

Table. Range of variation in landscape structure for Pinyon-Juniper Woodland 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							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	Herb Dominated	0.026	64	0.000	0.000	0.002	0.012	0.050	0.154	0.386	1304	53
	Herbs - Shrubs	0.231	85	0.010	0.025	0.068	0.114	0.177	0.304	0.476	246	
	Shrubs - Trees	0.022	0	0.042	0.091	0.155	0.214	0.272	0.417	0.516	152	
	Tree Dominated	0.275	93	0.003	0.009	0.108	0.171	0.232	0.290	0.354	165	
<i>Class Configuration</i> ⁵												
PD	Herb Dominated	0.005	21	0.000	0.000	0.007	0.015	0.026	0.052	0.103	349	79
	Herbs - Shrubs	0.021	0	0.020	0.038	0.054	0.066	0.080	0.114	0.164	116	
	Shrubs - Trees	0.002	0	0.057	0.073	0.096	0.108	0.124	0.139	0.159	62	
	Tree Dominated	0.017	0	0.012	0.043	0.095	0.118	0.139	0.162	0.245	100	
ED	Herb Dominated	0.066	49	0.000	0.000	0.018	0.070	0.188	0.483	1.072	688	25
	Herbs - Shrubs	0.471	58	0.070	0.152	0.292	0.432	0.636	0.849	1.139	161	
	Shrubs - Trees	0.043	0	0.297	0.446	0.668	0.803	0.928	1.055	1.349	76	
	Tree Dominated	0.504	28	0.026	0.078	0.475	0.664	0.852	0.973	1.072	135	
AREA_MN	Herb Dominated	5.159	98	0.000	0.063	0.315	0.776	2.040	4.497	6.419	571	98
	Herbs - Shrubs	10.955	100	0.332	0.548	1.124	1.668	2.534	4.294	7.355	225	
	Shrubs - Trees	11.475	100	0.475	0.818	1.342	1.868	2.611	5.457	8.921	248	
	Tree Dominated	16.387	100	0.093	0.137	1.001	1.451	1.821	2.521	4.872	164	
AREA_AM	Herb Dominated	7.177	59	0.000	0.063	0.967	4.219	15.126	38.090	96.889	901	45
	Herbs - Shrubs	50.905	95	1.460	4.035	10.391	15.855	26.818	51.629	76.447	300	
	Shrubs - Trees	14.152	34	2.508	6.662	12.208	17.369	28.592	41.116	52.274	198	
	Tree Dominated	39.667	100	0.381	0.581	10.586	14.205	18.953	25.174	48.138	173	
GYRATE_AM	Herb Dominated	121.422	53	0.000	12.500	48.008	111.265	203.645	311.619	540.373	269	45
	Herbs - Shrubs	358.711	95	55.613	96.782	162.308	199.974	251.410	355.794	439.752	130	
	Shrubs - Trees	180.807	35	72.614	119.416	166.538	201.791	252.519	318.436	347.783	99	
	Tree Dominated	341.456	100	21.414	31.103	155.540	177.291	211.023	246.996	352.469	122	
SHAPE_MN	Herb Dominated	1.450	84	1.000	1.037	1.196	1.296	1.401	1.549	2.000	39	81

	Herbs - Shrubs	1.817	100	1.136	1.216	1.298	1.348	1.401	1.518	1.727	22	
	Shrubs - Trees	1.604	97	1.184	1.272	1.345	1.393	1.440	1.554	1.787	20	
	Tree Dominated	1.987	100	1.030	1.059	1.252	1.300	1.338	1.382	1.458	25	
SHAPE_AM	Herb Dominated	1.510	19	1.000	1.087	1.686	2.108	2.510	3.294	4.453	105	31
	Herbs - Shrubs	2.501	58	1.572	1.918	2.231	2.409	2.696	3.291	3.954	57	
	Shrubs - Trees	1.737	0	1.638	2.045	2.286	2.401	2.596	3.059	3.271	42	
	Tree Dominated	2.303	50	1.096	1.249	2.129	2.303	2.471	2.689	2.952	63	
CPLAND	Herb Dominated	0.018	67	0.000	0.000	0.000	0.004	0.027	0.095	0.270	2158	53
	Herbs - Shrubs	0.196	85	0.006	0.019	0.053	0.093	0.147	0.264	0.403	264	
	Shrubs - Trees	0.022	0	0.034	0.074	0.129	0.181	0.230	0.347	0.433	151	
	Tree Dominated	0.203	93	0.001	0.005	0.067	0.117	0.169	0.213	0.267	178	
CORE_MN	Herb Dominated	3.457	97	0.000	0.000	0.047	0.318	1.118	3.043	4.736	957	97
	Herbs - Shrubs	9.298	100	0.216	0.402	0.887	1.342	2.106	3.617	6.217	239	
	Shrubs - Trees	11.100	100	0.386	0.676	1.110	1.579	2.194	4.557	7.506	246	
	Tree Dominated	12.067	100	0.042	0.083	0.616	0.976	1.301	1.839	3.785	180	
CORE_AM	Herb Dominated	4.987	63	0.000	0.000	0.178	2.155	9.571	28.392	61.213	1318	45
	Herbs - Shrubs	43.846	96	1.103	3.210	8.556	13.680	23.371	41.922	60.985	283	
	Shrubs - Trees	13.571	40	2.082	5.591	10.474	15.273	24.903	34.508	42.150	189	
	Tree Dominated	33.148	100	0.101	0.266	7.372	10.078	14.796	21.938	41.100	215	
CAI_MN	Herb Dominated	57.654	100	0.000	0.000	6.647	15.230	25.774	39.888	64.286	262	89
	Herbs - Shrubs	77.327	97	35.748	53.934	61.937	66.524	70.856	76.467	79.863	34	
	Shrubs - Trees	97.689	100	64.932	69.690	72.473	74.838	77.236	80.607	83.492	15	
	Tree Dominated	51.873	8	16.921	46.550	59.927	64.554	68.112	72.843	82.058	41	
CAI_AM	Herb Dominated	67.008	90	0.000	0.000	15.077	40.204	57.298	71.041	75.813	177	50
	Herbs - Shrubs	84.871	77	57.705	69.052	76.952	81.585	84.653	87.754	92.934	23	
	Shrubs - Trees	96.732	100	70.805	79.625	82.280	83.979	85.825	87.978	90.301	10	
	Tree Dominated	73.639	83	25.083	53.630	62.605	69.285	72.961	75.532	83.608	32	
PROX_MN	Herb Dominated	0.092	10	0.000	0.000	0.727	2.948	8.612	21.093	69.785	715	62
	Herbs - Shrubs	1.563	4	0.573	1.760	3.998	7.294	11.806	17.779	24.929	220	
	Shrubs - Trees	0.091	0	1.237	2.428	5.252	7.964	10.414	16.181	29.506	173	
	Tree Dominated	6.080	27	0.105	0.327	5.537	9.296	12.850	20.168	28.022	213	
PROX_AM	Herb Dominated	0.152	14	0.000	0.000	0.530	2.616	6.651	19.401	67.433	742	61

	Herbs - Shrubs	0.922	4	0.194	1.053	3.821	6.932	10.129	32.125	45.778	448	
	Shrubs - Trees	0.093	0	0.930	1.993	4.958	7.398	10.775	17.455	29.336	209	
	Tree Dominated	5.909	22	0.089	0.286	7.086	10.499	14.089	19.753	39.884	185	
CWED	Herb Dominated	0.017	49	0.000	0.000	0.005	0.018	0.043	0.113	0.224	640	32
	Herbs - Shrubs	0.108	82	0.009	0.024	0.049	0.069	0.094	0.134	0.185	160	
	Shrubs - Trees	0.007	0	0.041	0.068	0.108	0.131	0.157	0.191	0.242	94	
	Tree Dominated	0.147	37	0.008	0.021	0.127	0.169	0.208	0.237	0.258	128	
TECI	Herb Dominated	26.420	75	13.816	19.126	22.155	24.444	26.362	30.054	35.000	45	45
	Herbs - Shrubs	22.431	100	8.747	11.728	14.130	15.648	17.019	19.151	23.411	47	
	Shrubs - Trees	15.714	35	10.620	12.512	15.132	16.601	17.959	19.453	21.114	42	
	Tree Dominated	28.893	95	21.756	22.942	23.809	24.894	26.519	28.879	31.917	24	
CLUMPY	Herb Dominated	0.869	97	-1.000	0.355	0.563	0.691	0.799	0.854	1.000	72	97
	Herbs - Shrubs	0.879	100	0.521	0.617	0.723	0.768	0.808	0.840	0.866	29	
	Shrubs - Trees	0.908	100	0.562	0.677	0.732	0.771	0.803	0.852	0.871	23	
	Tree Dominated	0.892	100	0.209	0.325	0.726	0.761	0.781	0.809	0.854	64	
IJI	Herb Dominated	58.369	74	16.861	31.467	47.635	53.378	58.559	63.767	68.648	61	74
	Herbs - Shrubs	71.861	100	47.422	51.971	56.304	59.197	61.554	64.483	67.263	21	
	Shrubs - Trees	48.120	1	43.794	50.703	53.858	57.263	60.373	64.098	67.070	23	
	Tree Dominated	71.677	100	25.974	31.646	49.814	53.180	55.912	59.539	63.702	52	

Summary Indices⁶:

<i>Seral-Stage Departure Index</i>	53
<i>Class Configuration Departure Index</i>	62
<i>Cover Type Departure Index</i>	57

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.