

Table. Range of variation in landscape structure for high-elevation conifer forest 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 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	0.518	0	0.762	1.721	2.588	3.713	5.059	7.885	13.137	166	64
	Mid seral	5.477	38	1.792	2.833	4.505	6.000	7.582	10.502	13.191	128	
	Late seral	32.607	98	13.678	17.708	21.862	24.998	27.310	30.850	34.588	53	
<i>Class Configuration</i> ⁵												
PD	Early seral	0.026	0	0.132	0.172	0.208	0.238	0.279	0.337	0.411	69	100
	Mid seral	0.090	0	0.214	0.303	0.403	0.446	0.494	0.617	1.007	71	
	Late seral	0.144	0	0.359	0.510	0.638	0.715	0.824	0.938	1.053	60	
ED	Early seral	0.739	0	1.922	3.586	5.010	6.499	8.231	11.368	18.276	120	100
	Mid seral	4.986	0	4.687	7.595	10.592	12.620	15.432	18.821	27.282	89	
	Late seral	19.887	0	20.556	22.969	26.395	28.330	30.178	34.153	39.100	39	
AREA_MN	Early seral	20.041	78	5.758	8.565	11.733	15.340	19.115	27.547	40.563	124	71
	Mid seral	61.159	100	3.071	6.658	10.378	13.424	17.073	23.038	33.544	122	
	Late seral	225.790	100	14.317	19.799	26.133	34.835	42.758	56.179	89.897	104	
AREA_AM	Early seral	98.456	4	60.960	104.050	213.587	345.425	685.503	1737.153	2729.224	473	79
	Mid seral	2817.635	100	30.205	106.256	227.532	468.532	707.232	1285.116	2042.663	252	
	Late seral	12366.375	88	1682.246	2439.699	5057.258	7111.998	9888.649	14302.052	18592.783	167	
GYRATE_AM	Early seral	502.857	12	347.192	436.756	619.822	804.104	1113.682	1815.299	2429.317	171	76
	Mid seral	1982.878	100	231.444	451.358	642.797	907.530	1134.318	1564.460	1888.929	123	
	Late seral	5674.131	94	1748.474	2051.095	3013.793	3733.825	4679.051	5915.309	7141.805	103	
SHAPE_MN	Early seral	1.731	0	1.714	1.801	1.854	1.898	1.952	2.024	2.173	12	74
	Mid seral	1.913	4	1.848	1.917	2.012	2.083	2.186	2.370	2.550	22	
	Late seral	2.072	85	1.839	1.870	1.924	1.979	2.032	2.151	2.263	14	
SHAPE_AM	Early seral	2.425	0	2.710	3.229	3.899	4.476	5.712	8.011	9.602	107	33
	Mid seral	6.344	64	3.407	3.765	4.638	5.736	6.834	8.869	11.351	89	
	Late seral	12.934	53	6.756	8.253	10.967	12.688	14.590	20.078	29.029	93	

CPLAND	Early seral	0.370	0	0.465	1.088	1.811	2.751	3.879	6.166	10.671	185	66
	Mid seral	4.726	35	1.616	2.522	4.027	5.374	6.823	9.149	11.621	123	
	Late seral	27.241	100	9.448	13.307	16.839	19.528	21.570	24.491	28.466	57	
CORE_MN	Early seral	14.327	72	3.510	5.658	8.323	11.490	14.651	21.921	32.949	142	67
	Mid seral	52.778	100	2.758	5.950	9.344	12.053	15.245	20.201	29.551	118	
	Late seral	188.629	100	9.889	14.831	20.192	27.314	33.832	45.325	73.984	112	
CORE_AM	Early seral	76.751	5	46.853	79.132	178.975	287.428	580.236	1469.577	2426.764	484	77
	Mid seral	2420.599	100	27.815	99.739	208.571	436.142	646.845	1154.585	1937.063	242	
	Late seral	10479.206	88	1408.871	2008.458	4215.978	6125.699	8291.307	11923.498	15741.664	162	
CAI_MN	Early seral	43.143	88	25.559	29.868	34.776	37.616	40.610	45.547	50.985	42	75
	Mid seral	78.945	7	75.978	78.789	80.791	82.199	83.600	85.987	87.694	9	
	Late seral	60.994	100	21.174	27.368	33.630	38.500	41.679	45.420	51.656	47	
CAI_AM	Early seral	71.488	28	56.286	63.607	70.864	74.267	76.781	80.366	81.936	23	64
	Mid seral	86.297	2	84.811	86.988	88.270	89.258	90.099	91.229	92.114	5	
	Late seral	83.542	100	69.072	73.525	76.791	78.341	79.477	81.030	82.704	10	
PROX_MN	Early seral	15.519	3	6.573	19.269	53.148	113.538	241.708	610.384	1341.423	521	76
	Mid seral	61.238	14	20.237	41.646	88.469	173.745	289.634	516.460	920.413	273	
	Late seral	12898.141	99	410.521	872.750	1860.400	3078.712	4393.132	8254.569	13764.254	240	
PROX_AM	Early seral	65.039	16	8.644	26.032	106.260	258.469	632.703	1773.774	7726.741	676	77
	Mid seral	66.226	2	30.311	94.901	221.257	383.424	778.908	1409.246	3723.891	343	
	Late seral	24818.588	100	841.029	1502.467	2483.192	3824.986	6340.811	15243.410	25574.511	359	
CWED	Early seral	0.272	0	0.663	1.200	1.639	2.103	2.651	3.682	6.270	118	93
	Mid seral	1.611	3	1.074	1.761	2.472	3.019	3.740	4.732	6.254	98	
	Late seral	8.475	2	7.645	9.167	9.988	10.723	11.421	12.525	13.443	31	
TECI	Early seral	36.738	100	28.954	30.597	31.817	32.477	33.110	34.300	35.129	11	95
	Mid seral	31.998	100	21.417	22.213	23.018	23.675	24.651	26.198	27.428	17	
	Late seral	42.184	96	30.669	33.876	35.902	37.570	39.317	41.962	45.386	22	
CLUMPY	Early seral	0.916	100	0.824	0.850	0.875	0.887	0.898	0.909	0.916	7	100
	Mid seral	0.941	100	0.679	0.783	0.840	0.862	0.877	0.895	0.912	13	
	Late seral	0.944	100	0.857	0.881	0.896	0.904	0.913	0.919	0.936	4	

IJI	Early seral	40.927	0	49.194	54.597	59.280	61.742	64.337	67.551	70.166	21	67
	Mid seral	65.159	100	25.595	34.786	42.829	47.737	51.991	60.471	64.972	54	
	Late seral	72.146	41	55.615	65.656	69.888	73.222	75.364	77.424	79.286	16	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	64
<i>Class Configuration Departure Index</i>	77
<i>Cover Type Departure Index</i>	70

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 = interspersion 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.