

Table. Range of variation in landscape structure for high-elevation conifer forest 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							HRV Departure	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100	CV ²	Index ³
<i>Seral Stage Composition</i> ⁴												
PLAND	Early seral	1.512	2	1.242	1.768	2.913	3.942	5.527	8.620	10.462	174	63
	Mid seral	7.833	86	1.969	3.025	4.447	5.789	7.093	8.822	11.320	100	
	Late seral	33.234	88	18.326	20.810	24.416	27.919	30.878	35.549	37.816	53	
<i>Class Configuration</i> ⁵												
PD	Early seral	0.180	10	0.125	0.170	0.207	0.243	0.272	0.333	0.386	67	87
	Mid seral	0.116	0	0.251	0.304	0.371	0.418	0.478	0.645	1.033	82	
	Late seral	0.324	0	0.373	0.483	0.609	0.699	0.791	0.916	1.145	62	
ED	Early seral	2.641	0	2.609	3.540	5.196	6.629	8.335	11.558	14.391	121	94
	Mid seral	7.116	4	5.190	7.201	9.576	11.774	13.714	17.201	27.319	85	
	Late seral	20.869	0	22.242	23.769	25.808	27.233	29.303	33.988	43.690	38	
AREA_MN	Early seral	8.384	2	6.911	10.299	13.317	16.416	21.296	28.785	37.638	113	98
	Mid seral	67.573	100	3.572	6.957	10.565	13.428	16.843	23.222	28.636	121	
	Late seral	102.532	100	18.245	23.336	30.738	39.389	49.314	72.186	101.375	124	
AREA_AM	Early seral	73.803	1	46.815	125.613	240.538	363.573	602.590	1478.698	4763.263	372	63
	Mid seral	1736.209	98	47.833	117.864	218.694	356.412	547.748	1357.631	2274.862	348	
	Late seral	14355.923	64	2210.013	5759.955	8926.370	11616.979	18072.372	26901.157	36898.390	182	
GYRATE_AM	Early seral	344.169	1	292.918	487.765	669.634	822.519	1057.551	1659.172	3050.371	142	66
	Mid seral	1834.193	99	294.810	479.561	646.326	829.357	1025.722	1584.000	2189.800	133	
	Late seral	6866.209	77	2326.948	3432.607	4210.777	5126.246	6759.429	8894.952	10267.587	107	
SHAPE_MN	Early seral	1.466	0	1.731	1.794	1.867	1.909	1.950	2.009	2.183	11	96
	Mid seral	1.875	3	1.798	1.891	1.974	2.044	2.185	2.384	2.801	24	
	Late seral	1.619	0	1.846	1.874	1.912	1.951	1.996	2.089	2.327	11	
SHAPE_AM	Early seral	2.254	0	2.545	3.209	3.869	4.344	5.094	7.157	9.448	91	36
	Mid seral	5.962	77	3.257	3.700	4.464	5.028	5.816	7.779	19.344	81	
	Late seral	13.777	52	7.054	9.974	11.740	13.601	17.743	25.073	36.594	111	

CPLAND	Early seral	1.148	3	0.799	1.220	2.173	2.968	4.364	7.014	8.799	195	60
	Mid seral	6.909	83	1.788	2.753	4.047	5.223	6.446	8.043	10.012	101	
	Late seral	27.939	91	13.889	16.261	19.453	22.463	25.341	29.668	31.841	60	
CORE_MN	Early seral	6.366	3	4.301	7.184	9.791	12.397	16.843	23.570	31.863	132	96
	Mid seral	59.597	100	3.214	6.215	9.480	12.093	15.191	20.968	25.984	122	
	Late seral	86.198	100	13.567	18.137	24.567	31.802	40.064	60.590	85.357	133	
CORE_AM	Early seral	62.599	1	35.723	102.070	198.156	308.685	510.552	1263.532	4339.743	376	63
	Mid seral	1557.498	98	42.906	110.922	205.044	324.616	497.306	1254.915	2155.960	352	
	Late seral	12400.300	63	1833.748	4879.800	7712.952	10160.342	15771.860	23339.092	32237.115	182	
CAI_MN	Early seral	48.098	96	26.537	30.068	34.519	38.951	42.297	47.891	55.518	46	87
	Mid seral	79.180	0	78.847	80.882	82.694	83.928	85.491	87.666	89.822	8	
	Late seral	27.409	5	18.098	27.333	33.032	36.922	40.152	43.969	50.025	45	
CAI_AM	Early seral	75.929	52	60.515	68.973	73.172	75.670	78.569	82.291	84.655	18	56
	Mid seral	88.197	5	86.354	88.063	89.667	90.546	91.309	92.330	93.844	5	
	Late seral	84.069	98	74.010	76.492	79.316	80.893	82.273	83.783	84.801	9	
PROX_MN	Early seral	11.344	1	8.739	20.627	52.545	92.846	192.303	460.435	927.669	474	79
	Mid seral	610.111	99	18.925	41.054	74.259	123.844	194.309	400.473	853.004	290	
	Late seral	11286.373	86	743.787	1849.825	2945.876	4588.304	7347.103	16817.474	22937.363	326	
PROX_AM	Early seral	25.316	3	8.906	32.183	96.958	188.354	456.290	1219.691	2514.601	630	43
	Mid seral	534.699	77	43.657	83.809	163.524	284.647	516.214	1318.839	5563.602	434	
	Late seral	12315.486	84	1160.094	2087.796	4031.771	6262.431	9833.915	19350.374	35723.272	276	
CWED	Early seral	0.796	0	0.900	1.187	1.694	2.133	2.677	3.636	4.522	115	72
	Mid seral	2.189	20	1.167	1.648	2.270	2.771	3.225	4.195	6.017	92	
	Late seral	8.744	1	8.642	9.185	9.979	10.530	11.111	12.121	13.678	28	
TECI	Early seral	29.818	6	27.440	29.770	31.319	32.145	32.951	34.158	34.881	14	84
	Mid seral	30.485	100	21.044	21.650	22.600	23.272	24.122	25.464	27.091	16	
	Late seral	41.499	93	30.578	34.447	36.405	37.891	39.327	41.833	45.065	19	
CLUMPY	Early seral	0.891	44	0.834	0.869	0.884	0.894	0.904	0.914	0.924	5	67
	Mid seral	0.940	100	0.681	0.778	0.849	0.870	0.885	0.900	0.912	14	
	Late seral	0.942	100	0.870	0.896	0.906	0.914	0.920	0.927	0.933	3	

IJI	Early seral	59.534	35	49.561	52.980	58.057	61.108	63.507	66.159	68.571	22	58
	Mid seral	62.793	100	21.223	30.448	41.051	46.361	51.565	57.334	61.897	58	
	Late seral	76.781	93	57.323	65.719	70.246	72.436	74.569	76.923	78.028	15	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	63
<i>Class Configuration Departure Index</i>	72
<i>Cover Type Departure Index</i>	68

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.