Figure S1. Distribution of sampled trees by height (m)

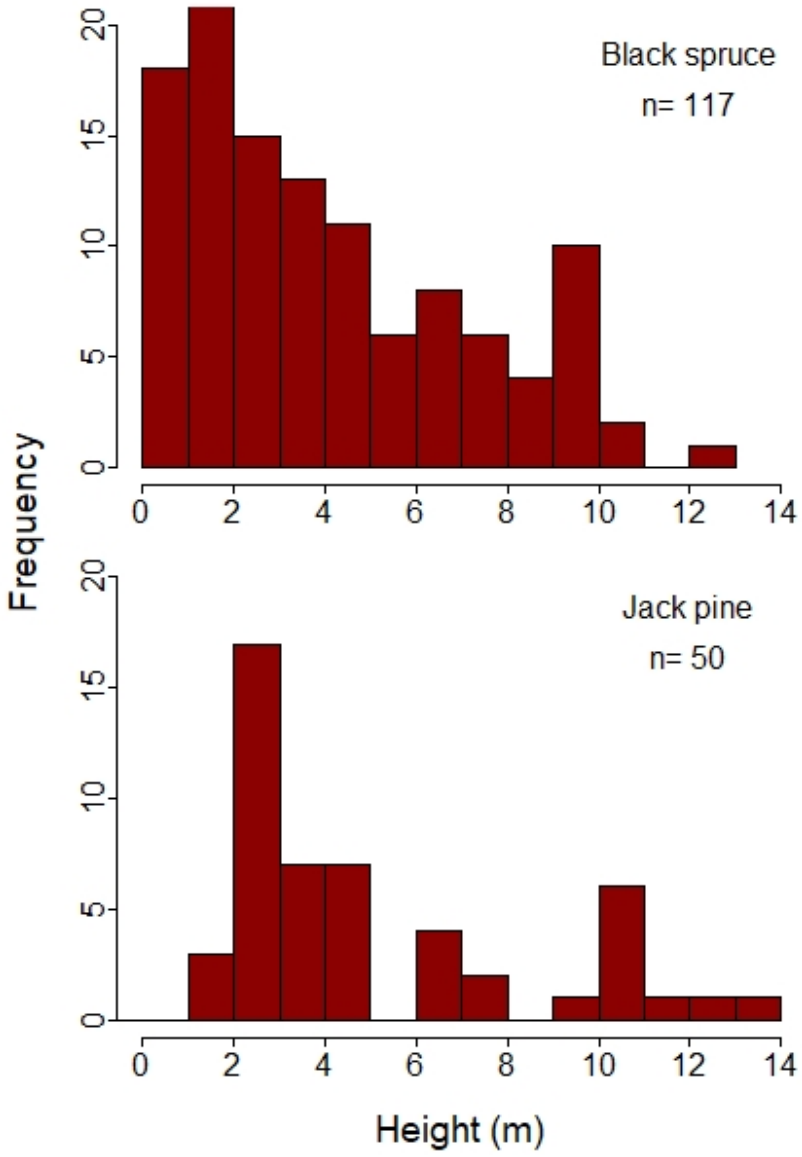

Figure S2 Relationship between DBH and biomass of the different compartments for both the original and log-transformed data, for black spruce (BS) and jack pine (JP)

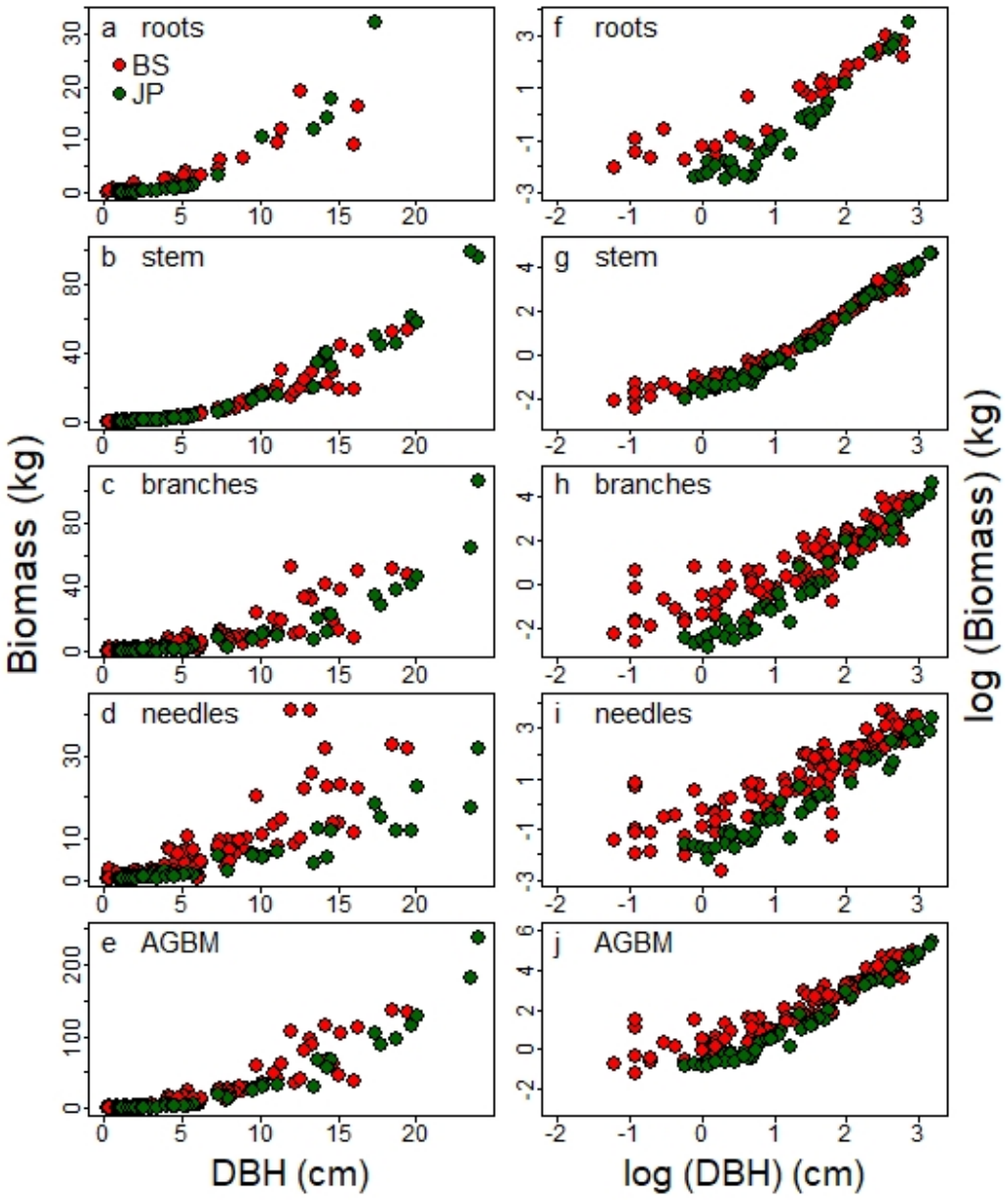

Figure S3 Predicted stem, branches, needles and aboveground biomasses (AGBM) by the allometric equations developed by Lambert et al. (2005) vs. measured values for black spruce (n=96) and jack pine (n=50) trees (height>1.3 m) sampled in boreal open woodlands of Quebec. Mean relative error (MRE) values are shown for each compartment.

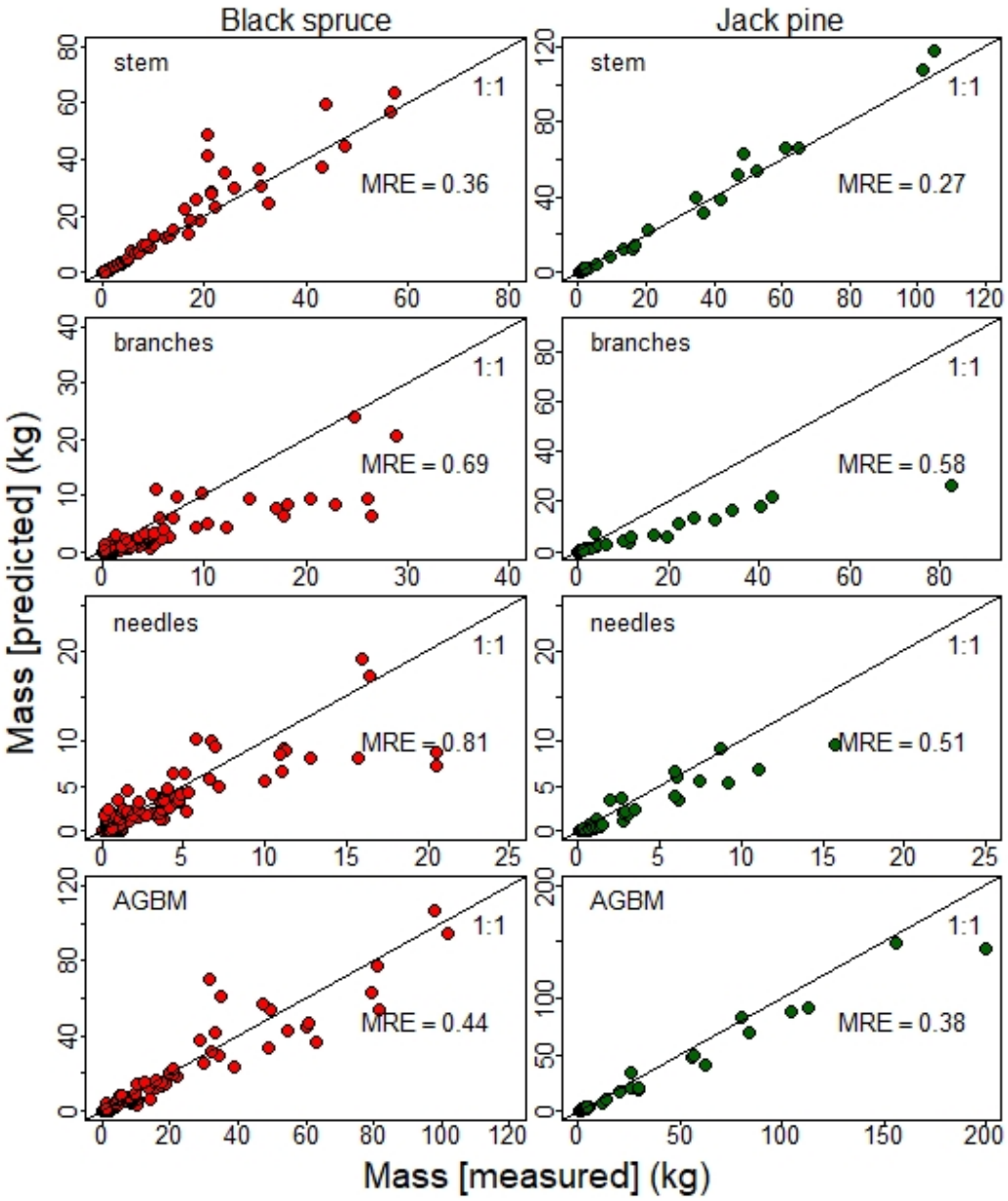

Table S1 Parameter values and their standard errors (SE) for each selected model

Black spruce (H > 1.3m)							
compartment	model	β1	SE	β2	SE	β3	SE
roots	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-2.00	0.33	0.38	0.27	1.55	0.47
stem	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-2.26	0.11	0.47	0.1	1.88	0.17
branches	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-1.49	0.27	0.63	0.25	1.23	0.42
needles	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-1.28	0.28	0.42	0.25	1.31	0.43
AGBM	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-0.52	0.2	0.46	0.18	1.52	0.3

Jack pine (H > 1.3m)							
compartment	model	β1	SE	β2	SE	β3	SE
roots	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-3.99	0.33	0.81	0.35	1.99	0.58
stem	$\log(y)=\log(\beta1)+\beta2\times\log(DBH)+\beta3\times\log(H)$	-3.10	0.2	0.82	0.22	1.94	0.35
branches	$\log(y)=\log(\beta1)+\beta2\times\log(DBH^2\times H)$	-3.50	0.13	0.84	0.03	-	-
needles	$\log(y)=\log(\beta1)+\beta2\times\log(DBH^2\times H)$	-2.39	0.11	0.60	0.02	-	-
AGBM	$\log(y)=\log(\beta1)+\beta2\times\log(DBH^2\times H)$	-1.65	0.1	0.75	0.02	-	-

Black spruce (H < 1.3m)							
compartment	model	β1	SE	β2	SE	β3	SE
roots	$y=\beta1\times DHS^{\beta2}$	0.006	0.001	4.226	0.340	-	-
stem	$y=\beta1\times(DHS^2\times H)^{\beta2}$	0.015	0.001	1.278	0.07	-	-
branches	$y=\beta1\times(DHS^2\times H)^{\beta2}$	0.042	0.004	1.194	0.07	-	-
needles	$y=\beta1\times DHS^{\beta2}\times H^{\beta3}$	0.043	0.008	0.631	0.44	2.061	0.63
AGBM	$y=\beta1\times(DHS^2\times H)^{\beta2}$	0.085	0.008	1.116	0.07	-	-

Jack pine (planted)							
compartment	model	β1	SE	β2	SE	β3	SE
roots	$\log(y)=\log(\beta1)+\beta2\times\log(DBH\text{^}2\times H)$	-5.08	0.21	0.97	0.05	-	-
stem	$\log(y)=\log(\beta1)+\beta2\times\log(DBH\text{^}2\times H)$	-3.96	0.12	0.89	0.03	-	-
branches	$\log(y)=\log(\beta1)+\beta2\times\log(DBH\text{^}2\times H)$	-5.39	0.21	1.03	0.05	-	-
needles	$\log(y)=\log(\beta1)+\beta2\times\log(DBH\text{^}2\times H)$	-3.92	0.22	0.79	0.06	-	-
AGBM	$\log(y)=\log(\beta1)+\beta2\times\log(DBH\text{^}2\times H)$	-3.17	0.13	0.88	0.03	-	-