Table 1. Linear correlation coefficients (R^2) between Gross Primary Production (GPP) and leaf-level active fluorescence metrics (PSII (YII) and electron transport rate (ETR), canopy-level optical indices (normalized difference vegetation index (NDVI), photochemical reflectance index (PRI), chlorophyll index (CI_{red}), and photosynthetically active radiation (PAR) metrics. GPP is the dependent variable (y), $y = mx + b$, where m is the slope of the line and b is the intercept.

		Morning				Midday				Afternoon			
		Slope	Intercept	R^2	n	Slope	Intercept	R^2	n	Slope	Intercept	R^2	n
	Leaf active fluorescence												
	YII	1.044	0.241	0.172	48	1.002	0.8645	0.176	45	0.616	0.545	0.123	48
	ETR	0.131	0.061	0.747	48	0.010	0.5407	0.646	45	0.008	0.318	0.751	48
	Canopy reflectance VIs												
	NDVI	1.773	-0.816	0.189	48	1.865	-0.2662	0.339	47	1.084	-0.799	0.183	48
GPP	CI_{red}	0.210	0.342	0.110	48	0.398	0.6715	0.279	47	0.166	0.546	0.085	48
	PRI	7.772	1.027	0.516	48	8.714	1.6779	0.453	47	6.425	1.121	0.403	48
	Canopy solar induced fluorescence (SIF)												
	SIF_A	1.558	0.029	0.828	48	0.693	0.6557	0.599	47	1.075	0.282	0.796	48
	SIF_B	3.008	0.096	0.672	47	1.501	0.5796	0.683	47	2.398	0.266	0.760	48
	SIF_{A+B}	1.139	-0.015	0.860	48	0.540	0.5561	0.713	47	0.815	0.228	0.862	48
	SIF_{Ay}	456.60	0.08	0.163	48	517.86	0.4949	0.415	0	466.24	0.21	0.262	48
	SIF_{By}	33.920	0.640	0.000	48	360.52	0.8886	0.108	47	74.758	0.728	0.004	48
	SIF_{A+By}	280.12	0.126	0.103	48	307.44	0.5189	0.339	46	248.29	0.31	0.151	48
	Photosynthetically active radiation (incident PAR, absorbed APAR)												
	PAR	0.0016	-0.1495	0.598	48	0.0005	0.6184	0.154	46	0.001	0.184	0.417	48
	fAPAR	1.4171	-0.4579	0.189	48	0.0009	0.6922	0.683	46	0.867	0.139	0.183	48
	PAR_750	0.0018	-0.0390	0.617	48	0.0004	0.8270	0.091	46	0.001	0.279	0.420	48
	APAR	0.0022	-0.0340	0.714	48	0.0009	0.6922	0.254	45	0.001	0.300	0.517	48

Table S2: Linear correlation coefficients (R^2) between midday Gross Primary Production (GPP) and leaf-level active fluorescence metrics (PSII (YII) and electron transport rate (ETR), canopy-level optical indices (normalized difference vegetation index (NDVI), photochemical reflectance index (PRI), chlorophyll index (CI_{red}), and absorbed photosynthetically active radiation (APAR). GPP is the dependent variable (y), $y = mx + b$, where m is the slope of the line and b is the intercept.

Midday	PAR high (1150-1400)				PAR low (400-1145)			
	Slope	Intercept	R^2	n	Slope	Intercept	R^2	n
Leaf active fluoresctece parameters								
YII	19.00	-0.40	0.50	33	0.30	-0.02	0.63	23
ETR	60.38	-15.53	0.58	33	59.49	-9.49	0.70	23
Canopy reflectance VIs								
NDVI	0.31	0.40	0.59	34	0.32	0.39	0.65	24
CIred	1.05	0.03	0.70	34	1.03	0.14	0.60	24
PRI	0.04	-0.11	0.78	34	0.06	-0.12	0.73	24
Canopy solar induced fluorescence (SIF) parameters								
SIF_A	0.85	-0.13	0.82	34	0.69	-0.10	0.80	24
SIF_B	0.31	-0.01	0.80	34	0.35	-0.05	0.68	24
SIF_{A+B}	1.17	-0.14	0.85	34	1.04	-0.15	0.83	24
Photosynthetically active radiation (incident PAR, absorbed APAR)								
APAR	363.23	236.13	0.58	34	351.04	68.10	0.75	24