

Additional file 1 Seasonal comparison of weather, fuel moisture, and fire behavior for prescribed fires during (2008 to 2016) oak woodland and savanna restoration experiments at Catoosa Wildlife Management Area (CWMA; Cumberland County, Tennessee, USA), Green River Game Lands (GRGL; Polk County, North Carolina, USA), and Land Between the Lakes National Recreation Area (LBL; Stewart County, Tennessee, USA). Statistics based on a two-sample *t*-test assuming unequal variance (*t*: two-tailed test statistic, *df*: degrees of freedom, and *P*: probability value).

Variable	Fire season		<i>t</i>	df	<i>P</i>
	Fall ¹	Spring ²			
Ambient temperature (°C)	24.6 ± 0.5	17.6 ± 0.6	8.80	101	<0.001
Relative humidity (%)	39.0 ± 1.2	38.6 ± 1.5	0.17	110	0.867
Wind speed (m s ⁻¹)	1.6 ± 0.2	3.5 ± 0.2	6.86	102	<0.001
Wind direction (°)	214.8 ± 15.8	204.5 ± 14.4	0.48	94	0.631
Fine-fuel moisture (%)	12.5 ± 0.8	17.0 ± 1.5	2.67	90	0.009
10-hour fuel moisture (%)	9.2 ± 0.9	10.1 ± 0.6	0.78	22	0.446
Flanking fire rate-of-spread (m min ⁻¹)	0.6 ± 0.1	1.1 ± 0.3	1.45	25	0.159
Flanking fire flame-length (m)	0.4 ± 0.1	0.6 ± 0.1	1.55	44	0.127
Heading fire rate-of-spread (m min ⁻¹)	1.6 ± 0.1	2.9 ± 0.4	3.03	30	0.005
Heading fire flame-length (m)	0.7 ± 0.1	1.3 ± 0.1	3.61	37	<0.001
Fire temperature (°C)	170.6 ± 7.7	210.2 ± 15.3	2.32	122	0.022

¹Fall burns at CWMA: 11 Oct 2010, 24 Oct 2012, and 24 Oct 2014. Fall burn at GRGL: 27 Oct 2014.

²Spring burns at CWMA: 22 Mar 2011, 15 Mar 2013, and 18 Mar 2015. Spring burn at GRGL: 18 March 2015. Spring burn at LBL: 29 Mar 2015.