

Table. Range of variation in landscape structure for high elevation conifer stands under the simulated HRV disturbance scenario on the 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	1.154	0	1.028	1.912	2.752	3.486	4.625	5.993	9.710	117	76
	Mid seral	6.842	89	2.237	2.823	4.250	5.307	6.159	7.393	10.257	86	
	Late seral	29.663	93	17.118	19.563	22.893	24.693	26.836	29.934	33.645	42	
<i>Class Configuration</i> ⁵												
PD	Early seral	0.094	0	0.120	0.158	0.184	0.202	0.228	0.255	0.298	48	100
	Mid seral	0.093	0	0.200	0.276	0.329	0.366	0.403	0.505	0.713	63	
	Late seral	0.206	0	0.364	0.462	0.572	0.629	0.691	0.762	0.965	48	
ED	Early seral	1.763	0	2.222	3.681	4.773	5.757	6.990	8.873	10.948	90	98
	Mid seral	5.891	1	4.637	6.802	8.954	10.537	12.087	14.896	18.126	77	
	Late seral	19.030	0	20.623	22.095	24.257	25.218	26.757	30.268	33.921	32	
AREA_MN	Early seral	12.227	11	7.791	11.074	14.593	17.487	21.317	25.077	40.685	80	85
	Mid seral	73.979	100	5.236	7.544	11.584	14.408	17.183	20.630	28.357	91	
	Late seral	144.006	100	19.439	26.576	33.394	39.353	47.383	61.677	92.353	89	
AREA_AM	Early seral	90.648	0	139.744	197.201	371.588	594.462	1050.522	1989.587	6501.871	302	66
	Mid seral	2673.772	99	114.047	189.211	409.711	579.074	842.129	1501.494	3436.022	227	
	Late seral	18970.026	43	4356.567	6980.323	13286.416	21111.865	30265.261	50194.381	58726.308	205	
GYRATE_AM	Early seral	411.474	0	503.057	601.086	788.146	1035.525	1310.039	1844.979	3031.373	120	67
	Mid seral	2208.090	100	413.149	552.259	828.889	1008.422	1212.345	1586.504	2012.975	103	
	Late seral	6705.988	57	2770.982	3430.386	5094.261	6368.670	7661.226	9799.971	11070.132	100	
SHAPE_MN	Early seral	1.524	0	1.744	1.833	1.871	1.904	1.943	2.000	2.098	9	97
	Mid seral	1.902	2	1.871	1.928	1.994	2.061	2.168	2.373	2.588	22	
	Late seral	1.802	0	1.850	1.885	1.929	1.960	2.003	2.077	2.171	10	
SHAPE_AM	Early seral	2.278	0	3.242	3.781	4.326	5.019	6.061	8.029	10.601	85	33
	Mid seral	6.530	70	3.600	4.313	5.060	5.872	6.790	8.674	12.795	74	
	Late seral	15.400	28	9.419	11.540	14.976	18.233	21.648	30.279	41.186	103	

CPLAND	Early seral	0.878	0	0.681	1.358	2.041	2.678	3.633	4.758	7.955	127	77
	Mid seral	5.976	87	2.000	2.525	3.813	4.740	5.526	6.640	9.004	87	
	Late seral	24.743	97	13.189	15.171	18.010	19.703	21.668	24.356	28.018	47	
CORE_MN	Early seral	9.304	15	5.003	7.693	10.825	13.392	16.731	19.885	33.332	91	80
	Mid seral	64.607	100	4.659	6.695	10.300	12.943	15.257	18.435	24.894	91	
	Late seral	120.121	100	14.326	20.553	26.037	31.370	38.182	50.551	76.908	96	
CORE_AM	Early seral	76.063	0	112.884	164.112	309.818	513.645	901.005	1712.801	5850.041	302	65
	Mid seral	2345.213	99	104.759	172.620	372.787	529.196	770.794	1382.655	3245.394	229	
	Late seral	16356.475	44	3743.109	6012.674	11357.774	18180.288	26156.770	42736.357	50538.042	202	
CAI_MN	Early seral	48.053	99	28.223	31.547	35.126	37.694	40.300	44.634	50.622	35	85
	Mid seral	78.026	0	78.274	79.940	81.588	82.664	83.562	86.211	87.969	8	
	Late seral	40.879	90	24.604	29.059	33.386	36.253	38.853	41.827	44.918	35	
CAI_AM	Early seral	76.097	47	63.803	69.613	73.748	76.421	78.275	80.735	83.731	15	64
	Mid seral	87.332	2	86.952	87.783	88.909	89.460	90.020	90.845	92.028	3	
	Late seral	83.414	100	73.695	76.923	78.667	79.833	80.649	82.123	83.276	7	
PROX_MN	Early seral	13.556	0	16.657	39.990	81.193	149.970	291.958	626.430	1324.790	391	71
	Mid seral	483.163	96	33.740	51.210	119.386	188.940	268.510	442.544	909.028	207	
	Late seral	13458.680	82	1379.859	2547.957	4573.752	7989.072	11201.275	22900.347	34993.079	255	
PROX_AM	Early seral	31.931	0	36.490	70.837	166.373	338.759	752.585	1643.875	6726.149	464	41
	Mid seral	445.484	44	85.172	132.207	279.127	491.318	729.769	1480.149	5332.397	274	
	Late seral	22035.453	81	2249.614	4690.147	9033.183	12969.088	18631.127	37211.855	72847.685	251	
CWED	Early seral	0.569	0	0.761	1.193	1.565	1.848	2.238	2.824	3.595	88	79
	Mid seral	1.899	15	1.084	1.614	2.147	2.555	2.898	3.499	4.159	74	
	Late seral	8.028	0	7.884	8.902	9.442	9.825	10.253	11.053	11.727	22	
TECI	Early seral	32.203	42	29.161	30.604	31.673	32.404	32.996	33.939	34.887	10	61
	Mid seral	32.015	100	21.805	22.359	23.353	23.997	24.634	25.479	27.571	13	
	Late seral	42.064	96	33.435	35.467	37.257	38.377	39.675	41.764	43.552	16	
CLUMPY	Early seral	0.906	81	0.849	0.873	0.887	0.897	0.904	0.911	0.923	4	75
	Mid seral	0.943	100	0.747	0.801	0.856	0.872	0.884	0.895	0.908	11	
	Late seral	0.944	100	0.881	0.901	0.909	0.914	0.920	0.928	0.932	3	

IJI	Early seral	53.790	2	49.943	56.004	58.809	61.435	63.278	66.116	68.520	16	87
	Mid seral	64.884	100	26.321	33.996	42.144	47.167	50.919	55.855	60.739	46	
	Late seral	76.868	93	62.476	68.391	71.368	73.075	75.004	77.174	78.844	12	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	76
<i>Class Configuration Departure Index</i>	74
<i>Cover Type Departure Index</i>	75

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.