

31-year dynamics of a secondary forest that invaded by *Bischofia javanica* after simultaneous death of *Pinus luchuensis* in Chichijima Island

Kenji HATA^{1*}, Yasuo YAMAMURA² and Naoki KACHI¹

¹Department of Biological Sciences, Graduate School of Science and Engineering, Tokyo Metropolitan University, Japan

²Faculty of Science, Ibaraki University, Japan

*Author for correspondence: E-mail ken-hata@tmu.ac.jp, 192-0397, Tel +81-426-77-2585, Fax +81-426-77-2559

Abstract: To quantify dynamics of a secondary forest that was invaded by *Bischofia javanica*, after death of a dominant tree, *Pinus luchuensis*, we represented long-term monitoring data of a 20 x 20 m plot in the Fukiagedani Valley in Chichijima Island for 31 years (1984-2015). With the death of *P. luchuensis*, basal area of trees of all woody species reduced to less than half before the death, and thereafter increased. The numbers of trees and saplings decreased during the period. This suggested that individual trees grew after death of *P. luchuensis* but recruitments of seedlings did not occur, which could be related to closure of forest canopy with the growth of individual trees. All data of the study was published on the web site of the Ogasawara Research Committee of Tokyo Metropolitan University (island@tmu.ac.jp).

Keywords: invasive non-native species, long-term monitoring, oceanic island, Ogasawara Islands

Introduction

Most of the mesic secondary forests on Chichijima Island, the largest island of Ogasawara Islands, became established after 1945 in abandoned fields and they were dominated by an introduced species, *Pinus luchuensis* (Shimizu 1983). These forests are categorized as a *Pinus-Schima* forest (Shimizu and Tabata 1991). In 1979, a pine wood nematode, *Bursaphelenchus xylophilus* was accidentally introduced to Chichijima Island and almost all of the *P. luchuensis* trees were killed by 1984 (Mueller-Dombois and Fosberg 1998). After the death of *P. luchuensis*, most of the stands of the *Pinus-Schima* forests were mainly composed of *Schima mertensiana*

(Shimizu 1986), and *Bischofia javanica* aggressively invaded some of these forests (Hata et al. 2006). Long-term dynamics of the forest that invasive trees invaded can provide useful information for management of the forest ecosystems.

In this study, we represented data of dynamics of woody species in the forests in Chichijima Island for 31 years. The data, contains forest dynamics for 19 years published in Hata et al. (2006). In addition, all data in this study were published in Appendix 1.

Study sites and methods

In 1984, a permanent 20 × 20 m plot was established for long-term monitoring in a forest in the Fukiagedani Valley (27°04' N, 142°12' E, 120 m above sea level). In this study, woody plants were categorized by their heights into two groups, trees (≥ 1.3 m), and saplings (< 1.3 m, ≥ 0.3 m). The diameters at breast height (DBHs) of all trees and heights of all saplings were measured. The DBHs of the standing dead trees of *P. luchuensis* were also measured in order to estimate their biomass when they were alive. Remeasurements of the trees and saplings were also carried out in 1987, 1990, 1995, 1998, 2000, 2003, 2010 and 2015. Details of the study site and measurements were represented in Hata et al. (2006).

Results and Discussion

Basal area of alive trees of all woody species was 30.4 m² ha⁻¹ and that of standing dead trees of *P. luchuensis* was 39.3 134.9 m² ha⁻¹ (Table 1). This suggested that aboveground biomass of the forest reduced to less than half after death of *P. luchuensis*, which was not inconsistent with previous study in the secondary forests (Shimizu 1986). All survivors of *P. luchuensis* in 1984 died by 1998. Basal area of trees of all woody species increased from 30.4 m² ha⁻¹ to 53.6 m² ha⁻¹ for 31 years, which was 77% of total value of alive and dead trees in 1984 (Table 1).

Total number of trees of woody species decreased from 280 to 192 for 31 years (Table 2). The number increased between 1984 and 1990 and thereafter decreased. The numbers of saplings of all woody species decreased from 840 to 63 for 31 years, especially, drastically decreased after 2003 (Table 3). The increase in basal are of trees, and the decreases in numbers of trees and saplings suggested that individual trees grew after death of *P. luchuensis* but recruitments of seedlings did not occur, which could be related to closure of forest canopy with the growth of individual trees.

Acknowledgements: We thank the Environmental Agency and the Department of National Forests in the Ogasawara Islands for permission to conduct this study on the plants of Chichijima Island. This study was originally organized by the late Professor emeritus Makoto Kimura and late Dr. Masaki Funakoshi. The long-term measurements has been conducted by members of the laboratory of Plant Ecology, the laboratory of Systematic Botany of Tokyo Metropolitan University, and the laboratory of Ecology of Ibaraki University.

Appendix 1 is available on the web site of the Ogasawara Research Committee of Tokyo Metropolitan University as follow: https://tokyo-metro-u.repo.nii.ac.jp/index.php?action=pages_view_main&active_action=repository_view_main_item_snippet&index_id=479&pn=1&count=20&order=17&lang=japanese&page_id=30&block_id=155.

References

- Hata K, Suzuki J-I, Kachi N, Yamamura Y (2006) A 19-year study of dynamics of an alien tree, *Bischofia javanica*, on a subtropical oceanic island. *Pac Sci* 60: 455-470
- Mueller-Dombois D, Fosberg FR (1998) *Vegetation of the tropical pacific islands*. Springer, New York.
- Shimizu Y (1983) Plant ecological studies of the forest in the Bonin (Ogasawara) Islands (in Japanese). Ph.D. dis., Kyoto University, Kyoto.
- Shimizu Y (1986) Serious damage to *Pinus lutchuensis* by the attack of the pine wood nematode at Chichijima in the Bonin (Ogasawara) Islands. *J Fac Lett Komazawa Univ, Tokyo* 44: 169-178.
- Shimizu Y, Tabata H (1991) Forest structures, composition, and distribution on a pacific island, with reference to ecological release and speciation. *Pac Sci* 45: 28-49

リュウキュウマツ一斉枯死後にアカギが侵入した父島の 二次林における 31 年間の動態

畑 憲治¹・山村靖夫²・可知直毅¹

¹ 首都大学東京理工学研究科生命科学専攻

² 茨城大学理学部

リュウキュウマツの一斉枯死後にアカギが侵入した森林の長期的な動態を父島の二次林における 31 年間のデータから明らかにした。マツ枯れ直後、森林の BA は 50% 以下に減少した。その後 31 年間で全体の BA は増加し、マツ枯れ以前の約 70% 程度まで回復したと考えられる。樹木の個体数は、1990 年まで増加し、その後減少した。これは、マツ枯れ後、樹木が成長し、現存量が増加する一方で、競争によって小径木の枯死と新規加入個体の減少を示唆する。この研究で使用したデータを公開する。利用を希望する場合の問い合わせ先は、以下のアドレス (island@tmu.ac.jp) である。

キーワード： 侵略的外来生物、長期継続調査、海洋島、小笠原諸島

Table 1 Basal areas of trees of all woody species (m² ha⁻¹) in a 20 × 20 m plot.

Species	1984	1987	1990	1995	1998	2000	2003	2010	2015
<i>Ardisia sieboldii</i>	0.07	0.16	0.24	0.26	0.22	0.17	0.31	0.25	0.16
<i>Bischofia javanica</i>	3.83	9.58	15.30	18.46	19.52	21.28	24.77	25.77	26.79
<i>Callicarpa subpubescens</i>		0.003	0.003	0.001	0.002	0.002	0.003		
<i>Calamus urens</i>			0.21	0.21	0.04	0.03	0.01		0.01
<i>Celtis boninensis</i>									
<i>Cinnamomum camphora</i>	0.57	0.59	0.75	0.93	0.99	0.99	1.06	1.24	1.58
<i>Cinnamomum pseudopedunculatum</i>		0.00	0.01	0.02	0.04	0.06	0.07	0.10	0.11
<i>Calophyllum inophyllum</i>	(4.44)								
<i>Elaeocarpus photiniifolius</i>	0.003	0.006	0.004	0.01	0.01	0.01			
<i>Elaeagnus rotundata</i>	0.05	0.01					0.00	0.00	
<i>Euonymus boninensis</i>									
<i>Hibiscus glaber</i>	0.01	0.05	0.11	0.08	0.08	0.10	0.04	0.05	0.05
<i>Livistona chinensis</i>	0.68	0.66	0.65	0.66	0.66	0.61	0.61	0.61	0.60
<i>Ligustrum micranthum</i>	0.02	0.03	0.08	0.12	0.11	0.13	0.11	0.07	0.07
<i>Machilus boninensis</i>	0.00	0.00				0.04	0.04		0.04
<i>Mangifera indica</i>	3.38	3.43	3.67	3.86	4.02	4.14	4.78	5.03	5.58
<i>Machilus kobu</i>	0.03	0.16	0.22	0.27	0.82	0.29	0.31	0.25	0.30
<i>Morus australis</i>	0.00	0.01	0.01	0.04	0.05	0.06	0.06	0.07	0.05
<i>Neolitsea sericea</i> var. <i>aurata</i>	0.03	0.06	0.11	0.13	0.15	0.12	0.12		
<i>Osmanthus insularis</i>	0.01	0.06	0.16	0.31	0.40	0.49	0.55	0.77	0.88
<i>Pandanus boninensis</i>			2.00	2.27	2.26	2.45	1.34	0.58	0.57
<i>Pittosporum boninense</i>	0.04	0.09	0.14	0.18	0.17	0.18			
<i>Pinus luchuensis</i>	10.79	8.03	3.18	4.45					
	(34.89)								
<i>Planchonella obovata</i>	2.91	3.93	4.05	4.14	4.37	4.39	3.72	3.35	3.36
<i>Psychotria boninensis</i>									
<i>Psidium guajava</i>									
<i>Psidium littorale</i>								0.0001	0.0001
<i>Rhaphiolepis indica</i>	2.65	2.46	3.06	2.50	3.13	3.10	3.05	1.24	0.98
<i>Schima mertensiana</i>	5.29	5.78	6.77	7.58	8.61	8.75	10.08	11.44	12.34
<i>Syzygium cleyerifolium</i>	0.004	0.02	0.03	0.05	0.08	0.08	0.09	0.11	0.10
<i>Tarenna subsessilis</i>	0.01	0.01	0.01	0.01	0.01	0.01			
<i>Trema orientalis</i>									
<i>Wikstroemia pseudoretusa</i>							0.0001		
Unkonwn						0.005	0.0002		0.01
Total	30.4	35.1	40.7	46.5	45.7	47.5	51.1	51.0	53.6
	(39.3)								

(): Standing dead trees

Table 2 Numbers of trees of all woody species (400 m²) in a 20 × 20 m plot.

Species	1984	1987	1990	1995	1998	2000	2003	2010	2015
<i>Ardisia sieboldii</i>	6	13	20	19	19	22	27	21	8
<i>Bischofia javanica</i>	132	170	173	170	159	166	158	118	95
<i>Callicarpa subpubescens</i>		1	1	1	1	1	1		
<i>Calamus urens</i>			1	1	5	1	4		3
<i>Celtis boninensis</i>									
<i>Cinnamomum camphora</i>	1	1	1	1	1	1	1	1	1
<i>Cinnamomum pseudopedunculatum</i>		3	4	8	9	9	10	8	8
<i>Calophyllum inophyllum</i>	(6)								
<i>Elaeocarpus photiniiifolius</i>	3	3	3	4	3	2			
<i>Elaeagnus rotundata</i>	1	1					3	1	
<i>Euonymus boninensis</i>									
<i>Hibiscus glaber</i>	2	2	4	3	2	3	2	2	2
<i>Livistona chinensis</i>	1	1	1	1	1	1	1	1	1
<i>Ligustrum micranthum</i>	5	14	51	47	31	35	24	7	4
<i>Machilus boninensis</i>	1	1				1	1	1	1
<i>Mangifera indica</i>	1	1	1	1	1	1	1	1	1
<i>Machilus kobu</i>	8	20	21	18	15	15	15	8	5
<i>Morus australis</i>	1	3	5	4	4	4	4	4	3
<i>Neolitsea sericea</i> var. <i>aurata</i>	3	9	12	14	13	10	9		
<i>Osmanthus insularis</i>	5	12	16	17	17	19	20	19	21
<i>Pandanus boninensis</i>			15	12	12	12	6	2	2
<i>Pittosporum boninense</i>	2	4	4	4	2	2			
<i>Pinus luchuensis</i>	4	3	1	1					
	(8)								
<i>Planchonella obovata</i>	12	17	21	17	17	13	12	8	5
<i>Psychotria boninensis</i>									
<i>Psidium guajava</i>									
<i>Psidium littorale</i>								1	1
<i>Rhaphiolepis indica</i>	80	96	120	99	89	83	63	20	10
<i>Schima mertensiana</i>	9	15	17	17	18	26	25	14	15
<i>Syzygium cleyerifolium</i>	2	3	3	3	4	3	4	4	4
<i>Tarenna subsessilis</i>	1	1	1	1	1	1			
<i>Trema orientalis</i>									
<i>Wikstroemia pseudoretusa</i>						1	1		
Unkonwn						2	1		2
Total	280	394	496	463	424	434	393	241	192
	(14)								

(): Standing dead trees

Table 3 Numbers of saplings of all woody species (400 m²) in a 20 × 20 m plot.

Species	1984	1987	1990	1995	1998	2000	2003	2010	2015
<i>Ardisia sieboldii</i>	28	18	22	21	19	23	24	11	11
<i>Bischofia javanica</i>	71	37	32	22	20	18	11	3	
<i>Callicarpa subpubescens</i>	2						1		
<i>Calamus urens</i>	1				1	1	1		
<i>Celtis boninensis</i>							1		
<i>Cinnamomum camphora</i>									
<i>Cinnamomum pseudopedunculatum</i>	15	13	10	11	7	14	7	4	4
<i>Calophyllum inophyllum</i>									
<i>Elaeocarpus photiniifolius</i>	5	3	2	1	1				
<i>Elaeagnus rotundata</i>						1	1	4	4
<i>Euonymus boninensis</i>	3	2	3						
<i>Hibiscus glaber</i>					1	9	7	3	1
<i>Livistona chinensis</i>									1
<i>Ligustrum micranthum</i>	216	141	94	58	44	63	24	1	2
<i>Machilus boninensis</i>	2	1	1	1	1				
<i>Mangifera indica</i>									
<i>Machilus kobu</i>	20	8	11	9	12	17	18	4	8
<i>Morus australis</i>	5	1	1	1	1	4	1		
<i>Neolitsea sericea</i> var. <i>aurata</i>	15	9	12	7	7	9	15	2	
<i>Osmanthus insularis</i>	18	10	6	7	7	11	17	9	9
<i>Pandanus boninensis</i>	26		13	9	9	7	2		
<i>Pittosporum boninense</i>	2	1	2	1	1	1	1	1	1
<i>Pinus luchuensis</i>									
<i>Planchonella obovata</i>	141	104	103	70	59	60	62	19	5
<i>Psychotria boninensis</i>									
<i>Psidium guajava</i>						1			
<i>Psidium littorale</i>					2	3	2	1	2
<i>Rhaphiolepis indica</i>	251	211	197	152	211	290	195	20	7
<i>Schima mertensiana</i>	11	9	10	9	10	14	13	7	6
<i>Syzygium cleyerifolium</i>	2	1	1	1			1		1
<i>Tarenna subsessilis</i>	3	3	2	1	1				
<i>Trema orientalis</i>	3								
<i>Wikstroemia pseudoretusa</i>				3	6	3			1
Umknown			1			7	6	3	
Total	840	572	523	384	420	556	410	92	63

Appendix 1 List of woody species that occurred in a 20 × 20 m plot, and diameters at breast height of trees and heights of samplings of all woody species .
a. Individual that was damaged by natural disturbances but survived. Values of DBH or height of the individuals are often lower than those in previous measurement.
b. Individual that measurement was not conducted because of oversight

This data is available on the web site of the Ogasawara Research Committee of Tokyo Metropolitan University as follow: https://tokyo-metro-u.repo.nii.ac.jp/index.php?action=pages_view_main&active_action=repository_view_main_item_snippet&index_id=479&pn=1&count=20&order=17&lang=japanese&page_id=30&block_id=155.

sp.	Species name	Japanese name	family	Origin
Ars	<i>Ardisia sieboldii</i>	モクダチバナ	Primulaceae	native
Bij	<i>Bijchofia javanica</i>	アカギ	Phyllanthaceae	non-native
Cas	<i>Callicarpa subpubescens</i>	オオバシマムラサキ	Lamiaceae	endemic
Cau	<i>Calamus urens</i>	クジャクヤシ	Arecaceae	non-native
Ceb	<i>Celtis boninensis</i>	クワノハエノキ	Cambaceae	endemic
Cic	<i>Cinnamomum camphora</i>	クスノキ	Lauraceae	non-native
Cip	<i>Cinnamomum pseudopedunculatum</i>	コヤブニッケイ	Lauraceae	endemic
Cln_d	<i>Calophyllum inophyllum</i> (standing dead tree)	テリハボク(枯死木)	Clusiaceae	native
Elp	<i>Elpeocarpus photiniaefolius</i>	シマホルトノキ	laecocarpaceae	endemic
Elr	<i>Elaeagnus rotundata</i>	オガサワラグミ	Elaeagnaceae	endemic
Eub	<i>Euonymus boninensis</i>	ヒメマサキ	Celastraceae	endemic
Hig	<i>Hibiscus glaber</i>	テリハハマボウ	Malvaceae	endemic
Lic	<i>Livistona chinensis</i>	オガサワラビロウ	Arecaceae	endemic
Lim	<i>Ligustrum micranthum</i>	ムニンネズミモチ	Oleaceae	endemic
Mab	<i>Machilus boninensis</i>	ムニンイヌグス	Lauraceae	endemic
Mai	<i>Mangifera indica</i>	マンゴー	Anacardiaceae	non-native
Maak	<i>Machilus kobu</i>	コブガシ	Lauraceae	endemic
Moa	<i>Morus australis</i>	シマグワ	Moraceae	non-native
Nes	<i>Neolitsea sericea</i> var. <i>aurata</i>	キンヨクダモ	Lauraceae	native
Osi	<i>Osmanthus insularis</i>	シマモクセイ	Oleaceae	native
Pab	<i>Pandanus boninensis</i>	タコノキ	Pandaneaceae	endemic
Pib	<i>Pitiosporum boninense</i>	シロトベラ	Pitiosporaceae	endemic
Pil	<i>Pilus luchuensis</i>	リュウキユウマツ	Pilaceae	non-native
Pil_d	<i>Pilus luchuensis</i> (standing dead tree)	リュウキユウマツ(枯死木)	Pilaceae	non-native
Plo	<i>Plonchonella obovata</i>	アカテツ	Sapotaceae	native
Psb	<i>Psychotria boninensis</i>	オオシラタマカズラ	Rubiaceae	endemic
Psg	<i>Psidium guajava</i>	ハンジロウ	Myrtaceae	endemic
Psl	<i>Psidium littorale</i>	キバンジロウ	Myrtaceae	non-native
Rhi	<i>Rhiphiolepis indica</i>	シャリンバイ	Myrtaceae	non-native
Scm	<i>Schima mertensiana</i>	ヒメツバキ	Rosaceae	native
Syc	<i>Syzygium cleyerifolium</i>	ヒメフトモモ	Theaceae	endemic
Tas	<i>Tarenna subsessilis</i>	シマギョクシンカ	Myrtaceae	endemic
Tro	<i>Trema orientalis</i>	ウラジロエノキ	Rubiaceae	endemic
Wip	<i>Wikstroemia pseudoretusa</i>	ムニンアオガンピ	Cambaceae	native
			Thymelaeaceae	endemic

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
0033	Rhi	1.70	1.75																		
0034	Rhi																				
0035	Rhi	1.90																			
0036	Lim	1.90	2.32	2.32	2.64	2.58 ^a	2.68	2.89													
0037	Pil_d	29.10																			
0038	Maak																				
0039	Maak																				
0040	Plo		0.70	0.77																	
0041	Rhi		0.21	0.33	0.37	0.43	0.48														
0042	Rhi					^b	0.31	0.32													
0043	Rhi		^b	0.55	0.56	0.62	0.60	0.64													
0044	Rhi																				
0045	Rhi																				
0046	Rhi	2.90	3.72	4.14	4.46	4.78	4.39	4.39													
0047	Rhi	3.60	3.66	^b	7.17	6.66															
0048	Plo																				
0049	Ars																				
0050	Plo	1.70	2.10	2.42	2.55	2.52	2.46	2.58	2.61												
0051	Bij	3.60	6.78	11.78	15.92	17.32	20.51	24.14	28.09	32.61											
0052	Rhi			0.59	0.45																
0053	Rhi																				
0054	Maak		1.88	2.55	2.96	3.76	3.69	3.70	3.90	3.84											
0055	Maak								0.54	0.50											
0056	Maak																				
0057	Rhi		0.70	0.81	1.00																
0058	Lim																				
0059	Rhi	4.90																			
0060	Maak		1.50	2.13	0.63 ^a																
0061	Rhi			0.36																	
0062	Rhi	4.50	4.93	5.19	4.14 ^a	3.95	6.21														
0063	Rhi																				
0064	Rhi																				
0065	Plo																				
0066	Plo																				

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0067	Maak											68.0	b	32.8					
0068	Rhi												52.0						
0069	Rhi												69.0						
0070	Maak													93.0	124.0	125.0			
0071	Rhi				3.92										82.0 ^a				
0072	Plo													38.5	65.0	b	44.0		
0073	Maak													40.0	56.0	63.0	49.0		
0074	Pab																		
0075	Pab																		
0076	Rhi																		
0077	Rhi																		
0078	Rhi																		
0079	Rhi																		
0080	Rhi																		
0081	Maak																		
0082	Maak																		
0083	Rhi																		
0084	Rhi																		
0085	Rhi																		
0086	Bij																		
0087	Bij																		
0088	Lim																		
0089	Pab																		
0090	Rhi																		
0091	Rhi																		
0092	Mai																		
0093	Rhi																		
0094	Rhi																		
0095	Rhi																		
0096	Bij																		
0097	Rhi																		
0098	Rhi																		
0099	Rhi																		
0100	Pab																		
0101	Bij																		

ID	sp	Cln_d	Diameter at breast height (cm)										Height (cm)								
			1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015	
0136	Ars	15.60																			
0137	Ars																				
0138	Ars		0.80	1.06	1.02	1.06	1.04	1.07													
0139	Ars		1.00	1.09	1.12	1.12	1.08	1.17													
0140	Plo																				
0141	Rhi																				
0142	Rhi	0.30	1.10	1.73	1.69																
0143	Rhi		0.60	1.00	0.98																
0144	Rhi																				
0145	Rhi		b																		
0146	Rhi		b	0.39	0.29	0.62															
0147	Rhi																				
0148	Bij	6.00	3.50	5.67	6.72	6.56	6.62	6.75													
0149	Rhi																				
0150	Lim																				
0151	Bij		2.70	4.74	6.34	7.80	7.68	9.04	9.04	9.14	9.14										
0152	Mak		1.30	1.69	1.05 ^a	1.43															
0153	Rhi																				
0154	Rhi																				
0155	Rhi																				
0156	Rhi																				
0157	Rhi																				
0158	Mak																				
0159	Rhi																				
0160	Lim																				
0161	Mak																				
0162	Rhi																				
0163	Pab																				
0164	Pab																				
0165	Mak																				
0166	Rhi																				
0167	Rhi																				
0168	Rhi																				
0169	Rhi																				
0170	Rhi																				

ID	sp	Diameter at breast height (cm)													Height (cm)				
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0206	Bij	1.30	2.64	4.24	4.65	4.75	4.64	4.88	4.86	4.87									
0207	Rhi	3.10	4.42	4.90	5.54	5.92	6.11	6.18	6.24										
0208	Plo																		
0209	Rhi			0.35	0.28	0.46	0.47	0.43											
0210	Lim			0.32	0.59	0.56	0.58												
0211	Rhi			0.66															
0212	Plo																		
0213	Lim			0.64	0.95	0.95													
0214	Lim																		
0215	Lim																		
0216	Lim																		
0217	Lim																		
0218	Lim			0.80	0.50														
0219	Lim			0.49															
0220	Plo																		
0221	Lim			0.64	0.89	0.93	0.98												
0222	Scm	14.00	16.14	18.34	19.90	22.01	22.93	24.71	28.31	29.24									
0223	Scm	17.90	19.48	20.92	22.26	23.69	24.59	25.54	27.36	28.76									
0224	Scm																		
0225	Rhi																		
0226	Plo																		
0227	Lim																		
0228	Lim																		
0229	Rhi			0.26	0.34	0.48													
0230	Rhi		0.70	0.72	0.78	0.80	0.81												
0231	Lim																		
0232	Plo																		
0233	Bij			4.14	7.99	9.94	10.19	10.45	10.96	10.99									
0234	Mak			1.27	1.58	1.75													
0235	Rhi																		
0236	Rhi			0.50	0.95														
0237	Rhi																		
0238	Ars			1.37	1.16	1.31	1.30	1.27											
0239	Ars			0.64	0.72	0.71	0.73	0.73											
0240	Ars			0.61	0.72	1.05	1.05	1.05	1.44										

ID	sp	Diameter at breast height (cm)										Height (cm)										
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015			
0274	Plo																					
0275	Plo													85.0	113.0	110.0		b	40.0	60.0	40.0 ^a	
0276	Lim												90.0	40.0	33.0		b	b	34.0	36.0		
0277	Rhi	2.60	2.93	3.24	3.82	3.73	3.40	3.40					58.0	87.0								
0278	Rhi																					
0279	Rhi												112.0							94.0		
0280	Rhi	1.70	1.97	1.86																		
0281	Rhi	0.80	0.67	1.09																		
0282	Rhi			0.93																		
0283	Plo					b	b	0.34														
0284	Plo												96.0	110.0	125.0	130.0						
0285	Rhi											57.0										
0286	Plo											97.0										
0287	Rhi			0.38	0.35							55.0	b	77.0	84.0	87.0	95.0	96.0				
0288	Rhi											100.0	126.0									
0289	Rhi											113.0	110.0	40.0	30.0							
0290	Rhi											80.0	60.0	30.0	30.0							
0291	Rhi											38.0	90.0	42.0	47.0	45.0						
0292	Lim			0.18	0.22							32.0										
0293	Lim																					
0294	Plo											36.0	45.0	59.0	58.0	60.0	68.0					
0295	Lim											121.0										
0296	Plo																	b	b	30.0	42.0	
0297	Lim																					
0298	Lim																					
0299	Lim																					
0300	Lim																					
0301	Lim																					
0302	Rhi																					
0303	Maak																					
0304	Rhi					0.65	0.88													114.0	38.0	33.0
0305	Rhi																				40.0	49.0
0306	Rhi																				37.0	45.0
0307	Rhi																				35.0	42.0
0308	Rhi																					34.0

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0309	Plo														34.0	35.0			
0310	Rhi														36.0	36.0			
0311	Rhi														32.0	35.0			
0312	Rhi															35.0			
0313	Rhi													54.0	63.0	63.0			
0314	Rhi													33.0	37.0	39.0			
0315	Scm				0.59	0.59													
0316	Scm				0.55	0.58													
0317	unknown														60.0				
0318	Rhi														34.0				
0319	Lim														54.0				
0320	Plo														41.0	45.0	41.0 ^a		
0321	Rhi														34.0	37.0			
0322	Plo															32.5			
0323	Rhi															34.0			
0324	Elr																34.0	46.0	
0325	Scm															45.5			
0326	Ars																	42.0	
0327	unknown																	41.0	
0328	Plo																	71.0	
0329	Wip																		95.0
0330	Mak			1.33	1.91	1.67						50.0	130.0						
0331	Mak																		30.0
0332	Lim			0.69	0.88	0.85	0.97					32.0	107.0						
0333	Lim											43.0	73.0						
0334	Rhi											65.0							
0335	Rhi											95.0							
0336	Bij			1.60															
0337	Plo											34.0	65.0	64.0					
0338	Plo											69.0	70.0	68.0	56.0				
0339	Rhi											107.0	36.0						
0340	Lim											63.0	90.0	100.0					
0341	Rhi			0.80	0.70	0.76												48.0 ^a	
0342	Plo											32.0	36.0	54.0	57.0				
0343	Plo											31.0	^b 40.0	38.0	30.0 ^a				

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0344	Rhi	2.00	2.29	0.72															
0345	Lim	0.90												68.0 ^a					
0346	Rhi	1.30	1.81	1.86	2.07														
0347	Lim	1.50	1.59																
0348	Lim												56.0						
0349	Plo												45.0	114.0	130.0				
0350	Rhi												83.0	70.0					
0351	Rhi												75.0	110.0	115.0	120.0			
0352	Rhi	0.40	1.02	0.91															
0353	Rhi		0.30	0.40	0.47								90.0						
0354	Rhi	2.40																	
0355	Bij	17.70	25.46	30.51	32.48	34.14	36.24	38.79	41.11	41.40									
0356	Mak	0.30	1.15	1.16															
0357	Rhi																		
0358	Pib																		
0359	Mak		1.08	1.23	1.50	1.33													
0360	Nes		1.27	1.54															
0361	Nes	2.90	3.76	5.32	6.37	6.82	6.75	7.13											
0362	Nes		2.61	3.60	3.85	3.82													
0363	Nes				0.85	1.08	1.20												
0364	Nes				0.78	1.10	1.21	1.24											
0365	Nes						0.62												
0366	Nes						0.52												
0367	Nes						0.59												
0368	Nes																		
0369	Nes																		
0370	Nes																		
0371	Nes																		
0372	Nes																		
0373	Nes				0.37														
0374	Nes				0.61	0.93	1.03												
0375	Nes				0.49	0.80	0.83												
0376	Lim					0.56													
0377	Mak	0.80	2.58	3.63	3.85	3.92	3.83	3.79											
0378	Mak																		50.0

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0379	Mak																		71.0
0380	Mak																		51.5
0381	Mak																		44.0
0382	Lim			0.67	0.45														
0383	Plo																		
0384	Pil	18.20	22.09																
0385	Pil_d	12.90																	
0386	Rhi	1.60	2.51																
0387	Lim				0.60														
0388	Plo																		
0389	Rhi		0.50	0.44	0.53	0.52													
0390	Rhi	1.40																	
0391	Rhi			0.17	0.24	0.38													
0392	Lim			0.51	0.51														
0393	Lim			0.33	0.32														
0394	Lim			0.22	0.23														
0395	Plo	0.30		0.37	0.42														
0396	Rhi																		
0397	Plo																		
0398	Plo																		
0399	Lim																		
0400	Lim																		
0401	Rhi																		
0402	Plo																		
0403	Rhi																		
0404	Rhi																		
0405	Cau																		
0406	Lim																		
0407	Plo																		
0408	Rhi			0.28	0.34														
0409	Lim			0.45	0.74	0.72	0.70												
0410	Lim			0.37	0.44														
0411	Mak		1.10																
0412	Lim			0.88	1.75	16.30	1.71	1.57											
				1.04	1.53	1.46	1.36												

ID	sp	Diameter at breast height (cm)								Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0413	Plo																		
0414	Rhi			0.26	0.39	0.34													
0415	Nes			0.72															
0416	Nes			0.65															
0417	Nes			0.35															
0418	Lim			0.74															
0419	Lim			0.40	0.24														
0420	Lim												120.0						
0421	Mak			0.70	1.27	1.24	1.24	1.24	0.80 ^a										
0422	Mak																		
0423	unknown																		
0424	Rhi			0.26															
0425	Plo																		
0426	Lim																		
0427	Lim																		
0428	Lim																		
0429	Lim																		
0430	Lim			0.44	0.47	0.50													
0431	Lim																		
0432	Cau			10.32	10.22														
0433	Lim			0.30															
0434	Rhi																		
0435	Rhi																		
0436	Rhi																		
0437	Rhi																		
0438	Rhi																		
0439	Rhi																		
0440	Lim																		
0441	Lim																		
0442	Plo																		
0443	Rhi																		
0444	Rhi																		
0445	Rhi																		
0446	Cau																		
0447	Cau																		

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0448	Cau																		125.0
0449	Cau					b													
0450	Cau					b													
0451	Cau					b													
0452	Mak														31.0				
0453	Mak														56.0				
0454	Mak														41.0				
0455	Rhi														62.0				
0456	Mak														30.0				
0457	Rhi																46.0	50.0	
0458	Mak															59.0	89.0		
0459	Mak															33.0			
0460	Mak															34.0	57.0		
0461	Cau																		
0462	Cau									1.13									
0463	Cau									1.09									
0464	Mak									1.04									
0465	Scm																		
0466	Plo																		
0467	Cau																		
0468	Cau																		
0469	Cau																		
0470	Syc																		
0471	Plo																		
0472	Bij																		
0473	Rhi																		
0474	Plo																		
0475	Rhi																		
0476	Moa																		
0477	Pab																		
0478	Pab																		
0479	Rhi																		
0480	Lim																		
0481	Lim																		
0482	Bij																		

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
0518	Rhi																				
0519	Rhi	0.60																			
0520	Plo																				
0521	Rhi	2.70	3.50	3.84	4.30																
0522	Rhi																				
0523	Rhi																				
0524	Nes	2.30	1.53	2.55	2.71	2.52	2.49														
0525	Nes		2.61	1.16	1.24																
0526	Nes				0.74	0.78															
0527	Nes				0.70	0.40															
0528	Osi	0.90	1.81	1.97	2.39	2.90	3.11	3.28	3.76	3.96											
0529	Osi									3.20											
0530	Scm	4.70	6.30	7.52	8.92	9.81	10.70	11.72	13.60	14.81											
0531	Scm		2.07	3.79	6.02	7.96	8.98	11.02	13.76	14.71											
0532	Rhi	1.20	1.40																		
0533	Bij		1.69	1.79	2.32	1.85	0.99														
0534	Mab																				
0535	Scm																				
0536	Plo																				
0537	Plo	0.60	0.80	0.57	0.87	0.89															
0538	Rhi																				
0539	Plo																				
0540	Plo																				
0541	Ars																				
0542	Nes			0.37	0.89	1.05	0.96	0.94													
0543	Nes																				
0544	Nes																				
0545	Rhi																				
0546	Pab			^b 13.22	13.38	13.69	13.76	13.22	12.93												
0547	Pab			7.80	7.93	7.90	7.90														
0548	Pab			^b 9.17	8.85	8.60															
0549	Pab			^b 10.35	10.06	10.32	10.45														
0550	Pab			^b																	
0551	Pab			^b 8.60	8.22	8.54															

ID	sp	Diameter at breast height (cm)										Height (cm)															
		1984	1987	1990	1995	1998	2000	2003	2010	2015	10.99	11.05	12.04	12.10	12.22	2.43	1984	1987	1990	1995	1998	2000	2003	2010	2015		
0552	Pab																										
0553	Osi																										
0554	Plo																										
0555	Osi																										
0556	Osi																										
0557	Rhi																										
0558	Rhi																										
0559	Rhi																										
0560	Nes																										
0561	Rhi																										
0562	Bij																										
0563	Osi																										
0564	Bij																										
0565	Psg																										
0566	Rhi																										
0567	Rhi																										
0568	Nes																										
0569	Nes																										
0570	Nes																										
0571	Nes																										
0572	Nes																										
0573	Rhi																										
0574	Rhi																										
0575	Osi																										
0576	Plo																										
0577	Osi																										
0578	Nes																										
0579	Rhi																										
0580	Bij																										
0581	Plo																										
0582	Rhi																										
0583	Pab																										
0584	Rhi																										
0585	Lim																										
0586	Rhi																										

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0587	Rhi																		
0588	Scm		0.40	0.64	0.84	1.56	1.55	1.51											
0589	Scm																		47.0
0590	Rhi																		
0591	Bij	1.80	3.47	4.71	5.06	5.61	7.01	8.47	8.98	8.79									
0592	Bij	2.90	5.03	7.17	7.42	7.52	7.64	7.64	7.52	7.39									
0593	Bij	1.70	2.86	3.47	3.34	3.31	3.22	3.36	2.73										
0594	Plo																		
0595	Rhi	4.50	5.41	6.18	6.53	7.29	7.83	8.22											
0596	Rhi	2.80	3.15	3.44	3.34	3.38	3.50	3.50											
0597	Rhi			2.83	2.68														
0598	Rhi																		
0599	Bij	2.50	4.58	5.96	6.02	5.86	5.86	5.92	5.83	5.70									
0600	Rhi																		
0601	Plo																		
0602	Pab																		
0603	Pab																		
0604	Rhi	7.20	7.35	8.38															
0605	Cic	17.00	17.41	19.52	21.82	22.45	22.48	23.25	25.16	28.41									
0606	Rhi		0.50	0.51	0.69	1.80	1.20	1.19											
0607	Plo																		
0608	Rhi	0.60	0.70	0.73															
0609	Pab																		
0610	Rhi	0.70	0.90	0.89	1.00	1.35	1.84	1.79											
0611	Lim																		
0612	Lim																		
0613	Lim																		
0614	Lim																		
0615	Rhi																		
0616	Pab																		
0617	Rhi		0.40																
0618	Lim																		
0619	Rhi																		
0620	Rhi																		
0621	Rhi																		

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0622	Lim																		
0623	Nes				b	0.87	0.88												
0624	Nes																		
0625	Mak				b	0.83	0.97	0.72											
0626	Plo																		
0627	Bij	5.80	9.49	12.39	13.69	14.52	14.97	15.41	15.41										
0628	Bij			7.48	8.12	8.25	8.92	9.17	9.33	9.11									
0629	Plo																		
0630	Plo																		
0631	Rhi																		
0632	Rhi																		
0633	Ars																		
0634	Pab																		
0635	Pab																		
0636	Rhi																		
0637	Rhi																		
0638	Rhi																		
0639	Rhi																		
0640	Rhi																		
0641	Rhi																		
0642	Rhi																		
0643	Rhi																		
0644	Rhi																		
0645	Rhi																		
0646	Cip																		
0647	Rhi																		
0648	Ars																		
0649	Scm																		
0650	Rhi																		
0651	Rhi																		
0652	Rhi																		
0653	Rhi																		
0654	Rhi																		
0655	Rhi																		
0656	Rhi																		

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0657	Plo															38.0			
0658	Rhi																53.0	50.0 ^a	
0659	Scm					0.92	0.81												
0660	Pab																103.0		
0661	Rhi																	30.5	
0662	Rhi																		
0663	Scm																		
0664	Rhi																		
0665	Osi																		
0666	Scm																		
0667	Ars																		
0668	Mak																		
0669	Lim																		
0670	Rhi																		
0671	Rhi																		
0672	Bij			6.10	7.64	7.80	7.80	7.80	7.74	7.71	7.71	7.71							
0673	Plo																		
0674	Plo																		
0675	Rhi								0.37	0.59									
0676	Rhi			1.70	1.59														
0677	Rhi			0.50	0.86														
0678	Pi_d			41.30															
0679	Rhi																		
0680	Osi																		
0681	Plo			0.50	0.58	0.56	0.66												
0682	Bij			1.20	3.44	4.46	4.71	4.52	4.71	4.84	4.62	4.61							
0683	Bij					1.37													
0684	Lim					0.30													
0685	Rhi																		
0686	Plo																		
0687	Scm			0.50	1.06	1.75	2.10	2.09	2.43	1.96									
0688	Scm																		
0689	Rhi																		
0690	Rhi																		

ID	sp	Diameter at breast height (cm)										Height (cm)								
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015	
0691	Rhi	0.30	0.60	0.76	0.88	0.92	0.86													
0692	Lim			0.24																
0693	Bij	4.30	7.32	9.08	9.75	9.84	10.25	10.64	10.45	10.16										
0694	Bij	4.70	8.28	11.46	14.01	14.87	15.99	17.52	19.24	20.13										
0695	Lim																			
0696	Rhi		0.50	0.34	0.54	0.61														
0697	Rhi																			
0698	Rhi																			
0699	Rhi	0.40	0.50	0.62	0.76	0.70	0.78													
0700	Rhi																			
0701	Rhi	0.80	0.83	1.06	1.21	1.24	1.31	1.34	1.53											
0702	Plo																			
0703	Rhi			0.16	0.27	0.40	0.38	0.39												
0704	Lim		0.30																	
0705	Plo																			
0706	Lim																			
0707	Plo																			
0708	Bij	7.60	12.03	14.71	16.24	16.82	18.28	21.66	23.38	25.70										
0709	Lim																			
0710	Tas																			
0711	Rhi				0.34	0.38														
0712	Rhi																			
0713	Plo						0.56													
0714	Plo																			
0715	Plo																			
0716	Plo																			
0717	Lim			1.05	1.69	2.01	2.01	2.06												
0718	Rhi			0.23																
0719	Plo			0.28																
0720	Rhi																			
0721	Plo																			
0722	Lim		0.50	1.09	1.85															
0723	Ars						0.71													
0724	Plo																			

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0758	Rhi	3.80	4.81	5.35	4.46	6.50	6.31	6.62	6.66										
0759	Rhi			2.83	2.87	2.83	2.80	2.89											
0760	Plo																		
0761	Plo																		
0762	Rhi																		
0763	Plo																		
0764	Rhi																		
0765	Rhi																		
0766	Rhi																		
0767	Rhi																		
0768	Lim																		
0769	Lim									0.44	0.70	1.10							
0770	Lim																		
0771	Eub																		
0772	Plo																		
0773	Lim																		
0774	Lim									0.64	0.78								
0775	Lim																		
0776	Plo																		
0777	Lim																		
0778	Rhi																		
0779	Eub																		
0780	Eub																		
0781	Eub																		
0782	Plo																		
0783	Lim																		
0784	Rhi																		
0785	Rhi																		
0786	Lim																		
0787	Rhi									0.50	1.37	1.62	1.68						
0788	Scm																		
0789	Plo																		
0790	Plo																		

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
0791	Rhi		0.70	0.88	1.03	1.40	1.41	1.42													
0792	Lim								45.0	50.0											
0793	Lim								30.0	60.0											
0794	Rhi								104.0	125.0	124.0		85.0 ^a	90.0							
0795	Lim								67.0	58.0											
0796	Lim									37.0				33.0							
0797	Rhi									30.0	32.0		39.0	41.0	39.0						
0798	Plo									52.0	60.0		58.0	62.0	64.0						
0799	Lim			0.23	0.19	0.38							119.0								
0800	Lim								58.0												
0801	Ars								85.0	92.0			62.0 ^a	62.0	75.0						
0802	Lim								55.0												
0803	Lim								97.0	95.0											
0804	Lim									43.0											
0805	Lim					2.26	2.35	2.37													
0806	Rhi												60.0	83.0							
0807	Rhi												44.0	51.0							
0808	Rhi												30.0	37.0							
0809	Rhi													46.0	49.5	52.0					
0810	Rhi													43.0							
0811	Rhi												37.0	42.0							
0812	Rhi												38.0	61.0							
0813	Rhi												61.0								
0814	Rhi													32.0							
0815	Plo												66.0								
0816	Rhi													73.0	93.0	30.5					
0817	Rhi														37.0	88.5					
0818	Lim																				
0819	Rhi													40.0	48.0						
0820	Lim													33.0	41.0						
0821	Scm													40.0	60.0						
0822	Lim													93.0							
0823	Lim													43.0							
0824	unknown														1.27						
0825	Lim														0.40	0.40					

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0826	unknown																		
0827	unknown																		
0828	Rhi																		
0829	Ars																		
0830	Rhi														49.0				
0831	Rhi														48.0				
0832	Rhi														51.0				
0833	Lim														62.0				
0834	Rhi																		
0835	Rhi																		
0836	Lim																		
0837	Plo																		
0838	Rhi																		
0839	Rhi																		
0840	Rhi																		
0841	Rhi																		
0842	Rhi																		
0843	Plo																		
0844	Scm																		
0845	Ars																		
0846	Ars																		
0847	Ars																		
0848	Ars																		
0849	Mak																		
0850	Mak																		
0851	Ars	0.80	1.72	1.81	1.85	1.66	1.80	1.81	1.81	2.05									
0852	Ars			1.28	1.34	1.32	1.56	1.59	1.82										
0853	Ars			1.01	1.15	1.12	1.19	1.24	1.18										
0854	Lim														35.0	30.0			
0855	Osi			0.33	1.04	1.75	2.14	2.43	3.37	3.84					56.0	96.0			
0856	Osi																		
0857	Plo														47.0				
0858	Lim			0.33	0.62	0.93	1.03	0.97	1.10						54.0	103.0			
0859	Rhi						0.44								70.0	107.0	126.0	128.0	125.0
0860	Rhi						0.59								76.0	98.0	116.0	120.0	130.0

ID	sp	Diameter at breast height (cm)										Height (cm)								
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015	
0861	Rhi																			
0862	Lim		0.30	1.19	1.85	2.10	2.06	2.13	1.99											
0863	Rhi																			
0864	Rhi				0.40	0.45	0.43	0.45												
0865	Rhi			0.40	0.26	0.40	0.48													
0866	Rhi			0.32	0.26	0.39	0.64													
0867	Rhi	0.30	0.60	0.67	0.52	0.55														
0868	Lim																			
0869	Scm																			
0870	Rhi																			
0871	Eub																			
0872	Rhi																			
0873	Rhi																			
0874	Osi									0.88										
0875	Rhi																			
0876	Bij			3.21	5.41	8.79	10.29	11.59	13.31	15.03	16.43									
0877	Bij	1.20	3.18	4.55	5.61	5.41	5.99	5.86	6.05	5.86										
0878	Plo																			
0879	Rhi																			
0880	Ars	3.60	5.44	6.66	7.04	7.39	0.84	7.58	7.93	7.93										
0881	Ars											1.56	b	1.86						
0882	Ars											0.82	b	1.05						
0883	Ars											0.87	b	0.80						
0884	Ars											2.37	b	2.37						
0885	Ars																			
0886	Ars																			
0887	Bij	1.40	2.04	1.94	1.69															
0888	Lim																			
0889	Plo																			
0890	Scm																			
0891	Ars																			
0892	Rhi																			
0893	Ars																			
0894	Rhi																			

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
0895	Ars		b	0.77		0.92	0.93	0.98	1.00				125.0						
0896	Rhi												71.0						
0897	Ars		0.80	1.38	1.35	1.50	1.46	1.46	0.95				34.0						
0898	Rhi		b	0.39									72.0						48.0 ^a
0899	Plo												107.0						
0900	Rhi												80.0						
0901	Rhi				0.18								48.0		59.0	66.0			
0902	Mak		0.99	1.68	1.91	1.94	1.87	1.95					84.0		119.0	129.0			
0903	Rhi		3.80	3.92									95.0						
0904	Rhi			2.77															
0905	Plo																		
0906	Rhi		0.40	0.89									38.0		81.0	89.0	82.0	88.0	
0907	Lim			0.52	0.37								88.0		103.0				
0908	Lim												56.0		89.0	82.0			
0909	Rhi		0.30	0.99	1.21	1.40	1.56						43.0						
0910	Ars												77.0		86.0				
0911	Plo												40.0						
0912	Cip																		
0913	Rhi		0.40	1.18	1.45	1.59	b	1.47					63.0		84.0		103.0 ^a	68.0 ^a	
0914	Nes			0.34														35.0	
0915	Nes												65.0		108.0		120.0 ^a		
0916	Lim			0.12															
0917	Lim			1.45	2.13	2.17	2.07	2.07											
0918	Lim																		104.0
0919	Rhi		0.50	0.77	0.93	0.95	0.93	0.85					105.0						
0920	Mak																		
0921	Rhi												68.0		67.0	116.0	37.0 ^a	53.0	
0922	Plo												45.0						
0923	Lim												78.0		b	60.0			
0924	Mak		0.70	1.61	2.29	2.71	2.72	2.72	3.13	3.17			44.0		b	100.0	95.0		
0925	Lim			0.84	0.97	1.20	1.32	1.25					50.0						
0926	Rhi			0.35	0.35	0.36	0.49	0.48					37.0		107.0				
0927	Plo												64.0		102.0				
0928	Lim												30.0						
													39.0						

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
0999	Bij	2.50	4.58	5.57	5.61	5.54	5.80	5.86	5.89	5.86											
1000	Bij		0.92	0.74	1.50															90.0	
1001	Nes		0.60	1.11	0.43	1.12	1.37	1.37												120.0	
1002	Nes				0.44	0.89	1.33	1.41													
1003	Bij		1.37																	100.0	
1004	Rhi																			80.0 ^a	
1005	Bij	2.10	4.07	5.41	5.73	5.73	5.90	5.97	5.73	5.73	5.16									80.0	
1006	Bij	2.50	4.87	5.57	5.61	5.70	5.67	5.73	5.57	5.73	5.41									120.0	
1007	Bij	2.40	6.59	9.20	10.35	10.51	11.34	12.29	12.83	13.18										80.0	
1008	Bij		1.40	5.35	1.75	2.36	2.36	2.40	2.23	2.15										120.0	
1009	Bij		2.86	3.57	3.95	4.20	4.71	4.71	4.90	4.60										70.0	
1010	Rhi						0.43													56.0	
1011	Bij																			60.0	
1012	Cas		1.18	1.22	0.71 ^a	1.07	1.09	1.26												79.0	
1013	Bij		1.72																	54.0	
1014	Mak	0.50	2.29	2.48	3.18	3.63	3.58	3.58	3.85	3.85	4.07									40.0 ^a	
1015	Mak																			67.0	
1016	Mak																			130.0	
1017	Mak																			120.0	
1018	Rhi	0.30	0.40	0.57	0.72	0.95	1.09	0.88 ^a													
1019	Lim		0.70	1.00	1.14	1.33	1.34	1.35													100.0
1020	Bij	3.10	6.05	8.92	9.65	9.71	10.06	10.76	10.61	10.86											
1021	Rhi			0.31	0.85	1.43	1.47	1.57	2.11												120.0
1022	Bij	1.60	4.14	6.46	7.36	7.71	8.09	9.62													127.0
1023	Pab																				50.0
1024	Lic	18.60	18.40	18.22	18.28	18.28	17.58	17.58	17.64	17.45											
1025	Bij	3.80	6.14	5.51	9.39	9.62	10.06	10.19	9.87	9.65											
1026	Scm																				55.0
1027	Bij		2.55	3.25	3.44	3.57	3.68	3.72	3.92	3.92											90.0
1028	Plo		19.10	19.43	19.90	19.43	19.17														
1029	Plo		13.37	13.28	13.28	13.44	13.57	13.57													
1030	Rhi																				36.0
1031	Lim																				107.0
1032	Rhi																				112.0
1033	Ars				1.38	1.43	1.43	1.42	1.42	1.42											67.0
																					78.0
																					94.0
																					90.0
																					94.0
																					104.0
																					104.0
																					96.0

ID	sp	Diameter at breast height (cm)										Height (cm)								
		1984	1987	1990	1995	1998	2000	2003	2010	2015	2.79	1984	1987	1990	1995	1998	2000	2003	2010	2015
1069	Bij																			
1070	Rhi					0.33														
1071	Rhi																			
1072	Ars																			
1073	Pab																			
1074	Bij	3.30	6.68	8.82	9.01	8.85	9.11	9.17	9.14	8.92										
1075	Bij		3.50																	
1076	Bij		2.90																	
1077	Lim		0.60	0.89	1.50	2.07	2.25	2.31	2.57	2.73										
1078	Rhi		0.40																	
1079	Rhi																			
1080	Bij	2.00	5.47	8.15	9.39	9.68	10.38	11.21	11.11	11.15										
1081	Ars																			
1082	Moa		0.50	0.84	0.53	0.98	1.43	1.52	1.53	1.51										
1083	Moa			0.56																
1084	Rhi	0.50	0.70	1.00	1.69	2.32	2.43	2.57	2.90	2.90										
1085	Rhi			0.63	0.71	0.74	0.77													
1086	Bij	1.90	4.58	4.52	4.65	4.97	5.10	5.16	5.06											
1087	Bij	5.10	8.40	9.55	9.78	9.24	9.36	9.62	9.52	9.24										
1088	Bij																			
1089	Rhi			0.43	0.71	1.52	1.52	1.51	1.52	1.60										
1090	Plo																			
1091	Lim																			
1092	Pab																			
1093	Lim																			
1094	Rhi																			
1095	Plo																			
1096	Lim																			
1097	Cip																			
1098	Elp	1.10	1.43	1.36	1.82	2.29	2.32													
1099	Rhi																			
1100	Lim																			
1101	Rhi																			
1102	Rhi																			
1103	Lim																			

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1138	Ars																		
1139	Rhi																		
1140	Lim																		
1141	Osi					0.47	0.63	1.22	1.41										
1142	Plo																		
1143	Rhi																		
1144	Pab			11.40	11.62	11.59	11.72												
1145	Pab			9.55	9.49	9.62	9.68												
1146	Pab			12.87	11.05	11.11	11.27												
1147	Wip																		
1148	Rhi																		
1149	Scm																		
1150	Scm																		
1151	Rhi																		
1152	Rhi																		
1153	Rhi																		
1154	Scm																		
1155	Rhi																		
1156	Scm																		
1157	Rhi																		
1158	Rhi																		
1159	Rhi																		
1160	Rhi																		
1161	Rhi																		
1162	Rhi																		
1163	Rhi																		
1164	Rhi																		
1165	Rhi																		
1166	Rhi																		
1167	Rhi																		
1168	Plo																		
1169	Rhi																		
1170	Rhi																		
1171	Rhi																		
1172	Rhi																		

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1173	Nes													31.0	44.0	65.0			
1174	Rhi														30.0				
1175	Rhi													30.0	36.0	44.0			
1176	Rhi													32.0	31.0				
1177	Ceb															32.0			
1178	Rhi															33.0			
1179	Rhi													48.0	60.0	63.0			
1180	Rhi														36.0	39.0			
1181	Plo					9.81	10.00	10.13	10.29	9.84									
1182	Bij					6.62	7.96	9.24	9.01	8.76									
1183	Rhi						1.46												
1184	unknown																		
1185	Nes														128.0	110.0 ^a			
1186	Rhi														70.0	70.0			
1187	Rhi														127.0	125.0			
1188	Plo														84.0	86.0			
1189	Plo														72.0	76.0			
1190	Rhi														65.0				
1191	Lim														37.0				
1192	Lim														116.0	101.0 ^a			
1193	Lim														128.0	127.0 ^a			
1194	Lim														83.0	78.0 ^a			
1195	Lim														113.0				
1196	Lim														106.0				
1197	Scm																		34.0
1198	Bij																		
1199	Lim																		
1200	Bij														42.0				
1201	Ars														68.0	91.0	95.0	126.0	
1202	Bij														33.0	45.0	45.0	46.0	53.0
1203	Rhi																		77.0 ^a
1204	Plo																		
1205	Rhi																		
1206	Lim																		
1207	Bij																		

ID	sp	Diameter at breast height (cm)													Height (cm)						
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
1208	Bij	1.40	3.09	2.96	3.15	3.50	3.88	4.01	3.84	3.82											
1209	Rhi	11.80	12.32	12.74	12.32	20.70	20.83	17.20	18.15												
1210	Rhi														92.0	93.0					
1211	Rhi														96.0	91.0 ^a					
1212	Rhi	10.80																			
1213	Bij	1.90	4.52	6.05	6.27	6.37	6.43	6.37	6.27												
1214	Bij																				
1215	Lim														52.0	41.0	51.0				
1216	Lim														56.0						
1217	Pab														69.0	42.0					
1218	Rhi														55.0						
1219	Lim														60.0	67.0					
1220	Lim														96.0	124.0	125.0	32.0 ^a			
1221	Lim														87.0	123.0	128.0				
1222	Lim														52.0	91.0	85.0 ^a				
1223	Lim														40.0						
1224	Plo														42.0	30.0	30.0		34.0		
1225	Ars	3.10	4.62	4.78	4.78	4.84	5.03	5.10													
1226	Ars							0.72													
1227	Lim																				
1228	Lim														73.0	54.0	40.0				
1229	Rhi														110.0	101.0	110.0	72.0 ^a	87.0	95.0	97.0
1230	Lim														50.0	^b 36.0	35.0 ^a	68.0	84.0	85.0	
1231	Pab														95.0	75.0	45.0				
1232	Lim														90.0						
1233	Mak														91.0	51.0					
1234	Lim														98.0						
1235	Bij	5.70	8.02	9.94	11.21	11.53	12.04	12.74	13.12	12.87					75.0	95.0	100.0	49.0 ^a	45.0		
1236	Rhi														61.0	32.0	40.0	40.0	81.0	97.0	103.0
1237	Lim														90.0	42.0					
1238	Cip														80.0	45.0					
1239	Lim														80.0	87.0	42.0	44.0	57.0		
1240	Lim														61.0						
1241	Lim														59.0						

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
1242	Lim																				
1243	Lim																				
1244	Lim																				
1245	Lim																				
1246	Lim																				
1247	Lim																				
1248	Rhi																				
1249	Lim																				
1250	Rhi																				
1251	Lim																				
1252	Lim																				
1253	Bij																				
1254	Bij																				
1255	Pab																				
1256	Pab																				
1257	Rhi																				
1258	Scm																				
1259	Rhi																				
1260	Plo																				
1261	Rhi																				
1262	Rhi																				
1263	PsI																				
1264	PsI																				
1265	Rhi																				
1266	Cau																				
1267	Rhi																				
1268	Lim																				
1269	Hig																				
1270	Lim																				
1271	Hig																				
1272	Rhi																				
1273	Hig																				
1274	Hig																				
1275	Rhi																				
1276	Rhi																				
1277	Osi																				

ID	sp	Diameter at breast height (cm)								Height (cm)								
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1990	1995	1998	2000	2003	2010	2015
1278	Rhi												34.0					
1279	Rhi												39.0					
1280	Rhi												31.0		36.0			
1281	Rhi												34.0					
1282	Wip											91.0						
1283	Osi														37.0			
1284	Rhi												49.0		51.5			
1285	Rhi												30.0		32.0			
1286	Rhi												30.0					
1287	Rhi												38.0		40.0			
1288	Rhi												37.0		31.0			
1289	Rhi												42.0		45.0			
1290	Lim												66.0					
1291	Cip										0.48		42.0		78.0			
1292	Psi														33.0			
1293	Rhi														31.0			
1294	Ars														48.0			
1295	Plo														91.0			
1296	Rhi														32.0			
1297	Rhi														33.0			
1298	Bij												100.0					
1299	Lim														46.0			
1300	Lim														62.0			
1301	Lim														50.0			
1302	Lim														37.0			
1303	Hig														30.0		55.0	33.0
1304	Lim														44.0		49.0	
1305	Osi														43.0			
1306	unknown														49.0			
1307	Nes														36.0		76.0	
1308	Rhi														39.5			
1309	Lim														64.0			
1310	Osi														34.0		50.0	65.0
1311	Rhi														62.5			
1312	Rhi														31.0			

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1313	Rhi														31.0	34.0			
1314	Rhi															32.0			
1315	Moa														53.0	46.5			
1316	Hig															80.0			
1317	Lim															32.0			
1318	Lim															61.0			
1319	Rhi															33.0			
1320	Nes															81.0			
1321	Plo																		
1322	Plo																		
1323	Osi																		40.0
1324	Osi																		70.0
1325	Mak																		55.0
1326	Plo	15.50	16.55	16.78	17.04	17.58	17.83	18.15	19.87	21.34									70.0
1327	Osi																		70.0
1328	Bij	3.00	4.97	5.67	5.45	5.48	5.54	5.22											
1329	Bij	3.20	7.64	11.15	13.57	13.69	14.33	17.07	18.12	19.46									
1330	Bij	2.80	6.37	8.44	9.87	10.51	10.96	11.53	11.91	11.72									
1331	Rhi	8.50	9.29	9.65	10.06	10.38	10.51	10.51											
1332	Rhi	6.50	6.30	6.21	6.31	6.18	6.11	6.11	7.32	8.54									
1333	Bij	25.00	25.72	25.48	25.96	26.85	27.32	27.39	28.06	27.87									
1334	Bij			5.89	7.26	7.64	7.71	7.90	8.12	7.93									
1335	Bij			5.83	6.11	6.27	6.37	6.43	6.24										
1336	Lim																		
1337	Bij	1.00	2.55	3.01	3.66	4.01	4.27	4.03	4.68										
1338	Plo																		
1339	Mab																		
1340	Bij	1.80	3.50	4.46	4.59	4.55	3.95	4.08	4.50	4.58									
1341	Bij		2.86	3.60	3.79	3.85													
1342	Rhi	1.00																	
1343	Lim																		
1344	Plo																		
1345	Rhi																		
1346	Lim																		
1347	Rhi																		

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1348	Pab																		
1349	Plo																		
1350	Rhi																		
1351	Rhi																		
1352	Rhi																		
1353	Lim																		
1354	Lim																		
1355	Bij		3.63	6.69	4.94	8.34	8.54	9.04	4.04										
1356	Plo														73.0	82.0			
1357	Lim														62.0				
1358	Plo		0.30												110.0	45.0 ^a			
1359	Lim														46.0				
1360	Lim														45.0				
1361	Rhi	9.60	9.93	10.00															
1362	Ars	0.80	1.75	1.71	1.72	1.75	1.70	1.72	1.89										
1363	Ars						0.78	0.81	1.30										
1364	Lim														80.0	100.0	100.0		
1365	Bij			4.52	5.03	5.22	5.29	5.48	5.35	5.11					103.0	^b			
1366	Lim														60.0	65.0	88.0	36.0 ^a	
1367	Lim														33.0				
1368	Plo														60.0				
1369	Plo														54.0				
1370	Rhi	0.40	0.50	0.63															
1371	Lim														50.0 ^a	77.0			
1372	Lim														100.0	35.0			
1373	Plo														42.0	38.0	50.0		
1374	Cip														42.0				
1375	Rhi														33.0				
1376	Rhi														60.0	68.0	^b	64.0	69.0
1377	Rhi														31.0				
1378	Hig														34.0				
1379	Osi														35.0				
1380	Rhi														39.0				
1381	Elr														38.0				
									0.34						31.0				
															38.0	43.0			
															53.0 ^a				

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1382	Rhi														48.0	50.5	59.0		
1383	Cip														37.0				
1384	Lim														51.0				
1385	Bij														30.0	32.0	43.0		
1386	Cip														39.0				
1387	unknown														46.0	47.0			
1388	Mak														31.0				
1389	Mak														36.0				
1390	unknown														35.0	33.0			
1391	Rhi														94.0	100.0			
1392	Rhi															36.0	34.0		
1393	Hig																		
1394	Pib	4.20	4.90	5.99	6.94	7.23	7.32												
1395	Pib		4.14	5.16	5.57	6.05	6.37												
1396	Scm																		
1397	Bij		2.67	2.87	4.62	4.71									42.0	85.0	50.0 ^a	b	35.0
1398	Bij		4.01		^b 9.14	9.17	9.49	10.32	10.29	10.76					78.0				
1399	Pab														100.0				
1400	Hig	2.70	4.46	4.78	4.87	5.22	5.41								30.0				
1401	Hig			4.01															
1402	Hig			3.15	3.15														
1403	Rhi														40.0				
1404	Osi		0.86	1.12	1.91	2.64	2.83	2.84							110.0				
1405	Rhi														48.0	64.0	71.0	60.0	83.0
1406	Cip			0.33	0.84	1.29	1.37	1.44	2.08	2.06					50.0	96.0			
1407	Rhi														42.0	50.0	59.0	50.0	67.0
1408	Rhi														35.0	45.0	48.0	52.0	40.0 ^a
1409	Cip														59.0	75.0			50.0
1410	Rhi														66.0	78.0	85.0	91.0	108.0
1411	Tas	2.00	1.97	1.95	2.07	2.13	1.82												
1412	Bij														75.0	44.0	32.0	46.0	
1413	Bij	2.10	4.20	5.92	6.66	6.69	6.94	7.26	7.23	7.17					120.0		127.0		
1414	Bij		0.89																
1415	Rhi														30.0	58.0	65.0	68.0	93.0
1416	Rhi														46.0	72.0	87.0	87.0	124.0

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1485	Plo																		
1486	Osi		0.60	2.32	3.82	4.20	4.46	4.52	4.30	4.95									
1487	Osi	1.00	3.09	5.35	7.58	8.73	9.17	9.49	11.11	11.34									
1488	Cip		0.60	1.25	1.85	2.32	2.38	2.54	2.77	2.70									
1489	Plo																		
1490	Bij	3.30	5.54	8.18	9.30	9.39	10.06	12.29	13.12	15.86									
1491	Lim																		
1492	Osi		0.50	0.86	1.66	2.39	2.30	2.67	3.20	3.58									
1493	Bij	1.10	2.67	3.41	3.54	3.76	4.01	4.17	4.54	4.00									
1494	Rhi																		
1495	Cip																		
1496	Cip					b	b	0.42											
1497	Scm		0.70	0.81	1.40	1.75	1.86	2.20	2.99	3.03									
1498	Elp		0.30	0.25	0.53	1.02	1.24												
1499	Bij		1.59		1.21	1.15	1.80	1.80											
1500	Pab																		
1501	Lim																		
1502	Rhi		0.20	0.19	0.23	0.67	0.60	0.60											
1503	Plo																		
1504	Cip																		
1505	Cip																		
1506	Osi			0.26	1.69	2.64	2.87	3.22	4.79	4.90									
1507	Rhi																		
1508	Lim		0.60	1.05	1.59	2.23	2.71	2.79	3.07	3.91									
1509	Lim				0.43	0.40	1.05	1.03											
1510	Cip		0.50	1.06	2.13	3.15	3.38	3.54	4.67	4.73									
1511	Cip																		
1512	Tro																		
1513	Plo	8.90	8.98	9.14	9.33	9.30	9.24	9.17											
1514	Rhi																		
1515	Rhi																		
1516	Scm																		
1517	Osi				0.48	0.93	1.10	1.28	1.67	2.06									
1518	Rhi																		

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
1519	Scm					b	b	0.64													
1520	Rhi									59.0	100.0	120.0									
1521	Rhi									50.0	58.0	62.0	89.0	72.0	62.0 ^a						
1522	Lim									51.0											
1523	Rhi									92.0											
1524	Cip									44.0	49.0	54.0	76.0	92.0	83.0						
1525	Plo									38.0											
1526	Rhi									44.0	55.0	49.0	32.0 ^a								
1527	Rhi									48.0	65.0	72.0									
1528	Lim									39.0	46.0	54.0	44.0 ^a	51.0	51.0						
1529	Lim									54.0	90.0	71.0 ^a	71.0	75.0							
1530	Rhi									59.0	58.0	64.0	48.0 ^a	71.0							
1531	Lim									57.0	70.0	80.0	90.0								
1532	Scm									60.0	70.0	72.0	72.0	59.0 ^a							
1533	Lim									0.76	1.06	1.15									
1534	Rhi									90.0	110.0										
1535	Rhi									65.0	75.0										
1536	Scm									48.0	55.0	77.0	69.0 ^a	63.0	63.0						
1537	Cip										40.0	50.0	52.0								
1538	Rhi										52.0	63.0	78.0	105.0							
1539	Rhi										32.0										
1540	Rhi										44.0	50.0	48.0	51.0							
1541	Rhi										35.0										
1542	Cip										33.0										
1543	Cip										45.0	57.0	72.0								
1544	Rhi										60.0	61.0	59.0								
1545	Plo											54.0	68.0	72.0	72.0	78.0					
1546	Rhi										50.0	57.0	53.0								
1547	Rhi										34.0	33.0									
1548	Plo										45.0	60.0	66.0	77.0	79.5						
1549	Scm										40.0	45.0	41.0 ^a	42.0	45.0						
1550	Rhi										35.0										
1551	Rhi										30.0										
											78.0	89.0	78.0 ^a	83.0	88.0						
											54.0	72.0	89.0	103.0	110.0						

1.98

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1586	Rhi														55.0	47.0 ^a			
1587	unknown														43.0	45.0			
1588	Rhi															30.0			
1589	Rhi														70.0	73.0			
1590	Rhi														98.0				
1591	Rhi														112.0				
1592	unknown						0.34												
1593	Rhi																34.0		
1594	Cip										0.58								
1595	unknown										2.39								
1596	Osi																		121.0
1597	Cip																		112.0
1598	Rhi																		108.0
1599	Elr																		116.0
1600	Bij	2.80	5.73	7.07	7.17	7.13	7.45	7.64	7.58	7.45									
1601	Bij		2.29	6.82	3.82	4.30	4.59	4.78	4.81	4.75									
1602	Bij		2.42	3.12	3.18	2.68													76.5 ^a
1603	Pab																		
1604	Bij	1.90	4.11	6.69	7.55	7.42	7.77	7.96	7.68	7.83									
1605	Bij	1.30	3.50	5.19	5.06	5.10	5.03	5.10											
1606	Rhi																		
1607	Lim																		
1608	Lim																		
1609	Plo																		
1610	Osi																		
1611	Lim																		
1612	Rhi			0.18	0.34	0.54	0.75	0.80											
1613	Bij																		
1614	Bij																		
1615	Lim																		
1616	Lim																		
1617	Rhi																		
1618	Ars		1.37	1.18	1.20	1.18													
1619	Bij	1.50	4.71	6.75	6.78	6.66	6.75	7.20	7.10										

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1620	Bij		3.69	3.89	3.98	4.11	4.46	4.52	4.27	4.03									
1621	Bij	1.40	2.36	2.31	2.55	2.52	2.56	2.55	2.57										
1622	Pil_d	40.20																	
1623	Lim																		
1624	Bij				^b	1.25	1.38	1.51											
1625	Lim																		
1626	Bij																		
1627	Lim																		
1628	Rhi																		
1629	Plo																		
1630	Bij	1.10	4.14	2.09	2.39	2.23	2.52	2.59	1.48 ^a										
1631	Rhi																		
1632	Ars			0.62	0.68	0.77	0.86	0.94	0.84										
1633	Bij	1.20	5.22	8.28	9.68	9.75	10.06	12.04	11.69	11.50									
1634	Lim																		
1635	Rhi						0.24	0.25											
1636	Ars																		
1637	Lim																		
1638	Hig	0.50	2.32	2.52	2.71	3.82	4.33	4.39	5.13	5.01									
1639	Bij	0.70	2.20	3.66	2.74		2.13	2.18											
1640	Bij																		
1641	Bij	3.30	5.09	5.03	5.25	5.10 ^a	5.16	5.16											
1642	Bij	2.50	4.39	4.62															
1643	Bij	2.80	5.16	7.32	8.44	8.44	8.85	8.98	9.08	8.89									
1644	Bij	1.80	3.15	3.92	3.82	3.73 ^a	3.89	3.95	3.98	3.87									
1645	Lim																		
1646	Plo																		
1647	Plo																		
1648	Lim																		
1649	Rhi																		
1650	Rhi																		
1651	Lim																		
1652	Lim																		
1653	Bij	2.70	4.97	6.37	6.37	6.34	6.24	6.24	6.08	6.05									

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1688	Ars																		
1689	Ars																		
1690	Rhi				0.28	^b 0.78	0.81	0.85	0.85										
1691	Bij	5.20	9.90	13.50	17.04	16.82	17.58	20.70	23.89	25.92									
1692	Lim										70.0								
1693	Bij	1.80	4.14	4.43	6.05	6.24	7.20	7.45	8.92	8.76									
1694	Bij			1.78															
1695	Rhi																		
1696	Rhi					^b 0.55													
1697	Rhi																		
1698	Plo																		
1699	Lim																		
1700	Lim				^b 1.12	1.60	2.27	2.32	3.70	3.78									
1701	Rhi																		
1702	Plo																		
1703	Lim																		
1704	Rhi																		
1705	Rhi																		
1706	Rhi																		
1707	Rhi																		
1708	Rhi																		
1709	Plo																		
1710	Plo																		
1711	Scm																		
1712	Plo																		
1713	Rhi																		
1714	Pab																		
1715	Pab																		
1716	Pab																		
1717	Pab																		
1718	Rhi																		
1719	Lim																		
1720	Plo																		

ID	sp	Diameter at breast height (cm)										Height (cm)				
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1995	1998	2000	2003	2010	2015
1721	Ars				46.0	77.0	103.0	110.0								
1722	Rhi				36.0	46.0	46.0									
1723	Wip				37.0											
1724	Lim					59.0	97.0	97.0	100.0							
1725	Rhi					30.0	30.0	30.0								
1726	Psb															
1727	Psi													56.0	47.0	
1728	Rhi						62.0	84.0								
1729	Rhi					42.0	45.0	50.0								
1730	Rhi					47.0	46.0									
1731	Elp					55.0										
1732	Plo					33.0	36.0	39.0								
1733	Rhi					80.0	70.0	74.0								
1734	Rhi					56.0										
1735	Rhi					125.0	77.0 ^a									
1736	Rhi							30.0								
1737	Rhi							32.0	39.0							
1738	Plo							33.0								
1739	Plo							33.0								
1740	Ars							39.0	48.0	56.0	79.0					
1741	Rhi							44.0	55.0	54.0						
1742	Rhi							37.0	37.0							
1743	Rhi							33.0								
1744	Rhi							30.0								
1745	Rhi							38.0	40.5							
1746	Osi							41.0	69.0	72.0						
1747	Rhi							40.0	44.0							
1748	Rhi							41.0	44.0							
1749	Lim							32.0	41.0	35.0						
1750	Scm															
1751	Elr					4.65	4.20									
1752	Lim															
1753	Lim															
1754	Rhi															
1755	Cip															

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1756	unknown														38.0	46.0			
1757	Rhi														35.0	38.0			
1758	Moa														31.0				
1759	Moa														32.0				
1760	Plo														34.0				
1761	Lim														52.0				
1762	Lim														51.0	63.0			
1763	Bij														88.0	99.0			
1764	Bij														46.0				
1765	Osi														89.0	76.0			
1766	Ars									1.05	1.19				102.0	117.0			
1767	Lim									0.96	0.99				107.0	120.0			
1768	Lim														69.0				
1769	Lim														48.0				
1770	Rhi														57.0				
1771	Osi									0.99	1.44	1.88							
1772	Rhi																	114.0	
1773	unknown																	113.0	
1774	Hig																	127.0	
1775	Lim																	115.0	
1776	Bij																		74.0
1777	Plo																		
1778	Rhi																		
1779	Lim																		67.0
1780	Bij																		
1781	Bij																		
1782	Bij	3.20																	
1783	Bij																		
1784	Bij	3.30	4.27	4.30	4.46	4.49	4.65	4.84	4.59	4.27									
1785	Bij		2.26	2.48	2.64	3.15	2.87	2.81											
1786	Rhi																		
1787	Rhi																		
1788	Lim																		
1789	Lim																		
1790	Lim																		

ID	sp	Diameter at breast height (cm)										Height (cm)									
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015		
1825	Plo																				
1826	Rhi																				
1827	Rhi																				
1828	Rhi																				
1829	Bij	2.90	3.37	3.76	3.85	4.08	4.14	4.20													
1830	Bij	1.10	1.08	1.02	1.21	1.12	1.51														
1831	Scm	26.20	26.39	26.82	27.45	28.18	28.60	28.79	28.85	29.33											
1832	Ars																				
1833	Rhi																				
1834	Bij	2.00																			
1835	Bij	1.30																			
1836	Nes																				
1837	Bij	3.80	7.32	10.89	12.01	11.82	12.48	13.06	12.74	12.74											
1838	Rhi		0.30																		
1839	Bij	2.30	4.33	7.01	7.52	7.20	8.09	8.34	8.25	8.22											
1840	Bij		4.71	4.08	4.08	3.63	3.57	3.65													
1841	Lim																				
1842	Bij	1.50	1.66	1.95	1.72		b 1.58														
1843	Nes		0.30																		
1844	Bij																				
1845	Maak																				
1846	Lim																				
1847	Bij	1.90	3.50	3.69	3.63	3.66	4.01	3.76 ^a													
1848	Bij	1.10																			
1849	Plo																				
1850	Rhi																				
1851	Nes		0.60																		
1852	Nes																				
1853	Lim																				
1854	Lim																				
1855	Lim																				
1856	Rhi																				
1857	Lim																				
1858	Bij																				

ID	sp	Diameter at breast height (cm)								Height (cm)				
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1998	2000	2003	2010
1929	Rhi					39.0	46.0	56.0						
1930	Rhi					36.0	31.0	46.0	104.0					
1931	Rhi						43.0	48.0						
1932	Rhi					31.0	40.0	53.0						
1933	Rhi					32.0	^b	38.0						
1934	Rhi					31.0								
1935	Plo							31.0	42.0					
1936	Rhi					65.0								
1937	Lim							33.0						
1938	Osi							60.0	74.0	100.0	116.0			
1939	Rhi							34.0						
1940	Rhi							32.0						
1941	Rhi							55.0						
1942	Osi							39.0						
1943	Wip							34.0	79.0					
1944	Rhi							58.0						
1945	Rhi							57.0	68.0					
1946	Rhi							31.0	36.0					
1947	Rhi							39.0						
1948	Lim							44.0						
1949	Rhi							39.0						
1950	Rhi							51.0	51.0					
1951	Plo							44.0	36.0					
1952	Plo							36.0	45.0	48.0				
1953	Rhi							56.0	72.0	75.0				
1954	Rhi							34.0	55.0	57.0				
1955	Rhi							54.0	56.0					
1956	Rhi							36.0	64.0					
1957	Rhi							36.0						
1958	Hig							35.0						
1959	Ps1							71.0						
1960	Rhi							40.0	41.0					
1961	Rhi							44.0						
1962	Rhi							33.0						
1963	Plo												43.0	

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
1964	Rhi														54.0	55.0			
1965	Rhi														49.0	31.0			
1966	Rhi														51.0	58.0			
1967	Rhi														55.0				
1968	Rhi														70.0	75.0			
1969	Rhi														42.0				
1970	Rhi														33.0	40.0			
1971	Ars														64.0	68.0	93.0	99.0	
1972	Rhi														37.0	38.0			
1973	Ars														38.0	44.0			
1974	Rhi														32.0				
1975	Lim														70.0				
1976	Cip														47.0	57.0	68.0		
1977	Cip														35.0				
1978	Rhi														34.0				
1979	Rhi														34.0	38.0			
1980	Rhi														37.0				
1981	Nes															37.0			
1982	Rhi															35.5			
1983	Rhi															31.0			
1984	Rhi															30.5			
1985	Bij															31.0			
1986	Rhi																		
1987	Rhi																		
1988	Psi																		
1989	Lic																		
1990	Nes																		
1991	Rhi															75.0			
1992	Scm															55.0			
1993	Elr																		
1994	Lim																		
1995	Scm																		
1996	Ars																		
1997	Plo																		
1998	Plo																		

ID	sp	Diameter at breast height (cm)										Height (cm)								
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015	
1999	Plo	12.60	12.99	13.76	13.44	13.89	14.01	14.20	14.81	14.81										
2000	Plo	9.50	10.38	10.83	10.67	10.96	11.02	11.02	10.67	10.67										
2001	Lim																			
2002	Bij	1.90	3.41	1.19	3.60	3.82	4.14	4.20	3.86	3.89										
2003	Lim																			
2004	Bij		1.37	1.25	1.46	1.38	1.46	1.54												
2005	Mak																			
2006	Ars																			
2007	Bij																			
2008	Rhi																			
2009	Bij			1.64	1.50	1.74	1.90	2.04												
2010	Nes																			
2011	Bij																			
2012	Bij	4.80	8.40	10.83	10.32	10.83	11.27	11.66	11.62	11.37										
2013	Bij	1.80	2.55	2.71	2.64	2.74	3.18	3.18	3.05	2.99										
2014	Rhi																			
2015	Rhi																			
2016	Osi																			
2017	Pib																			
2018	Lim																			
2019	Bij	3.20	4.87	4.59	4.62	4.59	4.90	4.90												
2020	Lim																			
2021	Syc																			
2022	Lim																			
2023	Nes																			
2024	Nes																			
2025	Elp																			
2026	Bij	0.50	0.86																	
2027	Tas																			
2028	Lim																			
2029	Lim																			
2030	Bij																			
2031	Osi																			
2032	Bij																			

ID	sp	Diameter at breast height (cm)										Height (cm)								
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015	
2068	Rhi	6.80	7.00	7.01	7.01	7.32	7.32	7.45	7.23											
2069	Rhi			8.18	8.28	8.34	8.28	8.34												
2070	Nes																			
2071	Lim																			
2072	Lim																			
2073	Mak																			
2074	Lim																			
2075	Bij	2.10	3.69	3.82	3.82	3.76	3.76	3.82	3.65											
2076	Tas																			
2077	Elp																			
2078	Plo																			
2079	Bij	1.80	3.53	3.60	3.54	3.25	3.57	3.57												
2080	Lim																			
2081	Bij	1.20	1.75	0.82	1.34	4.87														
2082	Nes																			
2083	Bij	3.30	7.45	7.83	11.97	12.74	12.87	14.52	15.13	14.94										
2084	Bij			^b	5.63	10.25	6.97	7.07	7.77	8.41	9.94	9.71								
2085	Rhi																			
2086	Bij	1.70	2.23	2.23	2.45	2.39	2.48	1.87 ^a												
2087	Rhi																			
2088	Bij	1.90	4.00	4.11	4.36	4.62	5.03	5.03	4.25	4.19										
2089	Plo																			
2090	Rhi																			
2091	Lim																			
2092	Bij																			
2093	Cip																			
2094	Rhi																			
2095	Plo																			
2096	Plo																			
2097	Plo																			
2098	Plo																			
2099	Bij																			
2100	Plo																			
2101	Plo																			
2102	Bij																			

ID	sp	Diameter at breast height (cm)										Height (cm)							
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
2103	Plo																		
2104	Rhi																		
2105	Ars																		
2106	Rhi																		
2107	Rhi																		
2108	Mak																		
2109	Plo																		
2110	Rhi																		
2111	Rhi																		
2112	Rhi																		
2113	Rhi																		
2114	Rhi																		
2115	Rhi																		
2116	Plo																		
2117	Rhi																		
2118	Rhi																		
2119	unknown																		
2120	Scm																		
2121	Scm																		
2122	Rhi																		
2123	Cip																		
2124	Cip																		
2125	Bij																		
2126	Rhi																		
2127	Syc																		
2128	Syc																		
2129	Cip																		
2130	Cas																		
2131	Bij																		
2132	Ars																		
2133	Ars																		
2134	Nes																		
2135	Nes																		
2136	Mak																		
2137	Mak																		

ID	sp	Diameter at breast height (cm)							Height (cm)										
		1984	1987	1990	1995	1998	2000	2003	2010	2015	1984	1987	1990	1995	1998	2000	2003	2010	2015
2138	Syc																59.0		
2139	Ars																52.0		
2140	Plo																45.0		
2141	Plo																35.0		
2142	Lim																		73.0
2143	Mak																		59.0