

**Table S1.** The main species and tree allometric growth model in Masson pine forests in Hunan, China.

	Species	Allometric Growth Equation	R <sup>2</sup>	SE
Overstory	<i>P. massoniana</i>	$f = 0.0715 \cdot (dbh^2 \cdot h)^{0.8572}$	0.99	0.01
	<i>S. superba</i>	$f = 0.0495 \cdot (dbh^2 \cdot h)^{0.9524}$	0.97	0.02
	<i>Sassafras tzumu</i> (Hemsl.) Hemsl	$f = 0.0442 \cdot (dbh^2 \cdot h)^{0.9169}$	0.99	0.01
	other species	$f = 0.0278 \cdot (dbh^2 \cdot h)^{0.9933}$	0.94	0.03
Understory	Chinese fir	$f = 0.135 \cdot d^{2.5} \cdot h^{1.190}$	0.95	0.04
	<i>Quercus glauca</i>	$f = 0.122 \cdot d^{2.3} \cdot h^{1.438}$	0.89	0.06
	<i>Cinnamomum camphora</i>	$f = 0.100 \cdot d^{2.665}$	0.92	0.03
	<i>Castanopsis sclerophylla</i>	$f = 0.05 \cdot d^{2.5}$	0.90	0.04
	<i>Lithocarpus glaber</i> (Thunb.) Nakai	$f = 0.03 \cdot d^{2.2} \cdot h^{0.928}$	0.92	0.02
	<i>Betula luminifera</i> H. Winkl.	$f = 0.02 \cdot d^{2.3} \cdot h^{1.115}$	0.89	0.04
	<i>Quercus fabri</i> Hance	$f = 0.031 \cdot d^{2.422}$	0.95	0.03
	other species	$f = 0.034 \cdot (dbh^2 \cdot h)^{0.947}$	0.89	0.05