

Estimation of biomass allometric equations and biomass expansion factors for three tree species of urban trees in South Korea

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ABSTRACT

The National Institute of Forest Science (NIFoS) developed the Korean i-Tree by the collaboration research with US Forest Service from 2018 to 2023. The i-Tree is an effective method for non-destructively and effectively calculating the carbon storage of trees at urban areas in South Korea, which is full of obstacles. However, there might be differences in the amount of carbon storage depending on the growing conditions between urban and rural regions in South Korea. Therefore, this study was conducted to suggest conversion factors urban to rural regions adaptable to the environment and circumstances in Korea. This study analyzed 12 Korean research papers and differences in growth rates between forest trees, landscaping trees, and street trees for 14 forest species and 11 urban trees. There was a difference of average biomass ratio of 0.52 in Korean red pine, 0.22 in Korean pine, 0.52 in Ring-cup oak and that of 0.39 in Red-wood evergreen oak between urban and rural areas. Those values were lower than 0.80, which is the biomass conversion factor of the rural and urban of the i-Tree. Also, there was a difference in the relative values between landscaping trees and street trees of the same species in urban regions. Therefore, it would be suggested to apply a value of 0.43 rather than 0.80 when calculating the amount of carbon storage and sequestration for trees by applying the i-Tree in Korea.

Key words: Biomass, Conversion Factor, Carbon Dioxide, i-Tree, Urban Forests

1. Introduction

Achieving national carbon neutrality targets requires accurate assessment and quantification of tree biomass and carbon storage. While direct harvesting is considered one of the most reliable methods for estimating tree carbon stocks, its application in South Korea is limited due to the high labor demands and costs associated with logging and root excavation (Jo et al., 2013). Consequently, a range of allometric equations has been developed to indirectly estimate carbon storage across various tree species. The tree biomass is generally estimated by allometric models using that incorporate

combination forms of diameter at breast height (DBH) and height (H), with model coefficients varying by species and tree component (Gao et al., 2015; Návar, 2009; Park, 2009; Son et al., 2011). Some models provide a single equation for total tree biomass (Jo et al., 2014; Lee et al., 2022), while others use separate equations for individual components such as leaves, branches, stems, and roots (Ha et al., 2022; NiFoS, 2014). When appropriate allometric equations are available, individual tree biomass can be estimated non-destructively using only DBH and H, providing a practical alternative to destructive sampling (Ha et al., 2022). However, in the absence of suitable equations, biomass values may be

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significantly overestimated or underestimated.

Tree growth is influenced by factors such as climate, soil properties, and management practices (Ha et al., 2022), leading to corresponding variations in biomass and carbon storage. Urban areas, which account for 16.5% of South Korea's territory and for 92.1% of the population (KOSIS, 2023; MOLIT, 2023), are characterized by intensive human activity. In contrast to forested environments, urban settings are frequently influenced by artificial factors such as buildings, traffic, and routine pruning, all of which can have a significant impact on tree growth. While extensive progress has been made in developing allometric equations for forest tree species, precise biomass models tailored to urban tree species remain limited (Yoon et al., 2013). This underscores the need for accurate biomass estimation methods that account for the unique characteristics of urban environments. Although the coefficients of biomass allometric equations vary between forest trees and urban roadside trees due to differences in growing conditions and management practices such as pruning, a standard urban conversion factor (UCF) of 0.8 is commonly applied at i-Tree Eco (Inventory of Tree Resources Economically and Ecologically) program (IPCC, 2006). As the UCF has not been empirically validated in Korea, the development of context-specific conversion factors is essential to improve the accuracy of carbon stock estimates in urban forests.

The conventional direct harvesting method for developing biomass estimation equations for forest trees is not easily applicable to urban trees (Yoon et al., 2013). As an alternative, the i-Tree Eco has been widely adopted as an effective, non-destructive tool for estimating tree biomass. Developed in 2006 by the USDA Forest Service in collaboration with partner organizations, the i-Tree is a free software program designed to evaluate forest and tree structure, assess ecosystem services, and estimate the value of community forest resources (Nowak, 2024). To calculate carbon storage and sequestration in the i-Tree program, tree biomass is calculated primarily. Biomass is calculated based on measurements such as DBH, H, and tree species, as well as carbon equations. For urban trees,

the estimated value is multiplied by 0.8 using forest-derived biomass equations (Nowak, 2024). Ultimately, carbon storage is estimated by multiplying a total dry weight by a conversion factor of 0.5, and annual carbon sequestration which is the annual amount of carbon absorbed by trees, is calculated by subtracting the carbon storage of current year from that of following year (Nowak, 2024).

However, as the tool was originally developed for use in the United States, its direct application to Korean urban trees presents certain limitations. To address this issue, the National Institute of Forest Science (NIFoS) developed a Korean version of i-Tree by incorporating local climate data, pollutant data, and species-specific information. This localized version has been available since 2019 (Choi et al., 2025).

Nonetheless, because of the significant differences in climate, species composition, and growth characteristics between Korea and the U.S., there are challenges to apply the i-Tree to Korean urban trees. In particular, biomass and carbon storage—both highly sensitive to environmental variability—require estimation approaches that reflect site-specific conditions. Accordingly, this study aims to develop biomass equations tailored to the characteristics of urban trees in South Korea.

2. Materials and Methods

2.1. Biomass Analysis Framework for Korean Urban Tree Species

This study employed both destructive and non-destructive methods to estimate tree biomass, enabling a comparative analysis between theoretical values and actual field measurements (Fig. 1). Biomass estimation equations for selected tree species were compiled through a review of domestic literature, and a total of nine trees—three species each of Maidenhair tree (*Ginkgo biloba*), Retusa fringetree (*Chionanthus retusus*), and Korean red pine (*Pinus densiflora*)—were harvested for direct measurement. Biomass conversion factor between forest and urban trees was derived through a

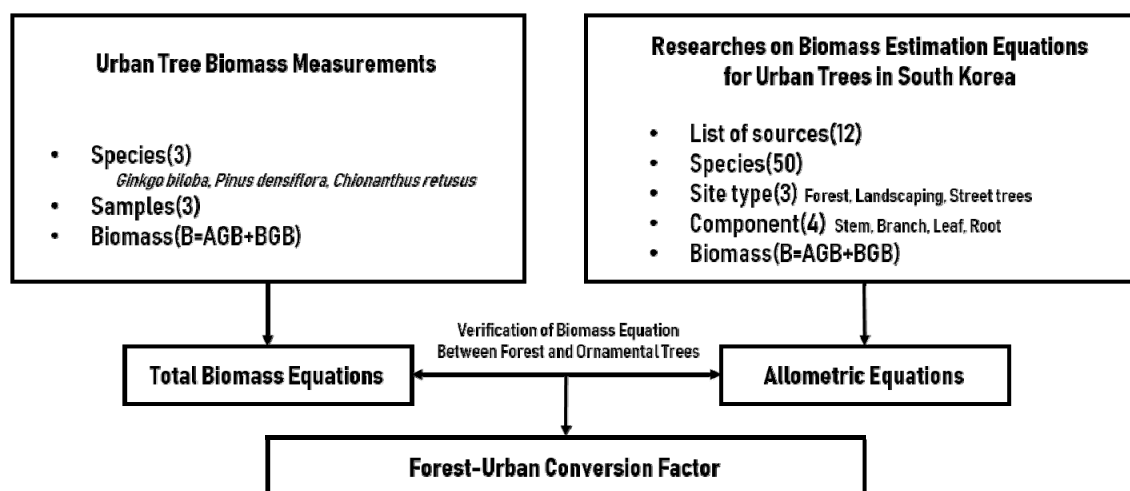


Fig. 1. Flow chart for estimating Korean's urban trees biomass equation (AGB; above-ground biomass, BGB; below-ground biomass)

comparative validation of carbon storage and CO₂ reduction estimates obtained from both direct harvesting and literature-based methods. Based on this analysis, the study proposes a forest-to-urban biomass conversion factor tailored to Korean environmental conditions, providing a systematic framework for accurately estimating carbon storage and assessing the environmental and economic value of urban trees in South Korea.

2.2. Review of Allometric Equations Researches for Urban Tree Species

To analyze research trends in biomass allometric equations, 12 peer-reviewed journal articles published in Korea between 2002 and 2022 were reviewed. The review summarized key information, including study locations, target tree species, tree types, tree components, equation forms, coefficients of the allometric models, sample sizes (n), coefficients of determination (R^2), and the range of DBH, specifying both minimum and maximum values. Tree components were classified as leaf, branch, stem, and root, while tree types were categorized as forests and urban trees (including landscaping and street trees) based on their growing environments and planting purposes.

2.3. Carbon Storage Measurement through Direct Harvesting

2.3.1. Measurement of Tree Specifications and Biomass

As part of the establishment of a carbon-neutral forest test plot, three tree species—Maidenhair tree, Retusa fringetree, and Korean red pine—were procured in accordance with standard specifications for street tree planting. Prior to planting, biomass was measured using the direct harvesting method. In August 2023, three sample trees of each species were selected, and their growth characteristics were recorded, including H, DBH, root collar diameter (R), crown base height (CBH), and crown width (W). Crown width and root spread were measured to the nearest 0.1 m using a folding ruler, based on the major (W_1) and minor (W_2) axes of the crown projection area and the horizontal extent of the root system, respectively. DBH and root collar diameter were measured at a H of 1.3 m and 0.3 m respectively using a diameter tape to the nearest 0.1 cm, while H and CBH were recorded to the nearest 0.01 m using a measuring tape after the trees were felled and laid horizontally. Based on the recorded tree specifications and growth data, crown volume (V , cm³) and crown area (A , cm²) were calculated by approximating the crown shape as an

elliptical cylinder and an ellipse, respectively. Detailed calculation methods are provided in equations (1) and (2).

$$V = A \times H \quad (1)$$

$$A = W_1 \times W_2 \times \frac{\pi}{4} \quad (2)$$

The samples used for growth measurement were washed and separated into individual components—leaves, branches, stem, and roots—to determine their fresh weight (FW). They were then dried at 85°C, and the dry weight (DW) of each component was recorded once no further change in mass was observed. To measure the total biomass of each tree part, DW to FW ratio of the sample tree was multiplied by the total FW.

2.3.2. Estimation of Carbon Storage

The carbon content of tree woody tissues and leaves is generally assumed to be approximately 50% of the biomass (Jo and Ahn, 2012). In this study, a carbon conversion factor of 0.5 was applied to all three target species based on the average values reported (Table 1). Carbon storage (CS) was calculated by multiplying the measured FW by the carbon conversion factor (0.5). Carbon dioxide sequestration (CDS, kg) was then estimated by applying the molecular weight ratio of CO₂ to the calculated carbon storage (Kim et al., 2023; Park and Kyu, 2010). Detailed calculation methods are provided in equations (3) and (4).

$$CS = FW \times 0.5 \quad (3)$$

$$CDS = CS \times \frac{44}{12} \quad (4)$$

Although forest carbon storage is typically assessed using data on annual biomass increment and land-use change, research on the CO₂ reduction benefits of urban green space expansion and greening initiatives remains limited (Park, 2009). To address this gap, this study evaluates not only carbon storage but also the effects of CO₂ sequestration.

2.3.3. Comparison of Biomass Between Forest and Urban Trees by Species

The biomass of forest and urban trees (including landscaping and street trees) was compared by species. Among the estimates derived from biomass equations compiled through the literature review (hereafter referred to as “literature-based biomass”), the analysis focused on species for which allometric equations were available for both forest and urban growth environments. Total tree biomass was compared by applying a common DBH. In cases where the literature provided component-specific equations, biomass was calculated separately for each component and then summed to determine total biomass. Ultimately, the study aimed to assess differences in tree biomass between forest and urban environments through 1) a comparison between literature-based biomass estimates, and 2) a comparison between literature-based estimates and those derived from direct harvesting.

Table 1. Carbon sequestration factors of urban trees (GIR, 2024)

Species	Basic Wood Density (g/cm ³)*	BEF**	Root-shoot ratio	CF***
<i>Ginkgo biloba</i>	0.68	1.46	0.51	0.48
<i>Pinus densiflora</i>	0.46	1.55	0.41	0.51
<i>Chionanthus retusus</i>	0.68	1.83	0.45	0.48

*Applying value for other conifer (0.46) and other broadleaf (0.68)

**BEF: Biomass Expansion Factor

***Conversion Factor: IPCC factor (Conifer 0.51, Broadleaf 0.48)

3. Results & Discussion

3.1. Literature Review of Biomass Allometric Equations for Major Tree Species in Korea

To support biomass estimation of trees in both urban and forest environments in South Korea, a total of 287 biomass allometric equations covering 50 species were collected and catalogued (Appendix Table S1). D range columns mean the range (minimum, maximum) of DBH that can be applied to each equation. When categorized by growth environment as reported in the literature, forest tree species accounted for the largest share with 185 equations (64.5%), followed by landscaping trees with 87 equations (30.3%) and street trees with only 15 equations (5.2%). These results highlight the relatively limited research on biomass allometric equations for urban tree species compared to those for forest species.

DBH was the most commonly used variable in the biomass allometric equations, appearing in 61.7% of the equations reviewed. This reflects the practicality and importance of DBH as a fundamental and easily measurable parameter. The next most frequent were equations incorporating both DBH and H, which accounted for 88 cases or 30.7% of the total. A smaller number of equations (22 cases, 7.7%) estimated biomass using the composite variable D^2H .

Of the 287 biomass allometric equations compiled for 50 tree species, only 10 equations corresponding to three species were used for comparison with values derived from the direct harvesting method. For Korean red pine in forest environments, no single equation was available for

total biomass; instead, component-specific equations were used, and total biomass was calculated by summing the estimated biomass of each component.

3.2. Carbon Storage Estimation Results through Direct Harvesting

3.2.1. Tree Specifications and Growth Measurement Results

The growth measurements by species showed that Korean red pine had an average DBH of 3.9 cm, root collar diameter of 6.9 cm, and a H of 2.7 m. For Maidenhair tree, the DBH was 8.5 cm, root collar diameter was 13.8 cm, and H was 5.8 m. Retusa fringetree had a DBH of 4.5 cm, root collar diameter of 8.1 cm, and H of 3.7 m (Table 2). Since these sample trees were delivered in accordance with DBH specifications for landscaping, they are considered to be relatively small compared to the specifications for typical urban forests.

The direct harvesting results showed that the stem component contributed the largest proportion of dry weight across all three species, although the proportion of other components differed among the species (Table 3). For Korean red pine, Maidenhair tree, and Retusa fringetree, the stem accounted for 32.38%, 42.87%, and 43.96%, respectively, of the total dry weight, making it the largest proportion in each case. In Maidenhair tree and Retusa fringetree, the majority of dry weight was found in the woody tissue (stem, root, and branches) while the leaf component made up less than 5%. In contrast, Korean red pine had a relatively larger proportion of dry weight in the leaves (28.39%), and the

Table 2. Size and growth measurement of study trees by species

Species	H (m)	R (cm)	CBH (m)	Crown		
				W (m)	V (m ³)	A (m ²)
<i>Ginkgo biloba</i>	6.5±0.8*	13.8±0.4	0.9±0.2	2.7±0.0	36.2±0.8	5.6±0.6
<i>Pinus densiflora</i>	2.7±0.3	6.9±0.3	1.4±0.2	1.9±0.0	7.4±0.8	2.8±0.6
<i>Chionanthus retusus</i>	3.7±0.5	8.1±0.8	1.5±0.2	1.6±0.1	6.9±0.7	0.7±0.2

*Average±Standard Deviation (Avg±SD), H: Tree height, R: Root collar diameter, CBH: crown base height, W: Crown Width, V: Crown Volume, A : Crown Area)

Table 3. Fresh weight and dry weight of direct harvested trees

Weight (kg)		<i>Pinus densiflora</i>	<i>Ginkgo biloba</i>	<i>Chionanthus retusus</i>
FW	Stem	3.95 ± 1.10	17.05 ± 1.71	4.93 ± 0.26
	Branch	2.58 ± 0.83	4.94 ± 0.42	2.05 ± 0.59
	Leaf	3.32 ± 0.74	2.37 ± 0.64	0.27 ± 0.18
	Root	1.87 ± 0.21	15.65 ± 4.90	4.78 ± 0.41
	Total	11.72 ± 2.03	40.00 ± 4.21	12.03 ± 0.51
DW	Stem	1.45 ± 0.29	7.20 ± 0.70	2.96 ± 0.22
	Branch	1.03 ± 0.33	2.26 ± 0.25	1.23 ± 0.34
	Leaf	1.27 ± 0.27	0.72 ± 0.21	0.11 ± 0.06
	Root	0.73 ± 0.10	6.61 ± 2.07	2.43 ± 0.24
	Total	4.49 ± 0.60	16.79 ± 1.82	6.73 ± 0.25

FW: Fresh Weight, DW: Dry Weight

root component represented the smallest proportion (16.21%). These findings reflect the characteristics of Korean red pine, a conifer with low wood density and a high leaf mass, as well as the traits of landscaping trees, which undergo root cutting and crown pruning during harvesting and distribution process, and the characteristics of deciduous trees, which are prone to leaf drop due to drought stress during the transplantation process.

3.2.2. Estimation of Carbon Dioxide Fixation and Carbon Storage

The average carbon (C) storage per tree was calculated as 2.24 kgC/tree for Korean red pine, 8.40 kgC/tree for Maidenhair tree, and 3.36 kgC/tree for Retusa fringetree. When converted to carbon dioxide sequestration, Korean red pine was found to fix 8.23 kg of CO₂ per tree, Maidenhair tree fixed 30.78 kg, and Retusa fringetree fixed 12.34 kg of CO₂ (Table 4).

3.3. Biomass Comparison Using the Same Variable (DBH)

To compare the biomass of forest and urban trees, biomass estimates were made for trees with the same DBH. The comparison focused on species for which biomass allometric equations were available for both forest and urban areas, including Korean red pine, Korean pine (*Pinus koraiensis*), and *Quercus spp.* (*Quercus glauca* and *Quercus acuta*). The DBH range was restricted to 7 ~ 16 cm, which was the common range for all three species.

The results revealed differences in biomass estimates between forest and urban trees, even for the same species. When comparing the tree biomass, the biomass ratios of urban trees to forest trees for each species were as follows: Korean red pine ranged from 0.21 to 0.82 (average 0.52), Korean pine ranged from 0.13 to 0.40 (average 0.39), Ring-cup oak (*Quercus glauca*) ranged

Table 4. Carbon storage and CO₂ sequestration per tree

Species	<i>Pinus densiflora</i>	<i>Ginkgo biloba</i>	<i>Chionanthus retusus</i>
Carbon storage (kg)	2.24	8.39	3.36
CO ₂ sequestration (kg)	8.23	30.78	12.34

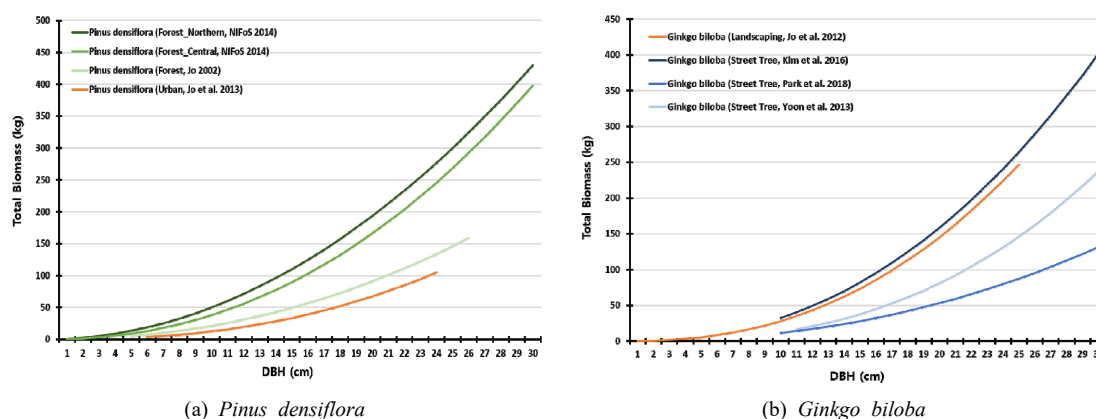


Fig. 2. Examples of comparison in biomass between (a) forest and urban trees and (b) landscaping and street trees

from 0.49 to 0.55 (average 0.52), and Red-wood evergreen oak (*Quercus acuta*) ranged from 0.33 to 0.44 (average 0.39) (Fig. 2, Table S1). On average, urban trees showed 43% lower biomass compared to forest trees.

Since no species had biomass allometric equations available for all growth environments (forest trees, landscaping trees, and street trees), a comparison of biomass between urban landscaping trees and street trees was made using Maidenhair tree and Sawleaf zelkova (*Zelkova serrata*). The biomass comparison in the DBH range of 12~28cm showed that for Maidenhair tree, the biomass ratio ranged from 0.35 to 1.14 (average 0.67), and for Sawleaf zelkova, it ranged from 0.22 to 0.83 (average 0.47) (Fig. 2, Table S1). On average, biomass was higher in landscaping trees than in street trees for both species. Notably, the biomass difference between landscaping and street trees was minimal for Maidenhair tree, likely due to its high adaptability to relatively unfavorable urban environments.

3.4. Comparison in Biomass between Equation and Direct Harvest

For each tree species, biomass values calculated using the direct harvesting method were compared with the values calculated using the biomass equation in domestic literature (Fig. 3). The results showed that some equations for Maidenhair tree and Korean red pine closely predicted

the actual biomass values (Jo and Ahn, 2012; NIFoS, 2014). However, the biomass equation for forest trees was found to accurately simulate biomass for Korean red pine, while the biomass equation for urban trees underestimated biomass by an average of 0.18 (minimum 0.12, maximum 0.24). Additionally, for Retusa fringetree, the existing biomass allometric equations were found to underestimate the actual biomass by a factor of 0.47 to 0.78. Thus, even biomass estimation equations targeting urban trees may not accurately simulate actual biomass. The lack of domestic research on biomass allometric equation for small trees may have contributed to the underestimation of the biomass of Retusa fringetree. Alternately, it may be due to the fact that the DBH of Retusa fringetree samples used in this study deviated from the average. These findings highlight the need for further research to develop methods for quickly estimating tree biomass and identifying appropriate allometric equations for accurate predictions.

Even within the same species, differences in biomass estimation allometric equations exist depending on the growth environment, such as forests, street trees, and landscaping trees. Therefore, it is essential to apply appropriate biomass estimation equations and conversion factors to accurately evaluate carbon storage and relative environmental economic value. To ensure accurate biomass estimates, it is necessary to develop suitable allometric equations or conversion factors tailored to

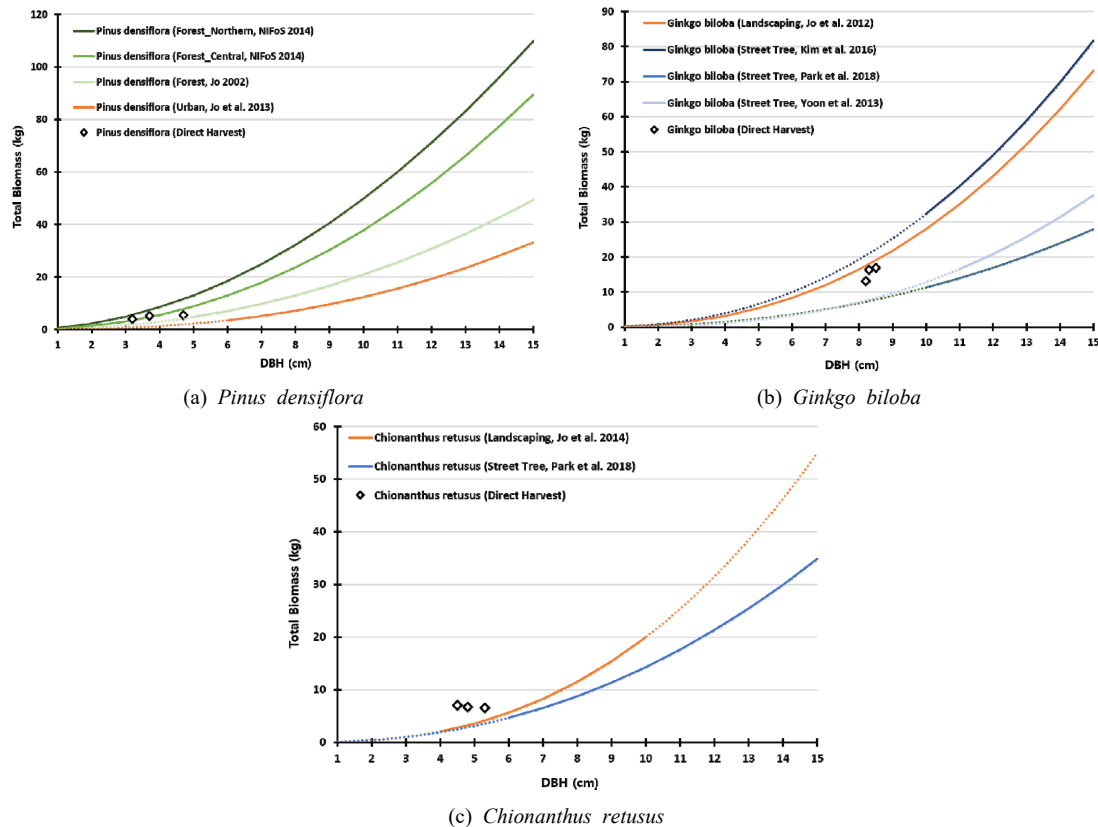


Fig. 3. Comparison in biomass between equation and direct harvest

specific environments and tree species. Although the forest-to-urban tree biomass conversion factor in the i-Tree model (UFORE Method) is 0.8 (IPCC, 2006; Nowak, 1994), this study found that the biomass ratio of landscaping trees to forest trees ranged from an average of 0.39 (for Red-wood evergreen oak) to 0.52 (for Korean red pine and Ring-cup oak). Overall, the results suggest that urban environments impose more constraints on tree growth than forest environments, with an average biomass reduction of 43%. It is possible that it may not meet the conversion factor of 0.8 used in i-Tree, as it was based on only three samples. Future research should therefore increase the number of sample trees.

3.5. Changes of Biomass Conversion Factor by Urbanization in a City

Changes in biomass by urbanization and climate change caused by increased CO₂ concentrations may have

negative impacts on ecosystem services including GPP (Chen et al., 2022). There is a recent research on the consideration of diverse factors in urban environments influencing tree volume and the improvement of biomass estimation accuracy (Lee et al., 2025). There is also a need to reevaluate previously developed relative growth equations and coefficients. These research and urbanization impacts are of great concern in mega cities where rapid urbanization is predominant. Understanding how urbanization affects the biomass of urban forests will assist for policymakers to make decisions on implementation and maintenance of urban forests. This study proposes an urban conversion factor designed to accurately estimate the carbon storage and offset functions of urban forests, and it is expected that applying this factor to the Korean version of i-Tree will enable a more effective evaluation of urban forest functions.

However, this study focused on species for which

biomass allometric equations exist for both forest and urban environments, and used only a limited number of species that are actually planted. Additionally, biomass estimation using the direct harvesting method was conducted on samplings prior to planting, rather than on trees in their active growth phase. Even the growth status of trees used in the direct harvesting method was measured, tree ages are missing in this study. Therefore, future research should include a wider variety of species and a larger sample size, and should also involve measurements and comparative validation on mature trees, rather than saplings before planting. Moreover, further research should include more detailed information such as forest age is necessary.

4. Conclusion

Since it is difficult to apply destructive methods such as existing direct harvesting method in urban areas, it is important to estimate tree biomass and environmental economic value using non-destructive methods, like i-Tree. However, there was a problem that the biomass conversion factor currently used in i-Tree were suitable for trees in the United States. To solve this problem, this study proposed the conversion factor by comparing biomass of urban trees and forest trees in South Korea. Through a literature review, 287 biomass allometric equations for 50 tree species were compiled, and biomass differences among forest trees and urban trees (landscaping trees, and street trees) were compared based on their growth environments. Direct harvesting comparisons were also conducted for Korean red pine, Maidenhair tree, and Retusa fringetree. The biomass ratio of landscaping trees to domestic forest trees was calculated by species, and the results showed values ranging from an average of 0.39 (for Red-wood evergreen oak) to 0.52 (for Korean red pine and Ring-cup oak). As a result, a comparison of the biomass of urban trees and forest trees through literature review and direct harvesting methods revealed that the biomass of urban trees was on average 43% smaller. Therefore, it is recommended to apply an i-Tree forest-to-urban biomass conversion factor

value of 0.43, as opposed to the 0.8 used in the i-Tree model. These proposed biomass conversion factor expected to quickly and accurately estimate the actual biomass of urban trees. Although this study focused on landscaping trees composed of a small number of samples and tree species, it may improve to contribute to the accurate estimation of not only the biomass of urban trees but also their carbon storage and sequestration in future research. Furthermore, applying the urban-forest biomass conversion factor to the i-Tree program would enable to calculate environmental economic values of urban forests non-destructively and effectively.

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Appendix

Table S1. Researches on biomass estimation equations for urban trees in South Korea (D: DBH (cm), N: Number of sample (No.))

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
1	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Stem	$M=aD^b$	0.21	2.09	-	-	-	6.0	70.0	NiFoS (2014)
2	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Branch	$M=aD^b$	0.07	00	-	-	-	6.0	70.0	NiFoS (2014)
3	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Leaf	$M=aD^b$	0.10	64	-	-	-	6.0	70.0	NiFoS (2014)
4	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Root	$M=aD^b$	0.23	75	-	-	-	6.0	70.0	NiFoS (2014)
5	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Stem	$M=aD^bH^c$	0.03	62	1.23	-	-	6.0	70.0	NiFoS (2014)
6	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Branch	$M=aD^bH^c$	0.41	2.56	-1.27	-	-	6.0	70.0	NiFoS (2014)
7	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Leaf	$M=aD^bH^c$	0.23	1.84	-0.53	-	-	6.0	70.0	NiFoS (2014)
8	Korea (Gangwon)	<i>Pinus densiflora</i>	forest	Root	$M=aD^bH^c$	0.04	43	0.95	-	-	6.0	70.0	NiFoS (2014)
9	Korea (Central region)	<i>Pinus densiflora</i>	forest	Stem	$M=aD^b$	0.24	07	-	-	-	6.0	40.0	NiFoS (2014)
10	Korea (Central region)	<i>Pinus densiflora</i>	forest	Branch	$M=aD^b$	0.00	75	-	-	-	6.0	40.0	NiFoS (2014)
11	Korea (Central region)	<i>Pinus densiflora</i>	forest	Leaf	$M=aD^b$	0.05	56	-	-	-	6.0	40.0	NiFoS (2014)
12	Korea (Central region)	<i>Pinus densiflora</i>	forest	Root	$M=aD^b$	0.03	28	-	-	-	6.0	40.0	NiFoS (2014)
13	Korea (Central region)	<i>Pinus densiflora</i>	forest	Stem	$M=aD^bH^c$	0.03	73	1.03	-	-	6.0	40.0	NiFoS (2014)
14	Korea (Central region)	<i>Pinus densiflora</i>	forest	Branch	$M=aD^bH^c$	0.01	3.59	-1.16	-	-	6.0	40.0	NiFoS (2014)
15	Korea (Central region)	<i>Pinus densiflora</i>	forest	Leaf	$M=aD^bH^c$	0.08	1.93	-0.57	-	-	6.0	40.0	NiFoS (2014)
16	Korea (Central region)	<i>Pinus densiflora</i>	forest	Root	$M=aD^bH^c$	0.03	2.39	-0.16	-	-	6.0	40.0	NiFoS (2014)
17	Korea	<i>Pinus rigida</i>	forest	Stem	$M=aD^b$	0.22	12	-	-	-	6.0	40.0	NiFoS (2014)
18	Korea	<i>Pinus rigida</i>	forest	Branch	$M=aD^b$	0.00	81	-	-	-	6.0	40.0	NiFoS (2014)
19	Korea	<i>Pinus rigida</i>	forest	Leaf	$M=aD^b$	0.04	74	-	-	-	6.0	40.0	NiFoS (2014)
20	Korea	<i>Pinus rigida</i>	forest	Root	$M=aD^b$	0.06	29	-	-	-	6.0	40.0	NiFoS (2014)
21	Korea	<i>Pinus rigida</i>	forest	Stem	$M=aD^bH^c$	0.03	82	1.04	-	-	6.0	40.0	NiFoS (2014)
22	Korea	<i>Pinus rigida</i>	forest	Branch	$M=aD^bH^c$	0.00	63	2.06	-	-	6.0	40.0	NiFoS (2014)
23	Korea	<i>Pinus rigida</i>	forest	Leaf	$M=aD^bH^c$	0.05	1.82	-0.22	-	-	6.0	40.0	NiFoS (2014)
24	Korea	<i>Pinus rigida</i>	forest	Root	$M=aD^bH^c$	0.08	2.30	-0.10	-	-	6.0	40.0	NiFoS (2014)
25	Korea	<i>Pinus thunbergii</i>	forest	Stem	$M=aD^b$	0.08	46	-	-	-	6.0	40.0	NiFoS (2014)
26	Korea	<i>Pinus thunbergii</i>	forest	Branch	$M=aD^b$	0.03	33	-	-	-	6.0	40.0	NiFoS (2014)
27	Korea	<i>Pinus thunbergii</i>	forest	Leaf	$M=aD^b$	0.09	66	-	-	-	6.0	40.0	NiFoS (2014)
28	Korea	<i>Pinus thunbergii</i>	forest	Root	$M=aD^b$	0.01	91	-	-	-	6.0	40.0	NiFoS (2014)
29	Korea	<i>Pinus thunbergii</i>	forest	Stem	$M=aD^bH^c$	0.04	97	0.83	-	-	6.0	40.0	NiFoS (2014)
30	Korea	<i>Pinus thunbergii</i>	forest	Branch	$M=aD^bH^c$	0.04	2.71	-0.60	-	-	6.0	40.0	NiFoS (2014)
31	Korea	<i>Pinus thunbergii</i>	forest	Leaf	$M=aD^bH^c$	0.14	2.22	-0.79	-	-	6.0	40.0	NiFoS (2014)
32	Korea	<i>Pinus thunbergii</i>	forest	Root	$M=aD^bH^c$	0.01	74	0.17	-	-	6.0	40.0	NiFoS (2014)
33	Korea	<i>Pinus koraiensis</i>	forest	Stem	$M=aD^b$	0.06	38	-	-	-	6.0	40.0	NiFoS (2014)
34	Korea	<i>Pinus koraiensis</i>	forest	Branch	$M=aD^b$	0.62	40	-	-	-	6.0	40.0	NiFoS (2014)
35	Korea	<i>Pinus koraiensis</i>	forest	Leaf	$M=aD^b$	0.03	24	-	-	-	6.0	40.0	NiFoS (2014)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
36	Korea	<i>Pinus koraiensis</i>	forest	Root	$M=aD^b$	0.06	18	-	-	-	6.0	40.0	NiFoS (2014)
37	Korea	<i>Pinus koraiensis</i>	forest	Stem	$M=aD^bH^c$	0.05	73	0.90	-	-	6.0	40.0	NiFoS (2014)
38	Korea	<i>Pinus koraiensis</i>	forest	Branch	$M=aD^bH^c$	0.45	3.57	-2.53	-	-	6.0	40.0	NiFoS (2014)
39	Korea	<i>Pinus koraiensis</i>	forest	Leaf	$M=aD^bH^c$	0.03	2.47	-0.29	-	-	6.0	40.0	NiFoS (2014)
40	Korea	<i>Pinus koraiensis</i>	forest	Root	$M=aD^bH^c$	0.06	2.44	-0.34	-	-	6.0	40.0	NiFoS (2014)
41	Korea	<i>Larix kaempferi</i>	forest	Stem	$M=aD^b$	0.02	89	-	-	-	6.0	50.0	NiFoS (2014)
42	Korea	<i>Larix kaempferi</i>	forest	Branch	$M=aD^b$	0.01	77	-	-	-	6.0	50.0	NiFoS (2014)
43	Korea	<i>Larix kaempferi</i>	forest	Leaf	$M=aD^b$	0.22	86	-	-	-	6.0	50.0	NiFoS (2014)
44	Korea	<i>Larix kaempferi</i>	forest	Root	$M=aD^b$	0.01	81	-	-	-	6.0	50.0	NiFoS (2014)
45	Korea	<i>Larix kaempferi</i>	forest	Stem	$M=aD^bH^c$	0.01	46	0.90	-	-	6.0	50.0	NiFoS (2014)
46	Korea	<i>Larix kaempferi</i>	forest	Branch	$M=aD^bH^c$	0.14	4.48	-2.90	-	-	6.0	50.0	NiFoS (2014)
47	Korea	<i>Larix kaempferi</i>	forest	Leaf	$M=aD^bH^c$	0.02	1.88	-0.02	-	-	6.0	50.0	NiFoS (2014)
48	Korea	<i>Larix kaempferi</i>	forest	Root	$M=aD^bH^c$	0.00	59	0.54	-	-	6.0	50.0	NiFoS (2014)
49	Korea	<i>Cryptomeria japonica</i>	forest	Stem	$M=aD^b$	0.04	53	-	-	-	6.0	50.0	NiFoS (2014)
50	Korea	<i>Cryptomeria japonica</i>	forest	Branch	$M=aD^b$	0.01	50	-	-	-	6.0	50.0	NiFoS (2014)
51	Korea	<i>Cryptomeria japonica</i>	forest	Leaf	$M=aD^b$	0.33	26	-	-	-	6.0	50.0	NiFoS (2014)
52	Korea	<i>Cryptomeria japonica</i>	forest	Root	$M=aD^b$	0.08	95	-	-	-	6.0	50.0	NiFoS (2014)
53	Korea	<i>Cryptomeria japonica</i>	forest	Stem	$M=aD^bH^c$	0.01	94	1.07	-	-	6.0	50.0	NiFoS (2014)
54	Korea	<i>Cryptomeria japonica</i>	forest	Branch	$M=aD^bH^c$	0.01	2.62	-0.20	-	-	6.0	50.0	NiFoS (2014)
55	Korea	<i>Cryptomeria japonica</i>	forest	Leaf	$M=aD^bH^c$	0.55	1.81	-0.80	-	-	6.0	50.0	NiFoS (2014)
56	Korea	<i>Cryptomeria japonica</i>	forest	Root	$M=aD^bH^c$	0.04	1.50	-0.74	-	-	6.0	50.0	NiFoS (2014)
57	Korea	<i>Chamaecyparis obtusa</i>	forest	Stem	$M=aD^b$	0.17	16	-	-	-	6.0	50.0	NiFoS (2014)
58	Korea	<i>Chamaecyparis obtusa</i>	forest	Branch	$M=aD^b$	0.02	28	-	-	-	6.0	50.0	NiFoS (2014)
59	Korea	<i>Chamaecyparis obtusa</i>	forest	Leaf	$M=aD^b$	0.14	47	-	-	-	6.0	50.0	NiFoS (2014)
60	Korea	<i>Chamaecyparis obtusa</i>	forest	Root	$M=aD^b$	0.46	40	-	-	-	6.0	50.0	NiFoS (2014)
61	Korea	<i>Chamaecyparis obtusa</i>	forest	Stem	$M=aD^bH^c$	0.03	70	1.20	-	-	6.0	50.0	NiFoS (2014)
62	Korea	<i>Chamaecyparis obtusa</i>	forest	Branch	$M=aD^bH^c$	0.05	2.57	-0.64	-	-	6.0	50.0	NiFoS (2014)
63	Korea	<i>Chamaecyparis obtusa</i>	forest	Leaf	$M=aD^bH^c$	0.37	2.03	-1.03	-	-	6.0	50.0	NiFoS (2014)
64	Korea	<i>Chamaecyparis obtusa</i>	forest	Root	$M=aD^bH^c$	0.71	1.81	-0.64	-	-	6.0	50.0	NiFoS (2014)
65	Korea	<i>Quercus acutissima</i>	forest	Stem	$M=aD^b$	0.05	72	-	-	-	6.0	30.0	NiFoS (2014)
66	Korea	<i>Quercus acutissima</i>	forest	Branch	$M=aD^b$	0.01	85	-	-	-	6.0	30.0	NiFoS (2014)
67	Korea	<i>Quercus acutissima</i>	forest	Leaf	$M=aD^b$	0.01	48	-	-	-	6.0	30.0	NiFoS (2014)
68	Korea	<i>Quercus acutissima</i>	forest	Root	$M=aD^b$	0.46	67	-	-	-	6.0	30.0	NiFoS (2014)
69	Korea	<i>Quercus acutissima</i>	forest	Stem	$M=aD^bH^c$	0.01	33	1.07	-	-	6.0	30.0	NiFoS (2014)
70	Korea	<i>Quercus acutissima</i>	forest	Branch	$M=aD^bH^c$	0.01	85	0.01	-	-	6.0	30.0	NiFoS (2014)
71	Korea	<i>Quercus acutissima</i>	forest	Leaf	$M=aD^bH^c$	0.01	2.52	-0.15	-	-	6.0	30.0	NiFoS (2014)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
72	Korea	<i>Quercus acutissima</i>	forest	Root	M=aD ^b H ^c	0.02	12	1.68	-	-	6.0	30.0	NiFoS (2014)
73	Korea	<i>Quercus variabilis</i>	forest	Stem	M=aD ^b	0.19	18	-	-	-	6.0	50.0	NiFoS (2014)
74	Korea	<i>Quercus variabilis</i>	forest	Branch	M=aD ^b	0.04	29	-	-	-	6.0	50.0	NiFoS (2014)
75	Korea	<i>Quercus variabilis</i>	forest	Leaf	M=aD ^b	0.06	45	-	-	-	6.0	50.0	NiFoS (2014)
76	Korea	<i>Quercus variabilis</i>	forest	Root	M=aD ^b	0.08	20	-	-	-	6.0	50.0	NiFoS (2014)
77	Korea	<i>Quercus variabilis</i>	forest	Stem	M=aD ^b H ^c	0.05	81	0.88	-	-	6.0	50.0	NiFoS (2014)
78	Korea	<i>Quercus variabilis</i>	forest	Branch	M=aD ^b H ^c	0.08	2.55	-0.61	-	-	6.0	50.0	NiFoS (2014)
79	Korea	<i>Quercus variabilis</i>	forest	Leaf	M=aD ^b H ^c	0.11	1.63	-0.41	-	-	6.0	50.0	NiFoS (2014)
80	Korea	<i>Quercus variabilis</i>	forest	Root	M=aD ^b H ^c	0.09	2.22	-0.07	-	-	6.0	50.0	NiFoS (2014)
81	Korea	<i>Quercus mongolica</i>	forest	Stem	M=aD ^b	0.60	77	-	-	-	6.0	40.0	NiFoS (2014)
82	Korea	<i>Quercus mongolica</i>	forest	Branch	M=aD ^b	0.01	97	-	-	-	6.0	40.0	NiFoS (2014)
83	Korea	<i>Quercus mongolica</i>	forest	Leaf	M=aD ^b	0.01	36	-	-	-	6.0	40.0	NiFoS (2014)
84	Korea	<i>Quercus mongolica</i>	forest	Root	M=aD ^b	0.69	53	-	-	-	6.0	40.0	NiFoS (2014)
85	Korea	<i>Quercus mongolica</i>	forest	Stem	M=aD ^b H ^c	0.10	41	1.14	-	-	6.0	40.0	NiFoS (2014)
86	Korea	<i>Quercus mongolica</i>	forest	Branch	M=aD ^b H ^c	0.01	3.08	-0.49	-	-	6.0	40.0	NiFoS (2014)
87	Korea	<i>Quercus mongolica</i>	forest	Leaf	M=aD ^b H ^c	0.02	2.61	-0.83	-	-	6.0	40.0	NiFoS (2014)
88	Korea	<i>Quercus mongolica</i>	forest	Root	M=aD ^b H ^c	0.31	34	0.55	-	-	6.0	40.0	NiFoS (2014)
89	Korea	<i>Quercus serrata</i>	forest	Stem	M=aD ^b	0.18	20	-	-	-	6.0	30.0	NiFoS (2014)
90	Korea	<i>Quercus serrata</i>	forest	Branch	M=aD ^b	0.00	27	-	-	-	6.0	30.0	NiFoS (2014)
91	Korea	<i>Quercus serrata</i>	forest	Leaf	M=aD ^b	0.00	71	-	-	-	6.0	30.0	NiFoS (2014)
92	Korea	<i>Quercus serrata</i>	forest	Root	M=aD ^b	0.40	68	-	-	-	6.0	30.0	NiFoS (2014)
93	Korea	<i>Quercus serrata</i>	forest	Stem	M=aD ^b H ^c	0.05	99	0.76	-	-	6.0	30.0	NiFoS (2014)
94	Korea	<i>Quercus serrata</i>	forest	Branch	M=aD ^b H ^c	0.02	3.50	-0.92	-	-	6.0	30.0	NiFoS (2014)
95	Korea	<i>Quercus serrata</i>	forest	Leaf	M=aD ^b H ^c	0.01	2.97	-0.79	-	-	6.0	30.0	NiFoS (2014)
96	Korea	<i>Quercus serrata</i>	forest	Root	M=aD ^b H ^c	0.28	48	0.36	-	-	6.0	30.0	NiFoS (2014)
97	Korea	<i>Robinia pseudoacacia</i>	forest	Stem	M=aD ^b	0.17	18	-	-	-	6.0	30.0	NiFoS (2014)
98	Korea	<i>Robinia pseudoacacia</i>	forest	Branch	M=aD ^b	0.04	36	-	-	-	6.0	30.0	NiFoS (2014)
99	Korea	<i>Robinia pseudoacacia</i>	forest	Leaf	M=aD ^b	0.03	04	-	-	-	6.0	30.0	NiFoS (2014)
100	Korea	<i>Robinia pseudoacacia</i>	forest	Root	M=aD ^b	0.01	13	-	-	-	6.0	30.0	NiFoS (2014)
101	Korea	<i>Robinia pseudoacacia</i>	forest	Stem	M=aD ^b H ^c	0.06	79	0.83	-	-	6.0	30.0	NiFoS (2014)
102	Korea	<i>Robinia pseudoacacia</i>	forest	Branch	M=aD ^b H ^c	0.02	12	0.48	-	-	6.0	30.0	NiFoS (2014)
103	Korea	<i>Robinia pseudoacacia</i>	forest	Leaf	M=aD ^b H ^c	0.01	63	0.90	-	-	6.0	30.0	NiFoS (2014)
104	Korea	<i>Robinia pseudoacacia</i>	forest	Root	M=aD ^b H ^c	0.06	3.28	-1.05	-	-	6.0	30.0	NiFoS (2014)
105	Korea	<i>Betula pendula</i>	forest	Stem	M=aD ^b	0.08	50	-	-	-	6.0	40.0	NiFoS (2014)
106	Korea	<i>Betula pendula</i>	forest	Branch	M=aD ^b	0.02	39	-	-	-	6.0	40.0	NiFoS (2014)
107	Korea	<i>Betula pendula</i>	forest	Leaf	M=aD ^b	0.04	69	-	-	-	6.0	40.0	NiFoS (2014)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
108	Korea	<i>Betula pendula</i>	forest	Root	M=aD ^b	0.01	92	-	-	-	6.0	40.0	NiFoS (2014)
109	Korea	<i>Betula pendula</i>	forest	Stem	M=aD ^b H ^c	0.00	90	1.91	-	-	6.0	40.0	NiFoS (2014)
110	Korea	<i>Betula pendula</i>	forest	Branch	M=aD ^b H ^c	0.17	2.73	-1.05	-	-	6.0	40.0	NiFoS (2014)
111	Korea	<i>Betula pendula</i>	forest	Leaf	M=aD ^b H ^c	0.11	1.87	-0.55	-	-	6.0	40.0	NiFoS (2014)
112	Korea	<i>Betula pendula</i>	forest	Root	M=aD ^b H ^c	0.00	24	2.28	-	-	6.0	40.0	NiFoS (2014)
113	Korea	<i>Carpinus laxiflora</i>	forest	Stem	M=aD ^b	0.26	00	-	-	-	6.0	30.0	NiFoS (2014)
114	Korea	<i>Carpinus laxiflora</i>	forest	Branch	M=aD ^b	0.01	17	-	-	-	6.0	30.0	NiFoS (2014)
115	Korea	<i>Carpinus laxiflora</i>	forest	Leaf	M=aD ^b	0.00	41	-	-	-	6.0	30.0	NiFoS (2014)
116	Korea	<i>Carpinus laxiflora</i>	forest	Root	M=aD ^b	0.01	85	-	-	-	6.0	30.0	NiFoS (2014)
117	Korea	<i>Carpinus laxiflora</i>	forest	Stem	M=aD ^b H ^c	0.07	78	0.81	-	-	6.0	30.0	NiFoS (2014)
118	Korea	<i>Carpinus laxiflora</i>	forest	Branch	M=aD ^b H ^c	0.11	3.71	-1.88	-	-	6.0	30.0	NiFoS (2014)
119	Korea	<i>Carpinus laxiflora</i>	forest	Leaf	M=aD ^b H ^c	0.00	5.32	-3.49	-	-	6.0	30.0	NiFoS (2014)
120	Korea	<i>Carpinus laxiflora</i>	forest	Root	M=aD ^b H ^c	0.05	3.13	-1.05	-	-	6.0	30.0	NiFoS (2014)
121	Korea	<i>Liriodendron tulipifera</i>	forest	Stem	M=aD ^b	0.12	29	-	-	-	6.0	50.0	NiFoS (2014)
122	Korea	<i>Liriodendron tulipifera</i>	forest	Branch	M=aD ^b	0.02	23	-	-	-	6.0	50.0	NiFoS (2014)
123	Korea	<i>Liriodendron tulipifera</i>	forest	Leaf	M=aD ^b	0.09	26	-	-	-	6.0	50.0	NiFoS (2014)
124	Korea	<i>Liriodendron tulipifera</i>	forest	Root	M=aD ^b	0.00	91	-	-	-	6.0	50.0	NiFoS (2014)
125	Korea	<i>Liriodendron tulipifera</i>	forest	Stem	M=aD ^b H ^c	0.03	92	0.80	-	-	6.0	50.0	NiFoS (2014)
126	Korea	<i>Liriodendron tulipifera</i>	forest	Branch	M=aD ^b H ^c	0.01	07	0.34	-	-	6.0	50.0	NiFoS (2014)
127	Korea	<i>Liriodendron tulipifera</i>	forest	Leaf	M=aD ^b H ^c	0.40	2.04	-1.31	-	-	6.0	50.0	NiFoS (2014)
128	Korea	<i>Liriodendron tulipifera</i>	forest	Root	M=aD ^b H ^c	0.00	4.70	-1.83	-	-	6.0	50.0	NiFoS (2014)
129	Korea	<i>Castanea crenata</i>	forest	Stem	M=aD ^b	0.00	22	-	-	-	6.0	30.0	NiFoS (2014)
130	Korea	<i>Castanea crenata</i>	forest	Branch	M=aD ^b	0.01	01	-	-	-	6.0	30.0	NiFoS (2014)
131	Korea	<i>Castanea crenata</i>	forest	Leaf	M=aD ^b	0.26	20	-	-	-	6.0	30.0	NiFoS (2014)
132	Korea	<i>Castanea crenata</i>	forest	Root	M=aD ^b	0.13	16	-	-	-	6.0	30.0	NiFoS (2014)
133	Korea	<i>Castanea crenata</i>	forest	Stem	M=aD ^b H ^c	0.04	09	1.84	-	-	6.0	30.0	NiFoS (2014)
134	Korea	<i>Castanea crenata</i>	forest	Branch	M=aD ^b H ^c	0.04	95	0.79	-	-	6.0	30.0	NiFoS (2014)
135	Korea	<i>Castanea crenata</i>	forest	Leaf	M=aD ^b H ^c	0.25	1.55	-0.44	-	-	6.0	30.0	NiFoS (2014)
136	Korea	<i>Castanea crenata</i>	forest	Root	M=aD ^b H ^c	0.15	91	0.24	-	-	6.0	30.0	NiFoS (2014)
137	Korea	<i>Populus alba xglandulosa</i>	forest	Stem	M=aD ^b	0.08	41	-	-	-	6.0	40.0	NiFoS (2014)
138	Korea	<i>Populus alba xglandulosa</i>	forest	Branch	M=aD ^b	0.00	24	-	-	-	6.0	40.0	NiFoS (2014)
139	Korea	<i>Populus alba xglandulosa</i>	forest	Leaf	M=aD ^b	0.00	65	-	-	-	6.0	40.0	NiFoS (2014)
140	Korea	<i>Populus alba xglandulosa</i>	forest	Root	M=aD ^b	0.01	71	-	-	-	6.0	40.0	NiFoS (2014)
141	Korea	<i>Populus alba xglandulosa</i>	forest	Stem	M=aD ^b H ^c	0.01	08	0.89	-	-	6.0	40.0	NiFoS (2014)
142	Korea	<i>Populus alba xglandulosa</i>	forest	Branch	M=aD ^b H ^c	0.00	4.55	-1.45	-	-	6.0	40.0	NiFoS (2014)
143	Korea	<i>Populus alba xglandulosa</i>	forest	Leaf	M=aD ^b H ^c	0.00	64	0.02	-	-	6.0	40.0	NiFoS (2014)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
144	Korea	<i>Populus alba xglandulosa</i>	forest	Root	M=aD ^b H ^c	0.01	2.74	-0.10	-	-	6.0	40.0	NiFoS (2014)
145	Korea	<i>Castanopsis sieboldii</i>	forest	Stem	M=aD ^b	0.22	09	-	-	-	6.0	30.0	NiFoS (2014)
146	Korea	<i>Castanopsis sieboldii</i>	forest	Branch	M=aD ^b	0.00	05	-	-	-	6.0	30.0	NiFoS (2014)
147	Korea	<i>Castanopsis sieboldii</i>	forest	Leaf	M=aD ^b	0.01	31	-	-	-	6.0	30.0	NiFoS (2014)
148	Korea	<i>Castanopsis sieboldii</i>	forest	Root	M=aD ^b	0.02	88	-	-	-	6.0	30.0	NiFoS (2014)
149	Korea	<i>Castanopsis sieboldii</i>	forest	Stem	M=aD ^b H ^c	0.07	95	0.64	-	-	6.0	30.0	NiFoS (2014)
150	Korea	<i>Castanopsis sieboldii</i>	forest	Branch	M=aD ^b H ^c	0.06	3.23	-1.36	-	-	6.0	30.0	NiFoS (2014)
151	Korea	<i>Castanopsis sieboldii</i>	forest	Leaf	M=aD ^b H ^c	0.01	2.34	-0.15	-	-	6.0	30.0	NiFoS (2014)
152	Korea	<i>Castanopsis sieboldii</i>	forest	Root	M=aD ^b H ^c	0.00	75	1.86	-	-	6.0	30.0	NiFoS (2014)
153	Korea	<i>Quercus acuta</i>	forest	Stem	M=aD ^b	0.53	88	-	-	-	6.0	40.0	NiFoS (2014)
154	Korea	<i>Quercus acuta</i>	forest	Branch	M=aD ^b	0.01	13	-	-	-	6.0	40.0	NiFoS (2014)
155	Korea	<i>Quercus acuta</i>	forest	Leaf	M=aD ^b	0.01	49	-	-	-	6.0	40.0	NiFoS (2014)
156	Korea	<i>Quercus acuta</i>	forest	Root	M=aD ^b	0.13	97	-	-	-	6.0	40.0	NiFoS (2014)
157	Korea	<i>Quercus acuta</i>	forest	Stem	M=aD ^b H ^c	0.03	53	1.49	-	-	6.0	40.0	NiFoS (2014)
158	Korea	<i>Quercus acuta</i>	forest	Branch	M=aD ^b H ^c	0.00	91	1.13	-	-	6.0	40.0	NiFoS (2014)
159	Korea	<i>Quercus acuta</i>	forest	Leaf	M=aD ^b H ^c	0.06	2.79	-1.23	-	-	6.0	40.0	NiFoS (2014)
160	Korea	<i>Quercus acuta</i>	forest	Root	M=aD ^b H ^c	0.01	62	1.29	-	-	6.0	40.0	NiFoS (2014)
161	Korea	<i>Quercus glauca</i>	forest	Stem	M=aD ^b	0.02	76	-	-	-	6.0	30.0	NiFoS (2014)
162	Korea	<i>Quercus glauca</i>	forest	Branch	M=aD ^b	0.07	37	-	-	-	6.0	30.0	NiFoS (2014)
163	Korea	<i>Quercus glauca</i>	forest	Leaf	M=aD ^b	0.07	78	-	-	-	6.0	30.0	NiFoS (2014)
164	Korea	<i>Quercus glauca</i>	forest	Root	M=aD ^b	0.13	01	-	-	-	6.0	30.0	NiFoS (2014)
165	Korea	<i>Quercus glauca</i>	forest	Stem	M=aD ^b H ^c	0.10	3.55	-1.70	-	-	6.0	30.0	NiFoS (2014)
166	Korea	<i>Quercus glauca</i>	forest	Branch	M=aD ^b H ^c	0.06	24	0.27	-	-	6.0	30.0	NiFoS (2014)
167	Korea	<i>Quercus glauca</i>	forest	Leaf	M=aD ^b H ^c	0.11	2.05	-0.55	-	-	6.0	30.0	NiFoS (2014)
168	Korea	<i>Quercus glauca</i>	forest	Root	M=aD ^b H ^c	0.73	3.10	-2.17	-	-	6.0	30.0	NiFoS (2014)
169	Korea	<i>Camellia japonica</i>	forest	Stem	M=aD ^b	0.03	48	-	-	-	6.0	25.0	NiFoS (2014)
170	Korea	<i>Camellia japonica</i>	forest	Branch	M=aD ^b	0.00	74	-	-	-	6.0	25.0	NiFoS (2014)
171	Korea	<i>Camellia japonica</i>	forest	Leaf	M=aD ^b	0.04	00	-	-	-	6.0	25.0	NiFoS (2014)
172	Korea	<i>Camellia japonica</i>	forest	Root	M=aD ^b	0.00	33	-	-	-	6.0	25.0	NiFoS (2014)
173	Korea	<i>Camellia japonica</i>	forest	Stem	M=aD ^b H ^c	0.01	83	1.16	-	-	6.0	25.0	NiFoS (2014)
174	Korea	<i>Camellia japonica</i>	forest	Branch	M=aD ^b H ^c	0.00	49	0.37	-	-	6.0	25.0	NiFoS (2014)
175	Korea	<i>Camellia japonica</i>	forest	Leaf	M=aD ^b H ^c	0.08	2.54	-1.02	-	-	6.0	25.0	NiFoS (2014)
176	Korea	<i>Camellia japonica</i>	forest	Root	M=aD ^b H ^c	0.00	82	2.46	-	-	6.0	25.0	NiFoS (2014)
177	Korea (Sacheon)	<i>Ilex rotunda</i>	landscaping	Total tree	M=aD ^b	0.03	2.62	-	5	0.99	3.2	11.4	Jo, Kim, et al. (2019)
178	Korea (Goseong)	<i>Machilus thunbergii</i>	landscaping	Total tree	M=aD ^b	0.07	2.42	-	5	0.98	3.6	16.7	Jo, Kim, et al. (2019)
179	Korea (Yeoju)	<i>Acer palmatum</i>	landscaping	Leaf	M=aD ^b	0.01	23	-	11	0.93	4.9	19.6	Jo et al. (2012)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
180	Korea (Yeoju)	<i>Acer palmatum</i>	landscaping	Total tree	M=a+bD	-46.41	9.71	-	11	0.97	4.9	19.6	Jo et al. (2012)
181	Korea (Icheon)	<i>Zelkova serrata</i>	landscaping	Leaf	M=aD ^b	0.02	2.22	-	10	0.93	5.1	28.0	Jo et al. (2012)
182	Korea (Icheon)	<i>Zelkova serrata</i>	landscaping	Total tree	M=aD ^b	0.17	2.39	-	10	1.00	5.1	28.0	Jo et al. (2012)
183	Korea (Icheon)	<i>Prunus yedoensis</i>	landscaping	Leaf	M=aD ^b	0.01	2.37	-	10	0.97	4.8	23.0	Jo et al. (2012)
184	Korea (Icheon)	<i>Prunus yedoensis</i>	landscaping	Total tree	M=aD ^b	0.12	2.42	-	10	0.99	4.8	23.0	Jo et al. (2012)
185	Korea (Yangyang)	<i>Ginkgo biloba</i>	landscaping	Leaf	M=aD ^b	0.01	2.12	-	10	0.94	5.0	25.0	Jo et al. (2012)
186	Korea (Yangyang)	<i>Ginkgo biloba</i>	landscaping	Total tree	M=aD ^b	0.12	2.38	-	10	0.99	5.0	25.0	Jo et al. (2012)
187	Korea (Gangjin)	<i>Camellia japonica</i>	landscaping	Total tree	M=aD ^b	0.01	3.18	-	10	0.95	3.5	9.9	Jo, Kil, et al. (2019)
188	Korea (Jinju, Hadong)	<i>Lagerstroemia indica</i>	landscaping	Total tree	M=aD ^b	0.04	2.32	-	10	0.94	2.8	13.7	Jo, Kil, et al. (2019)
189	Korea (Jinju)	<i>Quercus spp.</i>	landscaping	Total tree	M=aD ^b	0.08	2.46	-	10	0.97	3.1	16.6	Jo, Kil, et al. (2019)
190	Korea (Yangyang, Hwacheon)	<i>Pinus densiflora</i>	landscaping	Total tree	M=aD ^b	0.04	2.44	-	10	0.98	5.3	24.6	Jo et al. (2013)
191	Korea (Yangyang, Hwacheon)	<i>Pinus koraiensis</i>	landscaping	Total tree	M=aD ^b	0.01	2.89	-	11	0.99	5.3	30.9	Jo et al. (2013)
192	Korea (Pocheon)	<i>Chionanthus retusus</i>	landscaping	Total tree	M=aD ^b	0.06	2.50	-	10	0.99	3.1	10.5	Jo et al. (2014)
193	Korea (Chungju)	<i>Prunus armeniaca</i>	landscaping	Total tree	M=aD ^b	0.09	2.30	-	10	0.99	3.6	14.3	Jo et al. (2014)
194	Korea (Pocheon)	<i>Abies holophylla</i>	landscaping	Total tree	M=aD ^b	0.11	2.08	-	10	0.98	5.0	19.2	Jo et al. (2014)
195	Korea (Chungju)	<i>Cornus officinalis</i>	landscaping	Total tree	M=aD ^b	0.04	2.41	-	10	0.98	2.8	15.2	Jo et al. (2014)
196	Korea (Hongcheon)	<i>Taxus cuspidata</i>	landscaping	Total tree	M=aD ^b	0.02	2.44	-	10	0.96	2.1	15.2	Jo et al. (2014)
197	Korea (Chuncheon)	<i>Pinus densiflora</i>	forest	Aboveground	M=aD ^b	0.16	2.12	-	10	0.98	4.3	26.0	Jo (2002)
198	Korea (Chuncheon)	<i>Pinus koraiensis</i>	forest	Aboveground	M=aD ^b	0.05	2.54	-	10	0.99	5.0	22.0	Jo (2002)
199	Korea (Chuncheon)	<i>Populus alba x glandulosa</i>	forest	Stem and branch	M=a+bD	-77.58	10.05	-	10	0.98	8.3	23.8	Jo (2002)
200	Korea (Chuncheon)	<i>Quercus mongolica</i> & <i>Quercus aliena</i>	forest	Aboveground	M=a(D ² H) ^b	0.04	98	-	10	0.96	5.2	26.5	Jo (2002)
201	Korea (Chuncheon)	<i>Lespedeza bicolor</i>	forest	Aboveground	M=aD ^b	0.08	81	-	59	0.82	0.4	2.5	Jo (2002)
202	Korea (Chuncheon)	<i>Pinus densiflora</i> & <i>Pinus rigida</i>	forest	Aboveground	M=aD ^b	0.06	19	-	54	0.90	0.6	3.6	Jo (2002)
203	Korea (Chuncheon)	<i>Quercus mongolica</i>	forest	Aboveground	M=aD ^b	0.07	22	-	59	0.90	0.5	4.0	Jo (2002)
204	Korea (Chuncheon)	<i>Rhododendron mucronulatum</i>	forest	Aboveground	M=aD ^b	0.05	37	-	60	0.87	0.5	3.4	Jo (2002)
205	Korea (Chuncheon)	<i>Rhododendron schlipenbachii</i>	forest	Aboveground	M=a+bD	-0.13	0.18	-	45	0.71	0.4	2.6	Jo (2002)
206	Korea (Chungcheong)	<i>buxus sinica</i>	landscaping	Total shrub	M=aD ^b	0.40	1.72	-	50	0.76	7.5	28.8	Kim et al. (2022)
207	Korea (Chungcheong)	<i>buxus sinica</i>	landscaping	Stem	M=aD ^b	0.01	2.86	-	50	0.64	7.5	28.8	Kim et al. (2022)
208	Korea (Chungcheong)	<i>buxus sinica</i>	landscaping	Branch	M=aD ^b	0.04	2.33	-	50	0.64	7.5	28.8	Kim et al. (2022)
209	Korea (Chungcheong)	<i>buxus sinica</i>	landscaping	Leaf-Twig	M=aD ^b	0.01	2.54	-	50	0.66	7.5	28.8	Kim et al. (2022)

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210	Korea (Chungcheong)	<i>buxus sinica</i>	landscaping	Root	M=aD ^b	0.06	2.64	-	50	0.74	7.5	28.8	Kim et al. (2022)
211	Korea (Chungcheong)	<i>Euonymus alatus</i>	landscaping	Total shrub	M=aD ^b	1.34	1.52	-	50	0.90	12.0	66.5	Kim et al. (2022)
212	Korea (Chungcheong)	<i>Euonymus alatus</i>	landscaping	Stem	M=aD ^b	0.07	1.97	-	50	0.77	12.0	66.5	Kim et al. (2022)
213	Korea (Chungcheong)	<i>Euonymus alatus</i>	landscaping	Branch	M=aD ^b	0.13	1.73	-	50	0.52	12.0	66.5	Kim et al. (2022)
214	Korea (Chungcheong)	<i>Euonymus alatus</i>	landscaping	Leaf-Twig	M=aD ^b	14.00	0.00	-	50	0.02	12.0	66.5	Kim et al. (2022)
215	Korea (Chungcheong)	<i>Euonymus alatus</i>	landscaping	Root	M=aD ^b	1.83	1.08	-	50	0.71	12.0	66.5	Kim et al. (2022)
216	Korea (Chungcheong)	<i>Euonymus japonicus</i>	landscaping	Total shrub	M=aD ^b	24.18	0.52	-	50	0.47	9.0	53.1	Kim et al. (2022)
217	Korea (Chungcheong)	<i>Euonymus japonicus</i>	landscaping	Stem	M=aD ^b	7.42	0.55	-	50	0.53	9.0	53.1	Kim et al. (2022)
218	Korea (Chungcheong)	<i>Euonymus japonicus</i>	landscaping	Branch	M=aD ^b	2.37	0.69	-	50	0.39	9.0	53.1	Kim et al. (2022)
219	Korea (Chungcheong)	<i>Euonymus japonicus</i>	landscaping	Leaf-Twig	M=aD ^b	5.80	0.42	-	50	0.21	9.0	53.1	Kim et al. (2022)
220	Korea (Chungcheong)	<i>Euonymus japonicus</i>	landscaping	Root	M=aD ^b	8.07	0.43	-	50	0.34	9.0	53.1	Kim et al. (2022)
221	Korea (Chungcheong)	<i>Rhododendron yedoense</i>	landscaping	Total shrub	M=aD ^b	24.29	0.26	-	50	0.01	1.0	22.0	Kim et al. (2022)
222	Korea (Chungcheong)	<i>Rhododendron yedoense</i>	landscaping	Stem	M=aD ^b	12.10	-0.06	-	50	0.00	1.0	22.0	Kim et al. (2022)
223	Korea (Chungcheong)	<i>Rhododendron yedoense</i>	landscaping	Branch	M=aD ^b	1.63	0.63	-	50	0.04	1.0	22.0	Kim et al. (2022)
224	Korea (Chungcheong)	<i>Rhododendron yedoense</i>	landscaping	Leaf-Twig	M=aD ^b	2.09	0.68	-	50	0.08	1.0	22.0	Kim et al. (2022)
225	Korea (Chungcheong)	<i>Rhododendron yedoense</i>	landscaping	Root	M=aD ^b	20.62	-0.16	-	50	0.00	1.0	22.0	Kim et al. (2022)
226	Korea (Chungcheong)	<i>Spiraea prunifolia</i>	landscaping	Total shrub	M=aD ^b	7.30	1.10	-	50	0.48	3.0	8.0	Kim et al. (2022)
227	Korea (Chungcheong)	<i>Spiraea prunifolia</i>	landscaping	Stem	M=aD ^b	1.05	1.32	-	50	0.41	3.0	8.0	Kim et al. (2022)
228	Korea (Chungcheong)	<i>Spiraea prunifolia</i>	landscaping	Branch	M=aD ^b	1.75	1.04	-	50	0.33	3.0	8.0	Kim et al. (2022)
229	Korea (Chungcheong)	<i>Spiraea prunifolia</i>	landscaping	Leaf-Twig	M=aD ^b	0.70	1.11	-	50	0.36	3.0	8.0	Kim et al. (2022)
230	Korea (Chungcheong)	<i>Spiraea prunifolia</i>	landscaping	Root	M=aD ^b	3.76	0.96	-	50	0.44	3.0	8.0	Kim et al. (2022)
231	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Stem wood	M=aD ^b	0.01	2.14	-	5	1.00	5.4	31.3	Ha et al. (2022)
232	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Stem bark	M=aD ^b	0.00	2.24	-	5	0.98	5.4	31.3	Ha et al. (2022)
233	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Branches	M=aD ^b	0.01	1.93	-	5	0.97	5.4	31.3	Ha et al. (2022)
234	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Foliage	M=aD ^b	0.01	0.98	-	5	0.95	5.4	31.3	Ha et al. (2022)
235	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Roots	M=aD ^b	0.00	2.47	-	5	0.97	5.4	31.3	Ha et al. (2022)
236	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Aboveground	M=aD ^b	0.02	2.02	-	5	0.99	5.4	31.3	Ha et al. (2022)
237	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Total	M=aD ^b	0.02	2.15	-	5	0.99	5.4	31.3	Ha et al. (2022)
238	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Stem wood	M=aD ^b	0.02	1.88	-	5	0.98	4.3	31.1	Ha et al. (2022)
239	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Stem bark	M=aD ^b	0.00	1.90	-	5	0.97	4.3	31.1	Ha et al. (2022)
240	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Branches	M=aD ^b	0.00	2.57	-	5	1.00	4.3	31.1	Ha et al. (2022)
241	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Foliage	M=aD ^b	0.00	2.11	-	5	0.98	4.3	31.1	Ha et al. (2022)
242	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Roots	M=aD ^b	0.00	2.81	-	5	0.99	4.3	31.1	Ha et al. (2022)
243	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Aboveground	M=aD ^b	0.02	2.16	-	5	0.99	4.3	31.1	Ha et al. (2022)
244	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Total	M=aD ^b	0.02	2.31	-	5	0.99	4.3	31.1	Ha et al. (2022)
245	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Stem wood	M=aD ^b	0.01	2.15	-	5	1.00	6.1	27.9	Ha et al. (2022)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
246	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Stem bark	$M=aD^b$	0.00	2.03	-	5	0.99	6.1	27.9	Ha et al. (2022)
247	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Branches	$M=aD^b$	0.00	3.02	-	5	0.98	6.1	27.9	Ha et al. (2022)
248	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Foliage	$M=aD^b$	0.00	2.05	-	5	0.93	6.1	27.9	Ha et al. (2022)
249	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Roots	$M=aD^b$	0.01	2.45	-	5	0.97	6.1	27.9	Ha et al. (2022)
250	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Aboveground	$M=aD^b$	0.01	2.51	-	5	0.99	6.1	27.9	Ha et al. (2022)
251	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Total	$M=aD^b$	0.02	2.49	-	5	0.99	6.1	27.9	Ha et al. (2022)
252	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Stem wood	$M=a(D^2H)^b$	0.00	0.89	-	5	0.98	5.4	31.3	Ha et al. (2022)
253	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Stem bark	$M=a(D^2H)^b$	0.00	0.93	-	5	0.96	5.4	31.3	Ha et al. (2022)
254	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Branches	$M=a(D^2H)^b$	0.00	0.79	-	5	0.94	5.4	31.3	Ha et al. (2022)
255	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Foliage	$M=a(D^2H)^b$	0.01	0.40	-	5	0.92	5.4	31.3	Ha et al. (2022)
256	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Roots	$M=a(D^2H)^b$	0.00	1.01	-	5	0.94	5.4	31.3	Ha et al. (2022)
257	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Aboveground	$M=a(D^2H)^b$	0.01	0.83	-	5	0.97	5.4	31.3	Ha et al. (2022)
258	Korea (Jinju)	<i>Ginkgo biloba</i>	landscaping	Total	$M=a(D^2H)^b$	0.01	0.89	-	5	0.96	5.4	31.3	Ha et al. (2022)
259	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Stem wood	$M=a(D^2H)^b$	0.01	0.81	-	5	0.98	4.3	31.1	Ha et al. (2022)
260	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Stem bark	$M=a(D^2H)^b$	0.00	0.82	-	5	0.98	4.3	31.1	Ha et al. (2022)
261	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Branches	$M=a(D^2H)^b$	0.00	1.11	-	5	0.99	4.3	31.1	Ha et al. (2022)
262	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Foliage	$M=a(D^2H)^b$	0.00	0.90	-	5	0.97	4.3	31.1	Ha et al. (2022)
263	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Roots	$M=a(D^2H)^b$	0.00	1.21	-	5	0.98	4.3	31.1	Ha et al. (2022)
264	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Aboveground	$M=a(D^2H)^b$	0.01	0.93	-	5	0.99	4.3	31.1	Ha et al. (2022)
265	Korea (Jinju)	<i>Prunus × yedoensis</i>	landscaping	Total	$M=a(D^2H)^b$	0.01	0.99	-	5	0.99	4.3	31.1	Ha et al. (2022)
266	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Stem wood	$M=a(D^2H)^b$	0.00	0.95	-	5	1.00	6.1	27.9	Ha et al. (2022)
267	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Stem bark	$M=a(D^2H)^b$	0.00	0.89	-	5	0.99	6.1	27.9	Ha et al. (2022)
268	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Branches	$M=a(D^2H)^b$	0.00	1.33	-	5	0.98	6.1	27.9	Ha et al. (2022)
269	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Foliage	$M=a(D^2H)^b$	0.00	0.91	-	5	0.96	6.1	27.9	Ha et al. (2022)
270	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Roots	$M=a(D^2H)^b$	0.00	1.08	-	5	0.98	6.1	27.9	Ha et al. (2022)
271	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Aboveground	$M=a(D^2H)^b$	0.00	1.10	-	5	0.99	6.1	27.9	Ha et al. (2022)
272	Korea (Jinju)	<i>Zelkova serrata</i>	landscaping	Total	$M=a(D^2H)^b$	0.00	1.10	-	5	0.99	6.1	27.9	Ha et al. (2022)
273	Korea (Gwangju)	<i>Ginkgo biloba</i>	street tree	Total	$M=aD^b$	0.16	2.30	-	100	0.95	9.0	39.9	Kim and Lee (2016)
274	Korea (Gwangju)	<i>Metasequoia glyptroboides</i>	street tree	Total	$M=aD^b$	0.31	2.03	-	100	0.87	12.0	61.4	Kim and Lee (2016)
275	Korea (Daejeon)	<i>Ginkgo biloba</i>	street tree	Total	$M=aD^b$	0.07	2.24	-	81	0.96	9.5	37.2	Park et al. (2018)
276	Korea (Gwangju)	<i>Platanus occidentalis</i>	street tree	Total	$M=aD^b$	0.58	1.94	-	100	0.89	18.2	49.7	Kim and Lee (2016)
277	Korea (Gwangju)	<i>Prunus serrulata</i>	street tree	Total	$M=aD^b$	0.46	1.94	-	100	0.71	7.2	16.6	Kim and Lee (2016)
278	Korea (Gwangju)	<i>Zelkova serrata</i>	street tree	Total	$M=aD^b$	0.12	2.44	-	100	0.93	11.4	39.5	Kim and Lee (2016)
279	Korea (Daegu)	<i>Acer buergerianum</i>	street tree	Total	$M=aD^b$	0.06	2.51	-	10	0.97	12.8	41.0	Yoon et al. (2013)
280	Korea (Daegu)	<i>Ginkgo biloba</i>	street tree	Total	$M=aD^b$	0.03	2.66	-	10	0.99	10.5	34.5	Yoon et al. (2013)
281	Korea (Daegu)	<i>Platanus occidentalis</i>	street tree	Total	$M=aD^b$	0.63	1.91	-	10	0.93	22.8	48.2	Yoon et al. (2013)

ID	Study site	Scientific name	Site type	Component	Equation form	Coeff. a	Coeff. b	Coeff. c	N	R ²	D Range		Reference
											Min.	Max.	
282	Korea (Daegu)	<i>Prunus yedoensis</i>	street tree	Total	M=aD ^b	0.53	1.82	-	10	0.97	12.3	48.2	Yoon et al. (2013)
283	Korea (Daegu)	<i>Zelkova serrata</i>	street tree	Total	M=aD ^b	0.01	3.08	-	10	0.96	11.8	38.4	Yoon et al. (2013)
284	Korea (Daejeon)	<i>Zelkova serrata</i>	street tree	Total	M=aD ^b	0.05	2.34	-	89	0.93	11.5	39.0	Park et al. (2018)
285	Korea (Daejeon)	<i>Platanus occidentalis</i>	street tree	Total	M=aD ^b	0.16	2.16	-	97	0.67	17.1	55.0	Park et al. (2018)
286	Korea (Daejeon)	<i>Chionanthus retusus</i>	street tree	Total	M=aD ^b	0.09	2.20	-	195	0.93	5.4	29.9	Park et al. (2018)
287	Korea (Daejeon)	<i>Acer pseudosieboldianum</i>	street tree	Total	M=aD ^b	0.11	2.17	-	190	0.88	6.5	28.0	Park et al. (2018)