

Additional file 1 Prescribed fire information for five burns conducted between 2010 and 2017 within State Game Lands 176, Pennsylvania, USA. Our study measured forest structure and composition change for up to eight years after these prescribed fires. Asterisk (*) indicates information gathered from The Pennsylvania State Climatologist and collected in State College, Pennsylvania. Caret (^) indicates information visually measured post fire. NR stands for not recorded. All other information was collected by fire managers in the field.

	Mixed-oak burn unit			Aspen–oak burn unit	
	Burned once; no pre-fire thinning			Burned twice; checkerboard thinning	
	Section 1	Section 2	Section 3	Section 9	
Burn date	22 Apr 2010	1 Apr 2010	30 Apr 2010	6 May 2014	19 Apr 2017
Start of ignition (hours)	1045	1038	1015	1002	NR
End of ignition (hours)	1400	1248	1226	1436	NR
Area (ha)	43	38	27	28	28
Lowest relative humidity (%)	28	25	38	34	NR
Highest temperature (°C)	21	24	25	21	14*
Days since rain	6	2	4	2*	6*
Mid-flame wind speed (km hr ⁻¹) and direction	1 to 8 north-northwest	1 to 5 southwest	1 to 8 west-southwest	1 to 6 northeast	NR
Headfire flame length range (m)	1.2 to 2.4	1.2 to 2.4	1.2 to 2.4	0.9 to 1.2	NR
Backfire flame length range (m)	0.3 to 0.6	0.3 to 0.6	0.3 to 0.6	NR	NR
Maximum flame length (m)	3.0	3.7	3.7	4.6	NR
Average maximum bole char height (m)	3.0^	3.6^	4.7^	1.3^	NR