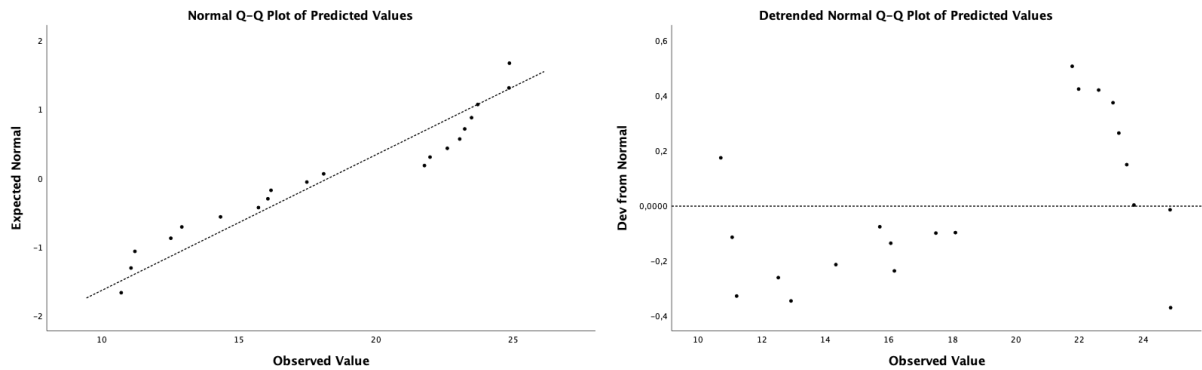
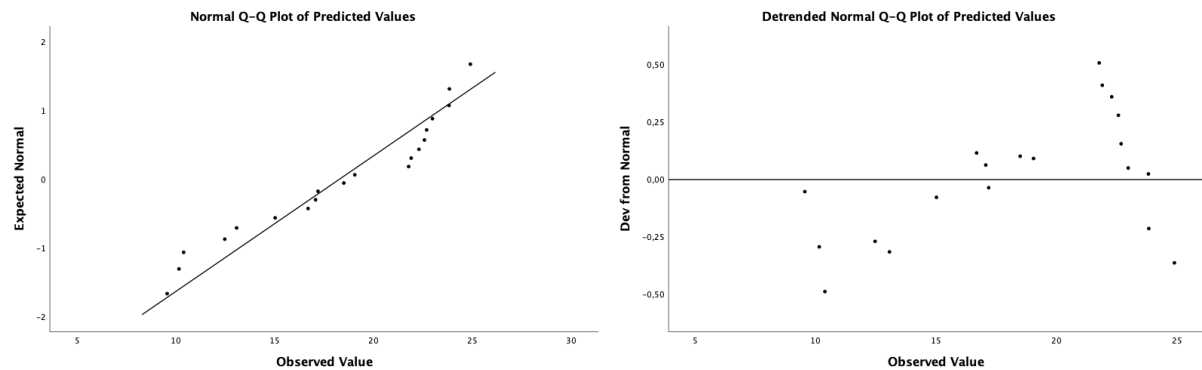


Supplementary Materials

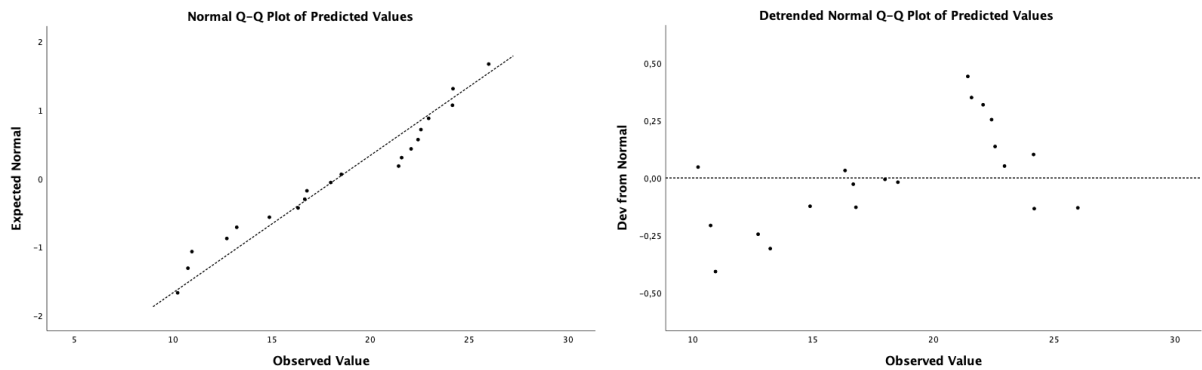
Assmann (1943)



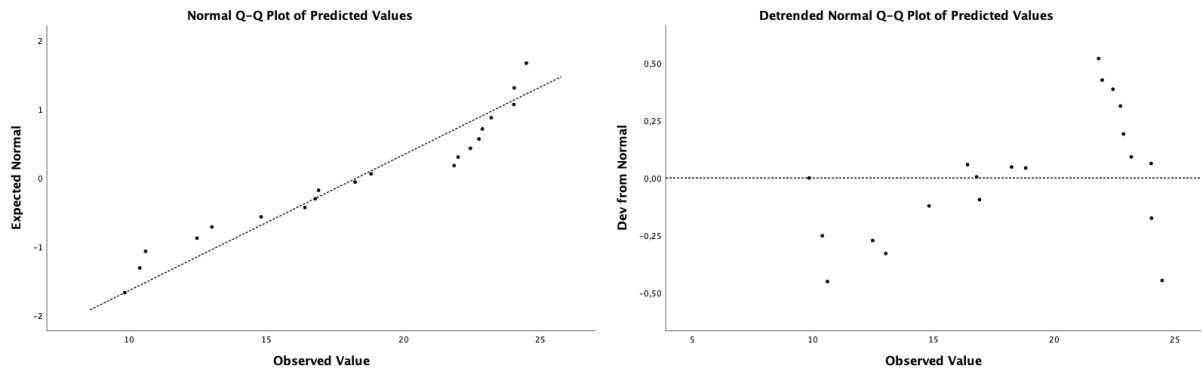
Prodan (1951)



Petterson (1955)



Korsun (1935)



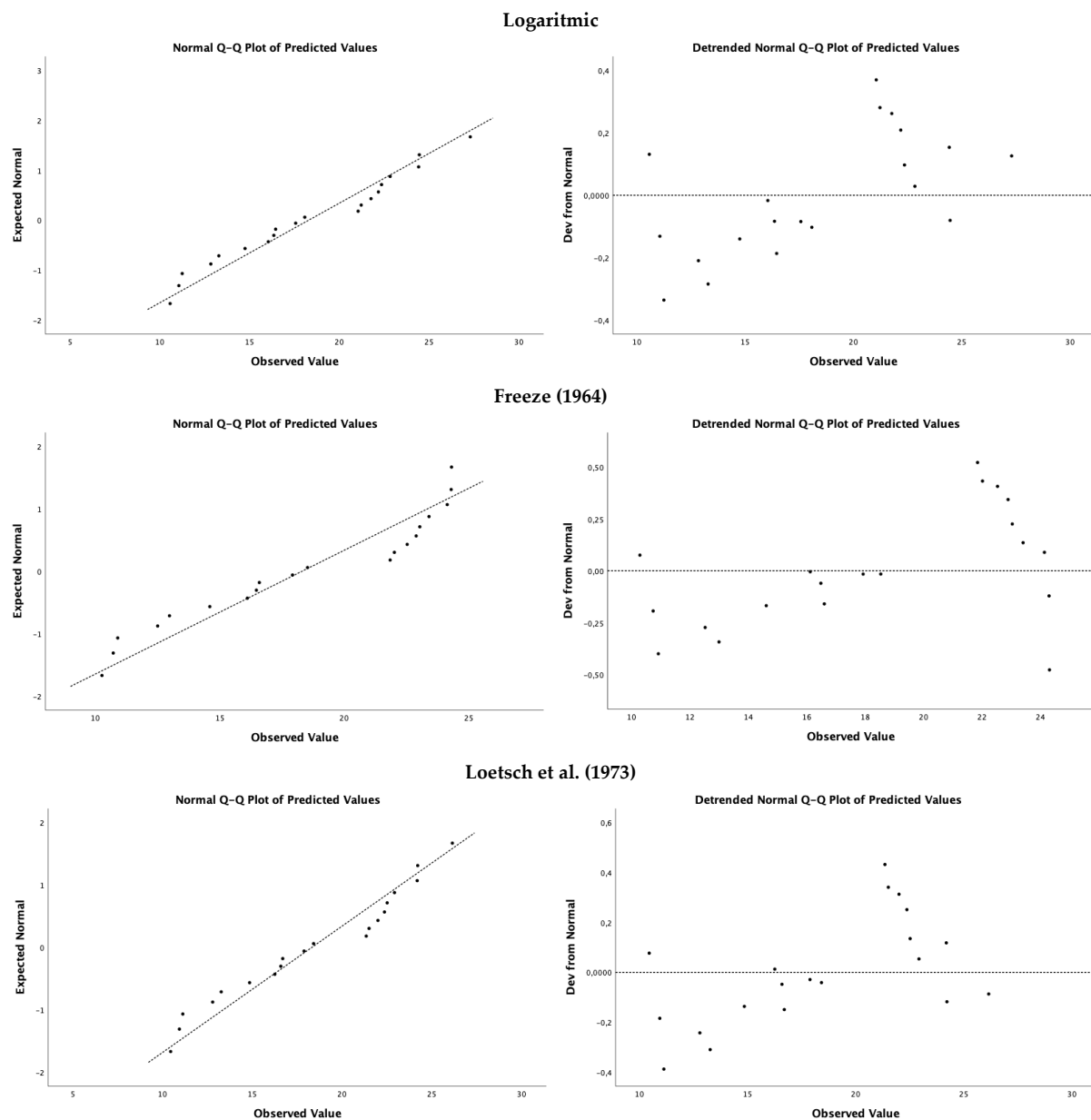
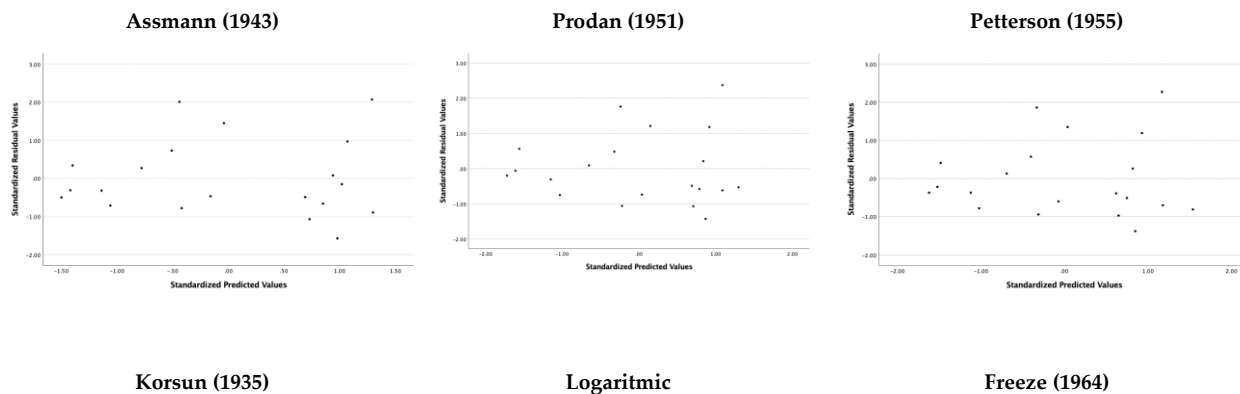


Figure S1. Projection of the predicted values around the expected normal, the projection of the deviation of the predicted values from the normal, and the error of the predicted values.



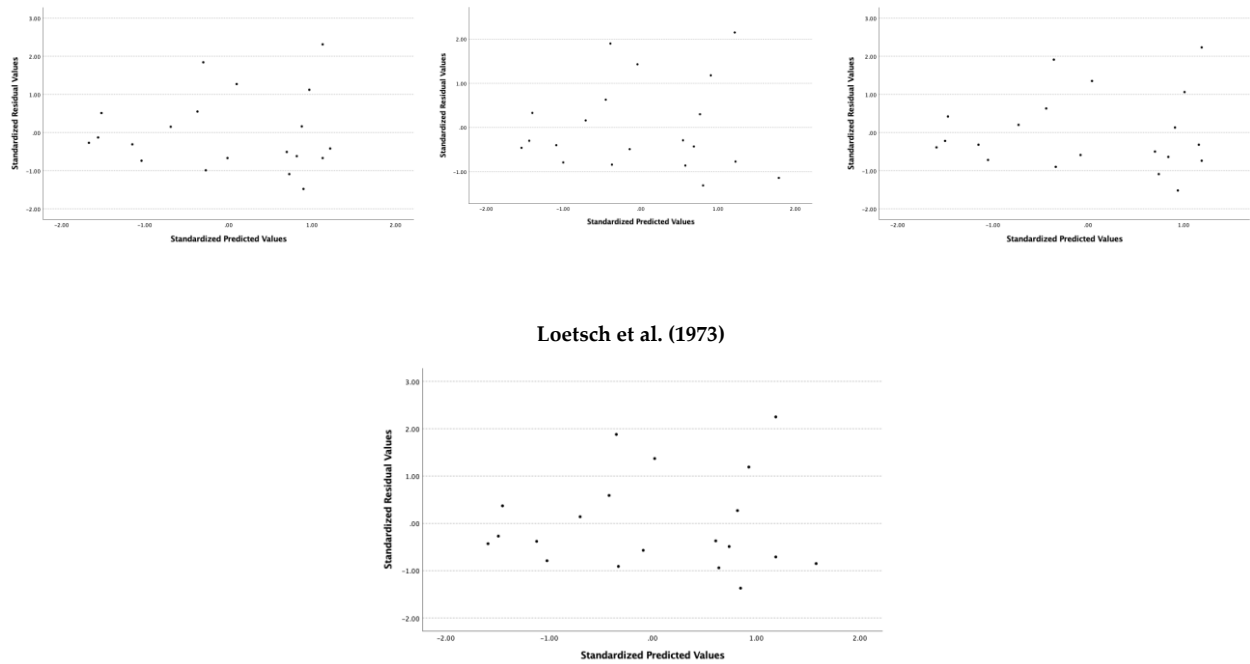


Figure S2. Homoscedasticity evaluation.

Table S1. Results from the measurements to the trees, P – Parcel; Spec. – Species; T nr. – Tree number; DC – Distance to the center of the circle (Parcel); Dir. – Direction; d₁ – Diameter; d₂ – Diameter; d_{med} – Average diameter; DHB class – Diameter at breast high class; h_t – Trunk height; h_c – Canopy height; d_{canopy} – Canopy diameter; W_t – Trunk weight; w_b – branches weight; A.d. – *Acacia dealbata*; A.u. – *Arbutus unedo*; P.p. – *Pinus pinaster*.

P	Spec.	T nr.	DC (m)	Dir. (°)	d ₁ (cm)	d ₂ (cm)	d _{med} (cm)	DHB class (cm)	h _t (m)	h _c (m)	d _{canopy} (m)	W _t (kg)	W _b (kg)
1	A.d.	1	0.73	4	4.7	4.8	4.75	5	-	-	-	-	-
1	A.d.	2	1.8	30	5	4.6	4.8	5	-	-	-	-	-
1	A.d.	3	3.3	5	10.6	9.9	10.25	15	17.3	6.3	1	52.5	2.1
1	A.d.	4	4.1	5	4.4	3.7	4.05	5	-	-	-	-	-
1	A.d.	5	3.9	10	7.1	6.7	6.9	10	10.46	4.9	1	23.6	5.2
1	A.d.	6	4.8	60	9.7	7.2	8.45	10	-	-	-	-	-
1	A.u.	7	4.5	85	-	-	-	-	-	-	-	-	-
1	A.d.	8	3.6	90	30.4	31	30.7	35	-	-	-	-	-
1	A.d.	9	4.5	100	6.8	6.8	6.8	10	-	-	-	-	-
1	A.d.	10	5.1	85	4.3	4.2	4.25	5	-	-	-	-	-
1	A.d.	11	5.1	90	5	5.6	5.3	10	9	3.5	1.9	11	2.6
1	A.d.	12	5.2	97	4.2	4.1	4.15	5	-	-	-	-	-
1	A.d.	13	5.2	98	6.5	6.8	6.65	10	-	-	-	-	-
1	A.d.	14	5.2	99	3.5	3.5	3.5	5	-	-	-	-	-
1	A.d.	15	5.6	97	3.7	3.7	3.7	5	-	-	-	-	-
1	A.d.	16	5.2	100	8.1	8	8.05	10	12.93	5.54	2	45	2.8
1	A.d.	17	4.4	101	5.4	5.6	5.5	10	8.3	3	2.5	14.2	4.3
1	A.u.	18	4.2	100	4.3	4	4.15	5	-	-	-	-	-
1	A.d.	19	5.1	115	14.6	15.2	14.9	15	-	-	-	-	-
1	A.d.	20	5.3	126	12.5	12.2	12.35	15	-	-	-	-	-

1	A.d.	21	4.2	117	5.9	5.7	5.8	10	7.75	2.5	3.2	15.6	4.1
1	A.d.	22	5.45	130	4.6	4.5	4.55	5	-	-	-	-	-
1	A.d.	23	5.4	129	3.4	3.6	3.5	5	-	-	-	-	-
1	P.p.	24	5.35	130	23.1	22.6	22.85	-	-	-	-	-	-
1	A.d.	25	5.6	138	8.2	9	8.6	10	-	-	-	-	-
1	A.d.	26	5.3	141	17.4	16.7	17.05	20	-	13.8	1.2	223.6	25.5
1	A.d.	27	5.4	143	4.3	4.1	4.2	5	5.8	3	1.2	-	-
1	A.d.	28	5.6	155	6.7	6.4	6.55	10	-	-	-	-	-
1	A.d.	29	5.3	160	4.4	4.5	4.45	5	6.8	3.1	1.8	3.6	-
1	A.d.	30	5.3	162	8.3	8.4	8.35	10	13.75	9.93	1	43.5	2
1	A.d.	31	2.9	186	17.9	18.2	18.05	20	-	-	-	-	-
1	A.d.	32	3.5	185	8.5	8.4	8.45	10	-	-	-	-	-
1	A.d.	33	1.9	196	16.7	16.7	16.7	20	-	-	-	-	-
1	A.d.	34	2.3	210	5.2	5.3	5.25	10	-	-	-	-	-
1	A.d.	35	1.8	220	5.2	4.7	4.95	5	-	-	-	-	-
1	A.d.	36	1.8	235	10.1	10	10.05	15	-	-	-	-	-
1	A.d.	37	5.4	222	16.6	15.2	15.9	20	-	-	-	-	-
1	A.d.	38	5	230	3.4	3.3	3.35	5	-	-	-	-	-
1	A.d.	39	5.6	242	13	13	13	15	-	-	-	-	-
1	A.d.	40	5.3	244	22.2	21.6	21.9	25	-	-	-	-	-
1	A.d.	41	4.1	245	11.7	10.8	11.25	15	-	-	-	-	-
1	A.d.	42	4	258	4.3	4.4	4.35	5	-	-	-	-	-
1	A.d.	43	4.8	272	4.6	5.2	4.9	5	-	-	-	-	-
1	A.d.	44	4.4	290	4.5	4	4.25	5	-	-	-	-	-
1	A.d.	45	4.2	295	10.8	10.2	10.5	15	-	-	-	-	-
1	A.d.	46	3.9	310	16.7	17.8	17.25	20	-	-	-	-	-
1	A.d.	47	3.9	320	14.5	16.4	15.45	20	-	-	-	-	-
1	A.d.	48	4.1	340	14.2	15.6	14.9	15	-	-	-	-	-
1	A.d.	49	5.2	0	4.6	4.8	4.7	5	-	-	-	-	-
1	A.d.	50	5.4	2	14.3	15.4	14.85	15	-	-	-	-	-
1	A.d.	51	5.5	5	3.6	3.2	3.4	5	-	-	-	-	-
1	A.d.	52	5.6	20	7.4	8.7	8.05	10	-	-	-	-	-
2	A.d.	1	3.5	62	6.1	6	6.05	10	-	-	-	-	-
2	A.d.	2	5.3	114	10.4	11.5	10.95	15	-	-	-	-	-
2	A.d.	3	5.3	115	10.7	11.3	11	15	-	-	-	-	-
2	A.d.	4	5.5	116	4.4	4.7	4.55	5	-	-	-	-	-
2	A.d.	5	5.5	120	10.4	11.3	10.85	15	-	-	-	-	-
2	A.d.	6	5.4	123	5.8	5.6	5.7	10	-	-	-	-	-
2	A.d.	7	5.6	138	11.9	13.7	12.8	15	-	-	-	-	-
2	A.d.	8	4.5	150	6.3	5.9	6.1	10	-	-	-	-	-
2	A.d.	9	5	158	14	15.2	14.6	15	-	-	-	-	-
2	A.d.	10	4.7	165	9.7	9.6	9.65	10	-	-	-	-	-
2	A.d.	11	5	165	4.6	4.5	4.55	5	-	-	-	-	-
2	A.d.	12	5	168	9.1	10	9.55	10	-	-	-	-	-
2	A.d.	13	5.6	168	13.2	12.4	12.8	15	-	-	-	-	-
2	A.d.	14	1.8	185	3.4	3.2	3.3	5	-	-	-	-	-

2	A.d.	15	1	195	23.2	20.4	21.8	25	21.7	11	2.65	301.7	31.7
2	A.d.	16	1.5	200	4.6	4.5	4.55	5	-	-	-	-	-
2	A.d.	17	3.8	225	6.4	6.3	6.35	10	-	-	-	-	-
2	A.d.	18	4.9	227	9.3	9	9.15	10	-	-	-	-	-
2	A.d.	19	3.5	239	4	4	4	5	-	-	-	-	-
2	A.d.	20	1.7	265	5.5	6.8	6.15	10	-	-	-	-	-
2	A.d.	21	4	318	16.9	19.6	18.25	20	-	-	-	-	-
2	A.d.	22	4.8	305	12.6	14.3	13.45	15	-	-	-	-	-
2	A.d.	23	5.6	286	9	8.5	8.75	10	-	-	-	-	-
2	P.p.	24	5	285	40.7	42.2	41.45	-	-	-	-	-	-
2	A.d.	25	5	303	4.1	4	4.05	5	-	-	-	-	-
2	A.d.	26	3.7	315	8.8	9.4	9.1	10	-	-	-	-	-
2	A.d.	27	3.4	328	6.4	6	6.2	10	-	-	-	-	-
2	A.d.	28	2	323	5.7	6.2	5.95	10	-	-	-	-	-
2	A.d.	29	1.9	323	5.3	5	5.15	10	-	-	-	-	-
2	A.d.	30	4.5	326	13.3	12.7	13	15	-	-	-	-	-
2	A.d.	31	1.8	98	7.7	8.8	8.25	10	-	-	-	-	-

Table S2. Evolution of growth increments (in mm) of each of the trees selected for this study.

Parcel	Tree	Year since birth																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	P1A1	0.0	0.7	2.2	3.9	5.4	6.6	8.5	10.2	10.9	-	-	-	-	-	-	-	-	-	-	-	-
	P1A2	0.0	0.8	2.2	3.5	4.0	4.9	5.4	6.1	7.0	-	-	-	-	-	-	-	-	-	-	-	-
	P1A3	0.0	0.8	2.8	3.8	4.2	4.8	5.6	6.9	7.3	7.8	8.1	8.6	9.2	-	-	-	-	-	-	-	-
	P1A4	0.0	0.7	1.3	2.0	2.8	3.7	5.7	7.1	8.5	9.7	10.3	11.5	13.2	14.1	16.0	17.6	-	-	-	-	-
	P1A5	0.0	1.3	1.9	2.5	3.2	4.0	4.9	5.7	6.2	6.8	-	-	-	-	-	-	-	-	-	-	-
	P1A6	0.0	0.7	1.5	2.2	2.5	3.0	3.6	4.1	4.5	-	-	-	-	-	-	-	-	-	-	-	-
	P1A7	0.0	1.9	3.9	5.2	7.3	9.7	10.6	11.4	11.9	12.8	13.5	14.0	-	-	-	-	-	-	-	-	-
	P1A8	0.0	1.2	1.9	3.1	4.4	5.9	7.6	9.0	10.1	11.5	12.1	12.9	13.6	14.1	-	-	-	-	-	-	-
	P1A9	0.0	1.4	2.4	2.9	3.3	3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	P1A10	0.0	1.1	1.4	2.3	2.6	3.2	4.3	5.1	5.8	6.7	7.5	-	-	-	-	-	-	-	-	-	-
	P1A11	0.0	0.4	2.2	3.6	5.4	7.3	8.9	9.8	10.6	11.0	12.0	12.7	14.2	14.9	-	-	-	-	-	-	-
2	P2A1	0.0	1.1	1.6	3.9	4.6	5.6	6.7	8.1	8.8	9.8	10.6	11.1	11.6	12.4	13.0	-	-	-	-	-	-
	P2A2	0.0	0.8	1.2	4.2	5.1	5.9	6.3	6.9	7.2	8.0	-	-	-	-	-	-	-	-	-	-	-
	P2A3	0.0	1.1	2.2	2.7	3.0	3.5	3.8	4.2	4.2	-	-	-	-	-	-	-	-	-	-	-	-
	P2A4	0.0	1.1	1.6	4.3	5.8	7.2	8.6	10.1	11.2	12.4	12.8	14.9	15.7	16.8	17.5	19.2	19.8	20.8	22.4	-	-
	P2A5	0.0	0.9	1.7	2.6	3.1	3.7	4.4	5.0	5.3	5.7	6.1	-	-	-	-	-	-	-	-	-	-
	P3A1	0.0	1.1	3.1	5.0	6.0	7.0	8.8	9.8	10.8	15.7	19.5	21.7	24.4	26.2	28.3	29.3	31.1	32.6	33.7	34.7	35.5

As can be seen from the data obtained and shown in Table 5, the trees found in this stand do not have advanced ages, it is only possible to find a 21 years old tree, while the rest have younger ages, being one 6 years old tree, three 9 years old trees, two 10 years old trees, two 11 years old trees, one 12 years old tree, one 13 years old tree, two 14 years old trees, one 15 years old tree, one 16 years old tree and one 19 years old.

Table S3. Data obtained in the sampling operations and used to create the models.

Parcel	Tree nr.	h _{trunk} (m)	h _{coppice} (m)	h _{total} (m)	d _{coppice} (m)	DBH (cm)	W _{trunk} (kg)	W _{branches_leaves} (kg)	W _{total} (kg)	Age (years)
1	3	17.3	6.3	23.6	1	10.25	52.5	2.1	54.6	10
1	5	10.46	4.9	15.36	1	6.9	23.6	5.2	28.8	5
1	6	10.35	2.85	13.2	2.1	8.45	29.7	3.8	33.5	14
1	8	16.2	6.7	22.9	9.5	30.7	578.9	15.9	594.8	20
1	16	12.93	5.54	18.47	2	8.05	45	2.8	47.8	10
1	17	8.3	3	11.3	2.5	5.5	14.2	4.3	18.5	9
1	19	14.2	3.7	17.9	4.3	14.9	145.8	21	166.8	12
1	26	13.8	3.5	17.3	1.2	17.05	223.6	25.5	249.1	14
1	27	5.8	3	8.8	1.2	4.2	43.5	3.1	46.6	10
1	29	6.8	3.1	9.9	1.8	4.45	3.6	1.9	5.5	6
1	30	13.75	9.93	23.68	1	8.35	43.5	2	45.5	9
1	31	19.6	7.8	27.4	4.8	18.05	267.4	15.5	282.9	16
1	33	17.75	5.6	23.35	3.8	16.7	205	18.9	223.9	14
1	37	16.8	3.3	20.1	4.4	15.9	202.3	8.9	211.2	17
2	9	15.4	4.53	19.93	3.4	14.6	131.2	7.7	138.9	15
2	10	12.1	3.6	15.7	1.9	9.65	38.9	1.8	40.7	10
2	11	9	3.5	12.5	1.9	4.55	11	2.6	13.6	9
2	15	21.7	11	32.7	2.65	21.8	301.7	31.7	333.4	17
2	21	7.75	2.5	10.25	3.2	5.8	15.6	4.1	19.7	12
2	30	17.2	4.3	21.5	2.7	21.9	173.9	19.4	193.3	15

Data for the characterization of *A. dealbata* stands, as previously mentioned in Section 2, were obtained by measuring, weighing, and counting the growth rings, in the case of age estimation. The data obtained for the height of the trunk (h_{trunk}) presented a minimum value of 5.8 m and a maximum value of 21.7 m, with an average value of 13.78±4.5 m. The canopy height (h_{canopy}) had a minimum value of 2.5 m and a maximum value of 11.0 m, with an average value of 4.0±2.4 m. The total height (h_{total}) presented a minimum value of 8.8 m and a maximum value of 32.7 m, with an average value of 18.19±6.3 m. The canopy diameter (d_{canopy}) had a minimum value of 1.0 m and a maximum value of 4.8 m, with an average value of 2.3±2.9 m. The diameter at breast height (DBH) had a minimum value of 4.2 cm and a maximum value of 30.7 cm, with a mean value of 9.95±7.2 cm. The weight of the trunk (w_{trunk}) presented a minimum value of 3.6 kg and a maximum value of 578.9 kg, with an average value of 48.75±142.5 kg. The weight of the branches (w_{branches_leaves}) presented a minimum value of 2.0 kg and a maximum value of 31.7 kg, with an average value of 4.75±9.2 kg. The total weight (w_{total}) presented a minimum value of 5.5 kg and a maximum value of 594.8 kg, with an average value of 51.2±149.1 kg. The age of the trees presented a minimum value of 5 years and a maximum value of 20 years, with an average value of 12.0±3.9 years.

Table S4. Cumulative data per year of growth for height and diameter.

t (year)	d (cm)	h (m)	t (year)	d (cm)	h (m)	t (year)	d (cm)	h (m)
2	0.7	0.5	5	3.0	2	9	7.2	4
2	0.8	0.5	5	5.8	2	9	4.2	4
2	0.8	0.5	5	3.1	2	9	11.2	4
2	0.7	0.5	5	6.0	2	9	5.3	4
2	1.3	0.5	6	6.6	2.5	9	10.8	4
2	0.7	0.5	6	4.9	2.5	10	7.8	4.5
2	1.9	0.5	6	4.8	2.5	10	9.7	4.5
2	1.2	0.5	6	3.7	2.5	10	6.8	4.5
2	1.4	0.5	6	4.0	2.5	10	12.8	4.5
2	1.1	0.5	6	3.0	2.5	10	11.5	4.5
2	0.4	0.5	6	9.7	2.5	10	6.7	4.5
2	1.1	0.5	6	5.9	2.5	10	11.0	4.5

2	0.8	0.5	6	3.7	2.5	10	9.8	4.5
2	1.1	0.5	6	3.2	2.5	10	8.0	4.5
2	1.1	0.5	6	7.3	2.5	10	12.4	4.5
2	0.9	0.5	6	5.6	2.5	10	5.7	4.5
2	1.1	0.5	6	5.9	2.5	10	15.7	4.5
3	2.2	1	6	3.5	2.5	11	8.1	5
3	2.2	1	6	7.2	2.5	11	10.3	5
3	2.8	1	6	3.7	2.5	11	13.5	5
3	1.3	1	6	7.0	2.5	11	12.1	5
3	1.9	1	7	8.5	3	11	7.5	5
3	1.5	1	7	5.4	3	11	12.0	5
3	3.9	1	7	5.6	3	11	10.6	5
3	1.9	1	7	5.7	3	11	12.8	5
3	2.4	1	7	4.9	3	11	6.1	5
3	1.4	1	7	3.6	3	11	19.5	5
3	2.2	1	7	10.6	3	12	8.6	5.5
3	1.6	1	7	7.6	3	12	11.5	5.5
3	1.2	1	7	4.3	3	12	14.0	5.5
3	2.2	1	7	8.9	3	12	12.9	5.5
3	1.6	1	7	6.7	3	12	12.7	5.5
3	1.7	1	7	6.3	3	12	11.1	5.5
3	3.1	1	7	3.8	3	12	14.9	5.5
4	3.9	1.5	7	8.6	3	12	21.7	5.5
4	3.5	1.5	7	4.4	3	13	9.2	6
4	3.8	1.5	7	8.8	3	13	13.2	6
4	2.0	1.5	8	10.2	3.5	13	13.6	6
4	2.5	1.5	8	6.1	3.5	13	14.2	6
4	2.2	1.5	8	6.9	3.5	13	11.6	6
4	5.2	1.5	8	7.1	3.5	13	15.7	6
4	3.1	1.5	8	5.7	3.5	13	24.4	6
4	2.9	1.5	8	4.1	3.5	14	14.1	6.5
4	2.3	1.5	8	11.4	3.5	14	14.1	6.5
4	3.6	1.5	8	9.0	3.5	14	14.9	6.5
4	3.9	1.5	8	5.1	3.5	14	12.4	6.5
4	4.2	1.5	8	9.8	3.5	14	16.8	6.5
4	2.7	1.5	8	8.1	3.5	14	26.2	6.5
4	4.3	1.5	8	6.9	3.5	15	16.0	7
4	2.6	1.5	8	4.2	3.5	15	13.0	7
4	5.0	1.5	8	10.1	3.5	15	17.5	7
5	5.4	2	8	5.0	3.5	15	28.3	7
5	4.0	2	8	9.8	3.5	16	17.6	7.5
5	4.2	2	9	10.9	4	16	19.2	7.5
5	2.8	2	9	7.0	4	16	29.3	7.5
5	3.2	2	9	7.3	4	17	19.8	8
5	2.5	2	9	8.5	4	17	31.1	8
5	7.3	2	9	6.2	4	18	20.8	8.5
5	4.4	2	9	4.5	4	18	32.6	8.5
5	3.3	2	9	11.9	4	19	22.4	9
5	2.6	2	9	10.1	4	19	33.7	9
5	5.4	2	9	5.8	4	20	34.7	9.5
5	4.6	2	9	10.6	4	21	35.5	10
5	5.1	2	9	8.8	4			

Table S5. DBH of the 59 trees located in the two reference transects and the values obtained from the application of the equation generated according to the model of Petterson (1955) and from the application of the equation generated according to the model of Loetsch et al. (1973).

DBH	Petterson (1955) Model Predicted Values	Loetsch et al. (1973) Model Predicted Values	DBH	Petterson (1955) Model Predicted Values	Loetsch et al. (1973) Model Predicted Values
4.75	11.38	12.03	14.9	21.66	21.97
4.8	11.48	12.12	4.7	11.28	11.94
4.05	9.94	10.66	14.85	21.63	21.95
8.45	16.84	17.25	3.4	8.44	9.23
30.7	26.09	26.46	8.05	16.38	16.81
6.8	14.79	15.28	6.05	13.67	14.21
4.25	10.37	11.07	10.95	19.16	19.51
4.15	10.15	10.86	11	19.20	19.55
6.65	14.57	15.07	4.55	10.99	11.65
3.5	8.68	9.46	10.85	19.08	19.43
3.7	9.15	9.91	5.7	13.10	13.66
12.35	20.18	20.51	12.8	20.47	20.80
4.55	10.99	11.65	6.1	13.75	14.28
3.5	8.68	9.46	9.55	17.96	18.33
8.6	17.00	17.40	12.8	20.47	20.80
6.55	14.43	14.93	3.3	8.20	9.00
8.45	16.84	17.25	4.55	10.99	11.65
5.25	12.32	12.92	6.35	14.13	14.65
4.95	11.77	12.40	9.15	17.57	17.96
10.05	18.41	18.78	4	9.83	10.55
3.35	8.32	9.12	6.15	13.83	14.36
13	20.59	20.92	13.45	20.87	21.19
21.9	24.27	24.60	8.75	17.16	17.56
11.25	19.39	19.74	4.05	9.94	10.66
4.35	10.58	11.27	6.2	13.90	14.43
4.9	11.67	12.31	5.95	13.51	14.06
4.25	10.37	11.07	5.15	12.14	12.75
10.5	18.80	19.15	13	20.59	20.92
17.25	22.72	23.04	8.25	16.61	17.03
15.45	21.93	22.24			