

Table. Range of variation in landscape structure for aspen-dominated stands under the simulated HRV disturbance scenario on the Columbine 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 ¹		Percentiles of Simulated Distribution							CV ²	HRV Departure Index ³	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100			
<i>Seral Stage Composition</i> ⁴													
PLAND	Early seral	1.953	50	0.134	0.539	1.127	1.967	3.192	6.778	10.774	317	56	
	Mid seral	1.704	1	1.277	2.246	3.762	5.554	7.240	9.256	11.632	126		
	Late seral	1.175	93	0.291	0.537	0.712	0.905	1.066	1.183	1.251	71		
<i>Class Configuration</i> ⁵													
PD	Early seral	0.411	92	0.061	0.128	0.199	0.259	0.325	0.433	0.605	118	56	
	Mid seral	0.087	0	0.299	0.393	0.474	0.533	0.587	0.653	0.716	49		
	Late seral	0.048	31	0.030	0.042	0.046	0.050	0.054	0.059	0.084	35		
ED	Early seral	3.922	39	0.555	1.718	3.039	4.705	6.741	11.488	16.692	208	33	
	Mid seral	2.312	0	4.183	6.238	8.642	11.178	13.605	15.418	19.001	82		
	Late seral	1.571	74	0.569	0.994	1.168	1.389	1.579	1.697	1.779	51		
AREA_MN	Early seral	4.752	17	2.156	3.412	5.273	7.765	11.288	16.540	19.996	169	74	
	Mid seral	19.633	100	3.493	5.119	7.580	10.136	12.553	16.039	18.977	108		
	Late seral	24.682	98	8.541	10.958	13.953	17.705	20.750	23.632	26.294	72		
AREA_AM	Early seral	330.850	70	7.741	23.267	86.142	181.719	441.245	1037.240	2296.733	558	38	
	Mid seral	156.969	19	36.347	88.280	195.076	358.508	653.951	1254.618	2260.222	325		
	Late seral	116.993	98	30.727	47.655	65.413	89.744	102.505	113.911	123.474	74		
GYRATE_AM	Early seral	738.548	68	120.439	216.472	385.342	556.663	894.916	1339.425	2106.679	202	39	
	Mid seral	524.259	19	235.897	386.870	582.514	799.351	1051.690	1410.995	1849.718	128		
	Late seral	510.091	98	260.632	322.568	381.306	437.951	468.631	499.506	532.865	40		
SHAPE_MN	Early seral	1.297	0	1.591	1.724	1.780	1.818	1.864	1.924	2.037	11	67	
	Mid seral	1.653	0	1.723	1.777	1.820	1.856	1.889	1.945	2.068	9		
	Late seral	1.758	25	1.691	1.717	1.757	1.793	1.818	1.865	1.921	8		
SHAPE_AM	Early seral	4.578	70	1.994	2.506	3.137	3.797	5.071	6.799	9.143	113	41	
	Mid seral	2.464	0	2.585	3.248	3.869	4.720	5.617	6.948	8.154	78		
	Late seral	2.636	81	1.928	2.150	2.325	2.462	2.609	2.736	2.873	24		

CPLAND	Early seral	1.122	51	0.034	0.184	0.580	1.096	2.044	4.561	7.636	399	50
	Mid seral	1.300	4	0.652	1.347	2.464	3.839	5.236	6.871	8.901	144	
	Late seral	0.970	92	0.217	0.416	0.571	0.733	0.885	0.997	1.046	79	
CORE_MN	Early seral	2.730	26	0.424	1.101	2.581	4.379	7.198	11.616	14.780	240	63
	Mid seral	14.975	100	1.782	2.974	5.044	7.085	9.040	12.068	14.375	128	
	Late seral	20.373	97	6.792	8.757	11.363	14.306	17.327	19.855	22.007	78	
CORE_AM	Early seral	239.672	69	2.546	14.334	58.395	135.263	335.999	832.452	1858.342	605	39
	Mid seral	128.620	20	26.629	69.465	154.308	298.194	546.722	1074.095	1962.719	337	
	Late seral	98.040	98	25.686	40.254	55.179	76.994	87.306	95.185	103.171	71	
CAI_MN	Early seral	8.134	1	6.531	10.761	14.257	17.063	20.311	24.449	28.255	80	67
	Mid seral	52.369	100	20.655	23.786	26.838	29.209	32.089	36.463	49.539	43	
	Late seral	62.766	24	44.517	54.084	63.234	70.177	73.713	78.094	83.415	34	
CAI_AM	Early seral	57.454	49	18.572	33.633	48.748	57.634	64.040	70.562	74.405	64	31
	Mid seral	76.275	98	51.028	58.086	65.676	69.804	72.704	75.360	77.055	25	
	Late seral	82.543	48	68.191	76.630	80.368	82.682	83.798	84.989	86.864	10	
PROX_MN	Early seral	149.508	75	0.781	6.228	19.926	42.404	147.841	364.964	1098.411	846	29
	Mid seral	22.749	5	10.884	24.517	58.869	114.058	219.818	373.463	712.258	306	
	Late seral	24.598	76	5.134	9.063	14.921	20.436	24.286	31.117	39.422	108	
PROX_AM	Early seral	225.235	60	0.550	8.911	47.897	134.143	480.724	1490.763	3284.257	1105	54
	Mid seral	19.441	0	15.873	58.657	199.021	411.036	735.505	1675.872	3280.436	393	
	Late seral	58.898	90	4.145	11.950	23.282	39.464	49.325	65.117	95.058	135	
CWED	Early seral	1.614	39	0.243	0.719	1.238	1.940	2.729	4.424	6.467	191	50
	Mid seral	0.718	0	1.193	1.881	2.602	3.326	4.094	4.678	5.545	84	
	Late seral	0.447	87	0.168	0.261	0.329	0.395	0.429	0.462	0.505	51	
TECI	Early seral	41.120	50	35.477	37.058	39.402	41.101	42.474	44.392	47.049	18	30
	Mid seral	30.986	98	27.795	29.032	29.629	29.964	30.295	30.712	31.621	6	
	Late seral	28.274	69	23.189	24.848	26.376	27.410	28.519	30.451	35.611	20	
CLUMPY	Early seral	0.875	74	0.712	0.771	0.824	0.854	0.876	0.894	0.905	14	67
	Mid seral	0.917	100	0.779	0.812	0.849	0.866	0.879	0.889	0.899	9	
	Late seral	0.919	100	0.872	0.886	0.898	0.906	0.912	0.915	0.918	3	

IJI	Early seral	50.578	0	49.675	57.292	61.102	63.630	65.393	68.296	71.943	17	49
	Mid seral	65.184	73	53.283	57.311	61.122	63.412	65.308	68.120	70.549	17	
	Late seral	55.935	13	50.420	54.476	57.429	59.595	61.632	63.837	66.527	16	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	56
<i>Class Configuration Departure Index</i>	49
<i>Cover Type Departure Index</i>	52

¹Some 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.

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

³HRV 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 25-75th percentile range of variation, where a 0 represents no departure (i.e., within the 25-75th percentiles of variation) and 100 represents complete departure (i.e., outside the 0-100th percentiles of variation).

⁴Landscape 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.

⁵Landscape 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.

⁶Seral-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.