, and *Alyssum desertorum* Stapf, desert madwort.

Designations

None

Distribution

Limited to one plot in Wildhorse fire in 2001 and 5 transects in eastern and northern part of area in 2012 (Figure 1)

Table 1. Occurrence of *Alyssum* spp. in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Alyssum desertorum</i> (annual)	Burned	1	3.13%				
	Unburned						
	Both	1	2.33%				

Table 2. Occurrence of *Alyssum* spp. on weed transects in each year.

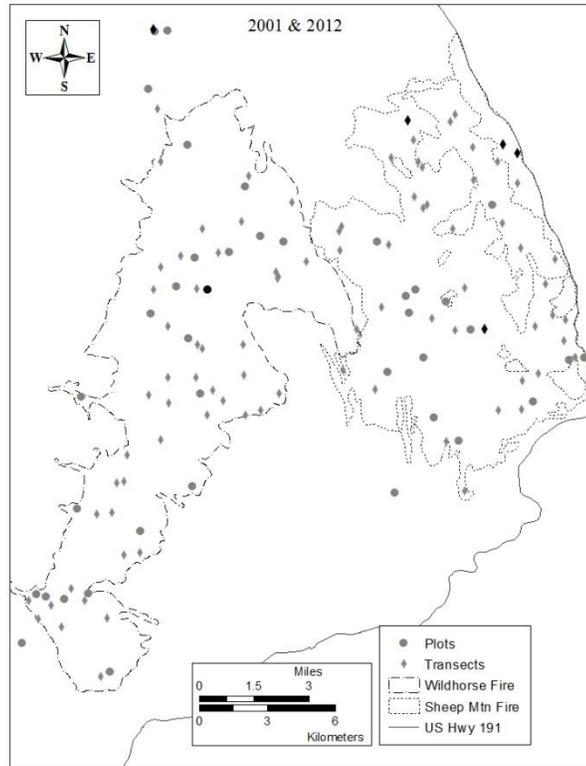
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Alyssum</i> spp. (annual)	Burned	-	-	-	-	-	-	5	7.2	3.3
	Unburned	-	-	-	-	-	-	-	-	-
	All	-	-	-	-	-	-	5	5.6	2.5

Table 3. Individual vegetation plots and weed transects with *Alyssum* spp. in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	35
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	
2001	Unburned (n=21)	
2002	Burned (n=70)	
2002	Unburned (n=21)	
2012	Burned (n=69)	40, 62, 76, 77, 99
2012	Unburned (n=21)	

Figure 1. Occurrence of *Alyssum* spp. (madwort) in vegetation plots and on weed transects in 2001 and 2012. The species was not recorded in 2002.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded. The single plot with *Alyssum* spp. is from 2001, and the 5 transects are from 2012



***Bromus tectorum* L. -- Cheatgrass**

Synonyms And Similar Species

- Synonym: *Anisantha tectorum* (L.) Nevski
- *B. tectorum* seems to be the only annual brome encountered.

Designations

- None that apply to the study area

Distribution

Widespread throughout the study area (Figure 1)

Table 1. Occurrence of cheatgrass in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Bromus tectorum</i> * (annual)	Burned	18	56.25%	17	53.13%	24	75.00%
	Unburned	2	18.18%	2	20.00%	4	44.44%
	Both	20	46.51%	19	45.24%	28	68.29%

Table 2. Occurrence of cheatgrass on weed transects in each year.

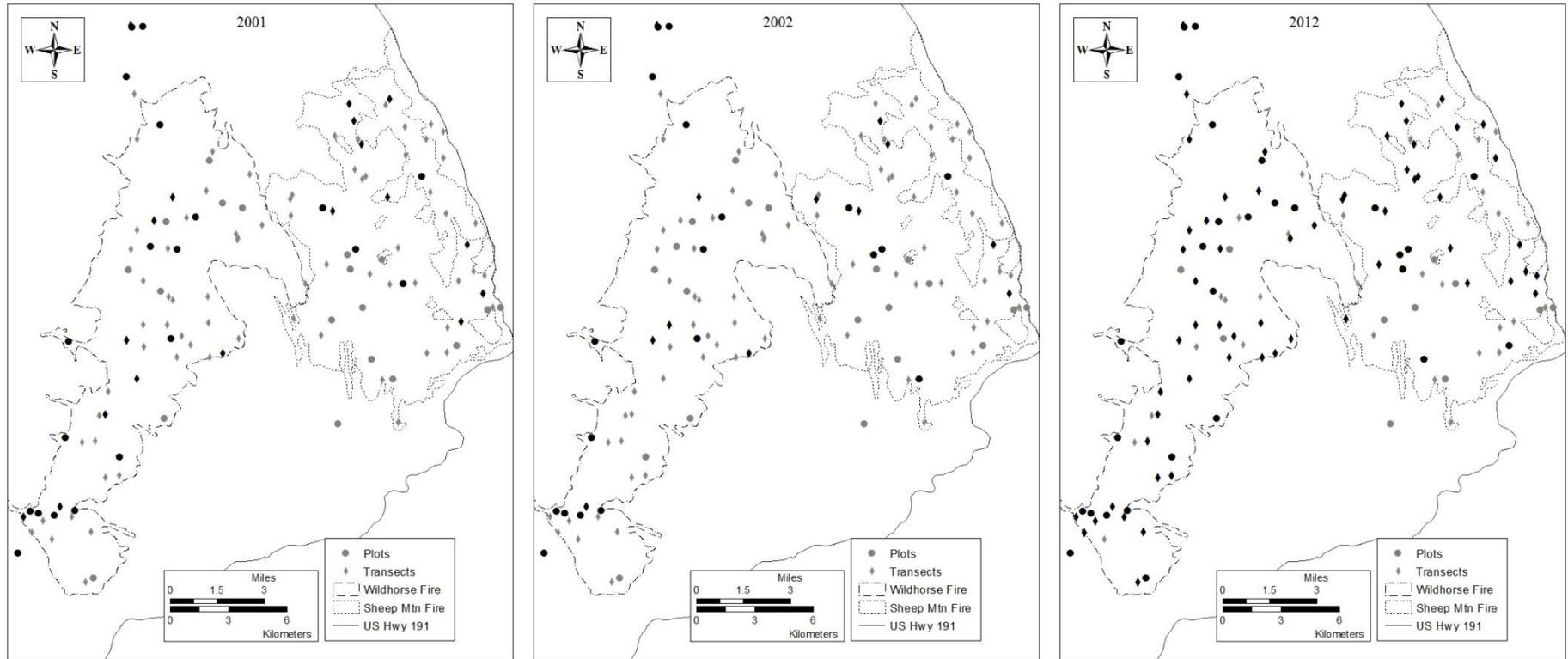
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Bromus tectorum</i> (annual)	Burned	14	20.0	7.8	11	15.7	3.6	51	73.9	33.3
	Unburned	4	19.0	4.8	1	4.8	3.8	8	38.1	11.1
	All	18	19.8	7.1	12	13.2	3.7	59	65.6	28.1

Table 3. Individual vegetation plots and weed transects with cheatgrass in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	02, 07, 08, 11, 15, 20, 22, 25, 26, 27, 28, 32, 35, 36, 38, 39, 40, 41
2001	Unburned (n=11)	10, 43
2002	Burned (n=32)	08, 11, 13, 15, 20, 25, 26, 27, 28, 30, 32, 35, 36, 38, 39, 40, 41
2002	Unburned (n=10)	10, 43
2012	Burned (n=32)	01, 07, 08, 11, 12, 13, 15, 16, 17, 20, 21, 22, 23, 26, 27, 28, 29, 32, 36, 37, 38, 39, 40, 41
2012	Unburned (n=9)	10, 33, 34, 43
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	03, 09, 00, 23, 34, 40, 41, 43, 52, 57, 62, 66, 70, 89
2001	Unburned (n=21)	16, 35, 36, 46
2002	Burned (n=70)	09, 33, 34, 41, 43, 57, 62, 66, 68, 70, 89
2002	Unburned (n=21)	36
2012	Burned (n=69)	06, 07, 08, 09, 100, 12, 19, 23, 30, 31, 33, 34, 37, 40, 41, 43, 44, 50, 51, 52, 53, 54, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 77, 81, 84, 86, 87, 88, 89, 91, 92, 93, 98, 99
2012	Unburned (n=21)	16, 21, 32, 35, 36, 78, 46, 94

Figure 1. Occurrence of cheatgrass (*Bromus tectorum*) in vegetation plots and on weed transects in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Cardaria chalepensis* (L.) Hand.-Maz. -- Hoary Cress, Lenspod Whitetop**

Synonyms And Similar Species

Likely also includes *Cardaria pubescens* (C.A. Mey.) Jarmolenko, hairy whitetop

Designations

Designated Noxious Weed in Wyoming

Distribution

Single vegetation plot north of the Wildhorse fire area, in 2012 (Figure 1)

Table 1. Occurrence of *Cardaria chalepensis* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Cardaria chalepensis</i> (perennial)	Burned					1	3.13%
	Unburned						
	Both					1	2.44%

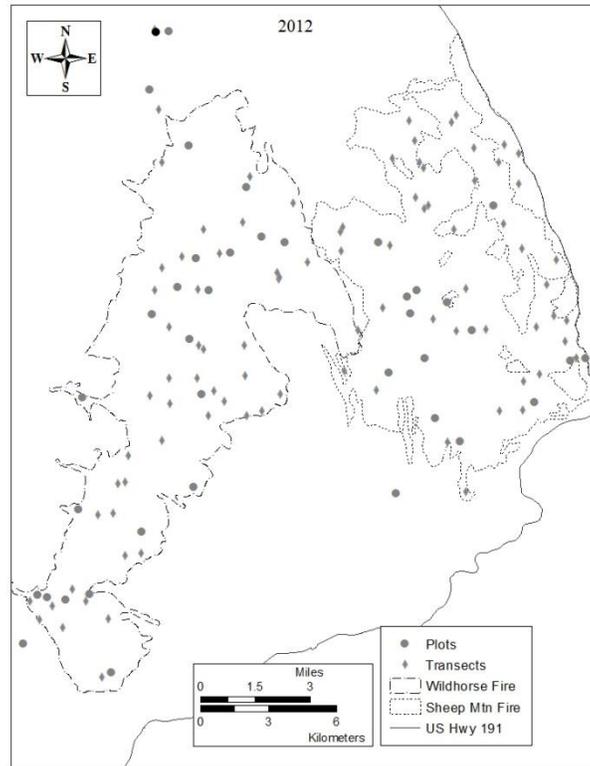
Table 2. Occurrence of *Cardaria chalepensis* on weed transects in each year.
Whitetop was not recorded from any of the weed transects.

Table 3. Individual vegetation plot with *Cardaria chalepensis* in 2012.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	26
2012	Unburned (n=9)	

Figure 1. Occurrence of *Cardaria chalepensis* (lenspod whitetop) in vegetation plot in 2012. The species was not recorded in 2001 or 202.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Carduus nutans* L., Musk Thistle, Nodding Plumeless Thistle**

Synonyms And Similar Species

None

Designations

Designated Noxious Weed in Wyoming

Distribution

Sparse throughout study area (Figure 1)

Table 1. Occurrence of *Carduus nutans* in vegetation sampling plots in each year.

Species		2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Carduus nutans</i> (biennial)	Burned					4	12.50%
	Unburned						
	Both					4	9.76%

Table 2. Occurrence of *Carduus nutans* on weed transects in each year.

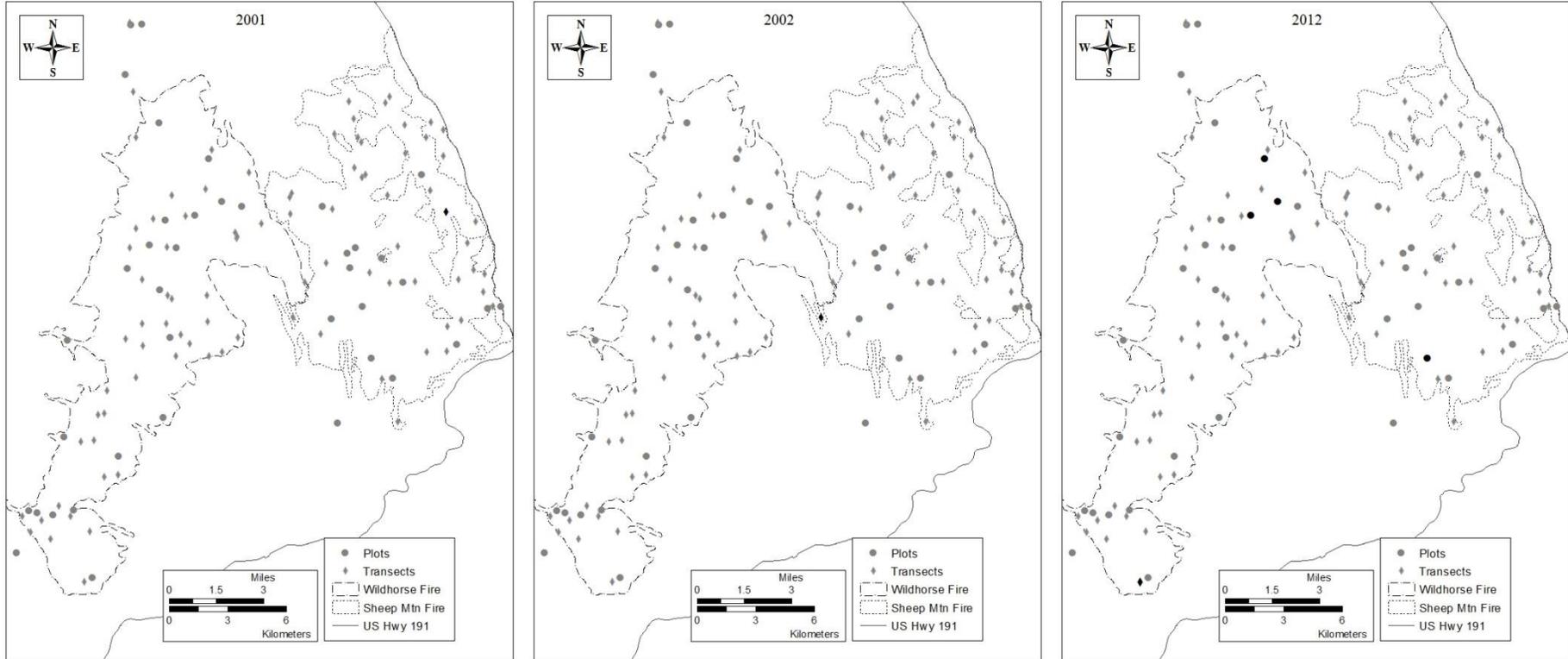
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Carduus nutans</i> (biennial)	Burned	-	-	-	1	1.4	0.1	1	1.4	0.2
	Unburned	1	4.8	0.2	-	-	-	-	-	-
	All	1	1.1	0.1	1	1.1	0.1	1	1.1	0.1

Table 3. Individual vegetation plots and weed transects with \$\$\$\$ in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	15, 16, 21, 29
2012	Unburned (n=9)	
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	
2001	Unburned (n=21)	11
2002	Burned (n=70)	81
2002	Unburned (n=21)	
2012	Burned (n=69)	53
2012	Unburned (n=21)	

Figure 1. Occurrence of *Carduus nutans* in vegetation plots and on weed transects in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Centaurea repens* L., Russian Knapweed**

Synonyms And Similar Species

Acroptilon repens (L.) DC., hardheads

Designations

Designated Noxious Weed in Wyoming (as *Acroptilon repens*)

Distribution

Single vegetation plot north of Wildhorse Basin fire area, in 2002 (Figure 1)

Table 1. Occurrence of *Centaurea repens* in vegetation sampling plots in each year.

Species		2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Centaurea repens</i> (perennial)	Burned			1	3.13%		
	Unburned						
	Both			1	2.38%		

Table 2. Occurrence of *Centaurea repens* on weed transects in each year.

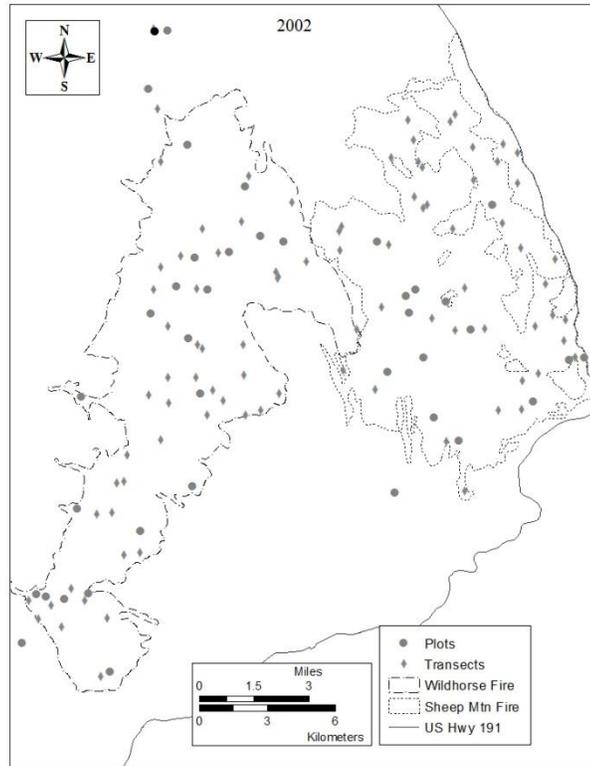
Centaurea repens was not recorded on weed transects.

Table 3. Individual vegetation plots and weed transects with *Centaurea repens* in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	
2001	Unburned (n=11)	
2002	Burned (n=32)	26
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of Russian knapweed (*Centaurea repens*) in single vegetation plot in 2002. The species was not recorded in 2001 or 2012.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Ceratocephala testiculata* (Crantz) Roth., Curveseed Butterwort**

Synonyms And Similar Species

Ranunculus testiculatus Crantz, bur buttercup

Designations

None

Distribution

Western half of Wildhorse Basin fire area in 2001, throughout study area in 2012 (Figure 1)

Table 1. Occurrence of *Ceratocephala testiculata* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Ceratocephala testiculata</i> * (annual)	Burned	3	9.38%			5	15.63%
	Unburned						
	Both	3	6.98%			5	12.20%

Table 2. Occurrence of *Ceratocephala testiculata* on weed transects in each year.

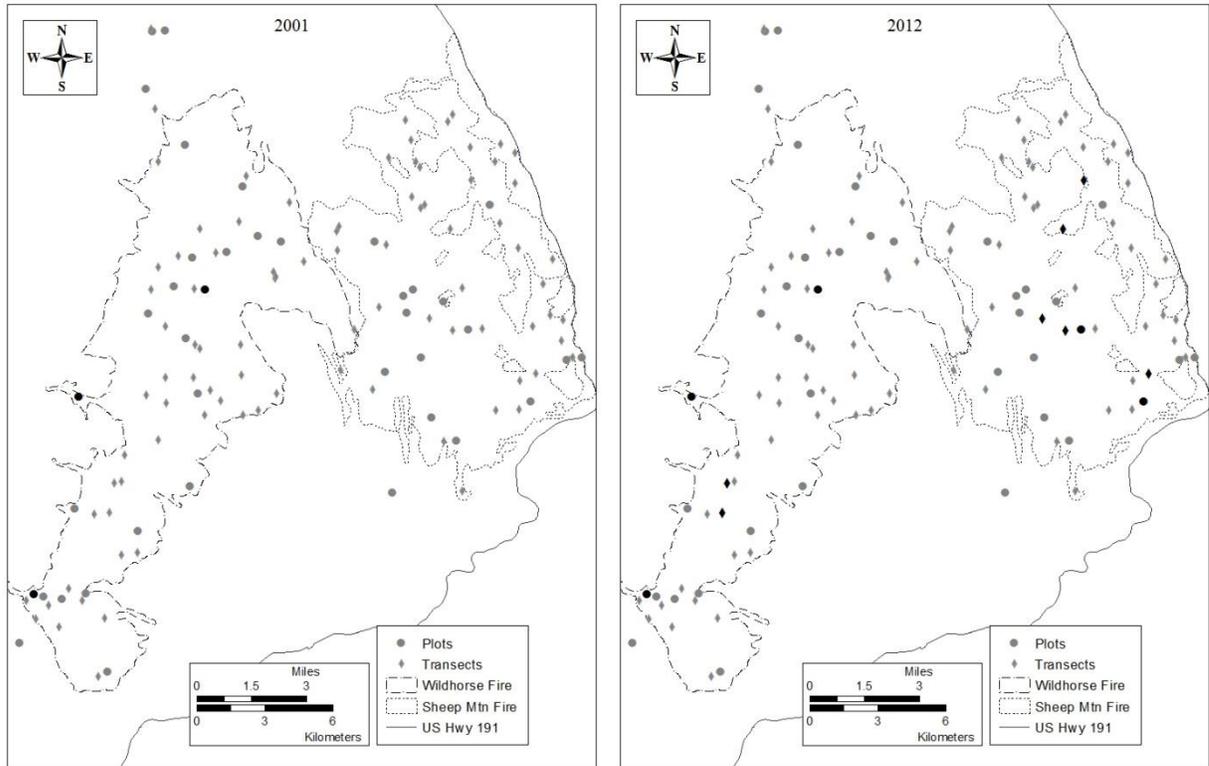
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Ceratocephala testiculata</i> (annual)	Burned	-	-	-	-	-	-	6	8.7	1
	Unburned	-	-	-	-	-	-	1	4.8	0.2
	All	-	-	-	-	-	-	7	7.8	0.8

Table 3. Individual vegetation plots and weed transects with *Ceratocephala testiculata* in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	35, 36, 41
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	01, 02, 35, 36, 41
2012	Unburned (n=9)	
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	
2001	Unburned (n=21)	
2002	Burned (n=70)	
2002	Unburned (n=21)	
2012	Burned (n=69)	03, 101, 17, 59, 75, 85
2012	Unburned (n=21)	16

Figure 1. Occurrence of *Ceratocephala testiculata* in vegetation plots and on weed transects in 2001 and 2012. The species was not recorded in 2002.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Chorisporea tenella* (Pall.) DC., Blue Mustard**

Synonyms And Similar Species

Musk mustard, crossflower

Designations

None

Distribution

Single vegetation plot on western side of Wildhorse Basin fire area, in 2001 and 2012 (Figure 1).

Table 1. Occurrence of *Chorisporea tenella* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Chorisporea tenella</i> (annual)	Burned	1	3.13%			1	3.13%
	Unburned						
	Both	1	2.33%			1	2.44%

Table 2. Occurrence of *Chorisporea tenella* on weed transects in each year.

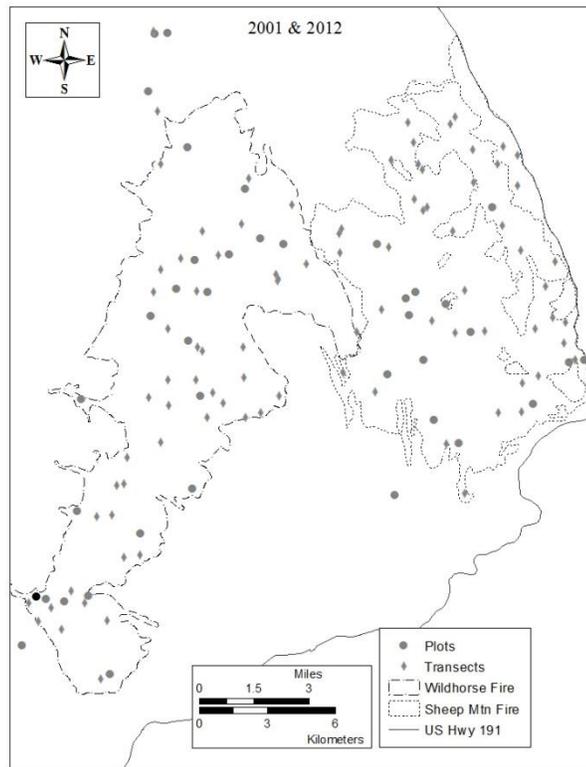
The species was not recorded on vegetation transects

Table 3. Individual vegetation plot with *Chorisporea tenella*..

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	41
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	41
2012	Unburned (n=9)	

Figure 1. Occurrence of *Chorispora tenella* in a single vegetation plot in 2001 and 2012. The species was not recorded in 2002.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Cirsium arvense* (L.) Scop., Canada Thistle**

Synonyms And Similar Species

Designations

Designated Noxious Weed in Wyoming

Distribution

Central part of Wildhorse Basin fire area and southern half of Sage Creek Basin Fire area (Figure 1). This is a species of riparian areas and other moist sits.

Table 1. Occurrence of *Cirsium arvense* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Cirsium arvense</i> (perennial)	Burned	1	3.13%			2	6.25%
	Unburned					1	11.11%
	Both	1	2.33%			3	7.32%

Table 2. Occurrence of *Cirsium arvense* on weed transects in each year.

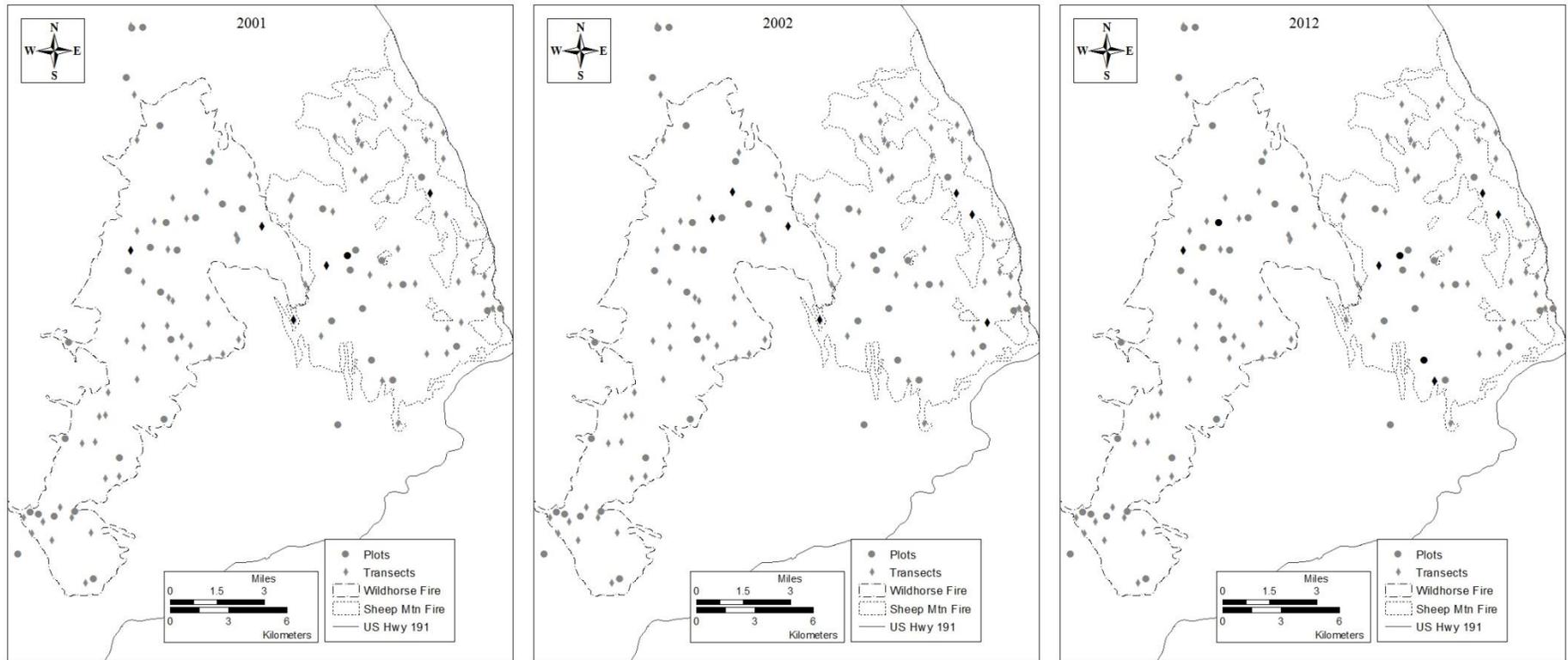
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Cirsium arvense</i> (perennial)	Burned	3	4.3	1.7	4	5.7	1.3	3	4.3	0.6
	Unburned	2	9.5	5	3	14.3	6.7	2	9.5	2.9
	All	5	5.5	2.4	7	7.7	2.5	5	5.6	1.2

Table 3. Individual vegetation plots and weed transects with *Cirsium arvense* in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	13
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	13, 29
2012	Unburned (n=9)	34
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	31, 65, 81
2001	Unburned (n=21)	10, 21
2002	Burned (n=70)	3, 20, 81, 91
2002	Unburned (n=21)	10, 11, 21
2012	Burned (n=69)	14, 31, 65
2012	Unburned (n=21)	10, 11

Figure 1. Occurrence of *Cirsium arvense* in vegetation plots and on weed transects in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Cirsium vulgare* (Savi) Ten., Bull Thistle**

Synonyms And Similar Species

Designations

None

Distribution

Single weed transect in central part of study area, in 2001 (Figure 1)

Table 1. Occurrence of *Cirsium vulgare* in vegetation sampling plots in each year.
The species was not recorded in sampling plots.

Table 2. Occurrence of *Cirsium vulgare* on weed transects in each year.

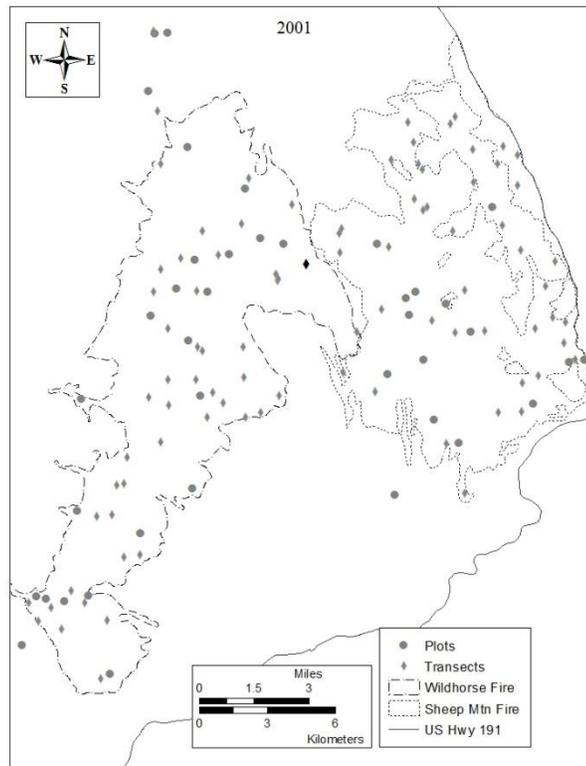
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Cirsium vulgare</i> (biennial)	Burned	-	-	-	-	-	-	-	-	-
	Unburned	1	4.8	0.1	-	-	-	-	-	-
	All	1	1.1	0.1	-	-	-	-	-	-

Table 3. Individual weed transect with *Cirsium vulgare* in 2001.

Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	
2001	Unburned (n=21)	21
2002	Burned (n=70)	
2002	Unburned (n=21)	
2012	Burned (n=69)	
2012	Unburned (n=21)	

Figure 1. Occurrence of *Cirsium vulgare* on a single weed transect in 2001.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Descurainia sophia* (L.) Webb ex Prantl, Herb Sophia**

Synonyms And Similar Species

Designations

None

Distribution

Vegetation plots throughout the sampling area (Figure 1)

Table 1. Occurrence of *Descurainia sophia* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Descurainia sophia</i> * (annual)	Burned	8	25.00%	3	9.38%	7	21.88%
	Unburned						
	Both	8	18.60%	3	7.14%	7	17.07%

Table 2. Occurrence of *Descurainia sophia* on weed transects in each year.

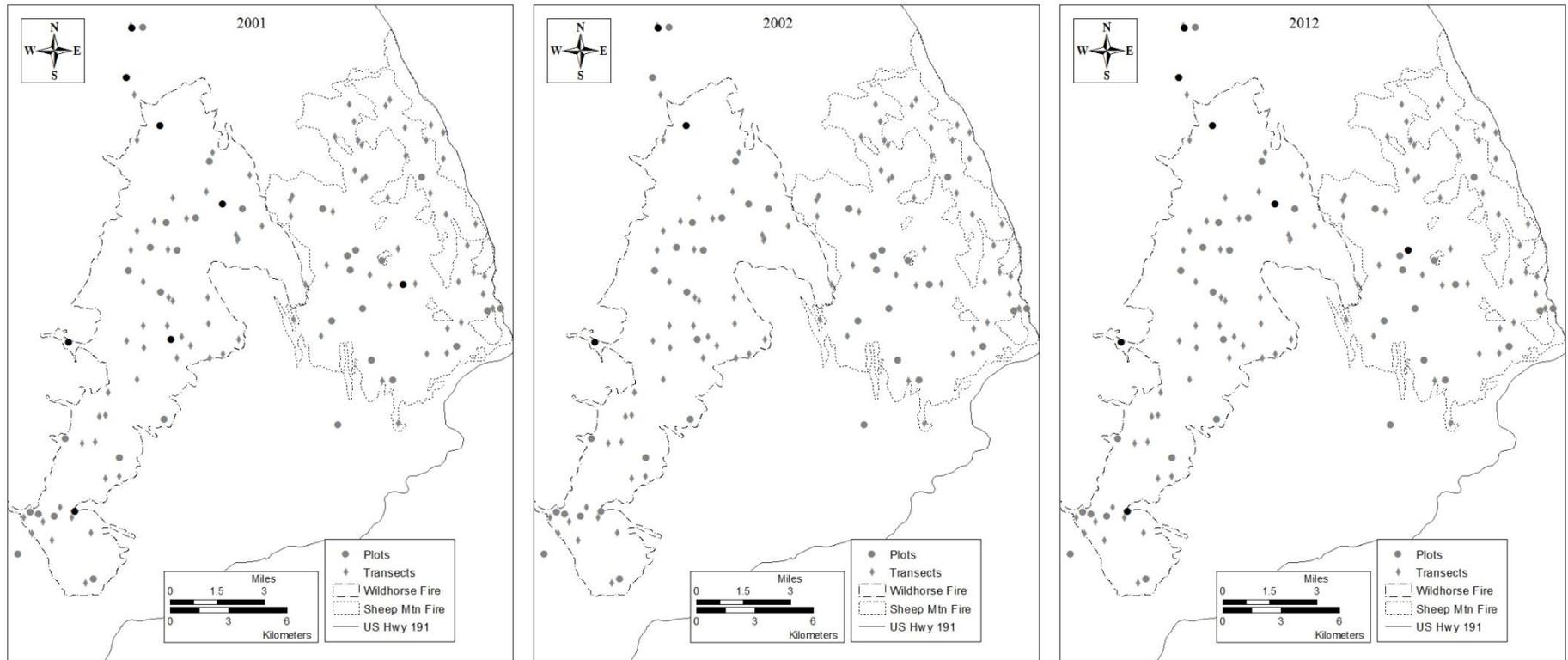
The species was not recorded on weed transects.

Table 3. Individual vegetation plots and weed transects with *Descurainia sophia* in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	2, 16, 20, 25, 26, 28, 36, 38
2001	Unburned (n=11)	
2002	Burned (n=32)	20, 26, 36
2002	Unburned (n=10)	
2012	Burned (n=32)	11, 16, 20, 26, 29, 26, 38
2012	Unburned (n=9)	

Figure 1. Occurrence of *Descurainia sophia* in vegetation plots in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



Elymus repens (L.) Gould, Quackgrass

Synonyms And Similar Species

Designations

Designated Noxious Weed in Wyoming

Distribution

Two transects in southern half of Wildhorse Basin fire area (Figure 1)

Table 1. Occurrence of *Elymus repens* in vegetation sampling plots in each year.
The species was not recorded in vegetation plots.

Table 2. Occurrence of *Elymus repens* on weed transects in each year.

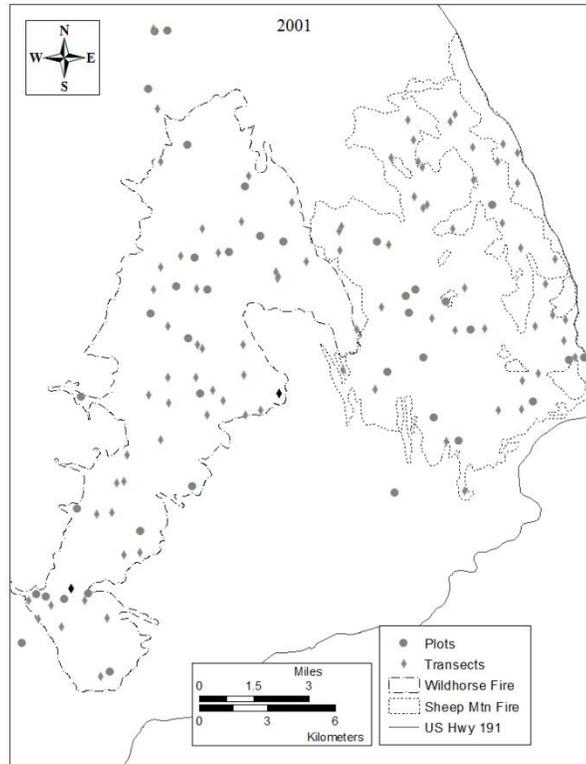
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Elymus repens</i> (perennial)	Burned	2	2.9	0.3	-	-	-	-	-	-
	Unburned	-	-		-	-	-	-	-	-
	All	2	2.2	0.3	-	-	-	-	-	-

Table 3. Individual weed transects with *Elymus repens* in each year.

Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	6, 57
2001	Unburned (n=21)	
2002	Burned (n=70)	
2002	Unburned (n=21)	
2012	Burned (n=69)	
2012	Unburned (n=21)	

Figure 1. Occurrence of *Elymus repens* on weed transects in 2001. The species was not recorded in vegetation plots

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Halogeton glomeratus* (M. Bieb.) C.A. Mey. -- Halogeton, Saltlover**

Synonyms And Similar Species

Designations

None that apply to the study area

Distribution

Throughout the study area, especially in the southwestern part of the Wildhorse Basin fire area (Figure 1)

Table 1. Occurrence of *Halogeton glomeratus* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Halogeton glomeratus</i> * (annual)	Burned	7	21.88%	12	37.50%	7	21.88%
	Unburned						
	Both	7	16.28%	12	28.57%	7	17.07%

Table 2. Occurrence of *Halogeton glomeratus* on weed transects in each year.

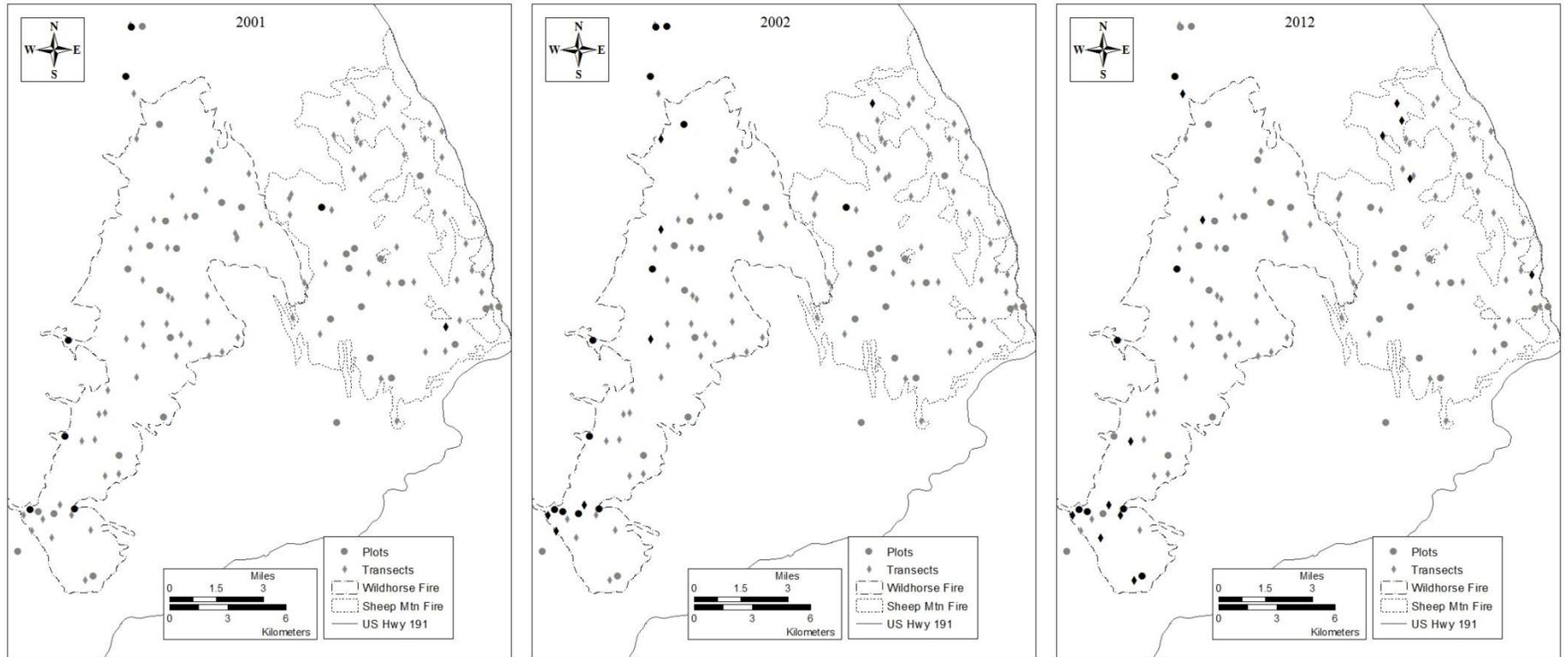
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Halogeton glomeratus</i> (annual)	Burned	1	1.4	0.1	7	10.0	2.6	11	15.9	1.5
	Unburned	-	-	-	-	-	-	2	9.5	0.4
	All	1	1.1	0.1	7	7.7	2	13	14.4	1.2

Table 3. Individual vegetation plots and weed transects with *Halogeton glomeratus* in each year.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	08, 26, 28, 32, 36, 38, 41
2001	Unburned (n=11)	
2002	Burned (n=32)	08, 19, 20, 26, 27, 28, 32, 36, 38, 39, 40, 41
2002	Unburned (n=10)	
2012	Burned (n=32)	19, 23, 28, 36, 38, 40, 41
2012	Unburned (n=9)	
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	04
2001	Unburned (n=21)	
2002	Burned (n=70)	34, 40, 50, 52, 57, 64, 92
2002	Unburned (n=21)	
2012	Burned (n=69)	40, 41, 44, 52, 53, 56, 57, 58, 63, 73, 87
2012	Unburned (n=21)	35, 55

Figure 1. Occurrence of *Halogeton glomeratus* in vegetation plots and on weed transects in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Hyoscyamus niger* L. -- Black Henbane**

Synonyms And Similar Species

Designations

Declared Weed in Sweetwater County

Distribution

Scattered throughout Wildhorse Basin Fire area, southern part of Sage Cr. Basin Fire area (Figure 1)

Table 1. Occurrence of *Hyoscyamus niger* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Hyoscyamus niger</i> (biennial)	Burned	3	9.38%	2	6.25%	1	3.13%
	Unburned						
	Both	3	6.98%	2	4.76%	1	2.44%

Table 2. Occurrence of *Hyoscyamus niger* on weed transects in each year.

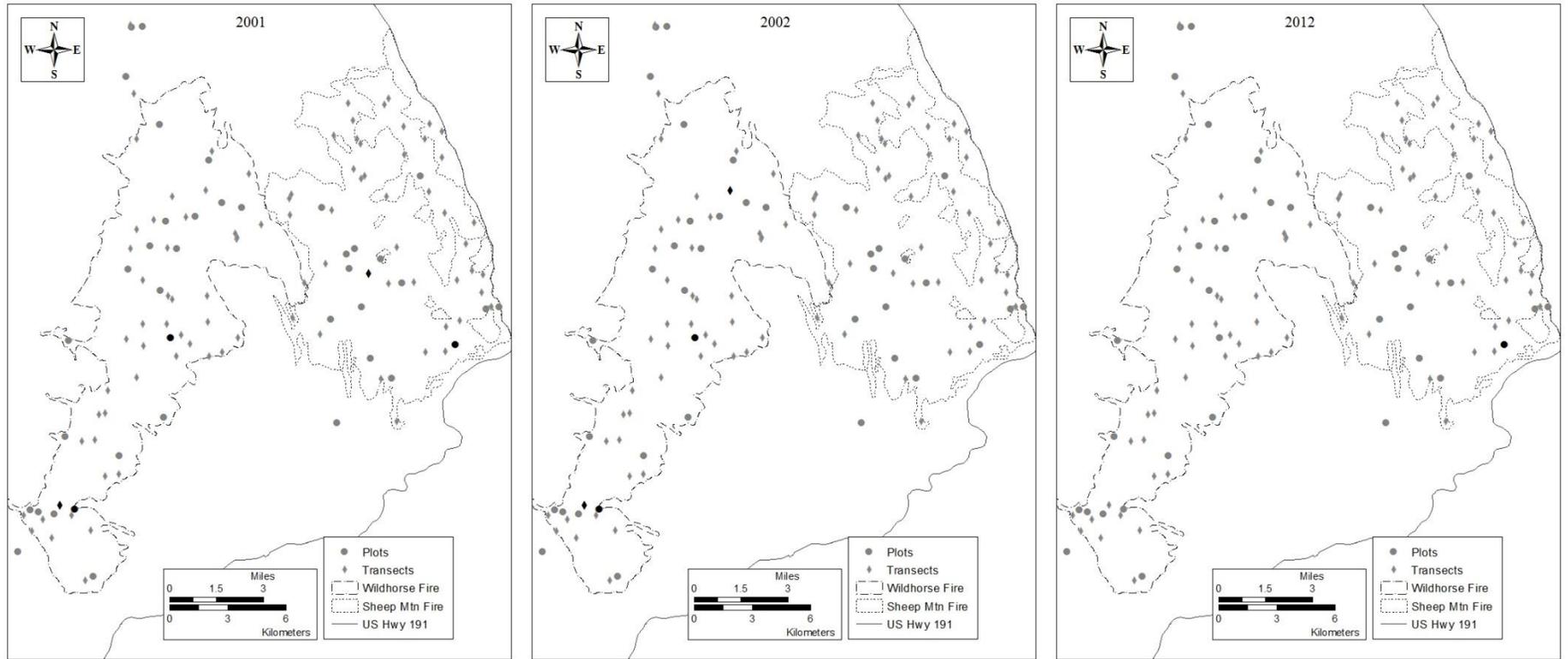
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Hyoscyamus niger</i> (biennial)	Burned	2	2.9	0.6	2	2.9	0.5	-	-	-
	Unburned	-	-	-	-	-	-	-	-	-
	All	2	2.2	0.4	2	2.2	0.4	-	-	-

Table 3. Individual vegetation plots and weed transects with *Hyoscyamus niger* .

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	01, 25, 38
2001	Unburned (n=11)	
2002	Burned (n=32)	25, 38
2002	Unburned (n=10)	
2012	Burned (n=32)	01
2012	Unburned (n=9)	
Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	57, 85
2001	Unburned (n=21)	
2002	Burned (n=70)	57, 91
2002	Unburned (n=21)	
2012	Burned (n=69)	
2012	Unburned (n=21)	

Figure 1. Occurrence of *Hyoscyamus niger* in vegetation plots and on weed transects.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



Kochia scoparia -- Kochia, Summer Cypress

Synonyms And Similar Species

The species found in this project most likely is *Bassia hyssopifolia*, not *B. scoparia* (the current name for *K. scoparia*). The PLANTS database shows both *Bassia hyssopifolia* (Pall.) Kuntz (fivehorn smotherweed) and *Bassia scoparia* (L.) A.J. Scott (burningbrush) as occurring in Wyoming. Dorn (2001), though, lists only *Bassia hyssopifolia* (Pallas) Kuntze (summer cypress) as occurring in SW Wyoming.

Designations

None

Distribution

One vegetation plot in the SW corner of Wildhorse Basin Fire area, in 2002 (Figure 1)

Table 1. Occurrence of *Kochia scoparia* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Kochia scoparia</i> (perennial)	Burned	-	-	1	1.13%	-	-
	Unburned	-	-	-	-	-	-
	Both	-	-	1	2.38%	-	-

Table 2. Occurrence of *Kochia scoparia* on weed transects in each year.

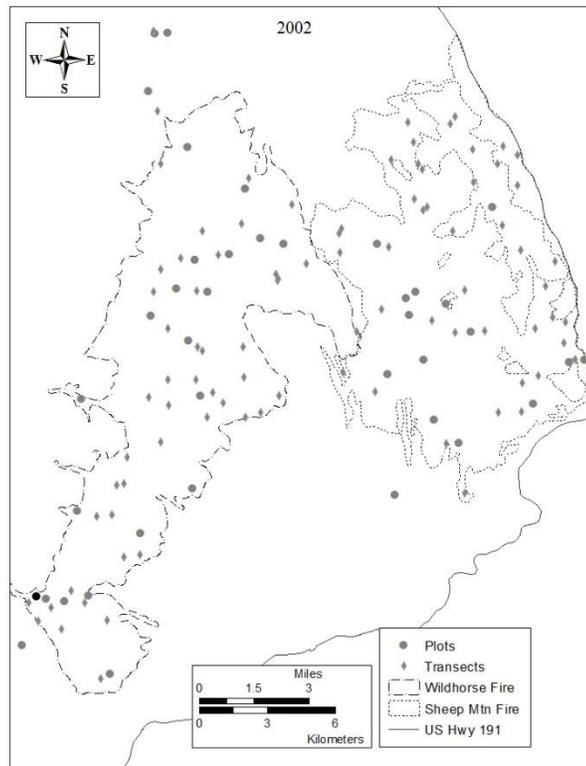
This species was not recorded on weed transects.

Table 3. Individual vegetation plot with *Kochia scoparia*. The species was not recorded on weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	
2001	Unburned (n=11)	
2002	Burned (n=32)	41
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Kochia scoparia* in a vegetation plot in 2002.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Lactuca serriola* (L.) -- Prickly Lettuce**

Synonyms And Similar Species

Designations

None

Distribution

Few vegetation plots in northern and western parts of Wildhorse Basins Fire area (Figure 1)

Table 1. Occurrence of *Lactuca serriola* in vegetation sampling plot in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Lactuca serriola</i> (annual)	Burned	1	3.13%	2	6.25%	3	9.38%
	Unburned						
	Both	1	2.33%	2	4.76%	3	7.32%

Table 2. Occurrence of *Lactuca serriola* on weed transects in each year.

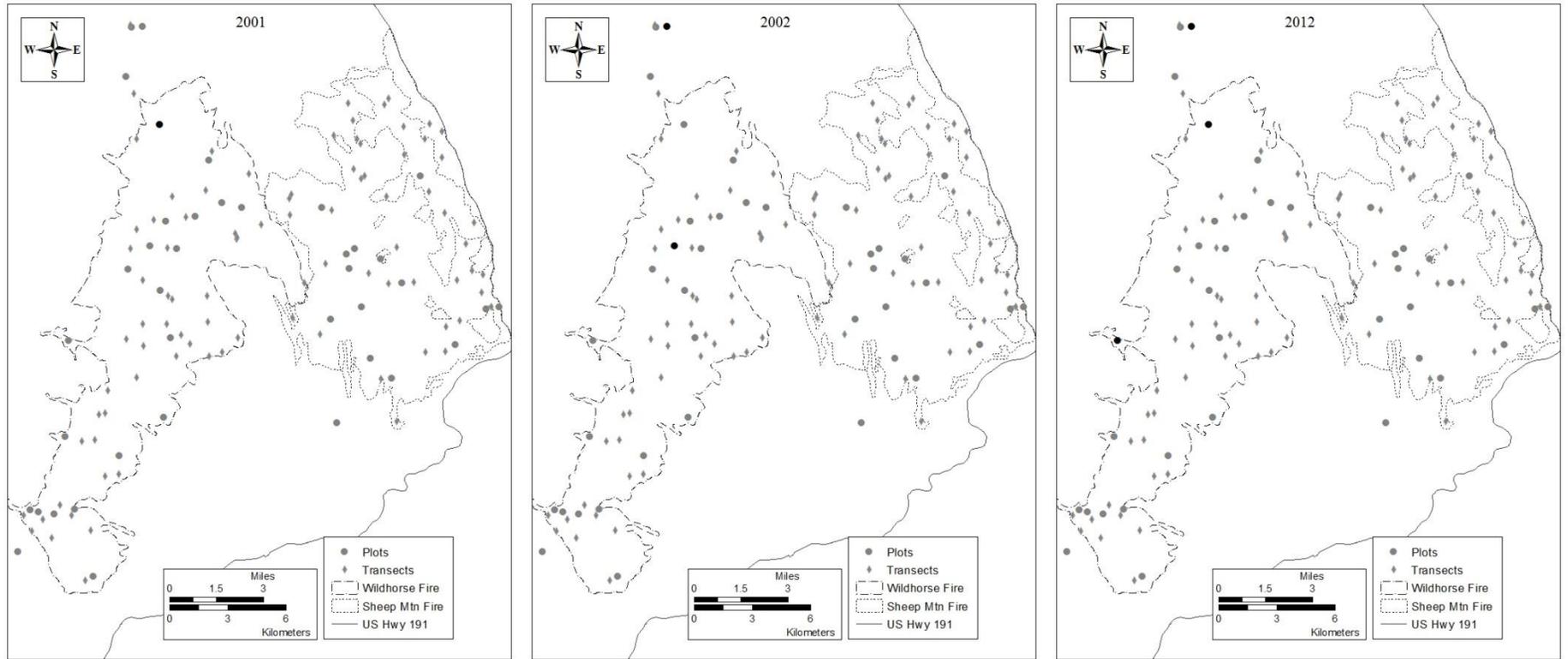
This species was not recorded on weed transects.

Table 3. Individual vegetation plots with *Lactuca serriola* in each year. The species was not recorded on weed transects

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	20
2001	Unburned (n=11)	
2002	Burned (n=32)	22, 27
2002	Unburned (n=10)	
2012	Burned (n=32)	20, 27, 36
2012	Unburned (n=9)	

Figure 1. Occurrence of *Lactuca serriola* in vegetation plots and on weed transects in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Lappula squarrosa* (Retz.) Dumort. -- European Stickseed**

Synonyms And Similar Species

Designations

None

Distribution

One vegetation plot in the center of the Wildhorse Basin Fire are in 2001 (Figure 1)

Table 1. Occurrence of *Lappula squarrosa* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Lappula squarrosa</i> (annual)	Burned	1	3.13%				
	Unburned						
	Both	1	2.33%				

Table 2. Occurrence of *Lappula squarrosa* on weed transects in each year.

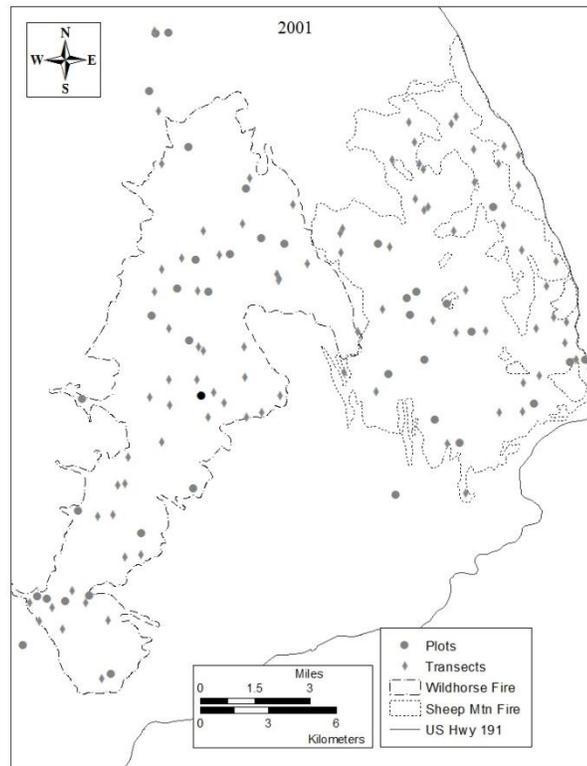
The species was not recorded on the weed transects.

Table 3. Individual vegetation plot with *Lappula squarrosa* in 2001. The species was not recorded on the weed transects

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	25
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Lappula squarrosa* in one vegetation plot in 2001.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Lepidium perfoliatum* L. -- Clasping Pepperweed**

Synonyms And Similar Species

Designations

None

Distribution

Single vegetation plot in 2001 and 2012, on western edge of Wildhorse Basin Fire as (Figure 1)

Table 1. Occurrence of *Lepidium perfoliatum* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Lepidium perfoliatum</i> (annual)	Burned	1	3.13%			1	3.13%
	Unburned						
	Both	1	2.33%			1	2.44%

Table 2. Occurrence of *Lepidium perfoliatum* on weed transects in each year.

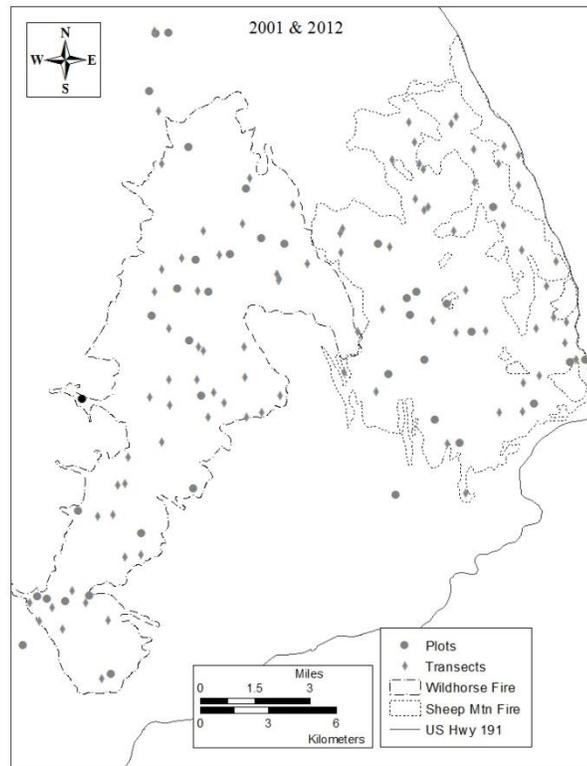
The species was not found on the weed transects.

Table 3. Individual vegetation plot with *Lepidium perfoliatum* in 2001 and 2012. The species was not found on the weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	36
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	36
2012	Unburned (n=9)	

Figure 1. Occurrence of *Lepidium perfoliatum* in one vegetation plot in 2001 and 2012.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Malcolmia africana* (L.) W.T. Aiton -- African Mustard**

Synonyms And Similar Species

Designations

None

Distribution

Few vegetation plots across the center of the study area in 2001 (Figure 1)

Table 1. Occurrence of *Malcolmia africana* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Malcolmia africana</i> (annual)	Burned	5	15.63%				
	Unburned						
	Both	5	11.63%				

Table 2. Occurrence of *Malcolmia africana* on weed transects in each year.

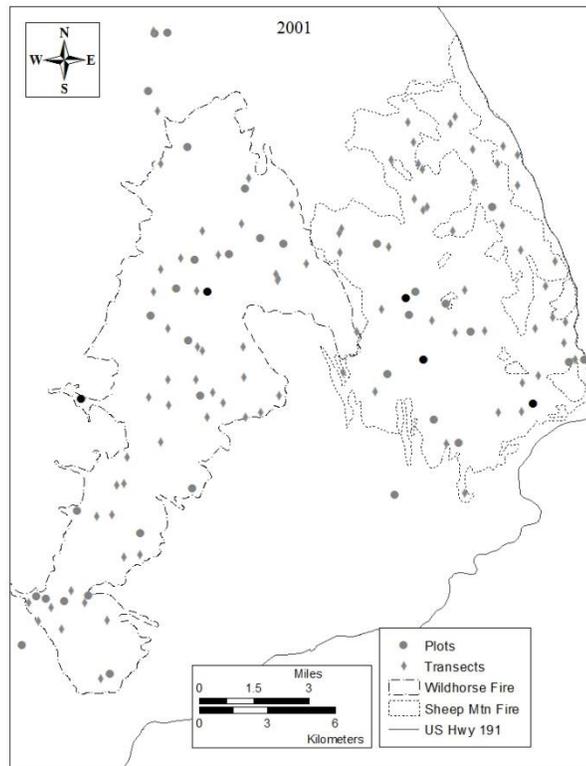
The species was not recorded on the weed transects.

Table 3. Individual vegetation plots with *Malcolmia africana*. The species was not recorded on the weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	01, 06, 13, 35, 36
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Malcolmia africana* in vegetation plots in 2001.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Poa pratensis* L. -- Kentucky Bluegrass**

Synonyms And Similar Species

Designations

None

Distribution

Several vegetation plots in 2001, central Sage Cr. Basin Fire area and Wildhorse Basin Fire area (Figure 1)

Table 1. Occurrence of *Poa pratensis* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Poa pratensis</i> (perennial)	Burned	4	12.50%				
	Unburned	1	9.09%				
	Both	5	11.63%				

Table 2. Occurrence of *Poa pratensis* on weed transects in each year.

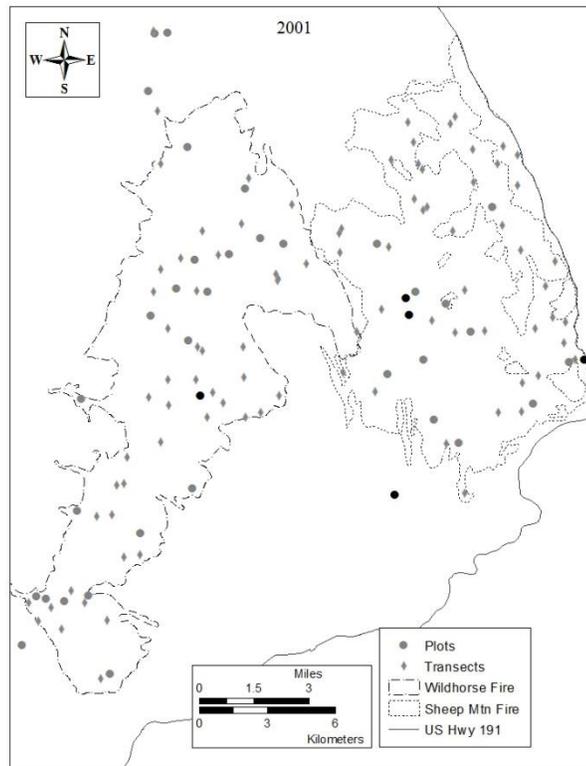
The species was not recorded on the weed transects.

Table 3. Individual vegetation plots with *Poa pratensis* in each year. The species was not recorded on the weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	04, 12, 13, 25
2001	Unburned (n=11)	31
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Poa pratensis* in vegetation plots in 2001.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Polygonum aviculare* L. -- Prostrate Knotweed**

Synonyms And Similar Species

Designations

None

Distribution

Single vegetation plot in southern Sage Cr. Basin Fire area (Figure 1)

Table 1. Occurrence of *Polygonum aviculare* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Polygonum aviculare</i> (annual)	Burned	1	3.13%				
	Unburned						
	Both	1	2.33%				

Table 2. Occurrence of *Polygonum aviculare* on weed transects in each year.

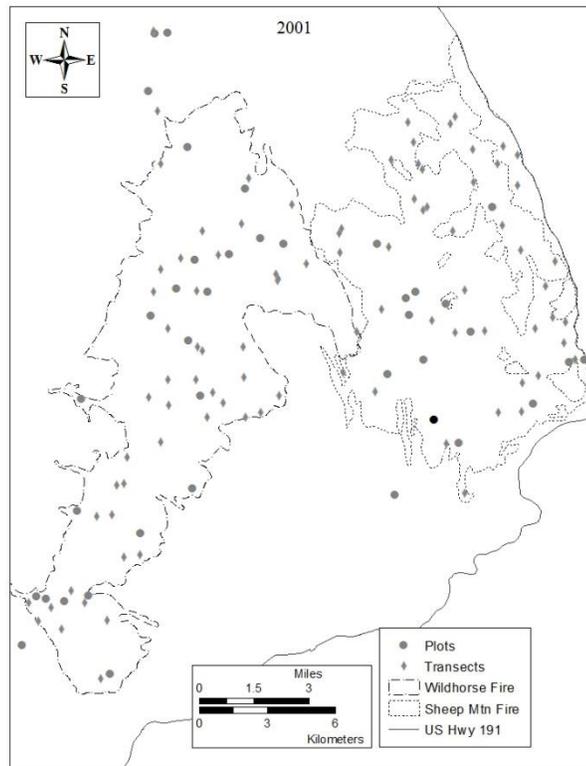
The species was not recorded on the weed transects.

Table 3. Individual vegetation plots with *Polygonum aviculare* in 2001. The species was not recorded on the weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	29
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Polygonum aviculare* in a single vegetation plot in 2001.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Salsola tragus* L. -- Prickly Russian Thistle**

Synonyms And Similar Species

Salsola australis R. Br., *Salsola kali* L. ssp. *tragus* (L.) Celak.

Designations

None

Distribution

Few vegetation plots in northern and southern ends of Wildhorse Basin Fire area (Figure 1)

Table 1. Occurrence of *Salsola tragus* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Salsola tragus</i> (annual)	Burned			4	12.50%	1	3.13%
	Unburned						
	Both			4	9.52%	1	2.44%

Table 2. Occurrence of *Salsola tragus* on weed transects in each year.

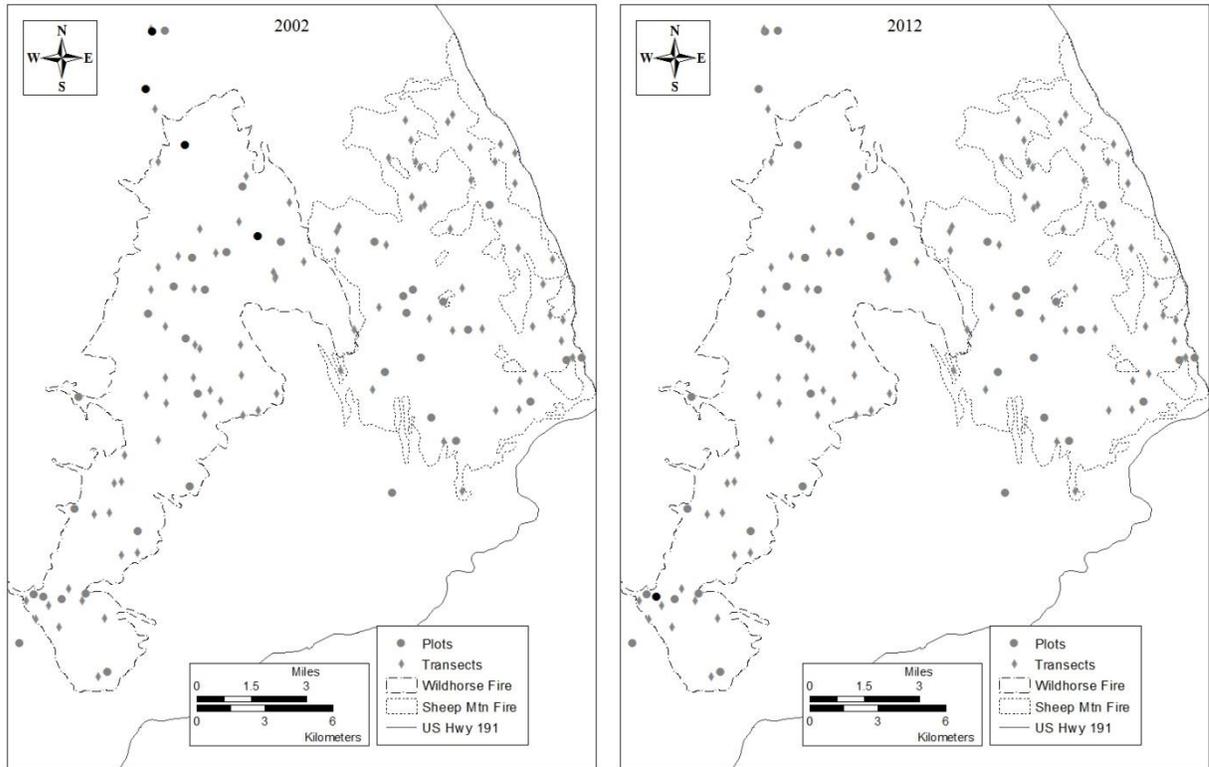
The species was not recorded on weed transects.

Table 3. Individual vegetation plots with *Salsola tragus* in each year. The species was not recorded on the weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	
2001	Unburned (n=11)	
2002	Burned (n=32)	16, 20, 26, 28
2002	Unburned (n=10)	
2012	Burned (n=32)	40
2012	Unburned (n=9)	
Weed Transects (prefix = "WHW")		

Figure 1. Occurrence of *Salsola tragus* in vegetation plots in 2002 and 2012.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Sonchus arvensis* L. -- Field Sowthistle, Perennial Sowthistle**

Synonyms And Similar Species

This taxon very likely includes both *S. arvensis* and *S arvensis* L. ssp. *uliginosus* (M. Bieb.) Nyman (moist sowthistle), which Dorn (2002) treats as a separate species -- *S. uliginosus* Bieb.

Designations

Designated Noxious Weed in Wyoming

Distribution

Weed transects in the central part of the study area (Figure 1)

Table 1. Occurrence of *Sonchus arvensis* in vegetation sampling plots in each year.
The species was not recorded in vegetation plots.

Table 2. Occurrence of *Sonchus arvensis* on weed transects in each year.

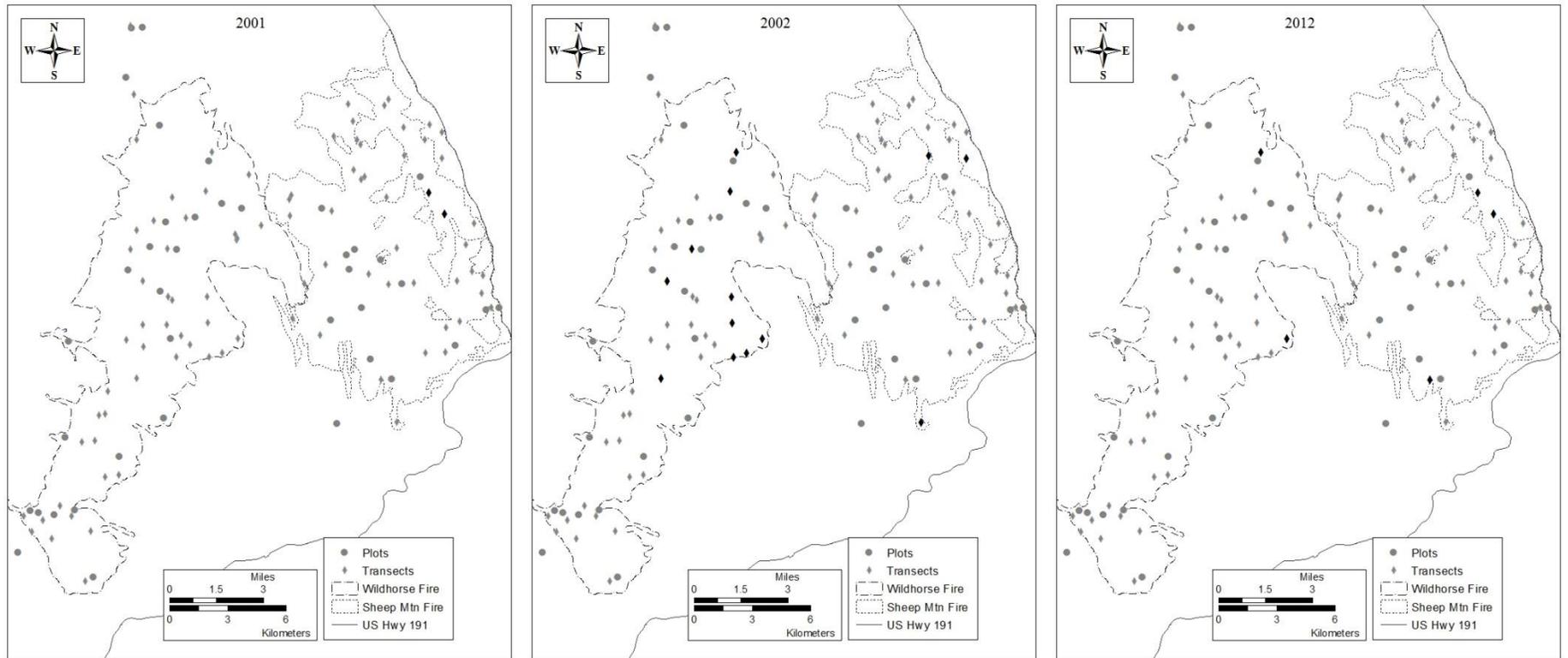
Species	Transect Type	2001			2002			2012		
		# trans	% trans	% quad / trans	# trans	% trans	% quad / trans	# trans	% trans	% quad / trans
<i>Sonchus arvensis</i> (perennial)	Burned	-	-	-	13	18.6	3.7	3	4.3	0.3
	Unburned	2	9.5	8.4	-	-	-	2	9.5	3.0
	All	2	2.2	1.9	13	14.3	2.8	5	5.6	2.1

Table 3. Individual weed transects with *Sonchus arvensis* in each year. The species was not recorded in vegetation plots.

Weed Transects (prefix = "WHW")		
2001	Burned (n=70)	
2001	Unburned (n=21)	10, 11
2002	Burned (n=70)	06, 07, 08, 09, 13, 15, 23, 30, 37, 74, 75, 91, 93
2002	Unburned (n=21)	
2012	Burned (n=69)	06, 14, 37
2012	Unburned (n=21)	10, 11

Figure 1. Occurrence of *Sonchus arvensis* on weed transects in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Taraxacum* spp. -- Dandelion**

Synonyms And Similar Species

Includes two species of introduced perennial dandelions, *Taraxacum officinale* F.H. Wigg. (*T. officinale* Weber in Dorn 2001), common dandelion; and *Taraxacum laevigatum* (Willd.) DC, rock dandelion.

Designations

None

Distribution

In vegetation plots distributed sparsely throughout study area (Figure 1)

Table 1. Occurrence of *Taraxacum* spp. in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Taraxacum laevigatum</i> (perennial)	Burned	1	3.13%				
	Unburned						
	Both	1	2.33%				
<i>Taraxacum officinale</i> * (perennial)	Burned	6	18.75%	4	12.50%	3	9.38%
	Unburned						
	Both	6	13.95%	4	9.52%	3	7.32%

Table 2. Occurrence of *Taraxacum* spp. on weed transects in each year.

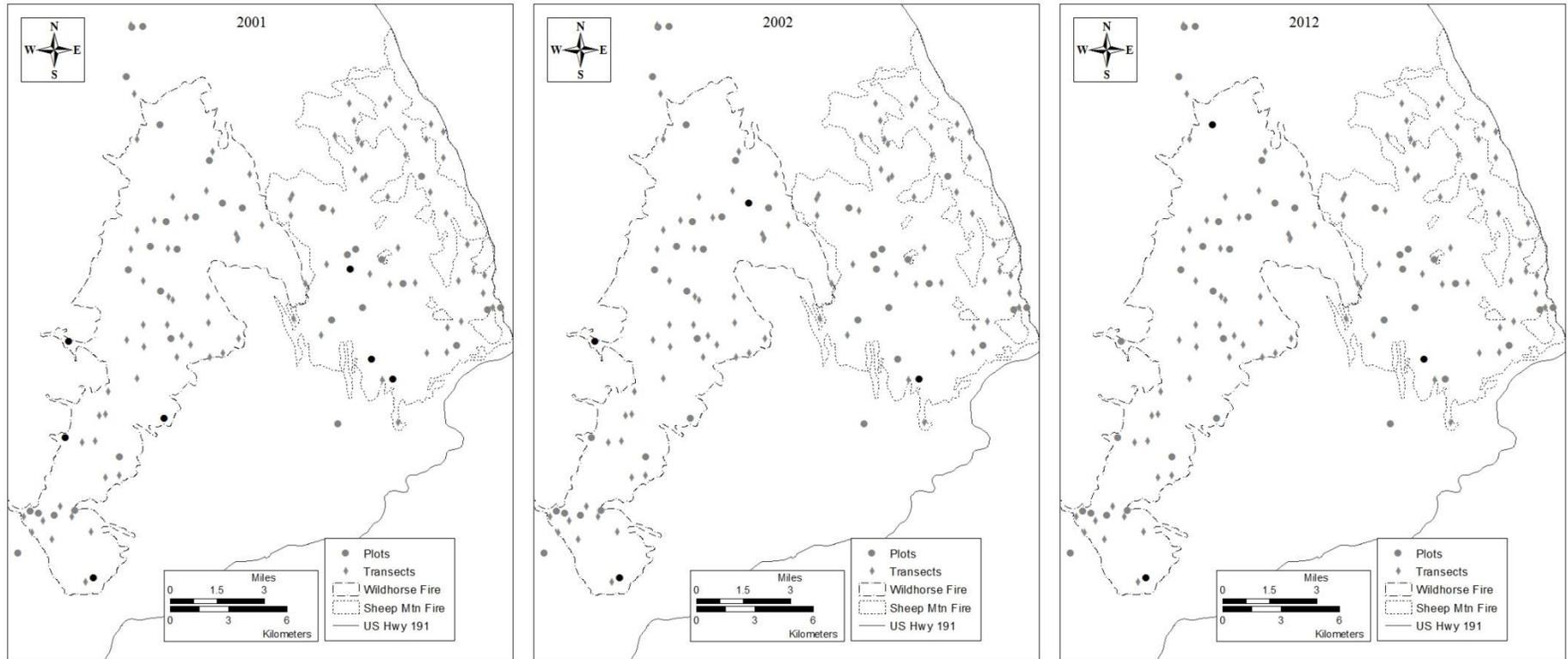
The species were not recorded on weed transect.

Table 3. Individual vegetation plots with *Taraxacum* spp. in each year. The species were not recorded on weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	08, 12, 23, 29, 30, 36, 37 (<i>T. laevigatum</i>),
2001	Unburned (n=11)	
2002	Burned (n=32)	16, 23, 30, 36
2002	Unburned (n=10)	
2012	Burned (n=32)	20, 23, 29
2012	Unburned (n=9)	

Figure 1. Occurrence of *Taraxacum* spp. in vegetation plots in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Thlaspi arvense* L. -- Field Pennycress**

Synonyms And Similar Species

Designations

None

Distribution

Central Sheep Creek Basin Fire area and southern tip of Wildhorse Basin Fire area (Figure 1)

Table 1. Occurrence of *Thlaspi arvense* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Thlaspi arvense</i> (annual)	Burned	5	15.63%				
	Unburned						
	Both	5	11.63%				

Table 2. Occurrence of *Thlaspi arvense* on weed transects in each year.

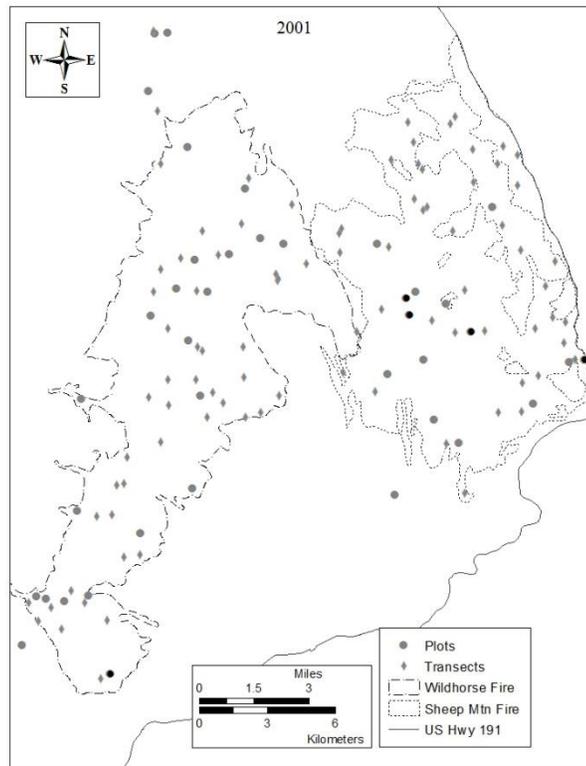
The species was not recorded on the weed transects.

Table 3. Individual vegetation plots with *Thlaspi arvense* in each year. The species was not recorded on weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	02, 04, 12, 13, 23
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Thlaspi arvense* in vegetation plots in 2001.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.



***Tragopogon dubius* Scop. -- Yellow Salsify**

Synonyms And Similar Species

Designations

None

Distribution

Vegetation plots throughout the study area (Figure 1)

Table 1. Occurrence of *Tragopogon dubius* in vegetation sampling plots in each year.

Species	Plot Type	2001		2002		2012	
		# plots	% plots	# plots	% plots	# plots	% plots
<i>Tragopogon dubius</i> * (annual)	Burned	10	31.25%	3	9.38%	12	37.50%
	Unburned	3	27.27%				
	Both	13	30.23%	3	7.14%	12	29.27%

Table 2. Occurrence of *Tragopogon dubius* on weed transects in each year.

This species was not recorded on the weed transects

Table 3. Individual vegetation plots with *Tragopogon dubius* in each year. The species was not recorded on weed transects.

Vegetation Plots (prefix = "WH")		
2001	Burned (n=32)	
2001	Unburned (n=11)	
2002	Burned (n=32)	
2002	Unburned (n=10)	
2012	Burned (n=32)	
2012	Unburned (n=9)	

Figure 1. Occurrence of *Tragopogon dubius* in vegetation plots in each year.

Black symbols indicate plots and transects with the species. Gray symbols indicate plots and transects where the species was not recorded.

