

Table. Range of variation in landscape structure for high-elevation conifer forest 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 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	1.424	26	0.381	0.767	1.376	2.129	3.436	6.379	10.228	264	26
	Mid seral	7.154	95	0.876	1.172	2.034	2.931	4.340	7.182	9.336	205	
	Late seral	22.114	50	7.870	13.560	17.959	22.139	24.835	27.864	29.564	65	
<i>Class Configuration</i> ⁵												
PD	Early seral	0.068	0	0.062	0.081	0.097	0.114	0.145	0.188	0.268	93	100
	Mid seral	0.079	0	0.094	0.128	0.164	0.212	0.256	0.324	0.451	93	
	Late seral	0.144	0	0.201	0.257	0.346	0.440	0.512	0.692	0.858	99	
ED	Early seral	1.808	9	1.075	1.561	2.394	3.244	4.642	7.269	11.685	176	53
	Mid seral	5.367	42	1.915	2.817	4.148	5.700	7.581	10.798	13.704	140	
	Late seral	15.773	1	15.244	16.579	18.090	19.368	21.440	23.745	27.810	37	
AREA_MN	Early seral	20.850	59	3.972	8.206	12.952	18.580	25.490	39.674	52.924	169	67
	Mid seral	90.320	100	4.202	7.051	10.981	14.745	18.697	26.748	35.755	134	
	Late seral	154.016	100	9.452	22.329	34.459	50.762	71.059	108.569	146.108	170	
AREA_AM	Early seral	107.809	7	32.588	90.165	218.915	499.702	984.475	2229.778	3717.238	428	57
	Mid seral	3219.275	100	82.320	152.260	305.601	559.927	1011.957	1735.492	2670.322	283	
	Late seral	13988.834	52	808.422	3776.826	8661.565	13830.820	22145.615	47071.681	57536.952	313	
GYRATE_AM	Early seral	456.786	8	270.752	418.557	663.203	991.733	1416.512	2103.393	2815.956	170	56
	Mid seral	2609.310	100	392.658	490.283	731.869	1038.945	1385.776	1900.072	2474.858	136	
	Late seral	5500.040	46	971.933	2627.271	4267.503	5813.199	7415.762	11089.539	12012.849	146	
SHAPE_MN	Early seral	1.619	0	1.619	1.712	1.790	1.869	1.939	2.054	2.265	18	47
	Mid seral	1.909	21	1.666	1.816	1.920	1.991	2.123	2.340	2.636	26	
	Late seral	2.020	81	1.815	1.843	1.888	1.938	1.991	2.099	2.239	13	
SHAPE_AM	Early seral	2.247	0	2.503	2.853	3.683	4.839	6.105	9.179	22.067	131	33
	Mid seral	6.372	64	2.542	3.618	4.913	5.828	6.854	9.733	13.186	105	
	Late seral	14.288	36	5.344	9.321	12.849	16.392	20.041	27.938	39.947	114	

CPLAND	Early seral	1.116	29	0.211	0.485	1.023	1.674	2.760	5.334	8.467	290	26
	Mid seral	6.237	95	0.766	1.028	1.800	2.593	3.887	6.335	8.227	205	
	Late seral	18.167	55	4.725	10.354	14.219	17.710	20.238	23.119	24.685	72	
CORE_MN	Early seral	16.344	57	2.193	5.067	9.377	14.286	20.598	33.395	45.587	198	67
	Mid seral	78.744	100	3.712	6.212	9.675	13.009	16.549	23.566	31.759	133	
	Late seral	126.522	100	5.675	16.949	26.509	40.778	58.269	89.662	122.359	178	
CORE_AM	Early seral	92.125	9	21.358	72.260	181.633	421.678	866.661	1933.593	3270.892	441	55
	Mid seral	2824.131	100	71.371	138.246	278.256	500.804	921.451	1585.815	2375.654	289	
	Late seral	11866.024	51	655.135	3238.134	7206.992	11740.509	18767.000	40194.698	49060.018	315	
CAI_MN	Early seral	51.088	99	16.171	22.853	30.712	34.807	39.073	46.015	57.720	67	98
	Mid seral	74.133	0	73.393	75.855	78.817	80.806	82.799	85.555	88.255	12	
	Late seral	59.509	100	17.354	22.891	29.998	34.158	39.411	45.951	49.955	68	
CAI_AM	Early seral	78.390	54	33.369	62.048	73.137	77.684	81.587	84.483	86.894	29	4
	Mid seral	87.183	27	78.353	84.073	86.929	88.202	89.493	90.871	92.143	8	
	Late seral	82.149	78	60.041	73.101	78.124	80.402	82.020	83.274	83.808	13	
PROX_MN	Early seral	17.947	6	7.375	16.794	37.690	116.710	252.887	764.230	1044.936	640	50
	Mid seral	539.935	94	10.381	32.501	73.673	142.509	232.056	575.280	862.878	381	
	Late seral	8851.630	66	148.659	1220.354	2794.857	6361.978	10911.464	28361.086	46760.192	427	
PROX_AM	Early seral	24.050	7	5.685	20.304	66.326	142.624	360.044	1145.478	2923.590	789	34
	Mid seral	532.747	83	9.105	37.125	105.985	214.263	394.174	1123.987	3401.770	507	
	Late seral	9878.708	52	167.742	1883.057	5723.613	9348.561	17254.675	37990.890	87291.195	386	
CWED	Early seral	0.615	10	0.372	0.530	0.775	1.073	1.489	2.248	3.686	160	47
	Mid seral	1.851	71	0.464	0.683	1.035	1.419	1.907	2.864	3.511	154	
	Late seral	6.621	5	5.661	6.642	7.561	8.004	8.539	9.449	10.151	35	
TECI	Early seral	33.544	76	27.237	28.965	31.171	32.465	33.462	35.555	38.816	20	35
	Mid seral	33.683	100	21.727	22.735	23.823	24.780	25.837	27.529	29.759	19	
	Late seral	41.684	65	33.146	35.089	38.511	40.604	42.473	44.628	47.035	23	
CLUMPY	Early seral	0.922	79	0.730	0.842	0.892	0.905	0.919	0.930	0.937	10	67
	Mid seral	0.950	100	0.693	0.818	0.856	0.884	0.898	0.916	0.926	11	
	Late seral	0.944	97	0.859	0.902	0.919	0.925	0.936	0.943	0.945	4	

IJI	Early seral	43.235	5	21.513	42.992	54.813	59.017	61.890	66.032	68.658	39	60
	Mid seral	64.117	100	17.485	32.245	38.101	44.779	50.982	56.565	62.787	54	
	Late seral	74.350	67	59.668	65.691	70.592	73.170	74.756	76.528	77.626	15	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	26
<i>Class Configuration Departure Index</i>	53
<i>Cover Type Departure Index</i>	40

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.