Water Resource Research

Supporting Information for

Contrasting evaporative responses of ecosystems to heatwaves traced to the opposing roles of vapor pressure deficit and surface resistance

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Text S1: AmeriFlux data

In this study, we utilize observational data from 61 AmeriFlux sites (see Table S1). These sites span a range of land cover types (GRA: grassland, SHB: scrubland, CRO: cropland, ENF: evergreen needleleaf forest, DBF: deciduous broadleaf forest). All AmeriFlux data are obtained from the BASE data product (http://ameriflux.lbl.gov/) and are processed following *Rigden and Salvucci* [2015].

Table S1 Information about the AmeriFlux sites

	DOI	Start year	End year	Land cover	Latitude	Longitude	Elevation (m)	Number of HW days	Number of non-HW days
US-AR1	10.17190/AMF/1246137	2009	2012	GRA	36.4267	-99.42	611	17	595
US-AR2	10.17190/AMF/1246138	2009	2012	GRA	36.6358	-99.5975	646	8	512
US-Aud	10.17190/AMF/1246028	2002	2011	GRA	31.5907	-110.51	1469	76	1405
US-Bkg	10.17190/AMF/1246040	2004	2010	GRA	44.3453	-96.8362	510	23	893
US-CaV	10.17190/AMF/1246042	2004	2010	GRA	39.0633	-79.4208	994	33	480
US-Ctn	10.17190/AMF/1246117	2006	2009	GRA	43.95	-101.847	744	29	316
US-Dia	10.17190/AMF/1246146	2010	2012	GRA	37.6773	-121.53	323	6	300
US-Dk1	10.17190/AMF/1246046	2001	2008	GRA	35.9712	-79.0934	168	48	932
US-FPe	10.17190/AMF/1246053	2000	2008	GRA	48.3077	-105.102	634	115	1053
US-Fwf	10.17190/AMF/1246052	2005	2010	GRA	48.3077	-105.102	634	54	777
US-Goo	10.17190/AMF/1246058	2002	2006	GRA	34.2547	-89.8735	87	30	649
US-KFS	10.17190/AMF/1246132	2007	2012	GRA	39.0561	-95.1907	310	39	703
US-KUT	10.17190/AMF/1246145	2005	2009	GRA	39.0561	-95.1907	310	9	478

US-Ro4	10.17190/AMF/1419507	2014	2018	GRA	44.6781	-93.0723	274	9	576
US-Seg	10.17190/AMF/1246124	2007	2018	GRA	34.3623	-106.702	1622	86	1359
US-SRG	10.17190/AMF/1246154	2008	2017	GRA	31.7894	-110.828	1291	71	1287
US-Var	10.17190/AMF/1245984	2000	2015	GRA	38.4133	-120.951	129	112	2183
US-Wkg	10.17190/AMF/1246112	2004	2016	GRA	31.7365	-109.942	1531	95	1724
US-Rws	10.17190/AMF/1375201	2014	2017	SHB	43.1675	-116.713	1425	6	314
US-Ses	10.17190/AMF/1246125	2007	2018	SHB	34.3349	-106.744	1593	72	1412
US-SRC	10.17190/AMF/1246127	2008	2014	SHB	31.9083	-110.84	991	60	776
US-FR3	10.17190/AMF/1246055	2004	2012	SHB	31.9083	-110.84	991	83	1041
US-Rls	10.17190/AMF/1418682	2014	2017	SHB	43.1439	-116.736	1608	9	317
US-Rms	10.17190/AMF/1375202	2014	2017	SHB	43.0645	-116.749	2111	6	313
US-NC1	10.17190/AMF/1246082	2005	2009	SHB	35.8118	-76.7119	5	37	694
US-ARM	10.17190/AMF/1246027	2002	2013	CRO	36.6058	-97.4888	314	84	1330
US-Bo1	10.17190/AMF/1246036	1996	2008	CRO	40.0062	-88.2904	219	66	1609
US-Bo2	10.17190/AMF/1246037	2004	2008	CRO	40.009	-88.29	219	60	407
US-Br1	10.17190/AMF/1246038	2005	2011	CRO	41.9749	-93.6906	313	24	994
US-Br3	10.17190/AMF/1246039	2005	2011	CRO	41.9747	-93.6936	313	43	1003
US-CRT	10.17190/AMF/1246156	2011	2013	CRO	41.6285	-83.3471	180	6	453
US-Ne1	10.17190/AMF/1246084	2001	2013	CRO	41.1651	-96.4766	361	74	1767
US-Ne2	10.17190/AMF/1246085	2001	2013	CRO	41.1649	-96.4701	362	57	1731
US-Ne3	10.17190/AMF/1246086	2001	2013	CRO	41.1797	-96.4397	363	50	1717
US-Ro1	10.17190/AMF/1246092	2004	2016	CRO	44.7143	-93.0898	260	40	1337
US-Tw3	10.17190/AMF/1246149	2013	2015	CRO	43.2408	-96.902	386	6	430

US-Blk	10.17190/AMF/1246031	2004	2008	ENF	44.158	-103.65	1718	28	645
US-Dk3	10.17190/AMF/1246048	2001	2008	ENF	35.9782	-79.0942	163	62	1142
US-Fmf	10.17190/AMF/1246050	2005	2010	ENF	35.1426	-111.727	2160	40	726
US-Fuf	10.17190/AMF/1246051	2005	2010	ENF	35.089	-111.762	2180	31	740
US-GBT	10.17190/AMF/1375200	1999	2006	ENF	41.3658	-106.24	3191	55	970
US-GLE	10.17190/AMF/1246056	2004	2016	ENF	41.3665	-106.24	3197	64	1617
US-Ho1	10.17190/AMF/1246061	1996	2014	ENF	45.2041	-68.7402	60	125	2782
US-Ho2	10.17190/AMF/1246062	1999	209	ENF	45.2091	-68.747	91	75	1608
US-Ho3	10.17190/AMF/1246063	2003	2009	ENF	45.2072	-68.725	61	46	1025
US-Me2	10.17190/AMF/1246076	2002	2014	ENF	44.4523	-121.557	1253	110	1868
US-Me3	10.17190/AMF/1246077	2004	2009	ENF	44.3154	-121.608	1005	27	821
US-Me6	10.17190/AMF/1246128	2010	2014	ENF	44.3233	-121.608	998	57	662
US-MRf	10.17190/AMF/1246049	2006	2011	ENF	44.6465	-123.552	263	30	845
US-NC2	10.17190/AMF/1246083	2005	2010	ENF	35.803	-76.6685	5	36	869
US-NC3	10.17190/AMF/1419506	2013	2016	ENF	35.799	-76.656	5	13	564
US-NR1	10.17190/AMF/1246088	1998	2014	ENF	40.0329	-105.546	3050	102	2337
US-Vcm	10.17190/AMF/1246121	2007	2018	ENF	35.8884	-106.532	3003	69	1196
US-Vcp	10.17190/AMF/1246122	2007	2018	ENF	35.8624	-106.597	2542	68	1340
US-ChR	10.17190/AMF/1246044	2005	2010	DBF	35.9311	-84.3324	286	47	808
US-Dk2	10.17190/AMF/1246047	2001	2008	DBF	35.9736	-79.1004	168	63	1156
US-MOz	10.17190/AMF/1246081	2004	2015	DBF	38.7441	-92.2	219.4	76	1711
US-Oho	10.17190/AMF/1246089	2004	2013	DBF	41.5545	-83.8438	230	58	1436
US-Slt	10.17190/AMF/1246096	2005	2014	DBF	39.9138	-74.596	30	55	1473

US-UMB	10.17190/AMF/1246107	2000	2017	DBF	45.5598	-84.7138	234	44	1097
US-UMd	10.17190/AMF/1246134	2007	2017	DBF	45.5625	-84.6975	239	46	1142