**Appendix Table 2.** Allometric growth equations used in this paper

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| **Latin Name** | **Tree biomass Equations** | **Citations** |
| Pinus tabuliformis | Bag=Bstem+Bbranch+Bleaf; Bstem=0.11\*D2.34;Bbranch=0.01\*D2.58; Bleaf=0.0049\*D2.48; Br=0.64\*D2.1 | Ma(1989); Liu and Li (2012) |
| Ulmus | Bag=Bstem+Bbranch+Bleaf; Bstem=0.043\*D2.87; Bbranch=0.0074\*D2.67; Bleaf=0.0028\*D2.50 | Chen and Guo (1984); Liu and Li (2012) |
| Picea | Bag=Bstem+Bbranch+Bleaf; Bstem=0.057\*D2.48;Bbranch=0.012\*D2.41; Bleaf=0.083\*D2.37; Br=0.0088\*D2.54 | Chen and Guo (1984); Liu and Li (2012) |
| Betula platyphylla | Bag=102.159\*D2.367/1000; Br=101.358\*D2.518/1000 | Wang (2006) |
| Populus | Bag=101.826\*D2.558/1000; Br=101.025\*D2.56/1000 | Wang (2006) |
| Pinus koraiensis | Bag=102.236\*D2.144/1000; Br=101.296\*D2.376/1000 | Wang (2006) |
| Larix gmelinii | Bag=101.977\*D2.451/1000; Br=101.085\*D2.57/1000 | Wang (2006) |
| Acer | Bag=101.930\*D2.535/1000; Br=102.112\*D1.981/1000 | Wang (2006) |
| Fraxinus | Bag=102.136\*D2.408/1000; Br=101.396\*D2.467/1000 | Wang (2006) |
| Juglans mandshurica | Bag=102.235\*D2.287/1000; Br=101.226\*D2.397/1000 | Wang (2006) |
| Phellodendron amurense | Bag=101.942\*D2.332/1000; Br=101.024\*D2.617/1000 | Wang (2006) |
| Tilia | Bag=101.606\*D2.668/1000; Br=101.273\*D2.452/1000 | Wang (2006) |
| Quercus mongolica | Bag=102.002\*D2.456/1000; Br=101.482\*D2.356/1000 | Wang (2006) |
| Pinus sylvestrisL.var.sylvestriformis | Bag=Bstem+Bbr+Bleaf; Br=200.0322\*D1.495/1000;Bstem=0.0159368\*D2.949+0.6300862\*D0.759;Bbranch=0.0557699\*D2.483; Bleaf=0.1090\*D4.293/1000 | Zou, Pu (1995) |
| Pinus sylvestrisvar.mongolicaLitv | Bag=Bstem+Bbranch+Bleaf; Bstem=0.0439\*(D2H)0.8852;Bbranch=0.02388D4.1912H-2.3076; Bleaf=0.1082D2.7169H-1.3955 | Jia, Jiang (2008) |
| Platycladus | Bag=Bstem+Bbranch+Bleaf; Bstem=0.013(D2H)0.5969+0.0036(D2H)0.6758; Bbranch=0.00274(D2H)0.5973+0.004965(D2H)0.5975+0.00055(D2H)0.5879; Bleaf=0.003787(D2H)0.5976 | Chang, Che (1997) |
| Padusracemosa | Bag=0.00009D2.696; Br=0.035D2.641/1000 | Li (2010) |
| Rosaceae | Bag=10-0.6657\*D1.7041 | Wu (2012) |
| Tree generalized equation | Bag=101.945\*D2.467/1000; Btotal=102.033\*D2.469/1000; Br=Btotal-Bag | Wang (2006) |
| Acer ginnala | Bag=0.527D2.217/1000; Br=0.149D2.261/1000 | Li (2010) |
| Syringa reticulata | Bag=0.395D2.3/1000; Br=0.129D2.302/1000 | Li (2010) |
| Euonymus alatus | Bag=0.095D2.655/1000; Br=0.089D2.291/1000 | Li (2010) |
| Rhamnusschneideri | Bag=0.169D2.555/1000; Br=0.092D2.314/1000 | Li (2010) |
| Viburnum sargenti | Bag=0.141D2.649/1000;; Br=0.245D1.994/1000 | Li (2010) |
| Tree Shrub generalized equation | Bag=0.182D2.487/1000; Br=0.089D2.37/1000 | Li (2010) |

Note: D means DBH (cm), H means height (m), CA means crown area (m2), Bag, Br, Bbranch, Bstem , Bleaf means aboveground biomass (kg), root biomass (kg), branch biomass (kg), stem biomass (kg), and leaf biomass (kg), respectively.

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