

Table 1. (traits review)

trait	symbol	units	response	forest type(s)	reference(s)
leaf mass per area (or inverse of specific leaf area)	LMA (or $1/SLA$)	g/cm^2	increases with height sun>shade	temperate, tropical global	Mau et al. 2018, Coble et al. 2017 Hernandez et al. 2019, Mastubara et al. 2009, Martin et. al 2020, Coble et al. 2017, Slot et al. 2019
leaf nitrogen	N_{leaf}	mg/g g/m^2	sun<shade sun \approx shade sun>shade	 temperate broadleaf tropical	Martin et. al 2020 Bolstad et al. 2019 Hernandez et al. 2019

Table 2. (metabolism review)

trait	symbol	units	response	forest type(s)	reference(s)
Stomatal conductance					
stomatal conductance	g_s		sun > shade	tropical	Slot et al. 2019
T of peak net stomatal conductance	T_{opt} of g_s	°C			
Photosynthesis					
light-saturated net photosynthesis	A_{sat}		sun > shade	tropical	Slot et al. 2019
light compensation point	LCP		sun > shade	tropical	Slot et al. 2019
Respiration					
dark respiration at reference T	$R_{dark}(T_{ref})$		sun > shade	tropical	Slot et al. 2019
			sun > shade	temperate	Bolstad et al. 1999
dark respiration	R_{dark}		sun > shade	temperate	Bolstad et al. 1999
temperature sensitivity of R_{dark}	Q_{10}		sun \geq shade	temperate	Bolstad et al. 1999
Thermal tolerance					
thermal damage threshold	T_{50}	°C	sun \geq shade	tropical	Slot et al. 2019