

Supplementary Material

Expanding our understanding of nitrogen dynamics after fire: how severe fire and aridity reduce ecosystem nitrogen retention

Maxwell Kay Strain^A, Mary K. Brady^A and Erin J. Hanan^{A,}*

^ADepartment of Natural Resources and Environmental Science, University of Nevada, Reno, Reno 89501, USA

*Correspondence to: Email: ehanan@unr.edu

Supplementary materials

Supplementary Figures

Fig. S1. dNBR burn severity map of our field site. The grey polygon represents the 2018 Range two fire. Coloured dots represent upslope sites that burned severely (red), moderately (yellow), or were unburned (green). Each site is associated with three transects in which we measured plant and soil characteristics, as well as measurements of N cycling and uptake.

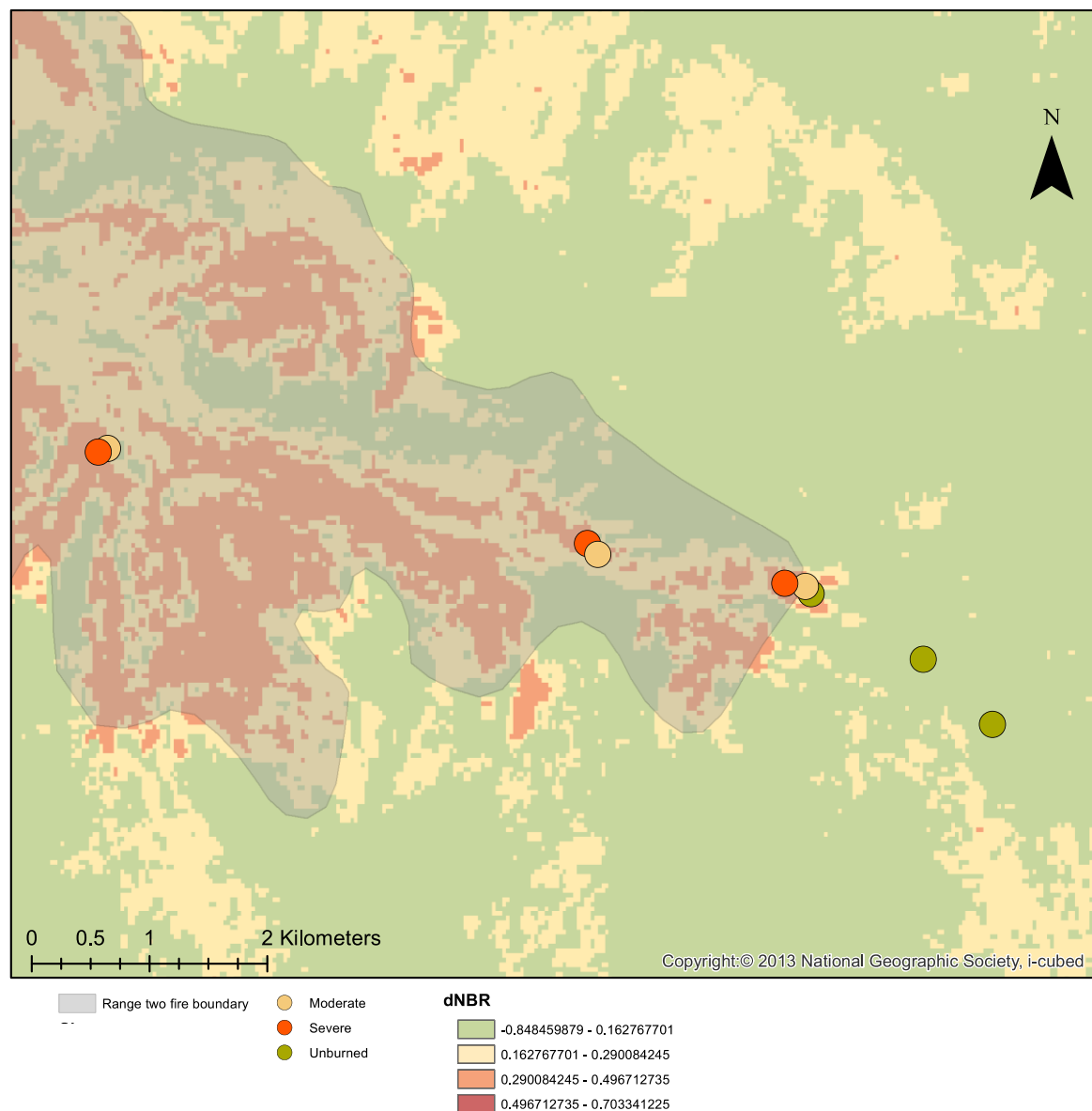


Fig. S2. Plant biomass (top) and plant N (bottom) by severity and year. Box plots showing median, 25th percentile and 75th percentile values for plant biomass and plant N at time of growing season (summer) sampling for 2019 (left, n = 18) and 2020 (right, n = 27). Color indicates wet/dry based on time averaged soil moisture for each severity (unburned/moderate/severe).

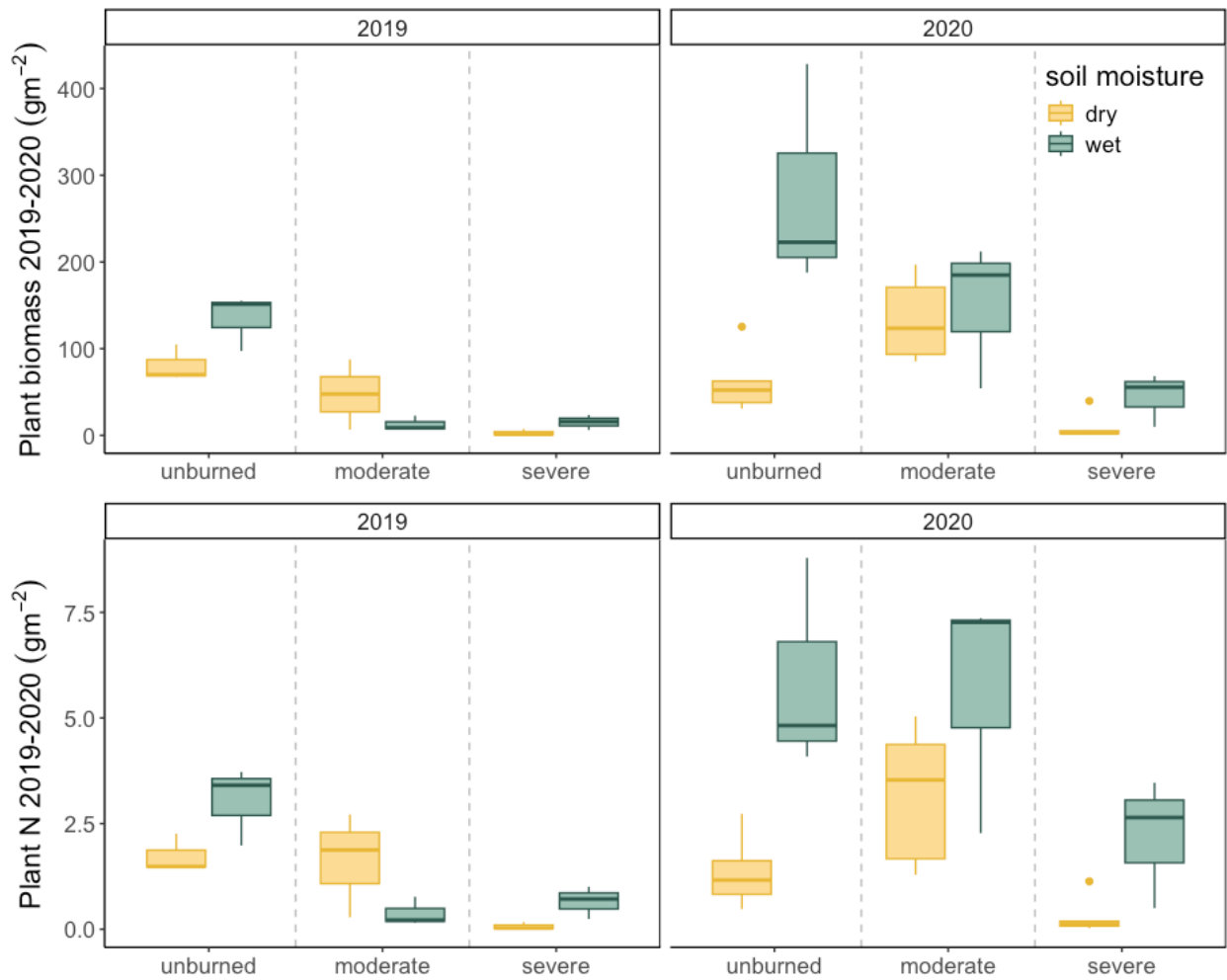


Fig. S3. Species diversity varied significantly by severity, but not water content or year. Average count of species per m^2 in each transect is represented by box plots. Box plots showing median, 25th percentile and 75th percentile values for number of species per meter for each water content condition based on time-averaged soil moisture (wet/dry) and burn severity (unburned/moderate/severe) for all transects (n=27).

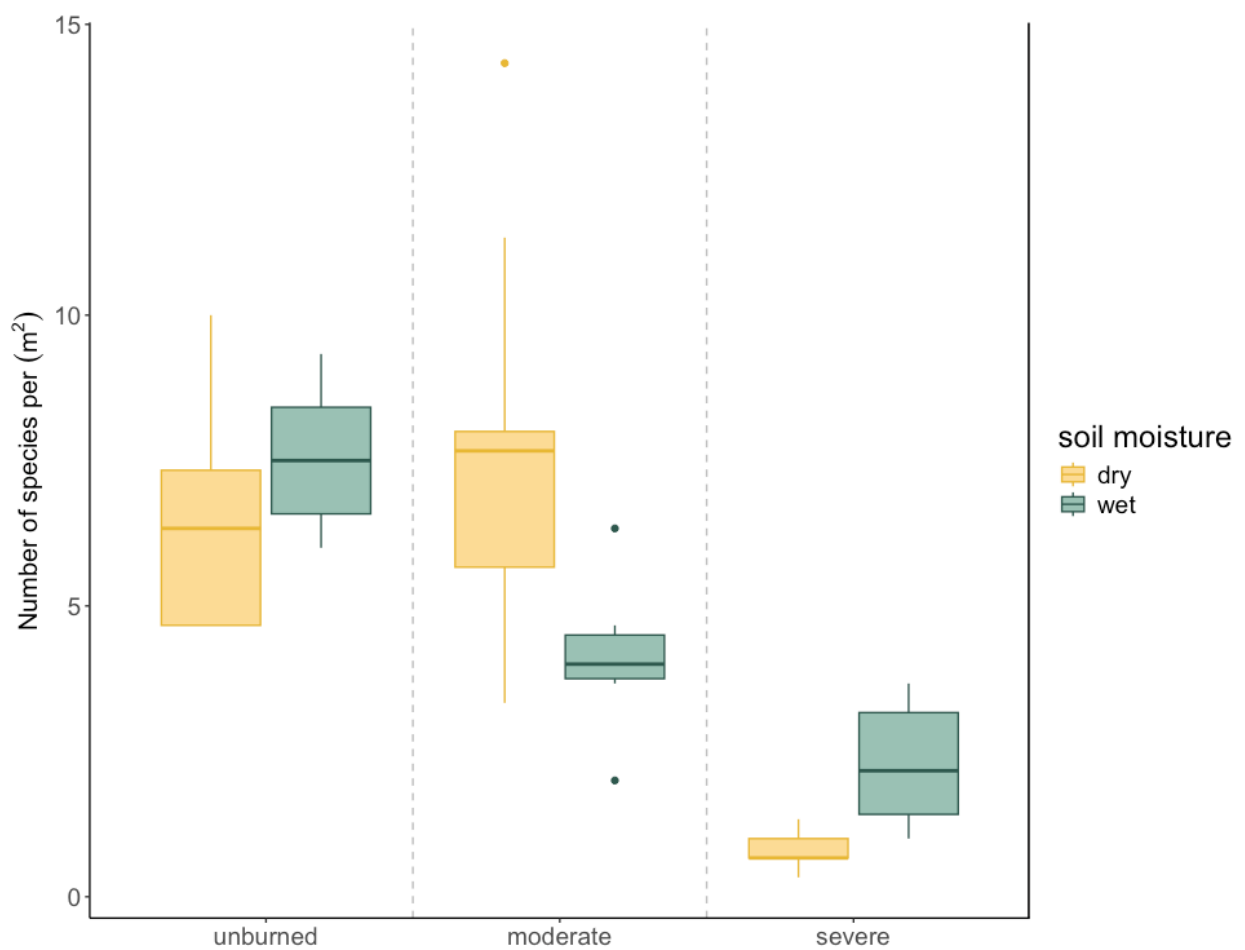


Fig. S4. Percent plant cover per m² by severity and year. Box plots showing median, 25th percentile and 75th percentile values for plant cover by functional group at time of growing season (summer) sampling for 2019 (left, n = 18) and 2020 (right, n = 27). Color indicates functional group (grasses/forbs/shrubs) for each severity (unburned/moderate/severe).

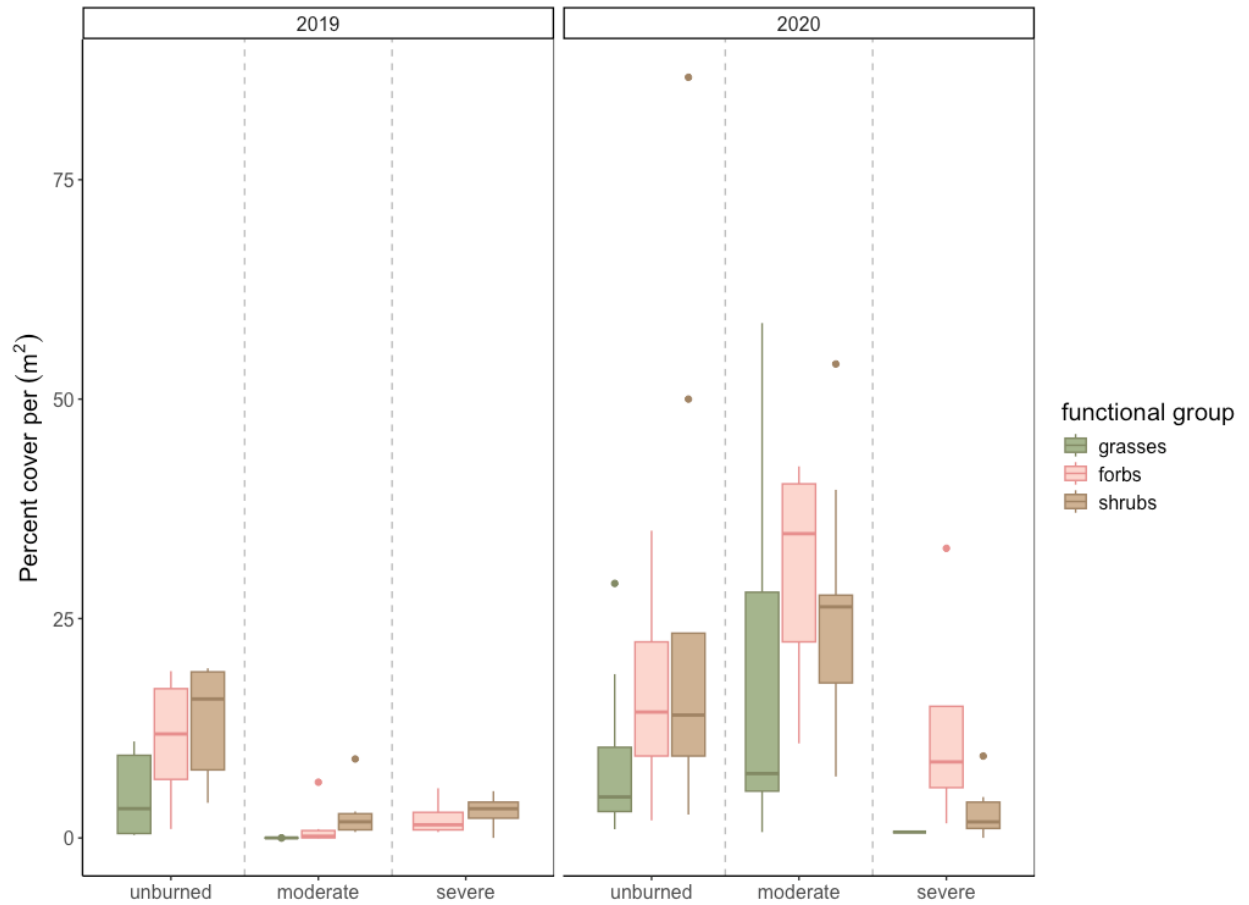


Fig. S5. Percent plant cover per m² by wet and dry sites as well as severity. Box plots showing median, 25th percentile and 75th percentile values for plant cover by functional group at time of growing season (summer) sampling for 2019 (left, n = 18) and 2020 (right, n = 27). The top panel shows plant cover for transects in wet sites and the bottom panel shows plant cover for transects in dry sites. Wet and dry sites are determined by whether time-averaged soil moisture is above or below the median. Color indicates functional group (grasses/forbs/shrubs) for each severity (unburned/moderate/severe).

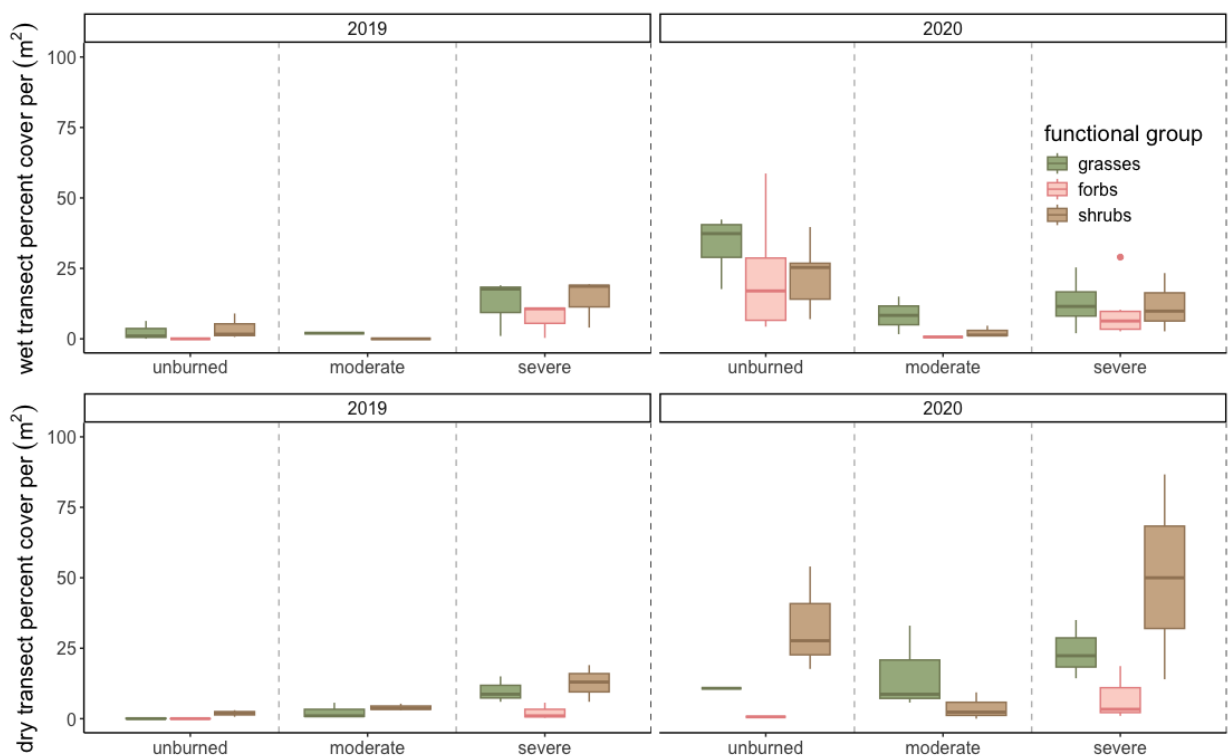


Table S1. Summary statistics for soil inorganic N and gravimetric water content by year and severity. Values reported are the mean of three transects for each site, with standard error (n=18 in 2019, n=27 in 2020).

		Severity		
		Unburned	Moderate	Severe
2019	NH ₄ ⁺ (µg per gram dry soil)	23.7 ± 11.8	150 ± 37.3	253 ± 48.7
	NO ₃ ⁻ (µg per gram dry soil)	21.8 ± 4.14	132 ± 48.3	206 ± 47.5
	Gravimetric water content (July)	0.054 ± 0.007	0.098 ± 0.01	0.145 ± 0.034
	Gravimetric water content (October)	0.534 ± 0.043	0.578 ± 0.062	0.620 ± 0.086
	Inorganic N mineralization (µg per gram dry soil per day)	-1.37 ± 1.3	-2.43 ± 24.7	-21.8 ± 17.2
2020	NH ₄ ⁺ (µg per gram dry soil)	10.4 ± 1.90	25.6 ± 29.3	39.6 ± 30.5
	NO ₃ ⁻ (µg per gram dry soil)	5.82 ± 1.60	80.9 ± 8.12	137 ± 11.7
	Gravimetric water content (July)	0.024 ± 0.007	0.035 ± 0.011	0.05 ± 0.015
	Inorganic N mineralization (µg per gram dry soil per day)	0.831 ± 2.70	0.939 ± 7.24	-2.21 ± 2.93

Table S2. A list of plants present in transects by year, with functional group designation, total biomass in the transect, average percent aboveground N and C in the transect, and total percent cover.

Year	Site	Transect	Species	Latin name	Functional group	Total biomass (g)	Average percent aboveground N	Average percent aboveground C	Total cover
2019	UW1	1	ACLE8	<i>Achnatherum lemmonii</i>	G	9.47	2.239029933	35.51427493	4.01
2019	UW1	1	ARLO6	<i>Arnica longifolia</i>	F	101.7	0.992017439	45.67602605	6
2019	UW1	1	EUEL2	<i>Eucephalus elegans</i>	F	3.16	3.689140397	54.89812628	0.02
2019	UW1	1	HAPA	<i>Hackelia patens</i>	F	9.51	1.761644674	39.28493396	0.01
2019	UW1	1	KEGA	<i>Kelloggia galioides</i>	F	11.24	3.581188323	49.66091931	11
2019	UW1	1	LECI4	<i>Elymus cinereus</i>	G	38.04	2.318096556	46.35000045	13.01
2019	UW1	1	LENUN	<i>Leptosiphon nuttallii</i>	F	13.74	1.915498206	46.48631604	6.01
2019	UW1	1	MARE11	<i>Berberis repens</i>	S	49.39	2.750369804	38.43719141	13
2019	UW1	1	PRVI	<i>Prunus virginiana</i>	S	4.13	3.446282559	45.79065345	1
2019	UW1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	206.6	2.463997	52.76318485	25.01
2019	UW1	1	UF04	<i>unkn forb 4</i>	F	1.81	0.685245408	47.15800645	0.01
2019	UW1	1	UF14	<i>unkn forb 14</i>	F	11.25	4.142460186	56.71135599	3
2019	UW1	2	ACLE8	<i>Achnatherum lemmonii</i>	G	N/A	1.718109101	51.55016212	0.02
2019	UW1	2	ARLO6	<i>Arnica longifolia</i>	F	117.23	1.840436539	48.48787628	34.01
2019	UW1	2	ERHEH3	<i>Eriogonum heracleoides</i>	F	14.91	2.863705118	41.12707782	0.01
2019	UW1	2	EUEL2	<i>Eucephalus elegans</i>	F	20	2.851841339	49.99921574	11
2019	UW1	2	LECI4	<i>Elymus cinereus</i>	G	34.05	1.771902604	44.69415115	3
2019	UW1	2	LENUN	<i>Leptosiphon nuttallii</i>	F	1.35	2.043898309	43.43683964	0.01
2019	UW1	2	MARE11	<i>Berberis repens</i>	S	20.45	3.245185062	63.15576399	0.02
2019	UW1	2	PERY	<i>Penstemon rydbergii</i>	F	2.3	1.038265426	54.44539452	0.01
2019	UW1	2	PRVI	<i>Prunus virginiana</i>	S	83.23	1.826389659	51.21451052	6
2019	UW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	171.01	2.6773568	54.11241324	51.01
2019	UW1	3	ACLE8	<i>Achnatherum lemmonii</i>	G	4.59	1.797952908	48.43057007	0.03
2019	UW1	3	ARLO6	<i>Arnica longifolia</i>	F	79.8	2.43834619	40.93993103	11
2019	UW1	3	ERHEH3	<i>Eriogonum heracleoides</i>	F	37.57	2.428316429	46.38707454	2.01
2019	UW1	3	EUEL2	<i>Eucephalus elegans</i>	F	11.86	2.960422881	50.01659289	1
2019	UW1	3	LECI4	<i>Elymus cinereus</i>	G	5.6	1.570590346	44.12647705	1
2019	UW1	3	LENUN	<i>Leptosiphon nuttallii</i>	F	8.66	1.2783513	45.85769738	4
2019	UW1	3	MARE11	<i>Berberis repens</i>	S	11.12	2.366386217	55.29095145	1.01
2019	UW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	133.04	0.444696154	54.51640598	17
2019	MW1	1	CEVE	<i>Ceanothus velutinus</i>	S	3.92	2.549576537	43.7106936	0.02
2019	MW1	1	MACAL	<i>Dieteria canescens</i>	F	2.84	1.384209806	45.91801711	0.01

2019	MW1	1	MARE11	<i>Berberis repens</i>	S	2.73	2.141147225	57.06997926	0.01
2019	MW1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F	3.36	2.797036859	48.37152207	1.02
2019	MW1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	7.67	0.846343468	51.39775042	2
2019	MW1	1	UF02	<i>unkn forb 2</i>	F	N/A	2.81730744	43.6848072	
2019	MW1	1	UG01	<i>unkn grass 1</i>	G	0.4	2.953276854	43.79799171	0.02
2019	MW1	2	AGUR	<i>Agastache urticifolia</i>	F	1.38	2.417461114	46.98865862	0.01
2019	MW1	2	CEVE	<i>Ceanothus velutinus</i>	S	2.29	3.71044477	41.74591924	0.02
2019	MW1	2	MARE11	<i>Berberis repens</i>	S	5.49	2.734899934	46.95859086	0.02
2019	MW1	2	PRVI	<i>Prunus virginiana</i>	S	8.26	1.962474273	44.07249413	3
2019	MW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	6.83	2.820453137	47.83263569	3
2019	MW1	2	UF03	<i>unkn forb 3</i>	F	0.81	1.065451335	45.89735127	0.01
2019	MW1	2	UG01	<i>unkn grass 1</i>	G	0.44	2.517018635	42.572363	0.01
2019	MW1	3	AMAL2	<i>Amelanchier alnifolia</i>	S	11.99	3.496937809	51.97787892	5.01
2019	MW1	3	CEVE	<i>Ceanothus velutinus</i>	S	7.35	3.135513831	41.04246895	0.03
2019	MW1	3	MACAL	<i>Dieteria canescens</i>	F	2.72	1.595501429	49.47296403	0.01
2019	MW1	3	MARE11	<i>Berberis repens</i>	S	5.59	4.962090339	48.7013809	2.01
2019	MW1	3	PRVI	<i>Prunus virginiana</i>	S	4.23	3.387286173	47.36556434	1
2019	MW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	3.73	1.130151456	50.49002488	1
2019	MW1	3	UG01	<i>unkn grass 1</i>	G	0.72	3.244837307	43.72775881	0.03
2019	SW1	1	COAU2	<i>Corydalis aurea</i>	F	6.25	6.801464107	52.11058101	3
2019	SW1	1	MARA7	<i>Maianthemum racemosum</i>	F	0.19	3.5294659	45.38637671	0.01
2019	SW1	1	PRVI	<i>Prunus virginiana</i>	S	35.44	3.648528516	44.57761903	16
2019	SW1	2	PRVI	<i>Prunus virginiana</i>	S	18.05	3.266464062	47.3273728	9
2019	SW1	2	UF01	<i>unkn forb 1</i>	F	0.92	6.079546382	41.847306	2
2019	SW1	3	COAU2	<i>Corydalis aurea</i>	F	0.25	5.978003919	47.5793563	17
2019	SW1	3	MARE11	<i>Berberis repens</i>	S	0.3	3.628616318	42.72223484	0
2019	SW1	3	PRVI	<i>Prunus virginiana</i>	S	26.98	4.279585607	47.2618049	11.01
2019	MD1	1	BRTE	<i>Bromus tectorum</i>	G	2.08	0.934029596	46.59508528	0.01
2019	MD1	1	CHAL7	<i>Chenopodium sp.</i>	F	1.48	3.424920993	40.87543162	0.03
2019	MD1	1	DEIN5	<i>Descurainia incana</i>	F	0.33	4.036786505	41.44294556	0.02
2019	MD1	1	LECI4	<i>Elymus cinereus</i>	G	1.36	4.619724999	48.68857511	0.01
2019	MD1	1	MARE11	<i>Berberis repens</i>	S	4.52	4.286975488	51.42510902	2
2019	MD1	1	MAST4	<i>Maianthemum racemosum</i>	F	0.75	3.054718137	41.67870856	0.01
2019	MD1	1	MIBR5	<i>Erythranthe breweri</i>	F	10.47	1.298117362	43.56841684	0.03
2019	MD1	1	PHHA	<i>Phacelia hastata</i>	F	1.06	0.854892391	29.02191699	0.03
2019	MD1	1	PRVI	<i>Prunus virginiana</i>	S	64.17	5.79468443	43.78583853	24
2019	MD1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.6	3.713192566	44.48184502	0.02

2019	MD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	5.36	2.070422107	55.57718934	1
2019	MD1	2	CHAL7	<i>Chenopodium sp.</i>	F	1.78	2.078636757	39.66838469	1.01
2019	MD1	2	DEIN5	<i>Descurainia incana</i>	F	1.2	4.805596159	48.9575744	0.02
2019	MD1	2	LIRU4	<i>Lithospermum ruderales</i>	F	7.03	3.668857847	43.97013655	13
2019	MD1	2	MARA7	<i>Maianthemum racemosum</i>	F	2.04	4.432019816	45.16479516	1
2019	MD1	2	MARE11	<i>Berberis repens</i>	S	1.69	4.906597018	48.26461705	0.02
2019	MD1	2	MIBR5	<i>Erythranthe breweri</i>	F	1.43	2.251552884	47.25750077	0.01
2019	MD1	2	PHHA	<i>Phacelia hastata</i>	F	2.2	2.062004486	43.62000165	1
2019	MD1	2	PRVI	<i>Prunus virginiana</i>	S	6.77	4.684986599	47.68249258	2
2019	MD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.23	4.299393968	46.11068845	0.02
2019	MD1	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F	3.99	3.468762612	39.00611706	1
2019	MD1	2	UF17	<i>unkn forb 17</i>	F	1.78	4.520984743	52.74412506	2
2019	MD1	3	CHAL7	<i>Chenopodium sp.</i>	F	2.83	6.369019535	41.47500638	1
2019	MD1	3	DEIN5	<i>Descurainia incana</i>	F	0.43	5.63591544	41.42320763	1
2019	MD1	3	MARE11	<i>Berberis repens</i>	S	4.17	5.303266061	46.74699936	1
2019	MD1	3	MIBR5	<i>Erythranthe breweri</i>	F	1.43	1.208207636	40.52855561	0.01
2019	MD1	3	PHHA	<i>Phacelia hastata</i>	F	0.32	3.263473714	38.42531766	0.01
2019	MD1	3	PRVI	<i>Prunus virginiana</i>	S	0.65	4.914317697	45.05783817	1
2019	MD1	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.58	4.163695424	50.21994713	1.02
2019	MD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	9.35	2.592505641	46.91508193	3
2019	SD1	1	EPOB	<i>Epilobium obcordatum</i>	F	21.46	2.596651182	40.26504082	6
2019	SD1	1	MIBR5	<i>Erythranthe breweri</i>	F	0.82	1.721515345	38.26320357	0.01
2019	SD1	2	UF02	<i>unkn forb 2</i>	F	N/A	2.103276701	48.32095525	
2019	SD1	2	UF13	<i>unkn forb 13</i>	F	1.61	1.75159598	43.74160123	0.01
2019	SD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	2.65	1.730026044	47.57594252	0.01
2019	UD1	1	BASA3	<i>Balsamorhiza sagittata</i>	F	27.07	2.108522243	34.65562964	57
2019	UD1	1	HAPA	<i>Hackelia patens</i>	F	9.78	1.954985277	41.42469638	0.02
2019	UD1	1	LECI4	<i>Elymus cinereus</i>	G	10.83	3.00654695	42.46884779	32
2019	UD1	1	MARE11	<i>Berberis repens</i>	S	3.67	2.889421443	49.23136138	1.01
2019	UD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	11.63	1.048795485	34.28761917	11
2019	UD1	2	BASA3	<i>Balsamorhiza sagittata</i>	F	21.22	2.577607864	45.60792855	32
2019	UD1	2	HAPA	<i>Hackelia patens</i>	F	19.71	2.674453299	44.95945659	4.01
2019	UD1	2	LECI4	<i>Elymus cinereus</i>	G	14.84	3.135558292	56.01034032	33
2019	UD1	2	MARE11	<i>Berberis repens</i>	S	5.15	1.400164339	49.96254265	1
2019	UD1	2	PENX	<i>Penstemon speciosus</i>	F	10.72	3.613621839	47.49562807	17
2019	UD1	2	PRVI	<i>Prunus virginiana</i>	S	25.03	1.513485908	50.50140917	20
2019	UD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.08	0.563709517	44.29464197	0.01

2019	UD1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	49.54	1.550716756	49.86774903	35
2019	UD1	3	ARTR	<i>Artemisia tridentata</i>	S	14.121	0.201129165	45.21981749	4
2019	UD1	3	BASA3	<i>Balsamorhiza sagittata</i>	F	10.52	2.50371229	42.51078361	2.01
2019	UD1	3	CICY	<i>Cirsium cymosum var. canovirens</i>	F	0.27	2.474994081	40.91273806	0.01
2019	UD1	3	HAPA	<i>Hackelia patens</i>	F	9.09	2.651888395	40.43584791	1.02
2019	UD1	3	LECI4	<i>Elymus cinereus</i>	G	3.93	2.639820771	49.16379407	1.01
2019	UD1	3	LENUN	<i>Leptosiphon nuttallii</i>	F	0.19	2.203305608	43.99776372	0.01
2019	UD1	3	MARE11	<i>Berberis repens</i>	S	20.14	0.852949232	52.37116054	7
2019	UD1	3	PRVI	<i>Prunus virginiana</i>	S	35.941	1.722254357	45.80862683	43
2019	UD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	22.02	2.502105657	46.46935347	4.01
2019	UD1	3	UF08	<i>unkn forb 8</i>	F	0.1	1.897713428	43.96666377	0.01
2020	UW1	1	ACLE8	<i>Achnatherum lemmonii</i>	G	32.14	1.910420121	46.48051359	36
2020	UW1	1	DEIN5	<i>Descurainia incana</i>	F	0.31	2.057752479	48.04800224	1.01
2020	UW1	1	DICA	<i>Dieteria canescens</i>	F	3.23	2.641308939	48.30047847	6
2020	UW1	1	ERHEH3	<i>Eriogonum heracleoides</i>	F	3.58	2.106245088	47.09389267	1
2020	UW1	1	HAPA	<i>Hackelia patens</i>	F	7.38	1.571682196	44.35812622	4
2020	UW1	1	LECI4	<i>Elymus cinereus</i>	G	20.05	1.695229753	41.05365757	20
2020	UW1	1	LENUN	<i>Leptosiphon nuttallii</i>	F	27.57	1.006216958	47.32478617	37
2020	UW1	1	LIRU4	<i>Lithospermum ruderale</i>	F	6.83	1.263332277	38.87670513	9
2020	UW1	1	MARE11	<i>Berberis repens</i>	S	2.46	1.959967664	38.66209226	4.01
2020	UW1	1	PRVI	<i>Prunus virginiana</i>	S	77.91	2.398995571	53.42334001	35
2020	UW1	1	SCAN4	<i>Scutellaria antirrhinoides</i>	F	13.55	2.508013448	48.85942094	9
2020	UW1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	1.57	0.246562271	51.54092897	3
2020	UW1	1	UF02	<i>unkn forb 2</i>	F	N/A	1.578322484	47.76785391	0.01
2020	UW1	2	ACLE8	<i>Achnatherum lemmonii</i>	G	2.9	3.750955143	43.01517945	3
2020	UW1	2	AMAL2	<i>Amelanchier alnifolia</i>	S	75.72	1.766212967	52.74505959	80
2020	UW1	2	ARLO6	<i>Arnica longifolia</i>	F	4.28	2.376889015	41.00726107	3
2020	UW1	2	CEVE	<i>Ceanothus velutinus</i>	S	56.66	0.829630405	23.76216989	93
2020	UW1	2	DEIN5	<i>Descurainia incana</i>	F	0.68	2.048678183	45.17163868	1
2020	UW1	2	DICA	<i>Dieteria canescens</i>	F	14.14	2.005363249	47.33490754	18
2020	UW1	2	LENUN	<i>Leptosiphon nuttallii</i>	F	9.67	2.518542322	42.72821051	20.01
2020	UW1	2	MARE11	<i>Berberis repens</i>	S	40.75	3.00359524	53.20068706	17
2020	UW1	2	MIBR5	<i>Erythranthe breweri</i>	F	1.71	1.044209409	48.50584559	1
2020	UW1	2	PRVI	<i>Prunus virginiana</i>	S	529.1	1.234717247	50.093537	24
2020	UW1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F	1.05	1.803387638	36.33418542	0.02
2020	UW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	38.76	1.47025289	50.46973275	46
2020	UW1	3	ACLE8	<i>Achnatherum lemmonii</i>	G	8.22	3.351337641	56.52899361	7

2020	UW1	3	ARLO6	<i>Arnica longifolia</i>	F	130.88	2.77542127	46.14626154	93
2020	UW1	3	CEVE	<i>Ceanothus velutinus</i>	S	48.84	1.368121684	47.76644618	38
2020	UW1	3	CHAL7	<i>Chenopodium sp.</i>	F	0.86	3.380769303	56.1693675	1.01
2020	UW1	3	DICA	<i>Dieteria canescens</i>	F	2.09	2.939487612	48.96543517	0.01
2020	UW1	3	ERHEH3	<i>Eriogonum heracleoides</i>	F	29.69	2.74290991	51.10825403	6
2020	UW1	3	GARA	<i>Gayophytum racemosum</i>	F	1.11	1.621485614	30.68494691	1
2020	UW1	3	HAPA	<i>Hackelia patens</i>	F	3.39	2.188503267	56.49356029	2
2020	UW1	3	LECI4	<i>Elymus cinereus</i>	G	19.02	2.70495068	33.88993511	3
2020	UW1	3	LENUN	<i>Leptosiphon nuttallii</i>	F	0.39	2.350308886	47.69717898	0.01
2020	UW1	3	MARE11	<i>Berberis repens</i>	S	17.9	3.436924429	71.84228002	11
2020	UW1	3	PRVI	<i>Prunus virginiana</i>	S	159.88	2.882919951	61.71921179	41
2020	UW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	138.49	1.863317757	68.36173187	60
2020	UW1	3	UF02	<i>unkn forb 2</i>	F	4.55	1.976015101	55.17808425	2
2020	SD2	1	MARE11	<i>Berberis repens</i>	S	8.4	7.179402903	53.37634795	3
2020	SD2	1	PRVI	<i>Prunus virginiana</i>	S	0.13	1.952740857	48.15188581	0.01
2020	SD2	2	MARE11	<i>Berberis repens</i>	S	1.09	2.686469977	54.67822118	1
2020	SD2	2	PRVI	<i>Prunus virginiana</i>	S	5.93	3.827505402	41.81341028	3
2020	SD2	3	MARE11	<i>Berberis repens</i>	S	15.53	3.675705563	62.36316073	14
2020	CG	1	ACLE8	<i>Achnatherum lemmonii</i>	G	20.37	1.01753545	47.66763774	8
2020	CG	1	ALDE	<i>Alyssum desertorum</i>	F	21.16	0.923571803	48.03091461	38.01
2020	CG	1	BASA3	<i>Balsamorhiza sagittata</i>	F	87.83	1.766945313	44.28353759	43
2020	CG	1	BRTE	<i>Bromus tectorum</i>	G	25.22	0.555085125	37.12662263	83
2020	CG	1	COUM	<i>Comandra umbellata</i>	F	2.67	2.061814305	34.78625285	2
2020	CG	1	CROT4	<i>Cryptantha torreyana</i>	F	24.2	2.155107288	39.95170676	37
2020	CG	1	ELTR7	<i>Elymus trachycaulus</i>	G	73.7	-0.213411724	49.89554578	85
2020	CG	1	LENUN	<i>Leptosiphon nuttallii</i>	F	0.19	1.253092512	42.57639948	1
2020	CG	1	MARE11	<i>Berberis repens</i>	S	7.88	3.684423511	50.15119265	7
2020	CG	1	PHHA	<i>Phacelia hastata</i>	F	4.99	2.115805038	41.83626927	6
2020	CG	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	29.4	1.290632805	36.92760339	25
2020	CG	2	ACLE8	<i>Achnatherum lemmonii</i>	G	14.81	0.359493948	46.11003129	9
2020	CG	2	ACLE9	<i>Achnatherum lettermanii</i>	G	1.37	0.759899616	45.65176974	2.01
2020	CG	2	ALDE	<i>Alyssum desertorum</i>	F	7.6	0.658481466	47.82059049	9.01
2020	CG	2	ARHO2	<i>Boechea holboellii</i>	F	0.63	2.441945192	46.8193414	1
2020	CG	2	BASA3	<i>Balsamorhiza sagittata</i>	F	181.98	1.342204071	43.36520318	76
2020	CG	2	CAPU	<i>Calamagrostis purpurascens</i>	G	2.64	0.80664204	46.79336118	2
2020	CG	2	COUM	<i>Comandra umbellata</i>	F	18.19	3.051758096	44.62935289	6
2020	CG	2	CROT4	<i>Cryptantha torreyana</i>	F	17.26	1.549764818	42.11751716	8.01

2020	CG	2	DEIN5	<i>Descurainia incana</i>	F	1.01	0.812263512	47.63275343	1
2020	CG	2	EPBR	<i>Epilobium brachycarpum</i>	F	0.26	1.142737264	45.90632995	1.01
2020	CG	2	HAPA	<i>Hackelia patens</i>	F	40.35	1.150528253	41.9663114	9
2020	CG	2	LECI4	<i>Elymus cinereus</i>	G	22.05	0.630553741	47.0193736	8
2020	CG	2	LENUN	<i>Leptosiphon nuttallii</i>	F	9.33	1.023751729	46.06533031	6
2020	CG	2	MARE11	<i>Berberis repens</i>	S	23.09	2.715515376	48.54927212	10
2020	CG	2	PERY	<i>Penstemon rydbergii</i>	F	2	1.453419628	39.82110488	4
2020	CG	2	PHHA	<i>Phacelia hastata</i>	F	0.09	-0.300784348	48.15054018	1
2020	CG	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F	N/A	0.744189744	58.24833198	N/A
2020	CG	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	10.78	0.737357165	50.74020999	11
2020	CG	2	UG04	<i>unkn grass 4</i>	G	0.27	0.931784087	44.52485691	1
2020	CG	3	ACLE8	<i>Achnatherum lemmonii</i>	G	41.12	0.842011223	47.98898336	18
2020	CG	3	ARHO2	<i>Boechera holboellii</i>	F	1.56	3.23153899	47.31122268	1
2020	CG	3	BASA3	<i>Balsamorhiza sagittata</i>	F	116.12	3.505036691	45.21277102	56
2020	CG	3	BRTE	<i>Bromus tectorum</i>	G	1.1	3.129427818	48.09872872	1.01
2020	CG	3	CELE3	<i>Cercocarpus ledifolius</i>	S	4.22	2.103421287	48.70633921	2.01
2020	CG	3	CHAL7	<i>Chenopodium sp.</i>	F	0.26	3.015425772	45.57022871	0.01
2020	CG	3	COUM	<i>Comandra umbellata</i>	F	8.55	3.491321178	47.76511036	5
2020	CG	3	CROT4	<i>Cryptantha torreyana</i>	F	14.4	1.528966295	43.50931674	6
2020	CG	3	DICA	<i>Dieteria canescens</i>	F	2.81	1.420328148	48.98377872	1.02
2020	CG	3	LECI4	<i>Elymus cinereus</i>	G	236.99	2.527272353	47.74240997	67
2020	CG	3	LEKI2	<i>Leucopoa kingii</i>	G	7.9	0.923707213	45.11195149	2
2020	CG	3	LENUN	<i>Leptosiphon nuttallii</i>	F	6.86	1.314364058	45.96760868	6
2020	CG	3	MARE11	<i>Berberis repens</i>	S	112.93	2.124132928	51.48330526	54
2020	CG	3	PERY	<i>Penstemon rydbergii</i>	F	12.93	1.606898949	44.99466656	6
2020	CG	3	SCAN4	<i>Scutellaria antirrhinoides</i>	F	N/A	1.683035007	42.19349433	N/A
2020	CG	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	29.4	2.306055658	51.03344165	25
2020	CG	3	UG15	<i>unkn grass 15</i>	G	N/A	1.581629059	46.69556683	N/A
2020	CG	3	VIPU4	<i>Viola purpurea</i>	F	0.04	1.880971777	49.40177028	0.01
2020	MW1	1	CELE3	<i>Cercocarpus ledifolius</i>	S	4.25	3.478156669	43.06906627	3
2020	MW1	1	CEVE	<i>Ceanothus velutinus</i>	S	44.68	5.30921389	67.77005838	20
2020	MW1	1	MARE11	<i>Berberis repens</i>	S	55.8	4.499962512	71.15401414	26
2020	MW1	1	PRVI	<i>Prunus virginiana</i>	S	61.48	2.999517844	49.68217498	34
2020	MW1	2	CELE3	<i>Cercocarpus ledifolius</i>	S	0.33	3.261832662	56.15429233	1
2020	MW1	2	CEVE	<i>Ceanothus velutinus</i>	S	3.97	3.64331145	69.69787238	4
2020	MW1	2	CHAN	<i>Chamerion angustifolium</i>	F	163.29	2.750701589	51.41260683	28
2020	MW1	2	DICA	<i>Dieteria canescens</i>	F	1	3.155127013	46.3881125	0.32

2020	MW1	2	MACAL	<i>Dieteria canescens</i>	F	13.44	1.036333179	21.37513883	4
2020	MW1	2	MARE11	<i>Berberis repens</i>	S	4.57	6.505040248	83.33652871	11
2020	MW1	2	PRVI	<i>Prunus virginiana</i>	S	128.25	3.23522999	47.69752646	141
2020	MW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	4.78	3.661038514	78.1564377	5
2020	MW1	2	UG11	<i>unkn grass 11</i>	G	3.54	3.460682404	59.69175397	2
2020	MW1	3	CELE3	<i>Cercocarpus ledifolius</i>	S	7.05	2.90384361	38.66804462	4
2020	MW1	3	CEVE	<i>Ceanothus velutinus</i>	S	11.91	6.435453006	75.21190274	4
2020	MW1	3	PRVI	<i>Prunus virginiana</i>	S	52.59	4.435233509	89.60933647	37
2020	MW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	9.41	3.23255021	72.36397614	8
2020	SW1	1	CHAN	<i>Chamerion angustifolium</i>	F	45.36	5.559863181	46.24555577	19
2020	SW1	1	COAU2	<i>Corydalis aurea</i>	F	80.04	4.628302118	45.01127252	7
2020	SW1	1	MARE11	<i>Berberis repens</i>	S	3.79	5.335312428	54.42598214	4
2020	SW1	1	PRVI	<i>Prunus virginiana</i>	S	67.68	3.048606167	53.49382867	24
2020	SW1	2	CHAN	<i>Chamerion angustifolium</i>	F	21.06	6.229710636	39.909257	26
2020	SW1	2	COAU2	<i>Corydalis aurea</i>	F	181.65	4.988386615	33.55280001	71
2020	SW1	2	EPCI	<i>Epilobium ciliatum</i>	F	1.34	5.686830135	50.8530305	2
2020	SW1	2	PRVI	<i>Prunus virginiana</i>	S	10.74	3.904463779	46.83358137	7
2020	SW1	2	UF13	<i>unkn forb 13</i>	F	0.19	3.525199034	47.43044753	0.01
2020	SW1	3	CHAN	<i>Chamerion angustifolium</i>	F	85.11	5.692755399	35.42002435	17
2020	SW1	3	EPCI	<i>Epilobium ciliatum</i>	F	1.12	2.025352809	25.23291781	0.01
2020	SW1	3	POTR	<i>Populus tremuloides</i>	S	0.29	5.694701407	53.25989657	0.01
2020	SW1	3	PUTR2	<i>Purshia tridentata</i>	S	0.23	5.496297842	49.36372934	0.01
2020	SW1	3	UF13	<i>unkn forb 13</i>	F	0.01	5.189761586	48.52056453	0.19
2020	MD1	1	ARHO2	<i>Boechera holboellii</i>	F	0.49	3.047772451	48.16107331	1
2020	MD1	1	BRTE	<i>Bromus tectorum</i>	G	20.83	1.366963583	58.11679279	80
2020	MD1	1	MARE11	<i>Berberis repens</i>	S	21.31	3.082362349	56.75638099	15
2020	MD1	1	PHHA	<i>Phacelia hastata</i>	F	42.85	4.005087672	71.26628624	21
2020	MD1	1	PRVI	<i>Prunus virginiana</i>	S	149.55	4.061788286	73.36344021	51
2020	MD1	1	SCAN4	<i>Scutellaria antirrhinoides</i>	F	13.1	2.550184302	53.43672276	31
2020	MD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S	14.02	2.753766091	59.46899712	7
2020	MD1	2	AMAL2	<i>Amelanchier alnifolia</i>	S	5.16	2.6291065	52.05165011	4
2020	MD1	2	ARHO2	<i>Boechera holboellii</i>	F	4.68	2.760016677	54.3886884	5
2020	MD1	2	BASA3	<i>Balsamorhiza sagittata</i>	F	8.71	2.714551512	47.0295079	7
2020	MD1	2	BRTE	<i>Bromus tectorum</i>	G	9.3	0.930692737	43.16970857	13
2020	MD1	2	CROT4	<i>Cryptantha torreyana</i>	F	2.14	4.841454141	48.63452273	0.01
2020	MD1	2	DEIN5	<i>Descurainia incana</i>	F	25.07	2.682468166	54.63037793	4
2020	MD1	2	LIRU4	<i>Lithospermum ruderales</i>	F	38.86	2.994638107	51.31435134	21

2020	MD1	2	MARE11	<i>Berberis repens</i>	S	28.65	4.641941284	66.30551006	20
2020	MD1	2	MIBR5	<i>Erythranthe breweri</i>	F	5.77	3.673894081	38.66747303	6
2020	MD1	2	PHHA	<i>Phacelia hastata</i>	F	90.75	2.877737397	43.00221779	48
2020	MD1	2	PRVI	<i>Prunus virginiana</i>	S	202.21	4.582016356	64.30717351	55
2020	MD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.18	3.957119107	49.03497846	1
2020	MD1	2	SOMU	<i>Solidago multiradiata</i>	F	8.62	5.182106651	54.08661792	12
2020	MD1	3	BASA3	<i>Balsamorhiza sagittata</i>	F	16.08	4.7574653	43.77861036	14
2020	MD1	3	BRTE	<i>Bromus tectorum</i>	G	19.77	1.923053305	47.61570953	10
2020	MD1	3	DEIN5	<i>Descurainia incana</i>	F	7.12	1.500577306	45.39181238	5.01
2020	MD1	3	LECI4	<i>Elymus cinereus</i>	G	4.01	2.338387942	46.03483305	9
2020	MD1	3	LIRU4	<i>Lithospermum ruderale</i>	F	48	2.626787182	46.1534867	22
2020	MD1	3	MARE11	<i>Berberis repens</i>	S	96.55	2.186602176	51.76587865	52
2020	MD1	3	MEAL6	<i>Mentzelia albicaulis</i>	F	13.01	1.917961518	45.04055441	8
2020	MD1	3	MIBR5	<i>Erythranthe breweri</i>	F	19.34	1.436431716	45.56061135	9
2020	MD1	3	PHHA	<i>Phacelia hastata</i>	F	4.06	1.648306941	45.56906136	3
2020	MD1	3	PRVI	<i>Prunus virginiana</i>	S	248.76	2.29543993	45.55161994	67
2020	MD1	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.44	3.704896516	52.22710473	0.03
2020	MD1	3	SCAN4	<i>Scutellaria antirrhinoides</i>	F	5.1	1.245817584	50.90424155	7
2020	MD1	3	SOMU	<i>Solidago multiradiata</i>	F	60.34	2.936505465	51.17833007	52
2020	UD2	1	ACLE8	<i>Achnatherum lemmonii</i>	G	11.13	1.532107453	46.64294441	12
2020	UD2	1	ACLE9	<i>Achnatherum lettermanii</i>	G	N/A	1.508186188	44.62997439	2
2020	UD2	1	ARLO6	<i>Arnica longifolia</i>	F	13.01	2.224935984	45.42311911	9
2020	UD2	1	ARTR	<i>Artemisia tridentata</i>	S	51.85	1.937857699	53.39750742	24
2020	UD2	1	BASA3	<i>Balsamorhiza sagittata</i>	F	85.46	1.999985861	45.96481219	46
2020	UD2	1	CELE3	<i>Cercocarpus ledifolius</i>	S	65.09	0.554017101	54.56287992	31
2020	UD2	1	COUM	<i>Comandra umbellata</i>	F	4.72	4.29296035	46.8048439	4
2020	UD2	1	CROT4	<i>Cryptantha torreyana</i>	F	7.05	2.424382104	37.52239818	1.02
2020	UD2	1	EPBR	<i>Epilobium brachycarpum</i>	F	0.32	1.230661598	50.80810583	1
2020	UD2	1	ERHEH3	<i>Eriogonum heracleoides</i>	F	7.11	1.332604218	46.96924381	5
2020	UD2	1	HAPA	<i>Hackelia patens</i>	F	17.91	1.588642967	44.59160413	4
2020	UD2	1	LECI4	<i>Elymus cinereus</i>	G	1.28	1.946656024	45.8298334	1
2020	UD2	1	MIBR5	<i>Erythranthe breweri</i>	F	2.4	3.426310843	47.31935089	3.01
2020	UD2	1	PERY	<i>Penstemon rydbergii</i>	F	0.7	2.864829682	46.08047431	3
2020	UD2	1	UG05	<i>unkn grass 5</i>	G	3.92	0.858813972	48.65309198	3
2020	UD2	1	UG06	<i>unkn grass 6</i>	G	0.81	1.076935653	39.7749512	4
2020	UD2	1	UG15	<i>unkn grass 15</i>	G	0.81	4.293921572	50.24333014	2
2020	UD2	2	ACLE8	<i>Achnatherum lemmonii</i>	G	7.52	1.517470607	43.36838643	9.01

2020	UD2	2	ARLO6	<i>Arnica longifolia</i>	F	5.87	3.588582335	42.72569817	5
2020	UD2	2	ARTR	<i>Artemisia tridentata</i>	S	69.28	1.052450413	49.73268622	16
2020	UD2	2	BASA3	<i>Balsamorhiza sagittata</i>	F	12.94	3.045853185	46.85952569	12
2020	UD2	2	BRTE	<i>Bromus tectorum</i>	G	0.12	0.932335393	44.39913688	0.01
2020	UD2	2	COGR4	<i>Collomia grandiflora</i>	F	0.23	0.265556174	47.38883936	2
2020	UD2	2	COUM	<i>Comandra umbellata</i>	F	13.02	3.785946518	49.49417283	9
2020	UD2	2	CROT4	<i>Cryptantha torreyana</i>	F	20.38	1.874281842	34.96732026	10.01
2020	UD2	2	ERHEH3	<i>Eriogonum heracleoides</i>	F	0.96	1.081183305	44.30017749	1
2020	UD2	2	HAPA	<i>Hackelia patens</i>	F	0.99	3.249998634	43.30580277	0.01
2020	UD2	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.19	1.34055659	47.37595012	0.01
2020	UD2	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F	0.66	1.099616503	41.27470999	1.01
2020	UD2	2	UF02	<i>unkn forb 2</i>	F	0.78	1.086251946	40.264642	1.02
2020	UD2	2	UG06	<i>unkn grass 6</i>	G	4.15	0.211006389	30.55474247	0.01
2020	UD2	3	ACLE8	<i>Achnatherum lemmonii</i>	G	1.37	0.96934335	44.94088421	5
2020	UD2	3	ARLO6	<i>Arnica longifolia</i>	F	0.84	2.712656423	46.73089598	1
2020	UD2	3	BASA3	<i>Balsamorhiza sagittata</i>	F	14.4	2.402698159	45.81400817	15
2020	UD2	3	CELE3	<i>Cercocarpus ledifolius</i>	S	0.72	2.046778311	48.54144039	2
2020	UD2	3	COGR4	<i>Collomia grandiflora</i>	F	0.23	0.916238623	46.33417373	0.01
2020	UD2	3	LECI4	<i>Elymus cinereus</i>	G	0.52	2.330097523	46.06061314	1
2020	UD2	3	PERY	<i>Penstemon rydbergii</i>	F	0.66	-0.087262685	45.25654988	1
2020	UD2	3	SEDE	<i>Sedum debile</i>	F	N/A	1.024126208	35.16347196	6
2020	UD2	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	3.82	1.320913287	50.67326522	6
2020	UD2	3	UG03	<i>unkn grass 3</i>	G	66.75	1.714614079	39.58874704	81
2020	SD1	1	BRTE	<i>Bromus tectorum</i>	G	0.78	0.090100665	45.85278639	2
2020	SD1	1	DEIN5	<i>Descurainia incana</i>	F	2.75	3.838687895	48.73710772	5
2020	SD1	2	MEAL6	<i>Mentzelia albicaulis</i>	F	0.83	2.489814733	34.07557794	2
2020	SD1	2	UF11	<i>unkn forb 11</i>	F	0.14	1.975860495	41.72162313	1
2020	SD1	2	VETH	<i>Verbascum thapsus</i>	F	117.98	4.10415933	39.94567543	42
2020	UD1	1	DEIN5	<i>Descurainia incana</i>	F	N/A	1.431089567	47.73202749	N/A
2020	UD1	1	LECI4	<i>Elymus cinereus</i>	G	37.53	3.42983934	49.27387713	31
2020	UD1	1	MARE11	<i>Berberis repens</i>	S	12.31	3.135479011	52.44507931	10
2020	UD1	1	PRVI	<i>Prunus virginiana</i>	S	15.1	1.459535375	49.03482572	18
2020	UD1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F	0.22	1.717320284	48.48470996	6
2020	UD1	2	BASA3	<i>Balsamorhiza sagittata</i>	F	28.54	3.079443761	44.9004747	33
2020	UD1	2	HAPA	<i>Hackelia patens</i>	F	37.62	2.54764037	46.32617335	17
2020	UD1	2	LECI4	<i>Elymus cinereus</i>	G	7.9	3.614450691	46.67277437	8
2020	UD1	2	LENUN	<i>Leptosiphon nuttallii</i>	F	0.51	1.985684917	47.13502216	1

2020	UD1	2	MARE11	<i>Berberis repens</i>	S	13.15	3.640868467	51.82022083	15
2020	UD1	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F	0.88	1.360638505	48.67577653	2
2020	UD1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S	126.87	2.123963634	52.81028537	55
2020	UD1	3	BASA3	<i>Balsamorhiza sagittata</i>	F	31.64	3.224677424	45.09956274	23
2020	UD1	3	HAPA	<i>Hackelia patens</i>	F	19.32	3.028796017	45.21294612	4.01
2020	UD1	3	LECI4	<i>Elymus cinereus</i>	G	20.1	0.420406257	30.56124435	14.01
2020	UD1	3	MARE11	<i>Berberis repens</i>	S	7.92	3.337048472	52.54748872	5.01
2020	UD1	3	MEAL6	<i>Mentzelia albicaulis</i>	F	1.27	2.489376538	43.54195494	1
2020	UD1	3	PRVI	<i>Prunus virginiana</i>	S	22.14	2.359182533	49.33204982	13.01
2020	UD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S	17.36	1.799351629	55.41261011	13

Table S3. A list of plants present in transects by year, with functional group designation.

year	site	transect	species	Latin name	functional group
2019	UW1	1	ACLE8	<i>Achnatherum lemmonii</i>	G
2019	UW1	1	ARLO6	<i>Arnica longifolia</i>	F
2019	UW1	1	EUEL2	<i>Eucephalus elegans</i>	F
2019	UW1	1	HAPA	<i>Hackelia patens</i>	F
2019	UW1	1	KEGA	<i>Kelloggia galioides</i>	F
2019	UW1	1	LECI4	<i>Elymus cinereus</i>	G
2019	UW1	1	LENUN	<i>Leptosiphon nuttallii</i>	F
2019	UW1	1	MARE11	<i>Berberis repens</i>	S
2019	UW1	1	PRVI	<i>Prunus virginiana</i>	S
2019	UW1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UW1	1	UF04	<i>unkn forb 4</i>	F
2019	UW1	1	UF14	<i>unkn forb 14</i>	F
2019	UW1	1	UG02	<i>unkn grass 2</i>	G
2019	UW1	2	ARLO6	<i>Arnica longifolia</i>	F
2019	UW1	2	ERHEH3	<i>Eriogonum heracleoides</i>	F
2019	UW1	2	EUEL2	<i>Eucephalus elegans</i>	F
2019	UW1	2	LECI4	<i>Elymus cinereus</i>	G
2019	UW1	2	LENUN	<i>Leptosiphon nuttallii</i>	F
2019	UW1	2	MARE11	<i>Berberis repens</i>	S
2019	UW1	2	PERY	<i>Penstemon rydbergii</i>	F
2019	UW1	2	PRVI	<i>Prunus virginiana</i>	S
2019	UW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UW1	2	UG02	<i>unkn grass 2</i>	G
2019	UW1	3	ACLE8	<i>Achnatherum lemmonii</i>	G
2019	UW1	3	ARLO6	<i>Arnica longifolia</i>	F
2019	UW1	3	ERHEH3	<i>Eriogonum heracleoides</i>	F
2019	UW1	3	EUEL2	<i>Eucephalus elegans</i>	F
2019	UW1	3	LECI4	<i>Elymus cinereus</i>	G

2019	UW1	3	LENUN	<i>Leptosiphon nuttallii</i>	F
2019	UW1	3	MARE11	<i>Berberis repens</i>	S
2019	UW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	MW1	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2019	MW1	1	CEVE	<i>Ceanothus velutinus</i>	S
2019	MW1	1	MACAL	<i>Dieteria canescens</i>	F
2019	MW1	1	MARE11	<i>Berberis repens</i>	S
2019	MW1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	MW1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	MW1	1	UG01	<i>unkn grass 1</i>	G
2019	MW1	2	AGUR	<i>Agastache urticifolia</i>	F
2019	MW1	2	CELE3	<i>Cercocarpus ledifolius</i>	S
2019	MW1	2	CEVE	<i>Ceanothus velutinus</i>	S
2019	MW1	2	MARE11	<i>Berberis repens</i>	S
2019	MW1	2	PRVI	<i>Prunus virginiana</i>	S
2019	MW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	MW1	2	UF03	<i>unkn forb 3</i>	F
2019	MW1	2	UG01	<i>unkn grass 1</i>	G
2019	MW1	3	AMAL2	<i>Amelanchier alnifolia</i>	S
2019	MW1	3	CEVE	<i>Ceanothus velutinus</i>	S
2019	MW1	3	MACAL	<i>Dieteria canescens</i>	F
2019	MW1	3	MARE11	<i>Berberis repens</i>	S
2019	MW1	3	PRVI	<i>Prunus virginiana</i>	S
2019	MW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	MW1	3	UG01	<i>unkn grass 1</i>	G
2019	SW1	1	COAU2	<i>Corydalis aurea</i>	F
2019	SW1	1	MARA7	<i>Maianthemum racemosum</i>	F
2019	SW1	1	PRVI	<i>Prunus virginiana</i>	S
2019	SW1	2	PRVI	<i>Prunus virginiana</i>	S
2019	SW1	2	UF01	<i>unkn forb 1</i>	F
2019	SW1	3	COAU2	<i>Corydalis aurea</i>	F

2019	SW1	3	MARE11	<i>Berberis repens</i>	S
2019	SW1	3	PRVI	<i>Prunus virginiana</i>	S
2019	MD1	1	BRTE	<i>Bromus tectorum</i>	G
2019	MD1	1	CHAL7	<i>Chenopodium sp.</i>	F
2019	MD1	1	DEIN5	<i>Descurainia incana</i>	F
2019	MD1	1	LECI4	<i>Elymus cinereus</i>	G
2019	MD1	1	MARE11	<i>Berberis repens</i>	S
2019	MD1	1	MAST4	<i>Maianthemum racemosum</i>	F
2019	MD1	1	MIBR5	<i>Erythranthe breweri</i>	F
2019	MD1	1	PHHA	<i>Phacelia hastata</i>	F
2019	MD1	1	PRVI	<i>Prunus virginiana</i>	S
2019	MD1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	MD1	1	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2019	MD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	MD1	2	CHAL7	<i>Chenopodium sp.</i>	F
2019	MD1	2	DEIN5	<i>Descurainia incana</i>	F
2019	MD1	2	LIRU4	<i>Lithospermum ruderale</i>	F
2019	MD1	2	MARA7	<i>Maianthemum racemosum</i>	F
2019	MD1	2	MARE11	<i>Berberis repens</i>	S
2019	MD1	2	MIBR5	<i>Erythranthe breweri</i>	F
2019	MD1	2	PHHA	<i>Phacelia hastata</i>	F
2019	MD1	2	PRVI	<i>Prunus virginiana</i>	S
2019	MD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	MD1	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2019	MD1	2	UF17	<i>unkn forb 17</i>	F
2019	MD1	3	CHAL7	<i>Chenopodium sp.</i>	F
2019	MD1	3	DEIN5	<i>Descurainia incana</i>	F
2019	MD1	3	MARE11	<i>Berberis repens</i>	S
2019	MD1	3	MIBR5	<i>Erythranthe breweri</i>	F
2019	MD1	3	PHHA	<i>Phacelia hastata</i>	F
2019	MD1	3	PRVI	<i>Prunus virginiana</i>	S

2019	MD1	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	MD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	SD1	1	EPOB	<i>Epilobium obcordatum</i>	F
2019	SD1	1	MIBR5	<i>Erythranthe breweri</i>	F
2019	SD1	2	CELE3	<i>Cercocarpus ledifolius</i>	S
2019	SD1	2	UF13	<i>unkn forb 13</i>	F
2019	SD1	3	CELE3	<i>Cercocarpus ledifolius</i>	S
2019	SD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UD1	1	BASA3	<i>Balsamorhiza sagittata</i>	F
2019	UD1	1	HAPA	<i>Hackelia patens</i>	F
2019	UD1	1	LECI4	<i>Elymus cinereus</i>	G
2019	UD1	1	MARE11	<i>Berberis repens</i>	S
2019	UD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UD1	2	BASA3	<i>Balsamorhiza sagittata</i>	F
2019	UD1	2	HAPA	<i>Hackelia patens</i>	F
2019	UD1	2	LECI4	<i>Elymus cinereus</i>	G
2019	UD1	2	MARE11	<i>Berberis repens</i>	S
2019	UD1	2	PENX	<i>Penstemon speciosus</i>	F
2019	UD1	2	PRVI	<i>Prunus virginiana</i>	S
2019	UD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	UD1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UD1	3	ARTR	<i>Artemisia tridentata</i>	S
2019	UD1	3	BASA3	<i>Balsamorhiza sagittata</i>	F
2019	UD1	3	CICY	<i>Cirsium cymosum var. canovirens</i>	F
2019	UD1	3	HAPA	<i>Hackelia patens</i>	F
2019	UD1	3	LECI4	<i>Elymus cinereus</i>	G
2019	UD1	3	LENUN	<i>Leptosiphon nuttallii</i>	F
2019	UD1	3	MARE11	<i>Berberis repens</i>	S
2019	UD1	3	PRVI	<i>Prunus virginiana</i>	S
2019	UD1	3	SEDE	<i>Sedum debile</i>	F

2019	UD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UD1	3	UF07	<i>unkn forb 7</i>	F
2019	UD1	3	UF08	<i>unkn forb 8</i>	F
2020	UW1	1	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	UW1	1	CHAL7	<i>Chenopodium sp.</i>	F
2020	UW1	1	DEIN5	<i>Descurainia incana</i>	F
2020	UW1	1	DICA	<i>Dieteria canescens</i>	F
2020	UW1	1	ERHEH3	<i>Eriogonum heracleoides</i>	F
2020	UW1	1	HAPA	<i>Hackelia patens</i>	F
2020	UW1	1	LECI4	<i>Elymus cinereus</i>	G
2020	UW1	1	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	UW1	1	LIRU4	<i>Lithospermum ruderale</i>	F
2020	UW1	1	MARE11	<i>Berberis repens</i>	S
2020	UW1	1	PRVI	<i>Prunus virginiana</i>	S
2020	UW1	1	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	UW1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	UW1	2	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	UW1	2	AMAL2	<i>Amelanchier alnifolia</i>	S
2020	UW1	2	ARLO6	<i>Arnica longifolia</i>	F
2020	UW1	2	CEVE	<i>Ceanothus velutinus</i>	S
2020	UW1	2	DEIN5	<i>Descurainia incana</i>	F
2020	UW1	2	DICA	<i>Dieteria canescens</i>	F
2020	UW1	2	LECI4	<i>Elymus cinereus</i>	G
2020	UW1	2	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	UW1	2	MARE11	<i>Berberis repens</i>	S
2020	UW1	2	MIBR5	<i>Erythranthe breweri</i>	F
2020	UW1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	UW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	UW1	3	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	UW1	3	ARLO6	<i>Arnica longifolia</i>	F
2020	UW1	3	CEVE	<i>Ceanothus velutinus</i>	S

2020	UW1	3	CHAL7	<i>Chenopodium sp.</i>	F
2020	UW1	3	DICA	<i>Dieteria canescens</i>	F
2020	UW1	3	ERHEH3	<i>Eriogonum heracleoides</i>	F
2020	UW1	3	GARA	<i>Gayophytum racemosum</i>	F
2020	UW1	3	HAPA	<i>Hackelia patens</i>	F
2020	UW1	3	LECI4	<i>Elymus cinereus</i>	G
2020	UW1	3	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	UW1	3	MARE11	<i>Berberis repens</i>	S
2020	UW1	3	PRVI	<i>Prunus virginiana</i>	S
2020	UW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	UW1	3	UF02	<i>unkn forb 2</i>	F
2020	SD2	1	MARE11	<i>Berberis repens</i>	S
2020	SD2	1	PRVI	<i>Prunus virginiana</i>	S
2020	SD2	2	MARE11	<i>Berberis repens</i>	S
2020	SD2	2	PRVI	<i>Prunus virginiana</i>	S
2020	SD2	3	MARE11	<i>Berberis repens</i>	S
2020	MD2	1	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	MD2	1	ALDE	<i>Alyssum desertorum</i>	F
2020	MD2	1	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	MD2	1	BRTE	<i>Bromus tectorum</i>	G
2020	MD2	1	COUM	<i>Comandra umbellata</i>	F
2020	MD2	1	CROT4	<i>Cryptantha torreyana</i>	F
2020	MD2	1	ELTR7	<i>Elymus trachycaulus</i>	G
2020	MD2	1	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	MD2	1	MARE11	<i>Berberis repens</i>	S
2020	MD2	1	PHHA	<i>Phacelia hastata</i>	F
2020	MD2	2	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	MD2	2	ALDE	<i>Alyssum desertorum</i>	F
2020	MD2	2	ARHO2	<i>Boechera holboellii</i>	F
2020	MD2	2	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	MD2	2	BRTE	<i>Bromus tectorum</i>	G

2020	MD2	2	CAPU	<i>Calamagrostis purpurascens</i>	G
2020	MD2	2	COUM	<i>Comandra umbellata</i>	F
2020	MD2	2	CROT4	<i>Cryptantha torreyana</i>	F
2020	MD2	2	DEIN5	<i>Descurainia incana</i>	F
2020	MD2	2	EPBR	<i>Epilobium brachycarpum</i>	F
2020	MD2	2	HAPA	<i>Hackelia patens</i>	F
2020	MD2	2	LECI4	<i>Elymus cinereus</i>	G
2020	MD2	2	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	MD2	2	MARE11	<i>Berberis repens</i>	S
2020	MD2	2	PHHA	<i>Phacelia hastata</i>	F
2020	MD2	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	MD2	2	UG04	<i>unkn grass 4</i>	G
2020	MD2	3	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	MD2	3	ARHO2	<i>Boechera holboellii</i>	F
2020	MD2	3	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	MD2	3	BRTE	<i>Bromus tectorum</i>	G
2020	MD2	3	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	MD2	3	CHAL7	<i>Chenopodium sp.</i>	F
2020	MD2	3	COUM	<i>Comandra umbellata</i>	F
2020	MD2	3	CROT4	<i>Cryptantha torreyana</i>	F
2020	MD2	3	DICA	<i>Dieteria canescens</i>	F
2020	MD2	3	LECI4	<i>Elymus cinereus</i>	G
2020	MD2	3	LEKI2	<i>Leucopoa kingii</i>	G
2020	MD2	3	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	MD2	3	MARE11	<i>Berberis repens</i>	S
2020	MD2	3	PERY	<i>Penstemon rydbergii</i>	F
2020	MD2	3	PHHA	<i>Phacelia hastata</i>	F
2020	MD2	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	MD2	3	UF02	<i>unkn forb 2</i>	F
2020	MD2	3	VIPU4	<i>Viola purpurea</i>	F
2020	MW1	1	CEVE	<i>Ceanothus velutinus</i>	S

2020	MW1	1	CROT4	<i>Cryptantha torreyana</i>	F
2020	MW1	1	MARE11	<i>Berberis repens</i>	S
2020	MW1	1	PRVI	<i>Prunus virginiana</i>	S
2020	MW1	2	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	MW1	2	CEVE	<i>Ceanothus velutinus</i>	S
2020	MW1	2	CHAN	<i>Chamerion angustifolium</i>	F
2020	MW1	2	MACAL	<i>Dieteria canescens</i>	F
2020	MW1	2	MARE11	<i>Berberis repens</i>	S
2020	MW1	2	PRVI	<i>Prunus virginiana</i>	S
2020	MW1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	MW1	2	UG11	<i>unkn grass 11</i>	G
2020	MW1	3	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	MW1	3	CEVE	<i>Ceanothus velutinus</i>	S
2020	MW1	3	PRVI	<i>Prunus virginiana</i>	S
2020	MW1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	MW1	3	UF01	<i>unkn forb 1</i>	F
2020	SW1	1	CHAN	<i>Chamerion angustifolium</i>	F
2020	SW1	1	COAU2	<i>Corydalis aurea</i>	F
2020	SW1	1	MARE11	<i>Berberis repens</i>	S
2020	SW1	1	PRVI	<i>Prunus virginiana</i>	S
2020	SW1	2	CHAN	<i>Chamerion angustifolium</i>	F
2020	SW1	2	COAU2	<i>Corydalis aurea</i>	F
2020	SW1	2	DICA	<i>Dieteria canescens</i>	F
2020	SW1	2	EPCI	<i>Epilobium ciliatum</i>	F
2020	SW1	2	PRVI	<i>Prunus virginiana</i>	S
2020	SW1	2	UF13	<i>unkn forb 13</i>	F
2020	SW1	2	UG12	<i>unkn grass 12</i>	G
2020	SW1	3	CHAN	<i>Chamerion angustifolium</i>	F
2020	SW1	3	EPCI	<i>Epilobium ciliatum</i>	F
2020	SW1	3	POTR	<i>Populus tremuloides</i>	S
2020	SW1	3	PUTR2	<i>Purshia tridentata</i>	S

2020	SW1	3	UG12	<i>unkn grass 12</i>	G
2020	SW1	3	VETH	<i>Verbascum thapsus</i>	F
2020	MD1	1	ARHO2	<i>Boechera holboellii</i>	F
2020	MD1	1	BRTE	<i>Bromus tectorum</i>	G
2020	MD1	1	MARE11	<i>Berberis repens</i>	S
2020	MD1	1	MIBR5	<i>Erythranthe breweri</i>	F
2020	MD1	1	PHHA	<i>Phacelia hastata</i>	F
2020	MD1	1	PRVI	<i>Prunus virginiana</i>	S
2020	MD1	1	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	MD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	MD1	2	AMAL2	<i>Amelanchier alnifolia</i>	S
2020	MD1	2	ARHO2	<i>Boechera holboellii</i>	F
2020	MD1	2	BRTE	<i>Bromus tectorum</i>	G
2020	MD1	2	CROT4	<i>Cryptantha torreyana</i>	F
2020	MD1	2	DEIN5	<i>Descurainia incana</i>	F
2020	MD1	2	LIRU4	<i>Lithospermum ruderales</i>	F
2020	MD1	2	MARE11	<i>Berberis repens</i>	S
2020	MD1	2	MIBR5	<i>Erythranthe breweri</i>	F
2020	MD1	2	PHHA	<i>Phacelia hastata</i>	F
2020	MD1	2	PRVI	<i>Prunus virginiana</i>	S
2020	MD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	MD1	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	MD1	2	SOMU	<i>Solidago multiradiata</i>	F
2020	MD1	3	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	MD1	3	BRTE	<i>Bromus tectorum</i>	G
2020	MD1	3	DEIN5	<i>Descurainia incana</i>	F
2020	MD1	3	LECI4	<i>Elymus cinereus</i>	G
2020	MD1	3	LIRU4	<i>Lithospermum ruderales</i>	F
2020	MD1	3	MARE11	<i>Berberis repens</i>	S
2020	MD1	3	MEAL6	<i>Mentzelia albicaulis</i>	F
2020	MD1	3	MIBR5	<i>Erythranthe breweri</i>	F

2020	MD1	3	PHHA	<i>Phacelia hastata</i>	F
2020	MD1	3	PRVI	<i>Prunus virginiana</i>	S
2020	MD1	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	MD1	3	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	MD1	3	SOMU	<i>Solidago multiradiata</i>	F
2020	UD2	1	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	UD2	1	ARLO6	<i>Arnica longifolia</i>	F
2020	UD2	1	ARTR	<i>Artemisia tridentata</i>	S
2020	UD2	1	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	UD2	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	UD2	1	COUM	<i>Comandra umbellata</i>	F
2020	UD2	1	EPBR	<i>Epilobium brachycarpum</i>	F
2020	UD2	1	ERHEH3	<i>Eriogonum heracleoides</i>	F
2020	UD2	1	HAPA	<i>Hackelia patens</i>	F
2020	UD2	1	LECI4	<i>Elymus cinereus</i>	G
2020	UD2	1	MIBR5	<i>Erythranthe breweri</i>	F
2020	UD2	1	PERY	<i>Penstemon rydbergii</i>	F
2020	UD2	1	UG05	<i>unkn grass 5</i>	G
2020	UD2	1	UG06	<i>unkn grass 6</i>	G
2020	UD2	2	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	UD2	2	ARLO6	<i>Arnica longifolia</i>	F
2020	UD2	2	ARTR	<i>Artemisia tridentata</i>	S
2020	UD2	2	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	UD2	2	BRTE	<i>Bromus tectorum</i>	G
2020	UD2	2	COGR4	<i>Collomia grandiflora</i>	F
2020	UD2	2	COUM	<i>Comandra umbellata</i>	F
2020	UD2	2	CROT4	<i>Cryptantha torreyana</i>	F
2020	UD2	2	ERHEH3	<i>Eriogonum heracleoides</i>	F
2020	UD2	2	HAPA	<i>Hackelia patens</i>	F
2020	UD2	2	LECI4	<i>Elymus cinereus</i>	G
2020	UD2	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F

2020	UD2	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	UD2	2	SEIN2	<i>Senecio integerrimus</i>	F
2020	UD2	2	UF02	<i>unkn forb 2</i>	F
2020	UD2	2	UG06	<i>unkn grass 6</i>	G
2020	UD2	3	ACLE8	<i>Achnatherum lemmonii</i>	G
2020	UD2	3	AMAL2	<i>Amelanchier alnifolia</i>	S
2020	UD2	3	ARLO6	<i>Arnica longifolia</i>	F
2020	UD2	3	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	UD2	3	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	UD2	3	LECI4	<i>Elymus cinereus</i>	G
2020	UD2	3	PERY	<i>Penstemon rydbergii</i>	F
2020	UD2	3	SEIN2	<i>Senecio integerrimus</i>	F
2020	UD2	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	UD2	3	UG03	<i>unkn grass 3</i>	G
2020	SD1	1	BRTE	<i>Bromus tectorum</i>	G
2020	SD1	1	DEIN5	<i>Descurainia incana</i>	F
2020	SD1	2	MEAL6	<i>Mentzelia albicaulis</i>	F
2020	SD1	2	UF11	<i>unkn forb 11</i>	F
2020	SD1	2	VETH	<i>Verbascum thapsus</i>	F
2020	UD1	1	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	UD1	1	CICY	<i>Cirsium cymosum var. canovirens</i>	F
2020	UD1	1	HAPA	<i>Hackelia patens</i>	F
2020	UD1	1	LECI4	<i>Elymus cinereus</i>	G
2020	UD1	1	MARE11	<i>Berberis repens</i>	S
2020	UD1	1	PRVI	<i>Prunus virginiana</i>	S
2020	UD1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	UD1	1	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	UD1	1	SEDE	<i>Sedum debile</i>	F
2020	UD1	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	UD1	2	BASA3	<i>Balsamorhiza sagittata</i>	F

2020	UD1	2	HAPA	<i>Hackelia patens</i>	F
2020	UD1	2	LECI4	<i>Elymus cinereus</i>	G
2020	UD1	2	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	UD1	2	MARE11	<i>Berberis repens</i>	S
2020	UD1	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	UD1	2	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	UD1	3	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	UD1	3	HAPA	<i>Hackelia patens</i>	F
2020	UD1	3	LECI4	<i>Elymus cinereus</i>	G
2020	UD1	3	MARE11	<i>Berberis repens</i>	S
2020	UD1	3	MEAL6	<i>Mentzelia albicaulis</i>	F
2020	UD1	3	PRVI	<i>Prunus virginiana</i>	S
2020	UD1	3	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2019	UW1	2	ACLE8	<i>Achnatherum lemmonii</i>	G
2019	MW1	1	UF02	<i>unkn forb 2</i>	F
2019	SD1	2	UF02	<i>unkn forb 2</i>	F
2020	UW1	1	UF02	<i>unkn forb 2</i>	F
2020	UW1	2	PRVI	<i>Prunus virginiana</i>	S
2020	MD2	1	SYOR2	<i>Symphoricarpos oreophilus</i>	S
2020	MD2	2	ACLE9	<i>Achnatherum lettermanii</i>	G
2020	MD2	2	PERY	<i>Penstemon rydbergii</i>	F
2020	MD2	2	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	MD2	3	SCAN4	<i>Scutellaria antirrhinoides</i>	F
2020	MD2	3	UG15	<i>unkn grass 15</i>	G
2020	MW1	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	MW1	2	DICA	<i>Dieteria canescens</i>	F
2020	SW1	3	UF13	<i>unkn forb 13</i>	F
2020	MD1	2	BASA3	<i>Balsamorhiza sagittata</i>	F
2020	UD2	1	ACLE9	<i>Achnatherum lettermanii</i>	G
2020	UD2	1	CROT4	<i>Cryptantha torreyana</i>	F
2020	UD2	1	UG15	<i>unkn grass 15</i>	G

2020	UD2	3	COGR4	<i>Collomia grandiflora</i>	F
2020	UD2	3	SEDE	<i>Sedum debile</i>	F
2020	UD1	1	DEIN5	<i>Descurainia incana</i>	F
2019	UW1	1	CEVE	<i>Ceanothus velutinus</i>	S
2019	UW1	2	CEVE	<i>Ceanothus velutinus</i>	S
2019	UW1	3	PRVI	<i>Prunus virginiana</i>	S
2019	MW1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	MW1	3	CELE3	<i>Cercocarpus ledifolius</i>	S
2019	MW1	3	CHAL7	<i>Chenopodium sp.</i>	F
2019	MW1	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2019	UD1	1	AMAL2	<i>Amelanchier alnifolia</i>	S
2019	UD1	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2019	UD1	1	LENUN	<i>Leptosiphon nuttallii</i>	F
2019	UD1	2	LENUN	<i>Leptosiphon nuttallii</i>	F
2019	UD1	2	SEDE	<i>Sedum debile</i>	F
2020	UW1	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	UW1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	UW1	1	UG04	<i>unkn grass 4</i>	G
2020	UW1	1	VIPU4	<i>Viola purpurea</i>	F
2020	UW1	2	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	UW1	2	CHAL7	<i>Chenopodium sp.</i>	F
2020	UW1	2	VIPU4	<i>Viola purpurea</i>	F
2020	UW1	3	DEIN5	<i>Descurainia incana</i>	F
2020	UW1	3	MIBR5	<i>Erythranthe breweri</i>	F
2020	UW1	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	SD2	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	SD2	3	UF09	<i>unkn forb 9</i>	F
2020	SD2	3	UF10	<i>unkn forb 10</i>	F
2020	MD2	1	ARHO2	<i>Boechera holboellii</i>	F
2020	MD2	1	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	MD2	1	GARA	<i>Gayophytum racemosum</i>	F

2020	MD2	1	HAPA	<i>Hackelia patens</i>	F
2020	MD2	1	MEAL6	<i>Mentzelia albicaulis</i>	F
2020	MD2	1	UF02	<i>unkn forb 2</i>	F
2020	MD2	2	CELE3	<i>Cercocarpus ledifolius</i>	S
2020	MD2	2	MIBR5	<i>Erythranthe breweri</i>	F
2020	MD2	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	MD2	2	UF02	<i>unkn forb 2</i>	F
2020	MW1	1	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	MW1	2	MIBR5	<i>Erythranthe breweri</i>	F
2020	MW1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	MW1	2	UG10	<i>unkn grass 10</i>	G
2020	SW1	3	ARTR	<i>Artemisia tridentata</i>	S
2020	SW1	3	RUCR	<i>Rumex crispus</i>	F
2020	SW1	3	UF12	<i>unkn forb 12</i>	F
2020	UD2	1	UF02	<i>unkn forb 2</i>	F
2020	UD2	2	GARA	<i>Gayophytum racemosum</i>	F
2020	UD2	2	SEDE	<i>Sedum debile</i>	F
2020	UD2	3	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	UD2	3	UF02	<i>unkn forb 2</i>	F
2020	SD1	3	CICY	<i>Cirsium cymosum var. canovirens</i>	F
2020	UD1	1	BRTE	<i>Bromus tectorum</i>	G
2020	UD1	2	PSJA2	<i>Pseudostellaria jamesiana</i>	F
2020	UD1	2	SEDE	<i>Sedum debile</i>	F
2020	UD1	3	DEIN5	<i>Descurainia incana</i>	F
2020	UD1	3	LENUN	<i>Leptosiphon nuttallii</i>	F
2020	UD1	3	VIPU4	<i>Viola purpurea</i>	F
