Table SI.6. Descriptions, values and units used in the CAETÊ equations. IPAR: incident photosynthetically active radiation.

Parameter	Description	Value/units
c_{sru}	Water uptake capacity	$mmH_2OkgC^{-1}day^{-1}$
g_0	Minimal stomatal conductance	$0.001\ molm^{-2}s^{-1}$
g_1	Conductance sensibility to the carbon assimilation	$kPa^{1/2}$
g_m	Upscaling of stomatal conductance to canopy	$3.26\ mms^{-1}$
H_{max}	Water maximum holding capacity	500 mm
k_1	Photosynthesis co-limitation coefficient	0.93
k_{10}	Function Q_{10} parameter	0.57
k_{11}	Function Q_{10} reference temperature	25 ºC
k_{12}	CO_2 Michaelis-Menten constant parameter	30 Pa
k_{13}	CO_2 Michaelis-Menten constant parameter	2.1
k_{14}	O_2 Michaelis-Menten constant parameter	30.000 Pa
k_{15}	O_2 Michaelis-Menten constant parameter	1.2
k_{16}	Maximum ratio beteween intern and extern CO_2	0.9
k_{17}	Critical moisture deficit	0.1
k_{18}	Rubisco carboxilation rate parameter	2
k_{19}	Rubisco carboxilation rate parameter	0.3
k_2	Photosynthesis co-limitation coefficient	0.83
k_{20}	Rubisco carboxilation rate parameter	36 °C
k_{21}	Light extinction coefficient for direct IPAR (sun)	0.5/sen(90º)
k_{22}	Light extinction coefficient for direct IPAR (shade)	0.5/sen(20º)
k_3	Oxigen atmospheric concentration	21.200 Pa
k_4	Quantum efficiency	0.08 mol electrons/Ein
k_5	Light scattering rate	0.15
k_6	J_L parameter	2
k_7	Ratio between photosynthesis limited by light and by rubisco carboxilation	0.5
k_8	Photorespiration point compensation parameter	5.2
k_9	Photosynthesis co-limitation coefficient	0.1
nc_{leaves}	N:C ratio for leaves	0.034
$nc_{sapwood}$	N:C ratio for sapwood	0.003
$nc_{fineroots}$	N:C ratio for fine roots	0.034
rc_{min}	The minimum stomatal resistance	$100\ sm^{-1}$

V_{cmax}	Maximum rate of Rubisco carboxilation	0.00004 $molCO^2m^{-2}s^{-1}$
γ_m	Maximum Priestley-Taylor coefficient	1.391