

Table. Range of variation in landscape structure for Mountain Shrubland under the simulated HRV disturbance scenario on the Dolores District, San Juan National Forest, Colorado, and the degree of departure of the current landscape from the simulated range of variation (see text for details).

Landscape Metric	Condition Class (seral stage)	Current Landscape <sup>1</sup>		Percentiles of Simulated Distribution							HRV Departure	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV <sup>2</sup>	Index <sup>3</sup>
<i>Seral Stage Composition</i> <sup>4</sup>												
PLAND	Herbs - Shrubs	6.371	79	0.318	1.214	2.942	4.105	5.941	8.340	12.004	174	66
	Early Shrub Dominated	8.627	96	0.401	1.986	3.342	4.545	5.967	8.521	12.070	144	
	Late Shrub Dominated	0.762	0	1.987	3.578	5.122	6.630	7.866	9.331	11.251	87	
<i>Class Configuration</i> <sup>5</sup>												
PD	Herbs - Shrubs	0.238	9	0.119	0.193	0.296	0.331	0.362	0.407	0.462	65	87
	Early Shrub Dominated	0.076	0	0.195	0.295	0.376	0.428	0.492	0.675	1.402	89	
	Late Shrub Dominated	0.019	0	0.399	0.526	0.624	0.712	0.798	0.997	1.619	66	
ED	Herbs - Shrubs	8.422	85	0.847	2.197	4.623	5.795	7.585	9.518	13.942	126	47
	Early Shrub Dominated	7.283	63	1.140	3.309	5.298	6.553	7.880	10.361	13.925	108	
	Late Shrub Dominated	0.924	0	3.532	6.176	8.407	10.094	11.676	13.167	15.430	69	
AREA_MN	Herbs - Shrubs	26.811	94	2.541	5.496	8.995	12.258	17.175	27.409	34.241	179	92
	Early Shrub Dominated	113.968	100	1.360	5.160	7.711	10.227	13.265	20.515	26.508	150	
	Late Shrub Dominated	40.693	100	2.219	4.836	7.578	9.149	10.666	12.957	15.827	89	
AREA_AM	Herbs - Shrubs	466.701	63	34.451	112.529	247.772	376.736	689.122	1936.847	2805.232	484	31
	Early Shrub Dominated	1964.466	98	36.586	144.505	268.906	379.736	724.726	1810.892	2525.297	439	
	Late Shrub Dominated	282.408	41	51.679	155.029	223.229	318.356	646.060	1119.745	1544.447	303	
GYRATE_AM	Herbs - Shrubs	1130.585	71	229.453	454.509	708.498	905.052	1197.498	1886.971	2313.209	158	44
	Early Shrub Dominated	1976.403	99	240.434	531.487	714.416	885.584	1168.827	1807.240	2106.927	144	
	Late Shrub Dominated	1186.979	84	330.759	564.628	694.969	828.258	1081.638	1386.031	1588.682	99	
SHAPE_MN	Herbs - Shrubs	1.884	100	1.282	1.366	1.435	1.478	1.539	1.636	1.764	18	100
	Early Shrub Dominated	2.310	100	1.168	1.281	1.369	1.414	1.459	1.537	1.653	18	
	Late Shrub Dominated	2.060	100	1.177	1.281	1.354	1.393	1.420	1.455	1.494	13	
SHAPE_AM	Herbs - Shrubs	3.840	54	1.952	2.680	3.252	3.735	4.713	6.659	8.893	107	24
	Early Shrub Dominated	6.422	93	1.981	2.866	3.346	3.805	4.709	6.610	8.518	98	
	Late Shrub Dominated	3.896	50	2.463	3.132	3.496	3.879	4.828	5.700	6.583	66	

CPLAND	Herbs - Shrubs	4.393	72	0.243	0.923	2.187	3.065	4.617	6.593	9.444	185	63
	Early Shrub Dominated	7.030	97	0.300	1.490	2.523	3.491	4.696	6.707	9.370	149	
	Late Shrub Dominated	0.549	0	1.243	2.364	3.591	4.782	5.868	6.901	8.305	95	
CORE_MN	Herbs - Shrubs	18.488	88	1.649	4.099	6.656	9.402	13.378	21.867	26.970	189	84
	Early Shrub Dominated	92.877	100	1.105	3.835	5.811	7.784	10.257	16.544	20.577	163	
	Late Shrub Dominated	29.288	100	1.684	3.299	5.423	6.508	7.909	9.750	11.682	99	
CORE_AM	Herbs - Shrubs	369.630	61	27.279	90.997	208.810	311.761	599.382	1741.815	2555.017	530	30
	Early Shrub Dominated	1754.362	98	33.579	119.714	223.693	319.625	651.048	1651.037	2310.684	479	
	Late Shrub Dominated	243.111	44	38.016	121.200	185.817	261.530	575.396	1008.880	1409.884	339	
CAI_MN	Herbs - Shrubs	43.434	13	35.341	41.503	44.903	46.809	48.784	52.275	64.591	23	49
	Early Shrub Dominated	56.241	64	43.894	48.024	51.096	54.018	58.812	67.776	82.299	37	
	Late Shrub Dominated	43.795	1	43.193	47.252	50.177	52.610	55.695	61.631	75.232	27	
CAI_AM	Herbs - Shrubs	68.956	2	64.850	70.617	73.690	76.294	78.655	81.233	84.695	14	55
	Early Shrub Dominated	81.494	93	66.623	71.462	74.235	76.379	79.036	81.879	84.848	14	
	Late Shrub Dominated	71.973	46	62.564	65.727	69.721	72.335	74.739	77.115	81.132	16	
PROX_MN	Herbs - Shrubs	73.755	35	3.335	25.299	61.459	95.737	201.043	547.752	1128.407	546	27
	Early Shrub Dominated	301.145	80	5.191	35.494	65.397	103.550	204.801	509.972	1008.820	458	
	Late Shrub Dominated	65.892	10	15.721	51.033	95.780	152.913	338.253	575.377	862.315	343	
PROX_AM	Herbs - Shrubs	329.830	53	4.338	32.309	137.342	303.325	923.971	2220.229	5743.592	721	31
	Early Shrub Dominated	2167.407	98	1.771	53.475	154.311	314.035	924.137	1906.435	3625.353	590	
	Late Shrub Dominated	362.673	59	39.591	73.882	166.131	291.170	591.008	1214.664	2570.224	392	
CWED	Herbs - Shrubs	3.487	98	0.128	0.556	1.201	1.587	2.233	2.933	4.382	150	83
	Early Shrub Dominated	2.748	89	0.179	0.773	1.335	1.724	2.222	3.168	4.631	139	
	Late Shrub Dominated	0.383	0	0.909	1.891	2.620	3.204	3.616	4.106	5.258	69	
TECI	Herbs - Shrubs	40.646	100	15.101	21.767	25.397	27.452	29.151	31.502	33.277	35	100
	Early Shrub Dominated	36.378	100	10.813	20.561	24.429	26.407	28.429	30.831	32.760	39	
	Late Shrub Dominated	38.839	100	20.482	26.260	29.078	30.676	32.273	34.710	36.892	28	
CLUMPY	Herbs - Shrubs	0.912	61	0.832	0.880	0.898	0.908	0.918	0.927	0.938	5	67
	Early Shrub Dominated	0.942	100	0.804	0.879	0.896	0.906	0.915	0.922	0.927	5	
	Late Shrub Dominated	0.924	100	0.854	0.880	0.891	0.896	0.901	0.906	0.913	3	

IJI	Herbs - Shrubs	78.220	98	49.483	60.345	67.492	70.220	73.266	76.874	81.043	24	32
	Early Shrub Dominated	71.295	76	46.045	60.905	66.112	68.406	71.246	74.182	78.323	19	
	Late Shrub Dominated	79.115	42	68.204	76.485	78.249	79.610	80.631	82.240	83.508	7	

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**Summary Indices<sup>6</sup>:**

<i>Seral-Stage Departure Index</i>	66
<i>Class Configuration Departure Index</i>	58
<i>Cover Type Departure Index</i>	62

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<sup>1</sup>Some stand conditions are not represented in the current landscape. Certain metrics are logically zero if the class is absent, while others are undefined (indicated by missing data). HRV departure index is undefined if the current landscape condition is undefined.

<sup>2</sup>CV = coefficient of variation in the simulated distribution, computed as the difference between the 5 and 95<sup>th</sup> percentiles divided by the median and multiplied by 100 to convert to a percentage. n/d = not defined (division by zero).

<sup>3</sup>HRV departure index represents the degree of departure of the current landscape condition from the historic range of variability and is given here specifically as the degree of departure from the 25-75<sup>th</sup> percentile range of variation, where a 0 represents no departure (i.e., within the 25-75<sup>th</sup> percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100<sup>th</sup> percentiles of variation).

<sup>4</sup>Landscape composition here represents the distribution of area among seral stages for the corresponding cover type. PLAND = the percent of the landscape encompassed by the corresponding seral stage. Note, PLAND = the percentage of the entire landscape, not as a percent of the corresponding cover type.

<sup>5</sup>Landscape configuration here represents the spatial character, distribution, and arrangement of the corresponding cover type. The landscape metrics listed here are described in detail in the FRAGSTATS methods section. PD = patch density; ED = edge density; AREA\_MN = mean patch size; AREA\_AM = area-weighted mean patch size; GYRATE\_AM = area-weighted mean patch radius of gyration (correlation length); SHAPE\_MN = mean patch shape index; SHAPE\_AM = area-weighted mean patch shape index; CPLAND = core area percent of landscape; CORE\_MN = mean patch core area; CORE\_AM = area-weighted mean patch core area; CAI\_MN = mean patch core area index; CAI\_AM = area-weighted mean patch core area index; PROX\_MN = mean proximity index; PROX\_AM = area-weighted mean proximity index; CWED = contrast-weighted edge density; TECI = total edge contrast index; CLUMPY = clumpiness index; IJI = interspersed and juxtaposition index.

<sup>6</sup>Seral-stage departure index is based on the distribution of area (percentage of landscape) among seral stages and is computed as the mean departure across seral stages. Class configuration departure index is based on several landscape metrics that quantify different aspects of the spatial distribution of the cover type and is computed as the mean departure across metrics. Cover type departure index is computed as the mean of the seral-stage and class configuration departure indices.