

Table. Range of variation in landscape structure for oak-dominated shrubland under the simulated HRV disturbance scenario on the San Juan National 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	
		Metric Value	Percentile of HRV	0	5	25	50	75	95	100		
<i>Seral Stage Composition</i> ⁴												
PLAND	Early seral	13.969	100	4.948	6.189	7.387	8.133	9.007	10.169	11.467	49	
	Late seral	1.072	0	3.431	4.991	6.058	6.888	7.510	8.558	9.675	52	
<i>Class Configuration</i> ⁵												
PD	Early seral	0.269	0	0.346	0.386	0.420	0.458	0.499	0.569	0.686	40	
	Late seral	0.017	0	0.161	0.188	0.214	0.231	0.248	0.268	0.297	35	
ED	Early seral	14.011	98	8.041	9.363	10.612	11.481	12.315	13.474	14.834	36	
	Late seral	1.100	0	5.290	7.055	8.270	9.107	9.770	10.822	11.800	41	
AREA_MN	Early seral	52.025	100	10.410	13.252	15.480	17.467	19.769	23.502	26.978	59	
	Late seral	63.560	100	19.284	24.581	27.386	29.378	31.466	34.377	39.237	33	
AREA_AM	Early seral	1115.043	67	263.831	402.892	644.339	931.728	1358.824	1773.040	2165.739	147	
	Late seral	692.319	96	171.962	247.789	325.436	413.060	535.030	675.763	911.641	104	
GYRATE_AM	Early seral	1462.217	79	698.071	834.518	1050.187	1228.255	1433.403	1674.136	1924.737	68	
	Late seral	1281.975	100	636.908	716.439	817.383	892.905	989.796	1113.992	1269.342	45	
SHAPE_MN	Early seral	1.963	100	1.761	1.797	1.823	1.840	1.858	1.881	1.901	5	
	Late seral	2.049	100	1.824	1.897	1.930	1.945	1.959	1.975	2.013	4	
SHAPE_AM	Early seral	4.795	56	3.211	3.668	4.210	4.650	5.259	5.912	6.343	48	
	Late seral	4.917	99	3.291	3.485	3.731	4.001	4.282	4.580	5.126	27	
CPLAND	Early seral	10.721	100	3.483	4.570	5.461	6.059	6.790	7.738	8.910	52	
	Late seral	0.809	0	2.555	3.726	4.577	5.234	5.735	6.476	7.436	53	
CORE_MN	Early seral	39.929	100	7.328	9.632	11.391	13.114	14.916	18.074	20.982	64	
	Late seral	47.962	100	14.383	18.132	20.706	22.350	24.151	26.428	30.157	37	
CORE_AM	Early seral	961.333	66	220.894	332.009	544.144	799.789	1185.363	1543.087	1887.471	151	

	Late seral	566.502	92	143.861	210.126	277.585	358.461	468.173	598.069	812.216	108
CAI_MN	Early seral	45.353	100	24.418	26.529	29.724	31.848	33.799	36.153	37.795	30
	Late seral	51.664	62	46.763	48.607	49.877	50.984	52.461	54.932	60.125	12
CAI_AM	Early seral	76.750	91	70.033	72.081	73.566	74.750	75.771	77.043	78.274	7
	Late seral	75.459	37	72.442	73.931	75.050	75.840	76.661	77.588	78.808	5
PROX_MN	Early seral	318.368	90	43.259	84.760	133.906	186.838	266.981	357.184	469.035	146
	Late seral	38.152	0	48.672	83.082	112.110	141.303	179.019	243.286	356.172	113
PROX_AM	Early seral	1137.620	66	121.644	284.973	623.718	893.875	1288.046	1843.701	2638.833	174
	Late seral	80.102	0	107.041	173.840	256.115	333.424	448.834	672.657	1054.129	150
CWED	Early seral	5.577	99	2.774	3.395	3.847	4.242	4.604	5.195	5.774	42
	Late seral	0.439	0	1.599	2.226	2.608	2.937	3.193	3.590	3.958	46
TECI	Early seral	38.997	97	33.066	34.532	35.803	36.548	37.336	38.733	39.728	11
	Late seral	39.007	100	28.975	29.765	30.937	31.626	32.501	33.730	34.962	13
CLUMPY	Early seral	0.926	100	0.881	0.892	0.899	0.904	0.909	0.914	0.917	2
	Late seral	0.936	100	0.900	0.905	0.908	0.910	0.913	0.915	0.920	1
IJI	Early seral	78.322	100	65.913	69.201	71.528	72.905	74.743	76.612	78.335	10
	Late seral	78.585	89	69.762	73.033	74.853	76.178	77.526	79.431	81.201	8

Summary Indices⁶:

Seral-Stage Departure Index
Class Configuration Departure Index
Cover Type Departure Index

¹Some stand conditions are not represented in the current landscape. Certain metrics are logically zero if the class is absent, while others are undefined 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 as a percentage 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 area 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 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 = interspecific 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 from the expected distribution of seral stages. Class configuration departure index is based on several landscape metrics that quantify different aspects of the spatial distribution of the cover types 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 indices.

Forest,

**HRV
Departure
Index³**

100

100

96

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