

Table. Percent similarity between watersheds in the range of variation in landscape structure under the simulated HRV disturbance scenario on the San Juan National Forest, Colorado. Percent similarity was computed as the range of values (given here as the 5-95th percentiles of the simulated distribution) common to both landscapes (watersheds) divided by the total range of values across both landscapes, multiplied by 100 to convert to a percentage. Percent similarity approaches 100% as landscapes become increasingly similar in behavior and indicates that landscape context is not important. Conversely, percent similarity approaches 0% as landscape become increasingly unique or idiosyncratic in behavior and indicates that landscape context is important.

Landscape Metric	District						Percent Similarity			
	Columbine		Pagosa		Dolores		Colum.- Pagosa	Colum.- Dolores	Pagosa- Dolores	Average
	5 th Percentile	95 th Percentile	5 th Percentile	95 th Percentile	5 th Percentile	95 th Percentile				
<i>Landscape Composition</i> ¹										
PJ: Herb Dominated	0.000	0.151	0.000	0.346	0.000	0.154	44	98	44	62
PJ: Herbs - Shrubs	0.022	0.253	0.076	0.661	0.025	0.304	28	81	36	48
PJ: Shrubs - Trees	0.041	0.268	0.146	0.695	0.091	0.417	19	47	45	37
PJ: Tree Dominated	0.003	0.131	0.014	0.257	0.009	0.290	46	42	87	58
PJS: Herb Dominated	0.000	0.504	0.000	0.909	0.000	0.384	55	76	42	58
PJS: Herbs - Shrubs	0.077	0.875	0.116	1.740	0.047	0.812	46	89	41	59
PJS: Shrubs - Trees	0.234	1.094	0.368	2.088	0.277	1.405	39	70	57	55
PJS: Tree Dominated	0.016	0.536	0.030	0.984	0.021	1.072	52	49	91	64
PJOS: Herb Dominated	0.000	0.702	0.000	0.134	0.000	0.694	19	99	19	46
PJOS: Herbs - Shrubs	0.047	1.021	0.016	0.244	0.094	1.241	20	78	12	37
PJOS: Shrubs - Trees	0.097	0.995	0.040	0.263	0.354	1.480	17	46	0	21
PJOS: Tree Dominated	0.005	0.489	0.003	0.100	0.016	1.065	19	45	8	24
MTS: Herbs - Shrubs	0.587	4.954	0.782	7.347	1.214	8.340	62	48	81	64
MTS: Early Shrub Dominated	1.076	5.410	1.201	7.056	1.986	8.521	70	46	69	62
MTS: Late Shrub Dominated	4.486	9.258	3.729	9.659	3.578	9.331	80	83	92	85
PPO: Stand Initiation	0.213	0.527	0.374	0.822	0.667	1.464	25	0	14	13
PPO: Stem Exclusion	0.299	0.570	0.518	0.922	0.910	1.624	8	0	1	3
PPO: Understory Reinitiation	0.235	0.444	0.360	0.686	0.744	1.286	19	0	0	6
PPO: Shifting Mosaic	0.149	1.458	0.276	2.391	0.429	3.396	53	32	63	49
PPO: Fire Maintained Open Canopy	1.842	3.306	2.771	5.167	6.658	10.010	16	0	0	5
PPOA: Stand Initiation	0.023	0.148	0.036	0.208	0.070	0.457	60	18	33	37
PPOA: Stem Exclusion	0.113	0.270	0.160	0.381	0.337	0.842	41	0	6	16
PPOA: Understory Reinitiation	0.175	0.342	0.226	0.490	0.475	1.041	37	0	2	13
PPOA: Shifting Mosaic	0.159	0.917	0.290	1.243	0.387	2.509	58	23	39	40
PPOA: Fire Maintained Open Canopy	0.869	1.773	1.265	2.380	3.363	5.738	34	0	0	11
WMC: Stand Initiation	0.143	0.519	0.165	0.659	0.028	0.110	69	0	0	23
WMC: Stem Exclusion	0.532	0.901	0.690	1.135	0.101	0.196	35	0	0	12
WMC: Understory Reinitiation	0.857	1.310	0.840	1.508	0.152	0.255	68	0	0	23

WMC: Shifting Mosaic	0.704	2.452	0.936	3.325	0.168	0.529	58	0	0	19
WMC: Fire Maintained Open Canopy	2.171	4.044	2.792	5.252	0.467	0.840	41	0	0	14
WMCA: Stand Initiation	0.155	0.607	0.120	0.532	0.074	0.365	77	39	54	57
WMCA: Stem Exclusion	0.405	0.867	0.362	0.763	0.192	0.493	71	13	23	36
WMCA: Understory Reinitiation	0.875	1.411	0.682	1.176	0.413	1.377	41	50	51	48
WMCA: Shifting Mosaic	0.855	2.892	0.742	2.574	0.443	1.856	80	41	52	58
WMCA: Fire Maintained Open Canopy	1.855	3.903	1.664	3.428	0.949	2.312	70	15	26	37
CMC: Stand Initiation	0.219	1.164	0.420	1.977	0.045	0.383	42	15	0	19
CMC: Stem Exclusion	0.736	1.655	1.315	3.050	0.154	0.527	15	0	0	5
CMC: Understory Reinitiation	0.533	1.556	0.770	2.929	0.137	0.582	33	3	0	12
CMC: Shifting Mosaic	0.545	1.177	1.133	3.123	0.127	0.707	2	15	0	6
CMCA: Stand Initiation	0.188	2.810	0.184	2.871	0.057	1.947	98	64	63	75
CMCA: Stem Exclusion	0.947	4.142	1.249	4.678	0.397	3.018	78	55	41	58
CMCA: Understory Reinitiation	2.966	6.033	3.265	6.251	1.425	4.374	84	31	23	46
CMCA: Shifting Mosaic	1.126	3.197	1.340	3.701	0.333	2.964	72	64	48	62
ASP: Stand Initiation	0.045	0.690	0.016	0.187	0.263	2.876	21	15	0	12
ASP: Stem Exclusion	0.065	0.641	0.028	0.178	0.352	2.604	19	11	0	10
ASP: Understory Reinitiation	0.087	0.567	0.041	0.174	0.442	2.164	17	6	0	8
ASP: Shifting Mosaic	0.349	0.890	0.125	0.262	1.463	3.663	0	0	0	0
SF: Stand Initiation	1.554	7.271	1.171	5.696	0.701	6.143	68	70	83	74
SF: Stem Exclusion	2.400	7.414	1.646	7.586	1.113	6.783	84	70	79	78
SF: Understory Reinitiation	2.864	9.741	1.251	8.730	1.489	7.910	69	61	86	72
SF: Shifting Mosaic	3.909	9.792	2.984	11.118	1.442	8.895	72	60	61	64
SFA: Stand Initiation	0.040	2.563	0.013	1.013	0.036	3.125	38	82	31	50
SFA: Stem Exclusion	0.619	4.054	0.295	1.763	0.508	5.251	30	72	25	43
SFA: Understory Reinitiation	2.737	6.127	1.153	2.667	2.054	6.960	0	69	11	27
SFA: Shifting Mosaic	1.364	3.758	0.564	1.613	0.414	5.093	8	51	22	27
MS: Herbs - Shrubs	0.238	0.697	0.363	0.934	0.652	2.069	48	2	17	22
MS: Shrubs - Herbs	0.084	0.543	0.109	0.680	0.227	1.644	73	20	29	41

Average 45 36 30 37

Landscape Configuration²

Patch density	24.770	36.336	27.679	41.873	24.589	39.109	51	80	66	65
Edge density	105.847	129.750	114.281	142.593	109.438	135.331	42	69	63	58
Mean patch size	2.752	4.037	2.388	3.613	2.557	4.067	52	85	63	67
Area-weighted mean patch size	276.379	424.351	358.198	562.052	389.260	673.736	23	9	55	29
Correlation length	682.774	819.548	691.940	868.253	801.109	1003.495	69	6	22	32
Mean shape index	1.311	1.352	1.313	1.349	1.300	1.347	86	69	68	75
Area-weighted mean shape index	3.980	4.603	4.339	4.933	4.924	6.035	28	0	1	9
Mean core area	2.035	2.971	1.697	2.593	1.784	2.916	44	74	66	61
Area-weighted mean core area	234.445	360.086	304.932	479.323	316.792	559.013	23	13	64	33

Mean core area index	40.648	54.853	40.580	52.832	36.288	47.838	85	39	44	56	
Area-weighted mean core area index	72.083	76.256	68.929	73.500	68.136	72.635	19	7	69	32	
Mean proximity index	47.516	71.795	49.558	78.180	79.794	130.270	73	0	0	24	
Area-weighted mean proximity index	186.156	321.008	219.924	489.583	254.001	715.230	33	13	48	31	
Contrast-weighted edge density	26.190	31.180	30.107	35.249	29.648	35.348	12	17	90	40	
Total edge contrast index	21.780	26.174	22.307	26.657	23.607	27.792	79	43	56	59	
Contagion	48.103	50.135	46.790	49.164	47.243	49.624	32	53	68	51	
Interspersion & juxtaposition index	67.783	72.619	69.076	73.505	68.385	72.062	62	76	58	65	
Simpson's diversity index	0.950	0.959	0.952	0.960	0.953	0.961	62	48	78	63	
Simpson's evenness index	0.966	0.974	0.968	0.976	0.969	0.977	58	48	83	63	
							Average	49	39	56	48

¹Landscape composition represents the distribution of area among patch types (in this case, unique combinations of cover type and seral stage). Only dynamic patch types (i.e., those that change in area over time in response to disturbance and succession) are included here; static patch types (i.e., those that we treated as constant over time, such as water, barren, etc.) are excluded since they cannot exhibit any variability. PJ = pinyon-juniper woodland; PJS = pinyon-juniper sagebrush woodland; PJOS = pinyon-juniper oak-serviceberry woodland; MTS = mountain shrubland; PPO = ponderosa pine oak forest; PPOA = ponderosa pine oak-aspen forest; WMC = warm, dry mixed-conifer forest; WMCA = warm, dry mixed-conifer with aspen forest; CMC = cool, moist mixed-conifer forest; CMCA = cool, moist mixed conifer with aspen forest; ASP = pure aspen forest; SF = spruce-fir forest; SFA = spruce-fir with aspen forest; MS = mesic sagebrush.

²Landscape configuration represents the spatial character, distribution, and arrangement of patches (across all patch types). The landscape metrics listed here are described in detail in the FRAGSTATS methods section. Note, Simpson's diversity and evenness indices are actually landscape composition metrics but are included here for organizational purposes.