

Table. Range of variation in landscape structure for Mountain Shrubland under the simulated HRV disturbance scenario on the Pagosa 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							CV <sup>2</sup>	HRV Departure Index <sup>3</sup>
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100		
<i>Seral Stage Composition<sup>4</sup></i>												
PLAND	Herbs - Shrubs	7.482	96	0.224	0.782	2.030	2.983	4.422	7.347	9.886	220	61
	Early Shrub Dominated	4.856	72	0.366	1.201	2.650	3.749	5.060	7.056	10.233	156	
	Late Shrub Dominated	1.836	0	2.055	3.729	5.539	6.910	8.061	9.659	11.207	86	
<i>Class Configuration<sup>5</sup></i>												
PD	Herbs - Shrubs	0.166	12	0.084	0.129	0.192	0.224	0.246	0.276	0.314	66	84
	Early Shrub Dominated	0.056	0	0.141	0.205	0.269	0.305	0.347	0.480	1.138	90	
	Late Shrub Dominated	0.012	0	0.390	0.469	0.548	0.595	0.648	0.791	1.173	54	
ED	Herbs - Shrubs	8.190	97	0.640	1.470	2.983	4.022	5.243	7.513	10.599	150	63
	Early Shrub Dominated	4.001	28	1.078	2.243	3.849	5.007	6.096	7.868	11.433	112	
	Late Shrub Dominated	1.661	0	3.556	6.261	8.440	9.917	11.067	12.538	13.922	63	
AREA_MN	Herbs - Shrubs	44.972	98	1.832	5.491	9.689	13.125	19.046	35.262	62.636	227	98
	Early Shrub Dominated	86.290	100	1.130	4.931	8.482	11.597	15.795	23.651	35.969	161	
	Late Shrub Dominated	157.178	100	4.608	5.892	9.261	11.222	13.519	16.281	20.963	93	
AREA_AM	Herbs - Shrubs	1247.522	86	12.122	82.251	249.374	459.164	925.434	1631.250	2019.779	337	69
	Early Shrub Dominated	1430.748	93	15.319	89.831	291.442	492.786	908.758	1500.207	2364.485	286	
	Late Shrub Dominated	1019.378	99	85.748	120.354	237.526	396.758	619.247	865.415	1238.547	188	
GYRATE_AM	Herbs - Shrubs	1402.598	82	133.965	371.063	649.478	866.932	1267.944	1804.187	2068.442	165	71
	Early Shrub Dominated	1751.346	96	151.372	385.293	694.031	912.508	1284.961	1640.574	2365.741	138	
	Late Shrub Dominated	1544.867	100	434.679	522.237	680.424	839.975	1035.453	1257.598	1460.189	88	
SHAPE_MN	Herbs - Shrubs	2.009	100	1.264	1.350	1.408	1.448	1.508	1.658	1.808	21	100
	Early Shrub Dominated	2.067	100	1.178	1.274	1.365	1.405	1.452	1.519	1.675	17	
	Late Shrub Dominated	2.608	100	1.244	1.289	1.368	1.403	1.442	1.485	1.576	14	
SHAPE_AM	Herbs - Shrubs	4.561	71	1.673	2.432	3.141	3.725	4.716	5.861	8.066	92	43
	Early Shrub Dominated	5.043	82	1.808	2.487	3.314	3.917	4.698	5.672	7.653	81	
	Late Shrub Dominated	5.957	100	2.746	3.028	3.493	3.963	4.451	4.947	5.626	48	

CPLAND	Herbs - Shrubs	5.607	92	0.171	0.606	1.608	2.413	3.564	6.020	8.200	224	56
	Early Shrub Dominated	3.904	72	0.293	0.920	2.080	3.031	4.073	5.743	8.248	159	
	Late Shrub Dominated	1.423	0	1.516	2.681	4.124	5.194	6.149	7.375	8.761	90	
CORE_MN	Herbs - Shrubs	33.706	98	1.341	4.212	7.577	10.470	15.426	28.741	50.803	234	97
	Early Shrub Dominated	69.366	100	0.904	3.841	6.770	9.306	12.647	19.704	29.627	170	
	Late Shrub Dominated	121.856	100	3.410	4.324	6.826	8.449	10.365	12.503	16.115	97	
CORE_AM	Herbs - Shrubs	1091.704	85	9.421	69.640	213.898	393.479	811.166	1448.308	1791.117	350	66
	Early Shrub Dominated	1207.705	92	13.401	76.730	245.394	425.020	794.945	1327.597	2136.065	294	
	Late Shrub Dominated	836.761	97	69.130	94.845	203.970	344.440	545.079	766.038	1097.521	195	
CAI_MN	Herbs - Shrubs	47.891	2	45.381	49.015	52.286	53.968	56.236	59.364	63.859	19	63
	Early Shrub Dominated	58.909	44	50.679	53.504	56.442	59.630	63.011	72.892	79.708	33	
	Late Shrub Dominated	51.852	1	51.081	53.116	55.855	57.750	60.022	64.707	69.903	20	
CAI_AM	Herbs - Shrubs	74.949	4	71.124	75.152	78.398	80.234	81.684	83.233	84.971	10	51
	Early Shrub Dominated	80.387	60	72.481	75.798	78.475	79.969	81.354	82.943	86.478	9	
	Late Shrub Dominated	77.527	92	69.498	71.517	73.728	75.407	76.600	77.970	80.454	9	
PROX_MN	Herbs - Shrubs	187.647	70	3.483	24.573	61.576	107.781	229.441	476.861	1069.832	420	19
	Early Shrub Dominated	101.113	38	2.585	23.091	72.176	128.104	247.324	448.885	581.768	332	
	Late Shrub Dominated	65.573	11	24.019	41.785	114.392	211.061	326.041	501.791	639.161	218	
PROX_AM	Herbs - Shrubs	1104.936	89	0.926	16.509	54.463	148.248	478.781	1439.101	2248.254	960	61
	Early Shrub Dominated	674.207	82	2.200	20.648	68.266	171.533	535.315	1145.376	2253.311	656	
	Late Shrub Dominated	3.690	0	31.588	54.559	102.863	224.015	396.021	785.590	1115.461	326	
CWED	Herbs - Shrubs	3.308	100	0.088	0.298	0.667	1.009	1.432	2.200	3.076	188	67
	Early Shrub Dominated	1.613	73	0.133	0.448	0.904	1.237	1.660	2.279	3.423	148	
	Late Shrub Dominated	0.687	0	1.018	1.854	2.552	2.968	3.391	3.926	4.455	70	
TECI	Herbs - Shrubs	39.471	100	12.907	18.463	22.250	24.501	27.034	30.548	32.602	49	100
	Early Shrub Dominated	38.991	100	9.796	18.837	22.618	24.669	26.822	29.443	32.077	43	
	Late Shrub Dominated	41.171	100	24.654	27.311	28.987	29.703	30.688	31.826	32.780	15	
CLUMPY	Herbs - Shrubs	0.926	73	0.804	0.879	0.905	0.916	0.927	0.937	0.943	6	67
	Early Shrub Dominated	0.946	100	0.774	0.882	0.903	0.914	0.923	0.933	0.940	6	
	Late Shrub Dominated	0.946	100	0.875	0.887	0.896	0.903	0.909	0.913	0.923	3	

IJI	Herbs - Shrubs	68.189	33	45.861	59.835	66.983	70.538	73.561	77.554	81.059	25	18
	Early Shrub Dominated	70.310	72	47.322	58.614	64.669	68.180	70.550	73.452	75.937	22	
	Late Shrub Dominated	69.658	11	63.195	68.022	71.411	72.923	74.242	75.916	78.260	11	

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

<i>Seral-Stage Departure Index</i>	61
<i>Class Configuration Departure Index</i>	66
<i>Cover Type Departure Index</i>	64

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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.