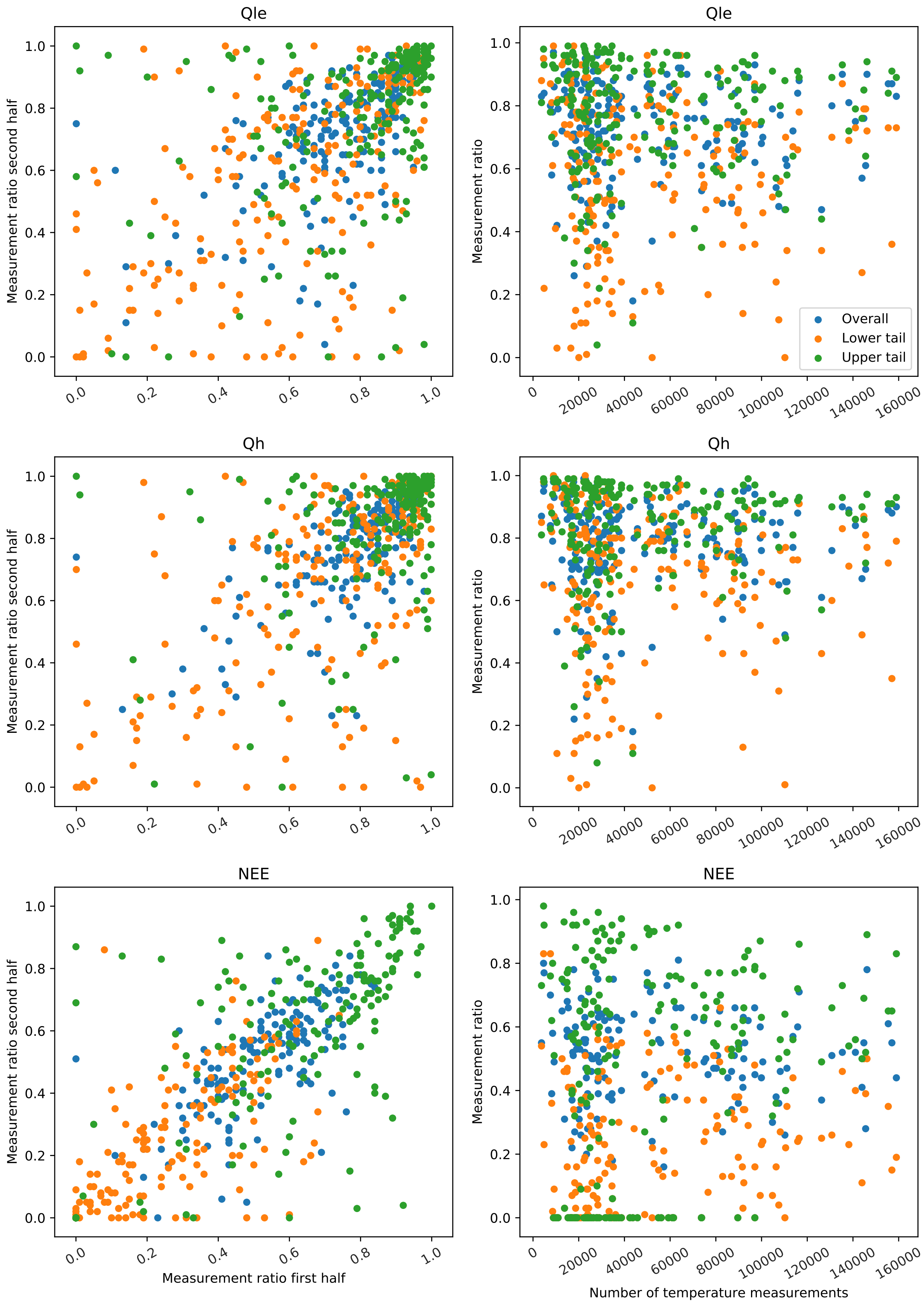
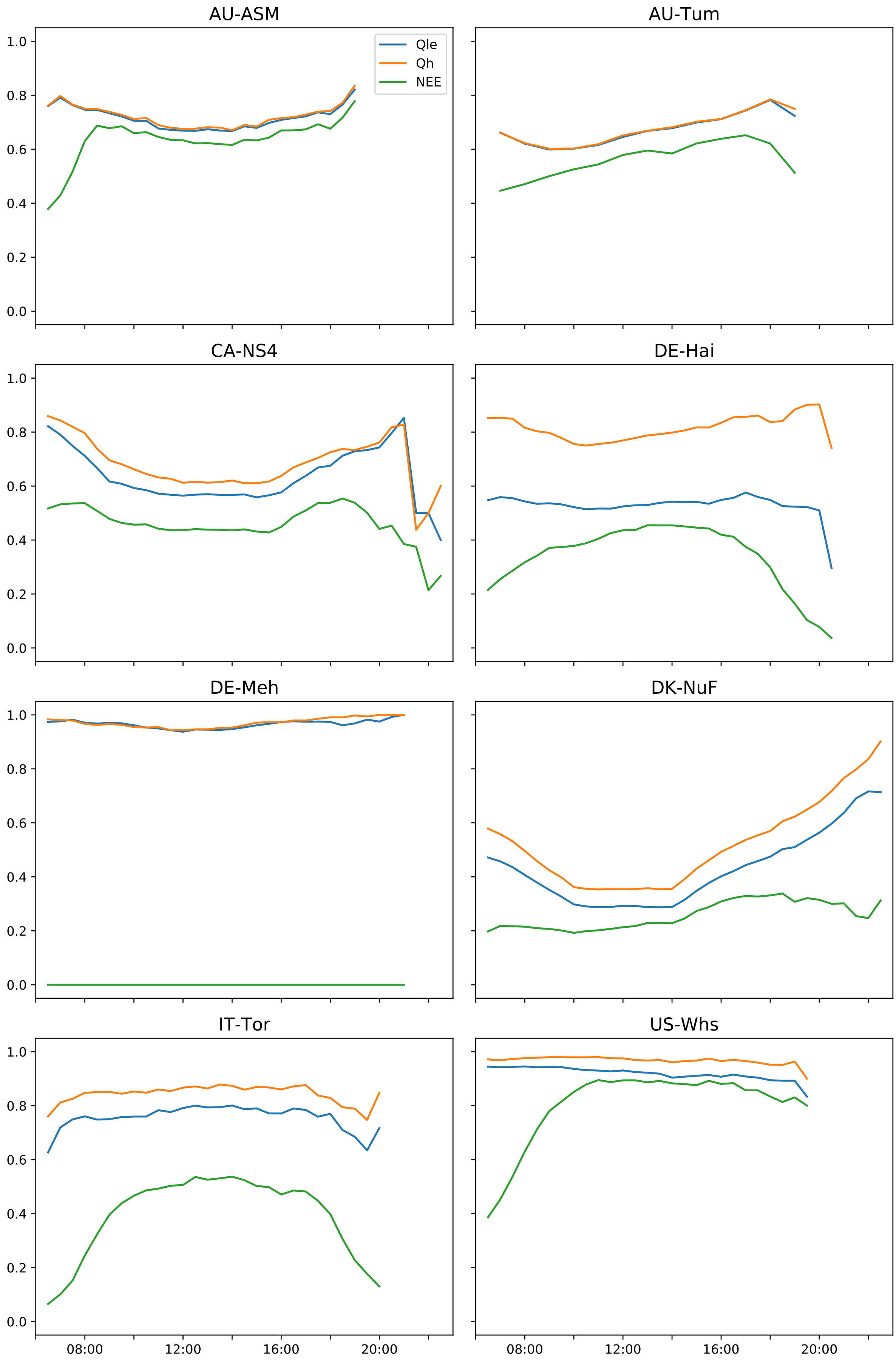


Supplementary Figure 1: The left panel shows the measurement ratios (Q_{le}, Q_h and NEE) for the first half versus the second half of the data recorded. The right panel shows the relationship between the number of recorded temperatures and the measurement ratios of Q_{le}, Q_h and NEE.



Supplementary Figure 2: Measurement ratio of Q_{le}, Q_{h} and NEE by time of day for eight sites.

Supplementary Table 1: Selection of flux tower sites with the highest measurement ratios for all temperatures. Sites are selected where Q_{le}, Q_h, and NEE measurement ratios are all above 0.9 or 0.8 and separatly where Q_{le} and Q_h are above 0.9 or 0.8. Furthermore, the number of recorded temperatures per site, the dataset length and the ratio of measured temperatures are included.

All temperatures

	Qle	Qh	NEE	# Temp measurements	Length (days)	Ratio measured T
US-Whs	0.92	0.97	0.81	63619	2922	0.93
US-Wi0	0.95	0.95	0.80	4621	365	0.62
AU-Ade	0.90	0.91	0.74	13582	1096	0.51
AU-RDF	0.91	0.92	0.66	15459	1096	0.57
AU-Stp	0.90	0.92	0.77	49996	2557	0.80
AU-Whr	0.91	0.92	0.61	26359	1461	0.77
CN-Du2	0.95	0.99	0.55	22861	1096	0.90
CN-HaM	0.90	0.98	0.78	17801	1096	0.67
DE-Meh	0.96	0.97	0.00	28118	1461	0.82
DK-Sor	0.90	0.94	0.78	146142	6940	0.92
FR-Hes	0.93	0.94	0.00	97072	3652	0.96
IT-Mal	0.90	0.94	0.00	15327	731	0.82
PT-Mi2	0.92	0.96	0.00	23140	730	0.96
US-MMS	0.90	0.91	0.52	67330	5844	0.96
US-NR1	0.90	0.90	0.52	135349	6209	0.96
US-SP1	0.97	0.98	0.00	8940	365	1.00
US-SRG	0.90	0.95	0.73	58609	2557	0.97
US-UMd	0.92	0.90	0.66	64735	2922	0.92
US-Wkg	0.90	0.95	0.63	92041	4018	0.96
AU-Cpr	0.88	0.89	0.75	35162	1826	0.83
AU-DaP	0.80	0.80	0.62	52268	2557	0.82
AU-DaS	0.83	0.84	0.60	61724	2557	0.97
AU-Emr	0.85	0.85	0.69	21075	1096	0.85
AU-Gin	0.85	0.86	0.71	24353	1461	0.71
AU-How	0.85	0.86	0.66	96980	5113	0.78
AU-Rig	0.82	0.82	0.64	33284	1461	0.97
CA-NS1	0.87	0.91	0.64	30269	1826	0.71
CA-NS3	0.87	0.88	0.63	22689	1826	0.54
CA-NS6	0.85	0.85	0.56	33987	1826	0.80
CA-Qfo	0.86	0.84	0.76	59740	2922	0.90
CA-SF1	0.80	0.86	0.39	28541	1461	0.82
CA-SF2	0.85	0.89	0.39	34566	1826	0.77
CA-SF3	0.83	0.89	0.40	38701	2191	0.75
CH-Dav	0.83	0.90	0.44	158994	6574	0.93
CN-Cng	0.88	0.91	0.65	28335	1461	0.88
DE-Geb	0.84	0.88	0.60	115812	5113	1.00
DE-Gri	0.84	0.88	0.66	88364	4018	0.98
DE-Obe	0.84	0.87	0.38	56812	2557	0.99
DE-Spw	0.83	0.86	0.63	36581	1826	0.88
DE-Tha	0.87	0.89	0.61	155447	6940	0.99
DE-Wet	0.89	0.90	0.00	42399	1826	1.00
DK-Lva	0.89	0.96	0.00	18571	730	0.92
DK-Ris	0.83	0.87	0.00	16584	731	1.00
ES-ES2	0.82	0.94	0.00	16924	730	0.97
ES-Ln2	0.84	0.97	0.77	4836	365	0.54
FI-Hyy	0.87	0.88	0.55	157036	6940	0.97

🟦 Qle, Qh and NEE above 0.9
🟥 Qle, Qh and NEE above 0.8
🟧 Qle, Qh above 0.9
🟪 Qle, Qh above 0.8

	Qle	Qh	NEE	# Temp measurements	Length (days)	Ratio measured T
FR-Fon	0.86	0.95	0.70	81997	3652	0.98
IL-Yat	0.83	0.88	0.00	23883	1095	0.89
JP-SMF	0.80	0.87	0.38	33042	1826	0.80
NO-Blv	0.83	0.87	0.55	3716	731	0.71
PL-wet	0.83	0.87	0.00	16164	731	0.90
RU-Fyo	0.81	0.89	0.54	138202	6209	0.98
RU-Ha1	0.90	0.86	0.57	14961	1096	0.55
SE-Fla	0.82	0.82	0.00	37584	1826	0.87
UK-Ham	0.87	0.87	0.00	18946	731	0.82
UK-PL3	0.88	0.99	0.00	22245	730	0.95
US-AR1	0.85	0.88	0.65	32071	1461	0.92
US-AR2	0.88	0.92	0.77	27487	1461	0.78
US-ARM	0.89	0.94	0.51	80808	3653	0.92
US-ARb	0.83	0.89	0.59	14839	730	0.87
US-ARc	0.88	0.94	0.68	14965	730	0.88
US-Blo	0.81	0.86	0.49	74839	4017	0.78
US-MOz	0.85	0.87	0.00	17034	730	1.00
US-Me6	0.80	0.87	0.59	37563	1826	0.90
US-Myb	0.84	0.93	0.51	36121	1826	0.84
US-Ne1	0.85	0.90	0.71	51335	4748	0.93
US-Ne2	0.87	0.93	0.73	50723	4748	0.91
US-Ne3	0.86	0.93	0.73	49936	4748	0.90
US-ORv	0.80	0.84	0.70	7616	365	0.90
US-SP2	0.80	0.81	0.00	54884	2557	0.85
US-SRM	0.89	0.96	0.62	94133	4018	0.99
US-Tw3	0.85	0.94	0.31	13789	730	0.84
US-Tw4	0.86	0.93	0.49	9239	730	0.64
US-UMB	0.84	0.88	0.66	62496	5479	0.97
US-Var	0.88	0.93	0.71	116445	5479	0.93

Supplementary Table 2: Selection of flux tower sites with the highest measurement ratios for temperatures in the lower extreme. Sites are selected where Q_{le}, Q_h, and NEE measurement ratios are all above 0.9 or 0.8 and separatly where Q_{le} and Q_h are above 0.9 or 0.8. Furthermore, the number of recorded temperatures per site, the dataset length and the ratio of measured temperatures are included.

Lower extreme

	Qle	Qh	NEE	# Temp measurements	Length (days)	Ratio measured T
US-ORv	0.87	0.90	0.83	7616	365	0.90
US-Wi0	0.95	0.98	0.83	4621	365	0.62
AU-ASM	0.91	0.92	0.44	28592	1461	0.83
AU-Ade	0.94	0.94	0.46	13582	1096	0.51
AU-DaP	0.91	0.93	0.22	52268	2557	0.82
AU-Emr	0.93	0.94	0.36	21075	1096	0.85
AU-RDF	0.95	0.96	0.41	15459	1096	0.57
AU-Stp	0.96	0.97	0.58	49996	2557	0.80
AU-TTE	0.93	0.93	0.50	12709	731	0.73
CA-NS1	0.92	0.95	0.46	30269	1826	0.71
CN-HaM	0.99	0.99	0.34	17801	1096	0.67
DE-Meh	0.97	0.94	0.00	28118	1461	0.82
FR-Fon	0.91	0.94	0.66	81997	3652	0.98
US-AR1	0.93	0.93	0.56	32071	1461	0.92
US-SP1	0.99	1.00	0.00	8940	365	1.00
US-UMd	0.96	0.97	0.52	64735	2922	0.92
AU-DaS	0.87	0.88	0.57	61724	2557	0.97
AU-GWW	0.87	0.81	0.24	16649	730	0.98
AU-How	0.87	0.87	0.48	96980	5113	0.78
CA-Qfo	0.83	0.93	0.47	59740	2922	0.90
CN-Du2	0.89	1.00	0.51	22861	1096	0.90
DK-Fou	0.81	0.82	0.36	8180	365	0.98
DK-Ris	0.89	0.91	0.00	16584	731	1.00
IL-Yat	0.89	0.91	0.00	23883	1095	0.89
JP-SMF	0.86	0.91	0.43	33042	1826	0.80
NL-Lan	0.82	0.98	0.00	10961	365	0.91
NO-Blv	0.88	0.85	0.54	3716	731	0.71
PT-Mi2	0.82	0.98	0.00	23140	730	0.96
SE-Fla	0.83	0.90	0.00	37584	1826	0.87
UK-PL3	0.80	0.98	0.00	22245	730	0.95
US-AR2	0.84	0.85	0.60	27487	1461	0.78
US-ARb	0.82	0.91	0.46	14839	730	0.87
US-ARc	0.81	0.90	0.47	14965	730	0.88
US-Aud	0.82	0.89	0.00	36467	1826	0.82
US-MMS	0.81	0.82	0.48	67330	5844	0.96
US-MOz	0.83	0.83	0.00	17034	730	1.00
US-NR1	0.87	0.83	0.46	135349	6209	0.96
US-Ne2	0.83	0.86	0.52	50723	4748	0.91
US-SP2	0.80	0.82	0.00	54884	2557	0.85
US-Whs	0.85	0.95	0.44	63619	2922	0.93

🟦	Qle, Qh and NEE above 0.9
🟥	Qle, Qh and NEE above 0.8
🟧	Qle, Qh above 0.9
🟪	Qle, Qh above 0.8

Supplementary Table 3: Selection of flux tower sites with the highest measurement ratios for temperatures in the upper extreme. Sites are selected where Q_{le}, Q_{h}, and NEE measurement ratios are all above 0.9 or 0.8 and separatly where Q_{le} and Q_{h} are above 0.9 or 0.8. Furthermore, the number of recorded temperatures, the dataset length and the ratio of measured temperatures per site are included.

Upper extreme

	Qle	Qh	NEE	# Temp measurements	Length (days)	Ratio measured T
🟦 AU-Ade	0.96	0.96	0.93	13582	1096	0.51
🟦 CA-NS1	0.97	0.98	0.91	30269	1826	0.71
🟦 CA-SF1	0.97	0.97	0.96	28541	1461	0.82
🟦 CA-SF2	0.99	0.98	0.92	34566	1826	0.77
🟦 CA-SF3	0.96	0.96	0.94	38701	2191	0.75
🟦 CN-Cha	0.94	0.98	0.93	23345	1096	1.00
🟦 CN-Dan	0.97	0.97	0.92	17384	731	1.00
🟦 CN-HaM	0.96	0.99	0.96	17801	1096	0.67
🟦 ES-Ln2	0.93	0.98	0.92	4836	365	0.54
🟦 IT-Tor	0.97	0.96	0.90	52953	2557	0.93
🟦 US-AR2	0.93	0.95	0.90	27487	1461	0.78
🟦 US-Cop	0.90	0.96	0.92	19053	1825	0.89
🟦 US-Ne3	0.91	0.97	0.91	49936	4748	0.90
🟦 US-SRG	0.97	0.97	0.91	58609	2557	0.97
🟦 US-Whs	0.96	0.99	0.92	63619	2922	0.93
🟦 US-Wi0	0.98	0.99	0.98	4621	365	0.62
🟥 AU-Cpr	0.92	0.93	0.84	35162	1826	0.83
🟥 AU-Dry	0.91	0.92	0.85	44245	2557	0.71
🟥 AU-Rob	0.93	0.94	0.80	8581	365	0.99
🟥 AU-Ync	0.94	0.96	0.85	18643	1096	0.73
🟥 BR-Sa3	0.91	0.93	0.87	28366	1827	0.69
🟥 CA-NS2	0.98	0.98	0.89	31329	1826	0.72
🟥 CA-NS3	0.98	0.96	0.81	22689	1826	0.54
🟥 CA-NS5	0.97	0.96	0.84	32935	1826	0.78
🟥 CA-NS6	0.97	0.96	0.87	33987	1826	0.80
🟥 CA-NS7	0.99	0.99	0.82	28398	1461	0.80
🟥 CH-Dav	0.89	0.93	0.83	158994	6574	0.93
🟥 CN-Qia	0.95	0.93	0.84	25817	1096	1.00
🟥 DE-Akm	0.95	0.97	0.89	38744	2191	0.78
🟥 DE-RuR	0.97	0.95	0.81	30769	1461	0.90
🟥 DK-Sor	0.94	0.94	0.89	146142	6940	0.92
🟥 GF-Guy	0.85	0.92	0.87	99422	4018	1.00
🟥 US-Los	0.89	0.90	0.82	92645	4018	1.00
🟥 US-Me6	0.92	0.94	0.87	37563	1826	0.90
🟥 US-Ne1	0.82	0.88	0.90	51335	4748	0.93
🟥 US-Ne2	0.90	0.94	0.89	50723	4748	0.91
🟥 US-SRM	0.93	0.99	0.84	94133	4018	0.99
🟥 US-Var	0.89	0.93	0.86	116445	5479	0.93
🟧 AU-RDF	0.94	0.95	0.78	15459	1096	0.57
🟧 AU-Stp	0.93	0.94	0.74	49996	2557	0.80
🟧 AU-Whr	0.93	0.94	0.79	26359	1461	0.77
🟧 AU-Wom	0.96	0.96	0.47	23571	1096	0.92

🟦 Qle, Qh and NEE above 0.9
🟥 Qle, Qh and NEE above 0.8
🟧 Qle, Qh above 0.9
🟪 Qle, Qh above 0.8

	Qle	Qh	NEE	# Temp measurements	Length (days)	Ratio measured T
BE-Lon	0.94	0.92	0.58	91604	4018	0.95
CH-Fru	0.90	0.90	0.77	76597	3652	0.90
CN-Du2	0.97	0.98	0.68	22861	1096	0.90
DE-Geb	0.91	0.92	0.72	115812	5113	1.00
DE-Gri	0.92	0.95	0.77	88364	4018	0.98
DE-Meh	0.97	0.98	0.00	28118	1461	0.82
DE-Obe	0.93	0.97	0.37	56812	2557	0.99
DE-Wet	0.95	0.96	0.00	42399	1826	1.00
DK-Lva	0.93	0.94	0.00	18571	730	0.92
FI-Hyy	0.91	0.91	0.65	157036	6940	0.97
FI-Kaa	0.91	0.93	0.00	56096	2557	0.94
FR-Hes	0.96	0.97	0.00	97072	3652	0.96
IT-Mal	0.99	0.99	0.00	15327	731	0.82
JP-SMF	0.94	0.98	0.51	33042	1826	0.80
PT-Mi1	0.92	0.99	0.00	9826	365	1.00
PT-Mi2	0.91	0.97	0.00	23140	730	0.96
RU-Ha1	0.96	0.95	0.72	14961	1096	0.55
UK-Ham	0.90	0.92	0.00	18946	731	0.82
UK-PL3	0.99	0.98	0.00	22245	730	0.95
US-ARM	0.92	0.91	0.61	80808	3653	0.92
US-Bkg	0.93	0.96	0.00	23025	1096	0.88
US-MMS	0.96	0.97	0.50	67330	5844	0.96
US-Me2	0.91	0.94	0.32	104775	4748	0.97
US-NR1	0.93	0.93	0.73	135349	6209	0.96
US-SP1	0.96	0.99	0.00	8940	365	1.00
US-Tw4	0.92	0.98	0.51	9239	730	0.64
US-UMB	0.96	0.96	0.76	62496	5479	0.97
US-Wkg	0.94	0.97	0.78	92041	4018	0.96
AR-Vir	0.82	0.81	0.56	17605	1461	0.55
AU-DaP	0.87	0.87	0.73	52268	2557	0.82
AU-DaS	0.87	0.87	0.68	61724	2557	0.97
AU-GWW	0.83	0.81	0.57	16649	730	0.98
AU-Gin	0.86	0.87	0.72	24353	1461	0.71
AU-How	0.86	0.87	0.78	96980	5113	0.78
AU-Rig	0.86	0.87	0.75	33284	1461	0.97
AU-TTE	0.82	0.82	0.75	12709	731	0.73
CA-Man	0.80	0.91	0.56	108191	5479	0.84
CA-Mer	0.82	0.87	0.00	60953	2922	0.94
CH-Lae	0.85	0.92	0.55	89831	4018	0.92
CH-Oe2	0.86	0.92	0.76	100545	4018	0.97
CZ-BK1	0.87	0.95	0.64	25519	1827	0.61
DE-Kli	0.83	0.86	0.51	86866	4018	0.97
DE-Lkb	0.84	0.83	0.06	34756	1826	0.85
DE-RuS	0.81	0.96	0.67	22710	1461	0.65

	Qle	Qh	NEE	# Temp measurements	Length (days)	Ratio measured T
DE-Seh	0.84	0.90	0.70	28985	1461	0.83
DE-Tha	0.84	0.91	0.65	155447	6940	0.99
DK-ZaH	0.88	0.92	0.64	110222	5479	1.00
ES-ES2	0.85	0.95	0.00	16924	730	0.97
FR-Fon	0.87	0.94	0.70	81997	3652	0.98
FR-Lq2	0.82	0.89	0.00	25451	1096	1.00
FR-Pue	0.89	0.90	0.66	130776	5479	0.99
HU-Bug	0.84	0.84	0.00	31603	1826	0.81
IL-Yat	0.80	0.88	0.00	23883	1095	0.89
IT-Lav	0.82	0.91	0.79	97096	4383	0.96
IT-Ro2	0.83	0.95	0.70	74622	3653	0.87
NL-Lan	0.88	0.98	0.00	10961	365	0.91
NL-Loo	0.85	0.86	0.69	144770	6575	0.95
NO-Blv	0.81	0.81	0.73	3716	731	0.71
PL-wet	0.90	0.89	0.00	16164	731	0.90
US-ARb	0.88	0.91	0.74	14839	730	0.87
US-ARc	0.89	0.93	0.77	14965	730	0.88
US-Aud	0.83	0.90	0.00	36467	1826	0.82
US-Bar	0.81	0.85	0.00	10474	365	1.00
US-Blo	0.83	0.88	0.63	74839	4017	0.78
US-Bo1	0.80	0.83	0.00	89610	4383	0.86
US-GLE	0.88	0.87	0.33	85279	4018	0.93
US-Ho1	0.82	0.89	0.00	73675	3288	0.99
US-MOz	0.82	0.84	0.00	17034	730	1.00
US-Myb	0.89	0.93	0.48	36121	1826	0.84
US-UMd	0.90	0.85	0.75	64735	2922	0.92

Supplementary Table 4: FLUXNET citations

Sites, vegetation types, locations and studied periods of flux sites used in this analysis. All data originally from www.fluxdata.org. Vegetation types: deciduous broadleaf forest (DBF); evergreen broadleaf forest (EBF); evergreen needleleaf forest (ENF); grassland (GRA); mixed deciduous and evergreen needleleaf forest (MF); savanna ecosystem (SAV); shrub ecosystem (SHR); wetland (WET).

Site code	Veg type	Latitude	Longitude	Period	Reference
AR-SLu	MF	-33.4648	-66.4598	2009-2011	(Ulke et al., 2015)
AR-Vir	ENF	-28.2395	-56.1886	2009-2012	(Posse et al., 2016)
AT-Neu	GRA	47.1167	11.3175	2002-2012	(Wohlfahrt et al., 2008)
AU-Ade	WSA	-13.0769	131.117	2007-2009	(Beringer et al., 2011)
AU-ASM	ENF	-22.2830	133.2490	2010-2013	(Cleverly et al., 2013)
AU-Cpr	SAV	-34.0021	140.5891	2010-2014	(Meyer et al., 2015)
AU-Cum	EBF	-33.6133	150.7225	2012-2014	(Beringer et al., 2016)
AU-DaP	GRA	-14.0633	131.3181	2007-2013	(Beringer et al., 2011)
AU-DaS	SAV	-14.1593	131.3881	2008-2014	(Hutley et al., 2011)
AU-Dry	SAV	-15.2588	132.3706	2008-2014	(Cernusak et al., 2011)
AU-Emr	GRA	-23.8587	148.4746	2011-2013	(Schroder et al., 2014)
AU-Fog	WET	-12.5452	131.3072	2006-2008	(Beringer et al., 2013)
AU-Gin	WSA	-31.3764	115.7138	2011-2014	(Beringer et al., 2016)
AU-GWW	SAV	-30.1913	120.6541	2013-2014	(Prober et al., 2012)
AU-How	SAV	-12.4943	131.1523	2001-2014	(Cernusak, 2007)
AU-Lox	DBF	-34.4704	140.6551	2008-2009	(Stevens et al., 2011)
AU-RDF	WSA	-14.5636	132.4776	2011-2013	(Bristow et al., 2016)
AU-Rig	GRA	-36.6499	145.5759	2011-2014	(Beringer et al., 2016)
AU-Rob	EBF	-17.1175	145.6301	2014-2014	(Beringer et al., 2016)
AU-Stp	GRA	-17.1507	133.3502	2008-2014	(Beringer et al., 2011)
AU-TTE	OSH	-22.2870	133.6400	2012-2013	(Cleverly et al., 2016)
AU-Tum	EBF	-35.6566	148.1517	2001-2014	(van Gorsel et al., 2008)
AU-Wac	EBF	-37.4259	145.1878	2005-2008	(Kilinc et al., 2013)
AU-Whr	EBF	-36.6732	145.0294	2011-2014	(McHugh et al., 2017)
AU-Wom	EBF	-37.4222	144.0944	2010-2012	(Hinko-Najera et al., 2017)
AU-Ync	GRA	-34.9893	146.2907	2012-2014	(Yee et al., 2015)
BE-Bra	MF	51.3092	4.5206	1996-2014	(Carrara et al., 2004)
BE-Lon	CRO	50.5516	4.7461	2004-2014	(Moureaux et al., 2006)
BE-Vie	MF	50.3051	6.9981	1996-2014	(Aubinet et al., 2001)
BR-Sa3	EBF	-3.0180	-54.9714	2000-2004	(Wick et al., 2005)
BW-Ma1	SAV	-19.9155	23.5605	1999-2001	(Veenendaal et al., 2004)
CA-Man	ENF	55.8796	-98.4808	1994-2008	(Dunn et al., 2007)
CA-Mer	WET	45.4094	-75.5286	1998-2005	(Lafleur et al., 2003
CA-NS1	ENF	55.8792	-98.4839	2001-2005	(Goulden et al., 2006)
CA-NS2	ENF	55.9058	-98.5247	2001-2005	(Goulden et al., 2006)
CA-NS3	ENF	55.9117	-98.3822	2001-2005	(Goulden et al., 2006)

CA-NS4	ENF	55.9144	-98.3806	2002-2005	(Goulden et al., 2006)
CA-NS5	ENF	55.8631	-98.4850	2001-2005	(Goulden et al., 2006)
CA-NS6	OSH	55.9169	-98.9644	2001-2005	(Goulden et al., 2006)
CA-NS7	OSH	56.6358	-99.9483	2002-2005	(Goulden et al., 2006)
CA-Qcu	ENF	49.2671	-74.0365	2001-2006	(Giasson et al., 2006)
CA-Qfo	ENF	49.6925	-74.3421	2003-2010	(Bergeron et al., 2007)
CA-SF1	ENF	54.4850	-105.8176	2003-2006	(Mkhabela et al., 2009)
CA-SF2	ENF	54.2539	-105.8775	2001-2005	(Mkhabela et al., 2009)
CA-SF3	ENF	54.0916	-106.0053	2001-2006	(Mkhabela et al., 2009)
CH-Cha	GRA	47.2102	8.4104	2005-2014	(Merbold et al., 2014)
CH-Dav	ENF	46.8153	9.8559	1997-2014	(Zielis et al., 2014)
CH-Fru	GRA	47.1158	8.5378	2005-2014	(Imer et al., 2013)
CH-Lae	MF	47.4781	8.3650	2004-2014	(Etzold et al., 2011)
CH-Oe1	GRA	47.2858	7.7319	2002-2008	(Ammann et al., 2007)
CH-Oe2	CRO	47.2863	7.7343	2004-2014	(Dietiker et al., 2010)
CN-Cha	MF	42.4025	128.0958	2003-2005	(Guan et al., 2006)
CN-Cng	GRA	44.5934	123.5092	2007-2010	--
CN-Dan	GRA	30.4978	91.0664	2004-2005	(Shi et al., 2006)
CN-Din	EBF	21.1733	112.5361	2003-2005	(Yan et al., 2013)
CN-Du2	GRA	42.0467	116.2836	2006-2008	(Chen et al., 2009)
CN-HaM	GRA	37.3700	101.1800	2002-2004	(Kato et al., 2006)
CN-Qia	ENF	26.7414	115.0581	2003-2005	(Wen et al., 2010)
CN-Sw2	GRA	41.7902	111.8971	2010-2012	(Shao et al., 2017)
CZ-BK1	ENF	49.5021	18.5369	2004-2008	(Acosta et al., 2013)
CZ-BK2	GRA	49.4944	18.5429	2006-2006	--
CZ-wet	WET	49.0247	14.7704	2006-2014	(Dušek et al., 2012)
DE-Akm	WET	53.8662	13.6834	2009-2014	--
DE-Bay	ENF	50.1419	11.8669	1997-1999	(Valentini et al., 2000)
DE-Geb	CRO	51.1001	10.9143	2001-2014	(Anthoni et al., 2004)
DE-Gri	GRA	50.9500	13.5126	2004-2014	(Prescher et al., 2010)
DE-Hai	DBF	51.0792	10.4530	2000-2012	(Knohl et al., 2003)
DE-Kli	CRO	50.8931	13.5224	2004-2014	(Prescher et al., 2010)
DE-Lkb	ENF	49.0996	13.3047	2009-2013	(Lindauer et al., 2014)
DE-Meh	GRA	51.2753	10.6555	2003-2006	(Don et al., 2009)
DE-Obe	ENF	50.7867	13.7213	2008-2014	--
DE-RuR	GRA	50.6219	6.3041	2011-2014	(Post et al., 2015)
DE-RuS	CRO	50.8659	6.4472	2011-2014	(Mauder et al., 2013)
DE-Seh	CRO	50.8706	6.4497	2007-2010	(Schmidt et al., 2012)
DE-SfN	WET	47.8064	11.3275	2012-2014	(Hommeltenberg et al., 2014)
DE-Spw	WET	51.8923	14.0337	2010-2014	--
DE-Tha	ENF	50.9624	13.5652	1996-2014	(Grünwald and Bernhofer, 2007)
DE-Wet	ENF	50.4535	11.4575	2002-2006	(Rebmann et al., 2010)
DK-Fou	CRO	56.4842	9.5872	2005-2005	--
DK-Lva	GRA	55.6833	12.0833	2005-2006	(Gilmanov et al., 2007)
DK-NuF	WET	64.1308	-51.3861	2008-2014	(Westergaard-Nielsen et al.,

					2013)
DK-Ris	CRO	55.5303	12.972	2004-2005	(Chen et al., 2010)
DK-Sor	DBF	55.4859	11.6446	1996-2014	(Pilegaard et al., 2003)
DK-ZaF	WET	74.4814	-20.5545	2008-2011	(Stiegler et al., 2016)
DK-ZaH	GRA	74.4732	-20.5503	2000-2014	(Lund et al., 2012)
ES-Es1	ENF	39.3460	-0.3188	1999-2006	(Reichstein et al., 2005)
ES-Es2	CRO	39.2755	-0.3152	2005-2006	(Chen et al., 2010)
ES-LgS	OSH	37.0979	-2.9658	2007-2009	(Reverter et al., 2010)
ES-Lma	SAV	39.9415	-5.77	2004-2006	(Yi et al., 2010)
ES-Ln2	OSH	36.9695	-3.4758	2009-2009	(Serrano-Ortiz et al., 2011)
ES-Vda	ENF	39.35	-0.32	2004-2006	(Migliavacca et al., 2011)
FI-Hyy	ENF	61.8474	24.2948	1996-2014	(Suni et al., 2003)
FI-Jok	CRO	60.8986	23.5135	2000-2003	(Lohila, 2004)
FI-Kaa	WET	69.1407	27.2950	2000-2006	(Aurela et al., 2002)
FI-Lom	WET	67.9972	24.2092	2007-2009	(Aurela et al., 2015)
FI-Sod	ENF	67.3619	26.6378	2001-2014	(Thum et al., 2007)
FR-Fon	DBF	48.4764	2.7801	2005-2014	(Delpierre et al., 2015)
FR-Gri	CRO	48.8442	1.9519	2004-2013	(Loubet et al., 2011)
FR-Hes	DBF	48.6742	7.0646	1997-2006	(Granier et al., 2000)
FR-LBr	ENF	44.7171	-0.7693	1996-2008	(Berbigier et al., 2001)
FR-Lq1	GRA	45.6441	2.7370	2004-2006	(Gilmanov et al., 2007)
FR-Lq2	GRA	45.6392	2.7370	2004-2006	(Gilmanov et al., 2007)
FR-Pue	EBF	43.7414	3.5958	2000-2014	(Rambal et al., 2004)
GF-Guy	EBF	5.2788	-52.9249	2004-2014	(Bonal et al., 2008)
HU-Bug	GRA	46.6911	19.6013	2002-2006	(Gilmanov et al., 2007)
HU-Mat	GRA	47.8496	19.7260	2004-2006	(Pinter et al., 2008)
ID-Pag	EBF	-2.3450	114.036	2002-2003	(Hirano et al., 2007)
IE-Ca1	CRO	52.8588	-6.9181	2004-2006	(Gilmanov et al., 2007)
IE-Dri	GRA	51.99	-8.75	2003-2005	(Jaksic et al., 2006)
IL-Yat	ENF	31.3450	30.0515	2001-2002 2006-2006	(Reichstein et al., 2003)
IT-Amp	GRA	41.9041	13.6052	2002-2006	(Gilmanov et al., 2007)
IT-BCi	CRO	40.5238	14.9574	2004-2014	(Vitale et al., 2015)
IT-CA1	DBF	42.3804	12.0266	2011-2014	(Sabbatini et al., 2016a)
IT-CA2	CRO	42.3772	12.0260	2011-2014	(Sabbatini et al., 2016b)
IT-CA3	DBF	42.3800	12.0222	2011-2014	(Sabbatini et al., 2016c)
IT-Col	DBF	41.8494	13.5881	1996-2014	(Valentini et al., 1996)
IT-Cp2	EBF	41.7043	12.3573	2012-2014	(Fares et al., 2014)
IT-Cpz	EBF	41.7052	12.3761	1997-2009	(Garbulsky et al., 2008)
IT-Isp	DBF	45.8126	8.6336	2013-2014	(Ferréa et al., 2012)
IT-La2	ENF	45.9542	11.2853	2000-2002	(Marcolla et al., 2003a)
IT-Lav	ENF	45.9562	11.2813	2003-2014	(Marcolla et al., 2003b)
IT-Lma	GRA	45.5813	7.1546	2003-2006	--
IT-Mal	GRA	46.1167	11.7028	2003-2004	(Gilmanov et al., 2007)
IT-MBo	GRA	46.0247	11.0458	2003-2013	(Migliavacca et al., 2009)

IT-Noe	CSH	40.6061	8.1515	2004-2014	(Papale et al., 2014)
IT-Non	DBF	44.6898	11.0887	2001-2002 2006-2006	(Reichstein et al., 2005)
IT-PT1	DBF	45.2009	9.0610	2002-2004	(Migliavacca et al., 2009)
IT-Ren	ENF	46.5869	11.4337	1998-2013	(Montagnani et al., 2009)
IT-Ro1	DBF	42.4081	11.9300	2002-2008	(Rey et al., 2002)
IT-Ro2	DBF	42.3903	11.9209	2002-2008 2010-2012	(Tedeschi et al., 2006)
IT-SR2	ENF	43.7320	10.2910	2013-2014	(Hoshika et al., 2017)
IT-SRo	ENF	43.7279	10.2844	1999-2012	(Chiesi et al., 2005)
IT-Tor	GRA	45.8444	7.5781	2008-2014	(Galvagno et al., 2013)
JP-MBF	DBF	44.3869	142.3186	2003-2005	(Matsumoto et al., 2008a)
JP-SMF	MF	35.2617	137.0788	2002-2006	(Matsumoto et al., 2008b)
NL-Ca1	GRA	51.9710	4.9270	2003-2006	(Gilmanov et al., 2007)
NL-Hor	GRA	52.2404	5.0713	2004-2011	(Jacobs et al., 2007)
NL-Lan	CRO	51.9536	4.9029	2005-2005	--
NL-Loo	ENF	52.1666	5.7436	1996-2013	(Moors, 2012)
NO-Adv	WET	78.1860	15.9230	2012-2014	--
NO-Blv	SNO	78.9216	11.8311	2008-2009	--
PL-Wet	WET	52.7622	16.3094	2004-2005	(Chojnicki et al., 2007)
PT-Esp	EBF	38.6394	-8.6018	2002-2006	--
PT-Mi1	EBF	38.5407	-8.0004	2005-2005	(Reichstein et al., 2003)
PT-Mi2	GRA	38.4756	-8.0246	2005-2006	(Gilmanov et al., 2007)
RU-Che	WET	68.6130	161.3414	2002-2005	(Merbold et al., 2009)
RU-Cok	OSH	70.8291	147.4943	2003-2014	(Molen et al., 2007)
RU-Fyo	ENF	56.4615	32.9221	1998-2014	(Kurbatova et al., 2008)
RU-Ha1	GRA	54.7252	90.0022	2002-2004	(Chevallier et al., 2006)
RU-Zot	ENF	60.8008	89.3508	2002-2003	(Tanja et al., 2003)
SD-Dem	SAV	13.2829	30.4783	2005-2005 2007-2009	(Ardo et al., 2008)
SE-Deg	WET	64.1833	19.5500	2001-2005	(Chevallier et al., 2006)
SE-Fla	ENF	64.1128	19.4569	1996-1998 2001-2002	(Tanja et al., 2003)
SN-Dhr	SAV	15.4028	-15.4322	2010-2013	(Tagesson et al., 2014)
UK-Esa	CRO	55.9069	-2.8586	2003-2005	(Groenendijk et al., 2011)
UK-Gri	ENF	56.6072	-3.7981	1997-1998 2000-2001 2005-2006	(Arain et al., 2005)
UK-Ham	DBF	51.1535	-0.8583	2004-2005	--
UK-PL3	DBF	51.4500	-1.2667	2005-2006	--
US-AR1	GRA	36.4267	-99.4200	2009-2012	(Raz-Yaseef et al., 2015b)
US-AR2	GRA	36.6358	-99.5975	2009-2012	(Raz-Yaseef et al., 2015c)
US-ARb	GRA	35.5497	-98.0402	2005-2006	(Raz-Yaseef et al., 2015a)
US-ARc	GRA	35.5465	-98.0400	2005-2006	(Raz-Yaseef et al., 2015d)
US-ARM	CRO	36.6058	-97.4888	2003-2012	(Fischer et al., 2007)
US-Aud	GRA	31.5907	-110.5104	2002-2006	(Baldocchi et al., 2015)
US-Bar	DBF	44.0646	-71.2881	2005-2005	(Jenkins et al., 2007)

US-Bkg	GRA	44.3453	-96.8362	2004-2006	(Gilmanov et al., 2005)
US-Blo	ENF	38.8953	-120.6328	1997-2007	(Goldstein et al., 2000)
US-Bo1	CRO	40.0062	-88.2904	1996-2007	(Baldocchi et al., 2015)
US-Cop	GRA	38.0900	-109.3900	2001-2003 2006-2007	--
US-FPe	GRA	48.3077	-105.1019	2000-2006	(Yi et al., 2010)
US-GBT	ENF	41.3658	-106.2397	1999-2006	(Zeller and Nikolov, 2000)
US-GLE	ENF	41.3665	-106.2399	2004-2014	(Frank et al., 2014)
US-Goo	GRA	34.2547	-89.8735	2002-2006	(Yi et al., 2010)
US-Ha1	DBF	43.5378	-72.1715	1991-2012	(Urbanski et al., 2007)
US-Ho1	ENF	45.2041	-68.7402	1996-2004	(Hollinger et al., 2004)
US-Ks2	ENF	28.6086	-80.6715	2003-2006	(Powell et al., 2006)
US-Los	WET	46.0827	-89.9792	2000-2008 2010-2010 2014-2014	(Sulman et al., 2009)
US-Me1	ENF	44.5794	-121.5000	2004-2005	(Irvine et al., 2007)
US-Me2	ENF	44.4523	-121.5574	2002-2014	(Irvine et al., 2008)
US-Me4	ENF	44.4992	-121.6224	1996-2000	(Sun et al., 2004)
US-Me6	ENF	44.3233	-121.6078	2010-2014	(Ruehr et al., 2012)
US-MMS	DBF	39.3232	-86.4131	1999-2014	(Schmid et al., 2000)
US-MOz	DBF	38.7441	-92.2000	2005-2006	(Gu et al., 2006)
US-Myb	WET	38.0498	-121.7651	2010-2014	(Matthes et al., 2014)
US-Ne1	CRO	41.1651	-96.4766	2001-2013	(Richardson et al., 2006)
US-Ne2	CRO	41.1649	-96.4701	2001-2013	(Richardson et al., 2006)
US-Ne3	CRO	41.1797	-96.4397	2001-2013	(Richardson et al., 2006)
US-NR1	ENF	40.0329	-105.5464	1998-2014	(Monson et al., 2002)
US-Orv	WET	40.0201	-83.0183	2011-2011	(Morin et al., 2014)
US-PFa	MF	45.9459	-90.2723	1995-2014	(Davis et al., 2003)
US-Prr	ENF	65.1237	-147.4876	2010-2013	(Nakai et al., 2013)
US-Sp1	ENF	29.7381	-82.2188	2005-2005	(Migliavacca et al., 2011)
US-Sp2	ENF	29.7648	-82.2448	1998-2004	(Migliavacca et al., 2011)
US-Sp3	ENF	29.7548	-82.1633	1999-2004	(Migliavacca et al., 2011)
US-SRG	GRA	31.7894	-110.8277	2008-2014	(Scott et al., 2015a)
US-SRM	WSA	31.8214	-110.8661	2004-2014	(Scott et al., 2009)
US-Syv	MF	46.2420	-89.3477	2001-2008 2012-2014	(Desai et al., 2005)
US-Ton	SAV	38.4316	-120.9660	2001-2014	(Baldocchi et al., 2010)
US-Tw1	WET	38.1074	-121.6469	2012-2014	(Oikawa et al., 2017)
US-Tw2	CRO	38.1047	-121.6433	2012-2013	(Knox et al., 2016)
US-Tw3	CRO	38.1159	-121.6467	2013-2014	(Baldocchi et al., 2015)
US-Tw4	WET	38.1030	-121.6414	2013-2014	(Baldocchi, 2016)
US-Twt	CRO	38.1087	-121.6530	2009-2014	(Hatala et al., 2012)
US-UMB	DBF	45.5598	-84.7138	2000-2014	(Gough et al., 2008)
US-UMd	DBG	45.5625	-84.6975	2007-2014	(Gough et al., 2013)
US-Var	GRA	38.4133	-120.9507	2000-2014	(Ma et al., 2007)
US-WCr	DBF	45.8059	-90.0799	1999-2006	(Cook et al., 2004)

				2010-2014	
US-Whs	OSH	31.7438	-110.0522	2007-2014	(Scott et al., 2015b)
US-Wi0	ENF	46.6188	-91.0814	2002-2002	(Noormets et al., 2007a)
US-Wi3	DBF	46.6347	-91.0987	2002-2004	(Noormets et al., 2007b)
US-Wi4	ENF	46.7393	-91.1663	2002-2004	(Noormets et al., 2007c)
US-Wi6	OSH	46.6249	-91.2982	2002-2003	(Noormets et al., 2007d)
US-Wi9	ENF	46.6188	-91.0814	2004-2005	(Noormets et al., 2007e)
US-Wkg	GRA	31.7365	-109.9419	2004-2014	(Scott et al., 2010)
ZA-Kru	SAV	-25.0197	31.4969	2000-2010	(Archibald et al., 2009)
ZM-Mon	DBF	-15.4378	23.2528	2000-2000 2007-2009	(Merbold et al., 2009)

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