

First Year Community Analysis for Prescribed Fire Sites

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by

Eric Petterson
WP Natural Resource Consulting, Inc.

OVERALL COMMUNITY DESCRIPTIONS: HEIL RANCH AND WALKER RANCH

The plant communities at the Walker Ranch and Heil Ranch are low elevation open Ponderosa pine/grassland community. Historically, the area experienced frequent fires from lightning, and during the late 1800's, mining and railroad operations created frequent human-caused fires. Cool season grasses, and some warm-season grasses, with infrequent ponderosa pine and Douglas fir, dominated the community during this time. During the 1900's, fire suppression effectively curtailed most fires, and allowed tree seedlings to survive due to the lack of fire. Ponderosa and Douglas fir have greatly expanded their cover in the area, with most trees being around 80-100 years old. Juniper (*Juniperus scopulorum*) are also common in the area, which because its lack of fire tolerance, shows that the area now experiences infrequent fires. Because of the increasing litter generated by ponderosa pine and Douglas fir, decreased cover in grasses and forbs is apparent, and litter makes up a large component of these systems.

HEIL RANCH:

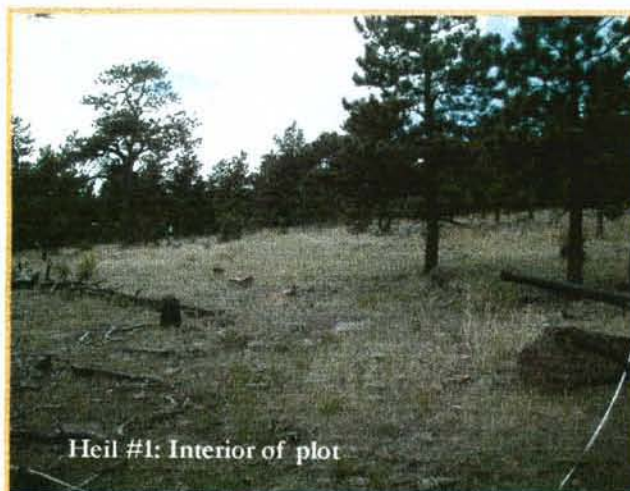
Three Modified-Whittaker vegetation plots were installed on the Heil Ranch property on July 10, 2000. Fuels data was collected at that time as well as photographs and GPS locations. The following is the fuels summary from the data collected on those plots.



FUELS DATA:

Plot placement on the Heil and Walker Ranches was done in order to capture some of the different stand structures found within the burn area. Open ponderosa, dense stands of ponderosa and meadows with some ponderosa were represented. The down/dead fuels did not vary much between plots- by far the greatest effect on fire behavior will be from live fuels and fine fuels such as grass. The following is tons/acre estimates generated from representative photo series compared to Heil Ranch and Walker Ranch plot photos:

Heil Plot #1:

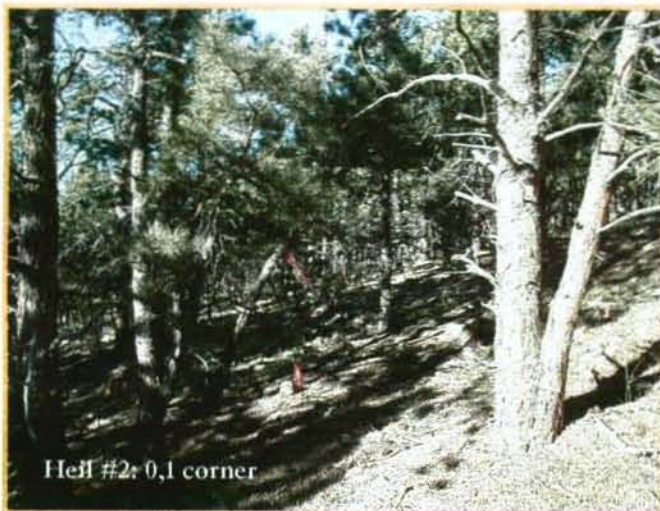


Plot	Size Class	Tons/Acre
Heil 1	0-.25"	.2
	.25"-1"	.7
	1"-3"	.7
	3"-9"	2.2
	9.1"-20"	1

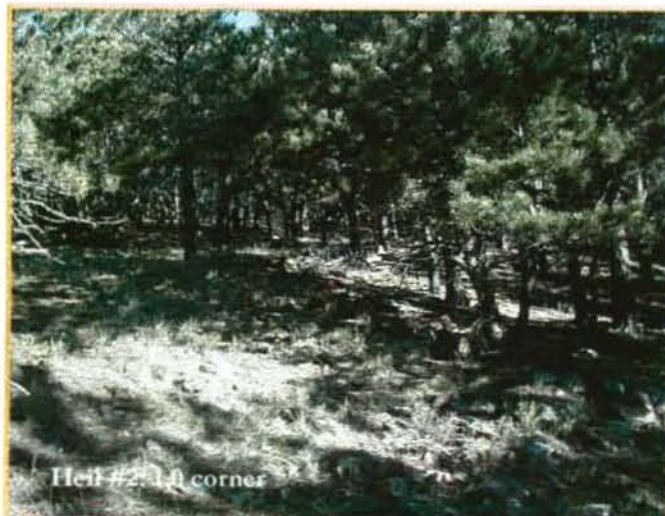


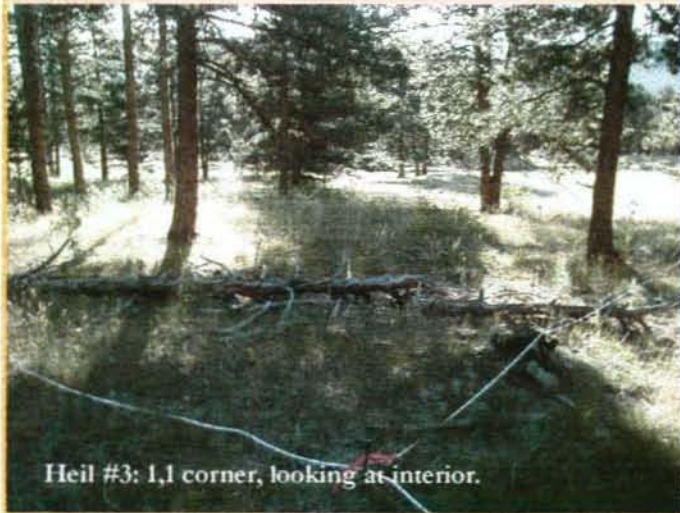
Heil Plot #2: This Plot was placed in an area of younger age class ponderosa pine, and a section of the plot has a small (1/4 acre) stand of doghair ponderosa regen. Small stands of doghair regen are found throughout the Heil property.

Plot	Size Class	Tons/Acre
Heil 2	0-25"	.4
	25"-1'	1.4
	1'-3'	1.5
	3'-9'	1.2
	9.1'-20'	.2



In these dense stands of doghair, they are usually not fully engulfed in fire, unless live fuel moistures are very low, or aggressive firing (mass firing) is done within and around the stand.

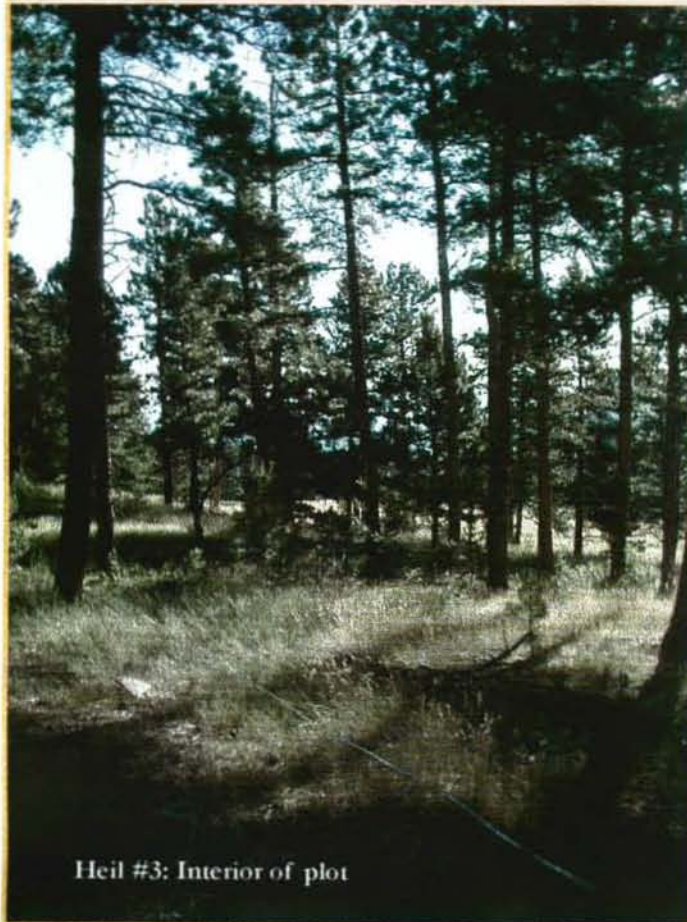




Heil Plot #3

This plot is at the edge of a relatively large meadow, with larger diameter ponderosa pine scattered around the edges. Fine fuels (grass) have high connectivity and should carry a fire very well through this area.

Plot	Size Class	Tons/Acre
Heil 3	0-.25"	.1
	.25'-1"	.4
	1'-3"	.7
	3'-9"	1.7
	9.1'-20"	1.8



WALKER RANCH

Three Modified Whittaker plots were installed on the Walker Ranch Rx fire area on July 11, 2000. All three of the plots were burned in the Eldorado fire in September 2000. An additional plot that was installed by Claire DeLeo in previous years was re-read in August 2000. To our knowledge, this last plot was not burned in the Eldorado fire. Because BCPOS already had plots named Walker 1, and Walker 2, our new plots start at Walker 3.



Walker Plot #3

The Walker Ranch plots were in a much more homogenous fuel type, with slight variations on the open ponderosa pine community. Walker plots start at #3 to continue the same numbering sequence already in place for BCPOS plots.

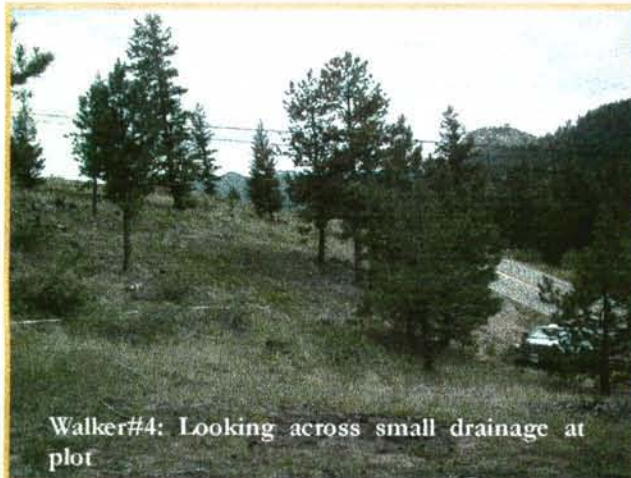
Plot	Size Class	Tons/Acre
Walker3	0-.25"	.2
	.25"-1"	.4
	1"-3"	.5
	3"-9"	.8
	9.1"-20"	.5

Walker Plot #4

Walker Plot #4 showed signs of recent thinning, therefore there was slightly higher amounts of fuels than in other plots, as we know, this plot burned in the Eldorado Fire in September 2000. The fire did not burn under high severity conditions through this area, primarily due to thinning operations recently completed.

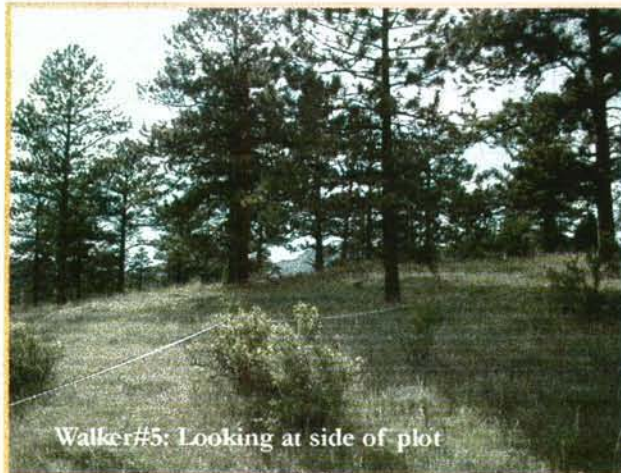


Walker#4: 0,0 corner

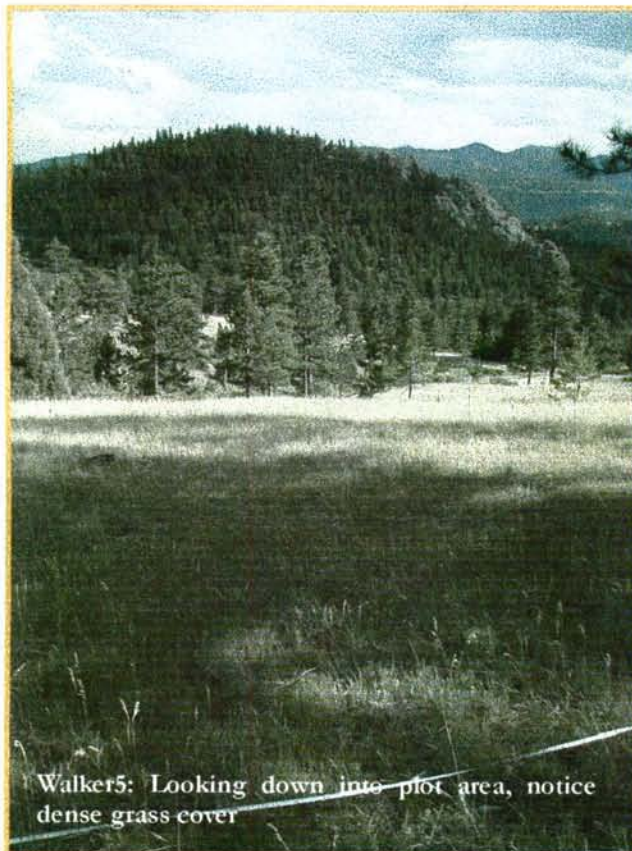


Walker#4: Looking across small drainage at plot

Plot	Size Class	Tons/Acre
Walker4	0-.25"	.5
	.25"-1"	1.2
	1"-3"	.8
	3"-9"	.7
	9.1"-20"	.0



Walker#5: Looking at side of plot

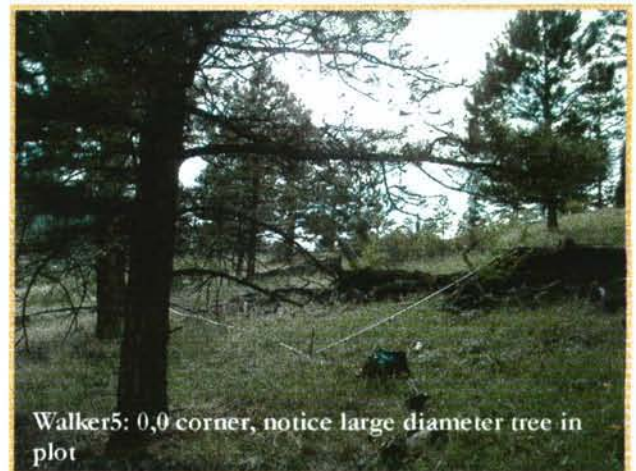


Walker5: Looking down into plot area, notice dense grass cover

Walker Plot #5

Plot #5 was the most different of the Walker plots due to the high grass cover over much of the plot. The plot was placed in an area with open meadows with high grass cover in order to capture this aspect of the Walker Rx fire area. This area burned in the Eldorado fire as well. There was one large diameter tree down in the plot. Large diameter material can greatly skew fuel loading estimation as it takes only one tree in your sample area to greatly increase tonnage per acre.

Plot	Size Class	Tons/Acre
Walker5	0-.25"	.4
	.25"-1"	1
	1"-3"	.4
	3"-9"	.3
	9.1"-20"	1



Walker5: 0,0 corner, notice large diameter tree in plot

MODIFIED WHITTAKER PLOT DATA

The following pages contain the data generated from the installed Modified Whittaker plots on the Heil Ranch and the Walker Ranch.

Number of Native Species (in 1 m ² subplots)	43 (26)	4	6	7	8	6	6	10	6	8	8	15	16	19	37	Number of Native Species
Total % Cover of Native Species*	43.61	9.5	32.5	49.5	34.5	39.5	39.5	47	32	80	82.5	N/A				Native Spp % Cover
Number of Introduced Species (in 1 m ² subplots)	5 (3)	0	1	1	0	1	1	1	2	0	0	3	3	3	4	# of Exotic Spp
Total % Cover of Introduced Species*	2	0	4	10	0	0.5	0.5	0.5	4.5	0	0	N/A				Exotic Spp % Cover
Number of Species with < 1 % Average Cover	20	3	1	2	1	2	2	3	3	3	3	N/A				# of Spp < 1% Cover
Number of Species Found Only in One Subplot	14	0	1	1	0	0	0	0	0	0	0	1	2	0	9	# of Spp only in 1 subplot
Number of Unknown Species	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	# of Unknown Spp
Total Number of Species (in 1 m ² subplots)	91 (32)	5	7	9	9	7	7	11	8	9	8	18	19	23	91	Total # of Spp

Date: 7.10.00
Recorder: EP/MW
Collector: MW
Site: Heil #2
File Name:
GPS:

Start Time:	End Time:	Number of Species									5 most dominant species (in % AVG cover)				
		% AVG Cover	Native	Introduced	Total	Species	% Avg cover	Freq.	Native? (Y=Native, N=Introduced)						
		< 1 %	8	1	9	<i>Pinus ponderosa</i>	29.30	10	Y						
		1-5 %	1	0	1	<i>Carex geophila</i>	2.45	12	Y						
		6-25 %	0	0	0	<i>Geranium caespitosum</i>	0.35	7	Y						
		26-75 %	1	0	1	<i>Artemisia ludoviciana</i>	0.30	7	Y						
		> 75 %	0	0	0	<i>Tradescantia occidentalis</i>	0.20	1	Y						
		occurred only in A, B, C, or K	20	0	22										

Comments	N1	type	Species	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	A	B	C	K	% AVG cover	Freq.	Species
		n	rock	4	4	38	60	60	50	45	35	30	45							Rock
		n	soil	0	0	0	2	0	2	0	0	0	0							Bare Soil
N1: Y=Native, N=Exotic, U=Unknown		n	litter	73	98	70	35	95	97	60	85	72	70							Litter
F,G: F(Forb), G(Grass, Grass like), S(Shrub, Subshrub) T(Tree)		n	duff	0	0	0	0	0	0	0	0	0	0							Duff (thick litter)
A,P: A(Annual), P(Perennial), E(Evergreen)		n	poop	0	0	0	0	1	0	0	0	0	0							Manure
		n	wood	0	0	0	0	0	0	0	0	0	0							Wood
		n	water	0	0	0	0	0	0	0	0	0	0							Standing Water
		n	1000hr	32	0	0	0	0	0	0	0	0	0	0	0	0	0		1	#N/A
	Y	app	allcer	0	0	0	0	0	0	0	0	0.5	0	1	1	1	1	0.05	4	<i>Allium cernuum</i>
	Y	app	andger	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Andropogon gerardii</i>
	Y	app	artfri	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.00	2	<i>Artemisia frigida</i>
	Y	app	artlud	0.5	0.5	0	0.5	0	0	0	1	0.5	0	1	1	1	1	0.30	7	<i>Artemisia ludoviciana</i>
	Y	app	bougua	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.00	1	<i>Bouteloua gracilis</i>
	N	app	brotec	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Bromus tectorum</i>
	Y	app	cargeo	2	2	0	7	1	1	4	2	5	0.5	1	1	1	1	2.45	12	<i>Carex geophila</i>
	Y	app	castin	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.00	2	<i>Castilleja linearifolia</i>
	Y	app	cysfra	0	0	0	0.5	0	0	0	0	0	0	1	0	1	0	0.05	3	<i>Cystopteris fragilis</i>
	Y	app	diclil	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Dicanthelium linearifolium</i>
	Y	app	erifa	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.00	2	<i>Eriogonum flavum</i>
	Y	app	eriumb	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Eriogonum umbellatum</i>
	Y	app	eryasp	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Erysimum asperum</i>
	Y	app	gercae	0	0.5	0	1	1	0	0	1	0	0	1	1	1	1	0.35	7	<i>Geranium caespitosum</i>
	Y	app	hartra	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Harbortia villosa</i>
	Y	app	hetvil	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.00	3	<i>Heterotheca villosa var villosa</i>
	Y	app	koemac	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.00	1	<i>Koeleria macrantha</i>
	Y	app	muhmon	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.00	2	<i>Muhlenbergia montana</i>
	Y	app	opupol	0	0.5	0	0	0	3	0	0	0	0	1	0	1	1	0.35	4	<i>Opuntia polyacantha</i>
	Y	app	agrvmi	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1	<i>Agropyron smithii</i>
	Y	app	predsim	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Pediocactus simpsonii</i>
	Y	app	phahas	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Phacelia hastata</i>
	Y	app	pinpon	0	40	0	15	95	40	15	35	25	28	1	0	1	1	29.30	10	<i>Pinus ponderosa</i>
	Y	app	poasec	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Poa secunda</i>
	Y	app	rhutri	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.00	1	<i>Rhus trilobata</i>
	Y	app	ribcer	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.00	1	<i>Ribes cereum</i>
	Y	app	schsco	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.00	2	<i>Schizachyrium scoparium</i>
	Y	app	scubri	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.01	1	<i>Scutellaria brittonii</i>
	Y	app	sticom	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Stipa comata</i>
	N	app	tradub	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.05	0	<i>Tragopogon dubius</i>
	Y	app	traocc	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.20	1	<i>Tradescantia occidentalis</i>
	U	app	ukforb	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Unknown Forb</i>
	Y	app	yuegla	0	0.5	0	0	0	0	0	0	0	0	1	1	1	1	0.05	4	<i>Yucca glauca</i>
<SUMMARY>			SITE TOTAL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	A	B	C	K			SITE TOTAL
Total % Cover* (including soil, litter, ...etc)			149.50	112.5	146	108	121	255	193	124	158	133.5	144	N/A				Total % Cover		
Total % Cover of All Species*			36.2	35.5	44	0	24	97	44	19	38	31.5	29	N/A				Total Spp % Cover		
Number of Native Species (in 1 m ² subplots)			30 (10)	3	6	0	5	3	3	2	3	4	3	16	11	12	27			Number of Native Species
Total % Cover of Native Species*			33.105	3.5	44	0	24	97	44	19	38	31.5	29	N/A				Native Spp % Cover		
Number of Introduced Species (in 1 m ² subplots)			2 (1)	0	0	0	0	0	0	0	0	0	0	0	0	0	2			# of Exotic Spp
Total % Cover of Introduced Species*			0.05	0	0	0	0	0	0	0	0	0	0	N/A				Exotic Spp % Cover		
Number of Species with < 1 % Average Cover			9	1	4	0	2	0	0	0	1	2	N/A				# of Spp < 1% Cover			
Number of Species Found Only in One Subplot			18	0	0	0	0	0	0	0	0	0	0	3	2	1	12			# of Spp only in 1 subplot
Number of Unknown Species			1	0	0	0	0	0	0	0	0	0	0	0	0	0	1			# of Unknown Spp
Total Number of Species (in 1 m ² subplots)			91 (11)	4	6	0	5	3	3	2	3	4	3	16	11	12	91			Total # of Spp

Date: 7,11,00

Recorder: EP/MW

Collector: MW

Site: Heil #3

File Name:

GPS:

Number of Species

5 most dominant species (in % AVG cover)

Start Time:

End Time:

% AVG Cover

Native

Introduced

Total

Species

% Avg cover

Freq.

Native? (Y=Native, N=introduced)

occured only in A,B,C, or K

Table with columns: Comments, N/I, type, Species, P1-P10, A-K, % AVG cover, Freq., Species. Lists various species like rock, soil, litter, duff, poop, wood, water, achlan, agrsmi, ambpsi, andgdger, artfri, artlud, bougra, broine, brotec, carbre, cargeo, carnut, casin, danint, dicoli, erifla, gercae, gutsar, hetvil, junint, medsat, muhmon, opupol, oxastr, panvir, phahas, pinpon, poacom, poapra, poldou, pruame, psoent, rhutri, ribcer, sticom, tradub, ukfo2a, ukfor2, vertha.

SUMMARY table with columns: <SUMMARY>, SITE TOTAL, P1-P10, A-K, SITE TOTAL. Rows include: Total % Cover* (including soil, litter, ...etc), Total % Cover of All Species*, Number of Native Species (in 1 m² subplots), Total % Cover of Native Species*, Number of Introduced Species (in 1 m² subplots), Total % Cover of Introduced Species*, Number of Species with <1 % Average Cover, Number of Species Found Only in One Subplot, Number of Unknown Species, Total Number of Species (in 1 m² subplots).

	Y	spp	psemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	<i>Pseudotsuga menziesii</i>
	#N/A	spp	pteala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	#N/A
	Y	spp	pulpat	0.5	0	0	0	0	1	0.5	0	0	0	0	0	0	1	0	0	0.03	4	<i>Pubatilla patens</i>
	Y	spp	ribcer	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.00	1	<i>Ribes cereum</i>
	Y	spp	scubri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00	0	<i>Scutellaria brittonii</i>
	Y	spp	solmis	0	0	0	2	2	2	0	0	0	1	1	1	1	1	1	0	0.70	7	<i>Solidago missouriensis</i>
	Y	spp	stivir	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0.00	2	<i>Stipa viridula</i>
	N	spp	vertha	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	0	0.10	4	<i>Verbascum thapsus</i>
<SUMMARY>			SITE TOTAL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	A	B	C	K				SITE TOTAL	
Total % Cover* (including soil, litter, ...etc)			130.70	90	65	158	90.5	111	121	132	200.5	158	181	N/A							Total % Cover	
Total % Cover of All Species*			60.9	83	49	52	25.5	34	19	97	93.5	67	89	N/A							Total Spp % Cover	
Number of Native Species (in 1 m ² subplots)			54 (36)	11	14	7	8	9	14	7	9	8	7	13	17	31	45					Number of Native Species
Total % Cover of Native Species*			45.3758	64	48.5	52	25.5	33	19	97	93.5	67	89	N/A							Native Spp % Cover	
Number of Introduced Species (in 1 m ² subplots)			4 (3)	1	0	0	0	1	0	0	0	0	0	2	2	2	4					# of Exotic Spp
Total % Cover of Introduced Species*			1.75	15	0	0	0	1	0	0	0	0	0	N/A							Exotic Spp % Cover	
Number of Species with <1 % Average Cover			36	6	6	2	1	2	6	2	3	4	0	N/A							# of Spp < 1% Cover	
Number of Species Found Only in One Subplot			21	1	3	0	0	0	1	0	0	0	0	1	1	1	13					# of Spp only in 1 subplot
Number of Unknown Species			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					# of Unknown Spp
Total Number of Species (in 1 m ² subplots)			91 (42)	15	15	7	8	10	14	7	9	8	7	16	20	34	91					Total # of Spp

*Total % cover values for the site total column were determined by computing the average of ten 1-m² subplots

Y	app	pacfen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	<i>Packera fendleri</i>
Y	app	agrsmi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	<i>Agropyron smithii</i>
Y	app	penvir	0	1	0.5	0	0	0	0	0	0	0.5	0	1	1	0	1	0.20	5	<i>Penstemon virens</i>	
Y	app	pinpon	10	0	0	95	45	70	0	0	18	40	1	0	1	1	1	27.80	8	<i>Pinus ponderosa</i>	
Y	app	poagla	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	<i>Poa glaucifolia</i>	
N	app	poapra	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.00	1	<i>Poa pratensis</i>	
Y	app	pothip	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00	1	<i>Potentilla hippiana</i>	
Y	app	psemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00	0	<i>Pseudotsuga menziesii</i>	
Y	app	pulpat	1	0	1	0	0	0	0	0	0	0	1	1	1	1	1	0.20	5	<i>Pulsatilla patens</i>	
Y	app	ribcer	35	0	0	0	0	0	0	0	0	0.5	0	0	1	1	1	3.55	3	<i>Ribes cereum</i>	
Y	app	scubri	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	1	0.05	1	<i>Scutellaria brittonii</i>	
Y	app	sotmis	0	0	0	0	0	0.5	0	0.5	0	0	1	1	1	1	1	0.10	5	<i>Solidago missouriensis</i>	
<SUMMARY>			SITE TOTAL													SITE TOTAL					
Total % Cover* (including soil, litter, ...etc)			126.85	153	108	103.5	180.5	154.5	184	71.5	71.5	113	129	N/A				Total % Cover			
Total % Cover of All Species*			46.25	58	16	13.5	110.5	59.5	104	12.5	16.5	26	46	N/A				Total Spp % Cover			
Number of Native Species (in 1 m ² subplots)			57 (30)	10	11	8	4	4	12	9	9	7	6	14	19	20	49	Number of Native Species			
Total % Cover of Native Species*			44.075	58	14.5	12.5	101.5	59.5	104	11.5	11.5	26	46	N/A				Native Spp % Cover			
Number of Introduced Species (in 1 m ² subplots)			3 (0)	0	0	0	0	0	0	0	0	0	0	0	0	1	3	# of Exotic Spp			
Total % Cover of Introduced Species*			0	0	0	0	0	0	0	0	0	0	0	N/A				Exotic Spp % Cover			
Number of Species with < 1 % Average Cover			29	2	6	3	1	1	8	3	3	2	4	N/A				# of Spp < 1% Cover			
Number of Species Found Only in One Subplot			27	0	1	0	0	0	1	1	0	0	0	2	1	2	19	# of Spp only in 1 subplot			
Number of Unknown Species			1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	# of Unknown Spp			
Total Number of Species (in 1 m ² subplots)			91 (34)	10	13	9	5	4	12	10	11	7	6	14	21	22	91	Total # of Spp			

*Total % cover values for the site total column were determined by computing the average of ten 1-m² subplots

	Y	app	ribeer	0	0	0	9	0	0	0.5	0	85	0	1	0	1	1	9.45	5	<i>Ribes cereum</i>
	Y	app	scubri	0	0	0	0	0.5	0	0	0	0	0.5	0	0	1	1	0.10	3	<i>Scutellaria brittonii</i>
	Y	app	smiste	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.03	1	<i>Smilacina stellata</i>
	Y	app	solmis	0	0	0	0	0.5	1	0	0	0	0	1	1	1	1	0.15	5	<i>Solidago missouriensis</i>
	Y	app	stivir	0	0	0	0	0	0	0	0	0.5	0	0	0	0	1	0.05	1	<i>Stipa viridula</i>
	U	app	ukmust	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.00	2	<i>Unknown mustard</i>
	N	app	vertha	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.00	1	<i>Verbascum thapsus</i>
<SUMMARY>			SITE TOTAL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	A	B	C	K		SITE TOTAL	
Total % Cover* (including soil, litter, ...etc)			100.70	120	89	67.5	105	75	58	116	169	146.5	61	N/A					Total % Cover	
Total % Cover of All Species*			42.2	27	9	17.5	70	31	37	13	103	91.5	23	N/A					Total Spp % Cover	
Number of Native Species (in 1 m ² subplots)			52 (35)	10	4	8	6	12	8	13	5	5	10	17	19	43	52		Number of Native Species	
Total % Cover of Native Species*			32.9308	27	9	17.5	69	31	36.5	13	103	88.5	23	N/A					Native Spp % Cover	
Number of Introduced Species (in 1 m ² subplots)			4 (2)	0	0	0	1	0	0	0	0	1	0	2	0	2	4		# of Exotic Spp	
Total % Cover of Introduced Species*			0.2	0	0	0	1	0	0	0	0	1	0	N/A					Exotic Spp % Cover	
Number of Species with < 1 % Average Cover			35	2	2	5	0	4	6	8	2	3	4	N/A					# of Spp < 1% Cover	
Number of Species Found Only in One Subplot			23	0	0	0	0	0	2	0	1	1	0	2	4	13	0		# of Spp only in 1 subplot	
Number of Unknown Species			1	0	0	0	0	0	0	0	0	0	0	1	0	1	1		# of Unknown Spp	
Total Number of Species (in 1 m ² subplots)			91 (39)	10	4	8	7	12	9	13	5	7	10	22	20	49	91		Total # of Spp	

	Y	app	ativir	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.00	2	<i>Stipa viridula</i>
	N	app	tradub	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00	1	<i>Trigopogon dubius</i>
	N	app	vertha	7	0	0	0	0	3	0	0	0	0	1	0	0	1	1.00	3	<i>Verbasum thapsus</i>
<SUMMARY>			SITE TOTAL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	A	B	C	K		SITE TOTAL	
Total % Cover* (including soil, litter, ...etc)			125.20	130.5	213.5	84	148.5	177.5	96	112.5	115	93.5	81	N/A					Total % Cover	
Total % Cover of All Species*			56.6	52.5	119.5	69	70.5	82.5	27	30.5	57	23.5	34	N/A					Total Spp % Cover	
Number of Native Species (in 1 m ² subplots)			47 (33)	4	17	6	8	10	14	13	9	7	16	12	11	20	38		Number of Native Species	
Total % Cover of Native Species*			18.0808	45.5	112	69	63.5	82.5	23.5	30	57	21.5	34	N/A					Native Spp % Cover	
Number of Introduced Species (in 1 m ² subplots)			3 (1)	1	1	0	1	0	2	1	0	1	0	2	1	2	2		# of Exotic Spp	
Total % Cover of Introduced Species*			1	7	7	0	7	0	3.5	0.5	0	2	0	N/A					Exotic Spp % Cover	
Number of Species with < 1 % Average Cover			33	1	9	0	3	3	10	5	2	1	6	N/A					# of Spp < 1% Cover	
Number of Species Found Only in One Subplot			14	0	1	0	0	0	0	0	1	0	1	2	0	2	7		# of Spp only in 1 subplot	
Number of Unknown Species			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		# of Unknown Spp	
Total Number of Species (in 1 m ² subplots)			91 (37)	5	19	6	9	10	16	14	9	8	16	14	12	22	91		Total # of Spp	