Supplementary Materials: Comparison Between Landsat-8 and Sentinel-2 Data for Estimation of Leaf Area Index in Temperate Forests. *Remote Sensing* 2019, *5*, remotesensing-465270.

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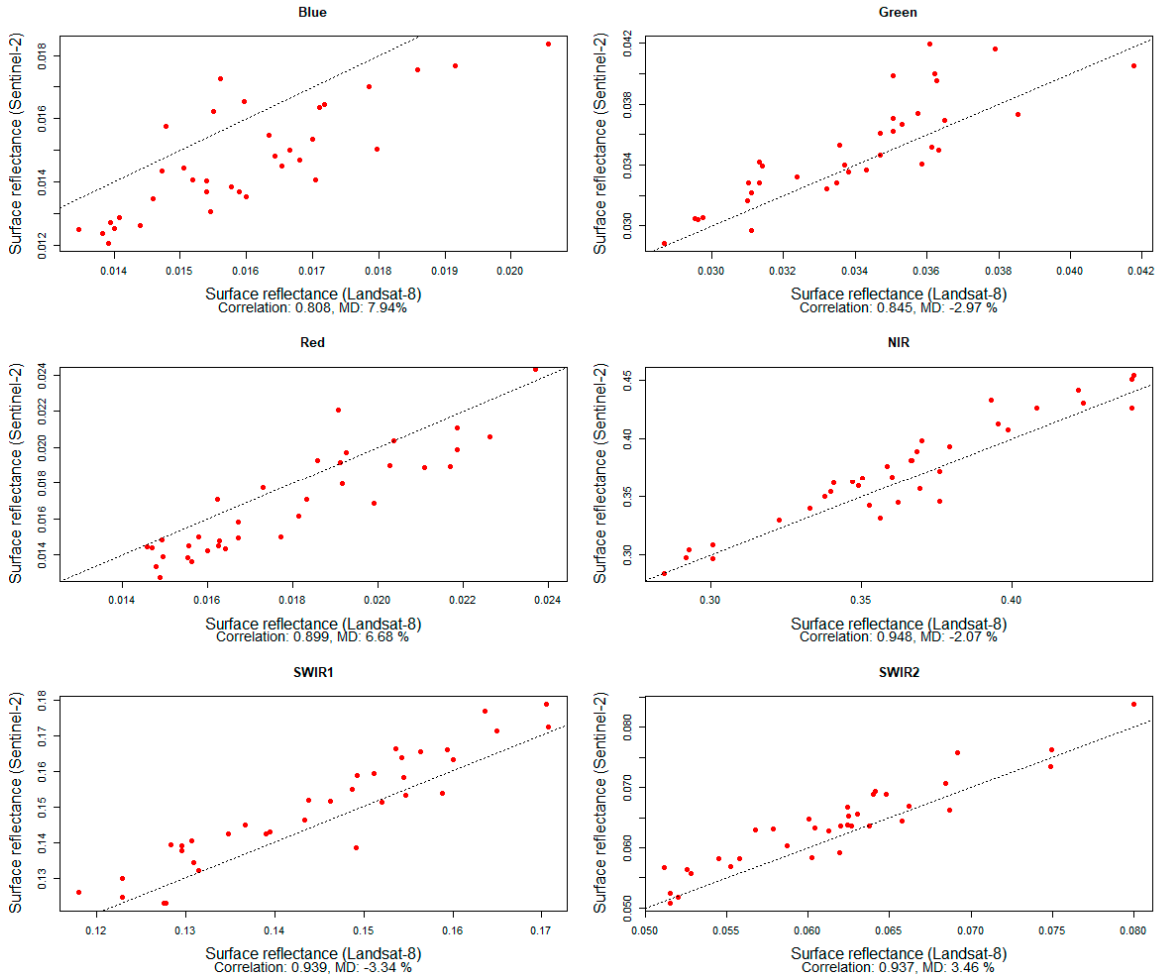

Figure S1. Correlation analysis of the corresponding bands, MD = mean difference.

Table S1. Field plot characteristics, plots with dense shrub vegetation: 1 = present, 0 = absent. N/ha = Number of trees per hectare. Plot coordinates (Northing and Easting) are in UTM Zone 33N projection based on a WGS-84 datum and spheroid.

Plot No	Northing	Easting	Effective LAI	Shrub Layer	Predominant Species	N/ha	Mean Height (m)	Mean Diameter (cm)	Basal Area (m^2/ha)	Exposition	Slope	Elevation a.s.l. (m)
1	4599987.63	5421602.99	3.83	0	European beech	280	29.9	35	27	178	12.9	809
2	4600183.94	5421870.35	2.496	0	European beech	380	25.1	30	18.3	183	1.6	823
3	4600117.96	5422213.62	5.018	0	European beech	540	28.1	32.1	36.7	225	14.8	846
4	4600210.26	5422312.75	1.728	1	European beech	440	24	25.4	24.6	260	6.8	862
5	4600678.44	5422533.67	3.744	0	European beech	420	27.1	30	29.7	300	4.5	836
6	4600791.29	5423304.52	2.816	0	European beech	380	24.6	26.2	20.5	292	3.6	839
7	4600495.86	5423262.6	2.088	0	European beech	280	24.4	25.9	14.8	80	7.7	854
8	4600341.96	5423462.47	2.712	0	European beech	280	27.5	30.8	20.8	57	8.8	848
9	4600466.59	5423525.03	2.208	0	European beech	540	20.8	23.6	19.5	48	11.2	828
10	4600788.87	5424540.21	5.576	0	Mountain Ash	1740	17.6	12.7	25.4	210	11.3	871
11	4600786.61	5424281.82	4.358	0	European beech	640	26	28.4	40.4	203	9.0	842
12	4601007.78	5424237.39	2.51	0	European beech	220	25.4	34.2	20.2	193	14.1	849
13	4601208.98	5424461.42	3.26	0	European Ash	820	20.6	25	37.9	213	10.1	918
14	4601019.2	5425720.06	2.824	0	European beech	320	21.6	26.7	17.9	247	12.3	965
15	4601455.35	5426274.48	4.6	0	European beech	1140	22.5	22.8	46.2	284	9.8	1126
16	4601209.29	5425136.37	5.346	0	European beech	2200	11.4	11.7	19.2	230	6.6	993
17	4601365.89	5425282.35	4.704	0	European beech	460	27.4	32.4	39	240	14.3	1022
18	4602924.96	5421442.57	4.212	0	European beech	980	18.3	17.7	23.8	242	6.1	782
19	4605188.22	5425721.94	3.61	0	European beech	480	26.9	31.1	36.2	187	4.7	1032
20	4603989.75	5423096.82	3.244	0	European beech	520	16.9	15.9	10.4	181	8.4	793
21	4604526.86	5424455.89	1.964	1	European beech	420	22.5	23.2	17.8	213	13.7	826
22	4604704.96	5425168.25	2.65	0	European beech	260	25.4	27.4	14.7	211	18.9	891
23	4605189.39	5425394.75	3.84	0	European beech	240	21.5	26.5	13.2	251	9.4	964
24	4605505.7	5425452.46	4.238	0	European beech	1140	16.4	14.6	25.1	208	7.5	1040

Table S1 (cont.): Field plot characteristics, plots with dense shrub vegetation: 1 = present, 0 = absent. N/ha = Number of trees per hectare.

Plot No	Northing	Easting	Effective LAI	Shrub Layer	Predominant Species	N/ha	Mean Height (m)	Mean Diameter (cm)	Basal Area (m^2/ha)	Exposition	Slope	Elevation a.s.l. (m)
25	4604927.26	5425639.68	3.608	0	European beech	540	24.8	32.8	42.4	191	6.8	974
26	4604649.29	5425376.18	1.938	1	European beech	500	18.1	20.9	17.1	265	5.1	912
27	4604613.01	5425000.36	1.52	1	European beech	240	18.4	17.9	6	194	10.9	866
28	4604064.1	5423021.01	2.562	0	European beech	400	17.9	17.3	9.4	71	9.4	796
29	4604899.76	5425235.83	2.89	0	European beech	480	20	23.9	21.1	144	13.8	909
30	4600056.97	5421474.01	5.004	0	European beech	480	29	33.3	48.9	241	18.5	786
31	4604996.94	5425591.3	4.456	0	European beech	520	24.6	32.4	42.9	255	19.0	980
32	4604564.06	5424579.79	1.996	1	European beech	420	28.9	33.2	36.5	213	5.6	835
33	4595654.53	5439302.36	4.314	0	European beech	960	23.2	23.8	42.8	243	9.4	1083
34	4595783.31	5439743.17	2.254	0	European beech	660	23	23.6	28.8	204	3.3	1094
35	4592564.3	5441275.88	2.092	0	European beech	360	22.4	28.2	23.4	173	9.9	981
36	4592730.5	5441355.71	1.894	1	European beech	320	26.1	29.2	24.1	232	17.9	1050

Table S2. Vegetation indices used as predictors of effective LAI in simple and multiple linear regression models.

	Index	Landsat-8	Sentinel-2	Reference
NIR-Indices	DVI	B5 - B4	B8--B4	Jordan (1969)[1]
	CIg	(B5/B3) - 1	(B8/B3) - 1	Gitelson (2003) [2]
	NDVI	(B5-B4)/(B5+B4)	(B8-B4)/(B8+B4)	Rouse (1973) [3]
	PSSR	B5/B4	B8/B4	Blackburn (1998) [4]
	WDRVI	$\frac{0.2*B5-B4}{0.2*B5+B4}+\frac{1-0.02}{1+0.02}$	$\frac{0.2*B8-B4}{0.2*B8+B4}+\frac{1-0.02}{1+0.02}$	Peng (2011) [5]
	NR	B4/(B5+B4+B3)	B4/(B8+B4+B3)	Sripada (2006) [6]
	NNIR	B5/(B5+b4+B3)	B8/(B8+B4+B3)	Sripada (2006) [6]
	NG	B3/(B5+B4+b3)	B3/(B8+B4+B3)	Sripada (2006) [6]
	NLI	$\frac{B5^2-B4}{B5^2+B4}$	$\frac{B8^2-B4}{B8^2+B4}$	Goell (1994)
	RDVI	$\frac{B5-B4}{\sqrt{B5+B4}}$	$\frac{B8-B4}{\sqrt{B8+B4}}$	Roujean (1995) [7]
	SPVI	$0.4*3.7*(B5-B4)-1.2\sqrt{(B3-B4)^2}$	$0.4*3.7*(B8-B4)-1.2\sqrt{(B3-B4)^2}$	Main (2011) [8]
	GNDVI	(B5-B3)/(B5+B3)	(B8-B3)/(B8+B3)	Daughtery (2000) [9]
	SAVI	$(\frac{B5-B4}{B5+B4+0.5})1.5$	$(\frac{B8-B4}{B8+B4+0.5})1.5$	Bannari (1995) [10]
Atmospheric	ARVI	$\frac{B5-B4-(B2-B4)}{B5+B4-(B2-B4)}$	$\frac{B8-B4-(B2-B4)}{B8+B4-(B2-B4)}$	Huete (1997) [11]
	EVI	2.5*((B5-B4)/(B5+6*B4-(7.5*B2)+1))	2.5*((B8-B4)/(B8+6*B4-(7.5*B2)+1))	Huete (2002a)
	GARI	(B5-(B3-(B2-B4)))/(B5+(B3-(B2-B4)))	(B8-(B3-(B2-B4)))/(B8+(B3-(B2-B4)))	Gitelson (1996) [12]
	VARIg	(B3-B4)/(B3+B4-B2)	(B3-B4)/(B3+B4-B2)	Gitelson (2002) [13]
RE-Indices	CIre		(B7/B5)-1	Gitelson (2003) [2]
	WDRVIre		$\frac{0.01\ B7-B5}{0.01\ B7-B5}+\frac{0.99}{1.01}$	Peng (2011) [5]
	PSRI		(B4-B2)/B6	Merzlyak (1999) [14]
	MTCI		(B6-B5)/(B5-B4)	Dash (2004) [15]
	MCARI		((B5-B4)-0.2*(B5-B3)*(B5/B4))	Daughtry (2000) [9]
	MCARI2		$\frac{1.5(2.5(B7-B4)-1.3(B7-B3)}{\sqrt{(2B7+1)^2-(6B7-5\sqrt{B4})-0.5}}$	Haboudane (2004) [16]
	TCARI		3*((B5-B4)-0.2(B5-B3)*(B5/B4))	Haboudane (2002) [17]
	TCARI2		3*((B6-B5)-0.2(B6-B3)*(B6/B5))	Haboudane (2002) [17]
	TVI		0.5*(120*(B6-B3)-200*(B4-B3))	Broge (2001) [18]
	MTVI		$\frac{1.5(1.2(B7-B3)-2.5(B4-B3)}{\sqrt{(2B7+1)^2-(6B7-5\sqrt{B4})-0.5}}$	Haboudane (2004) [16]
	IRECI		(B7-B4)/(B5/B6)	Frampton (2013) [19]

	S2REP		$700+35(\frac{\frac{B7+B4}{2}-B5}{B6-B5})$	Frampton (2013) [19]
	MSRren		$(\frac{B8a}{B5}-1)/\sqrt{(\frac{B8a}{B5}+1)}$	Fernandez-Manso(2016) [20]
	NDI		6.753*(B5-B4)/(B5+B4)	Delegido (2011) [21]

SWIR-Indices	NDII	(B5-B6)/(B5+B6)	(B8a-B11)/(B8a+B11)	Hardisky (1983) [22]
	NBR	(B5-B7)/(B5+B7)	(B8a-B12)/(B8a+B12)	Key and Benson (2006) [23]
	NMDI	(B5-(B6-B7)/(B5+(B6-B7)	(B8a-(B11-B12))	Wang (2007) [24]

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