

Supplementary Information: Global patterns of forest autotrophic carbon fluxes

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Table 1

Climate variable	Units	Definition	Source
Mean annual temperature (MAT)	°C		Primary literature; WorldClim ¹
Mean annual precipitation (MAP)	mm yr^{-1}		Primary literature; WorldClim ¹
Temperature seasonality		Standard deviation of MAT *100	WorldClim ¹
Precipitation seasonality		Coefficient of variation of MAP	WorldClim ¹
Annual temperature range	°C	Maximum temperature of warmest month - minimum temperature of coldest month	WorldClim ¹
Solar radiation	$\text{kJ } m^{-2} yr^{-1}$		WorldClim ²
Cloud cover	percentage	Cloud percentage cover	CRU time-series dataset v 4.03 ³
Annual frost days	days yr^{-1}	Number of freeze days annually	CRU time-series dataset v 4.03 ³
Annual wet days	days yr^{-1}	Number of days with precipitation >0.1 mm annually	CRU time-series dataset v 4.03 ³
Potential evapotranspiration (PET)	mm yr^{-1}	Mean annual potential evapotranspiration	Global Aridity Index and Potential Evapotranspiration Climate Database ⁴
Aridity		MAP/mean annual PET	Global Aridity Index and Potential Evapotranspiration Climate Database ⁴
Vapour pressure deficit (VPD)	kPa		TerraClimate ⁵
Maximum vapour pressure deficit (Max VPD)	kPa		Derived
Water stress months	months yr^{-1}	Number of months annually with MAP < PET	Derived
Length of growing season	months yr^{-1}	Number of months annually with mean minimum temperature > 0.5°C	Derived