

Table S1. The goodness of fit characteristics of the number of live new sessile oak sprouts model.

Year	Predictor	χ^2 (DF)	p	ps. R ²	AIC
2015	BA _{bt}	165.73 (2)	< 0.0001	0.8610	678.0
	BA _t	186.33 (2)	< 0.0001	0.8912	657.4
	BA _{at}	117.75 (2)	< 0.0001	0.7539	725.9
	I _t	88.79 (2)	< 0.0001	0.6525	754.9
	GF	20.12 (2)	< 0.0001	0.2130	823.6
	OP	19.26 (2)	< 0.0001	0.2049	824.4
	LAI	10.53(2)	0.0012	0.1178	833.2
	DSF	12.34 (2)	0.0004	0.1366	831.3
	ISF	10.94 (2)	0.0009	0.1221	832.7
	TSF	12.67 (2)	0.0004	0.1401	831.0
	BA _{bt} +I _t	219.20 (3)	< 0.0001	0.9265	626.5
2016	BA _{bt}	173.79 (2)	< 0.0001	0.8737	704.4
	BA _t	190.01 (2)	< 0.0001	0.8959	688.2
	BA _{at}	130.76 (2)	< 0.0001	0.7891	747.4
	I _t	84.90 (2)	< 0.0001	0.6360	793.3
	GF	9.66 (2)	0.0019	0.1087	868.5
	OP	9.48 (2)	0.0021	0.1067	868.7
	LAI	4.33 (2)	0.0375	0.0502	873.8
	ISF	6.60 (2)	0.0102	0.0756	871.6
	BA _{bt} +I _t	223.21 (3)	< 0.0001	0.9299	657.0

χ^2 – likelihood ratio χ^2 test value, DF – degree of freedom, ps. R² – pseudo R², AIC – Akaike information criterion, BA_{bt} – stool basal area before thinning, BA_t – basal area of thinning, BA_{at} – stool basal area after thinning, I_t – intensity of thinning, GF – gap fraction, OP – openness, LAI – leaf area index, DSF – direct site factor, ISF – indirect site factor, TSF – total site factor.

Table S2. The goodness of fit characteristics of the number of live new European hornbeam sprouts model.

Year	Predictor	χ^2 (DF)	p	ps. R ²	AIC
2015	BA _{bt}	651.51 (2)	< 0.0001	0.9907	1614.8
	BA _t	702.2 (2)	< 0.0001	0.9936	1564.0
	BA _{at}	371.45 (2)	< 0.0001	0.9309	1894.8
	I _t	186.86 (2)	< 0.0001	0.7393	2079.4
	GF	55.24 (2)	< 0.0001	0.3279	2211.0
	OP	54.99 (2)	< 0.0001	0.3267	2211.3
	LAI	71.11 (2)	< 0.0001	0.4005	2195.2
	DSF	19.93 (2)	< 0.0001	0.1336	2246.3
	ISF	44.08 (2)	< 0.0001	0.2717	2222.2
	TSF	21.97 (2)	< 0.0001	0.1462	2244.3
	BA _{bt} +I _t +LAI	781.71 (4)	< 0.0001	0.9964	1488.6
2016	BA _{bt}	316.45 (2)	< 0.0001	0.8974	1335.4
	BA _t	372.92 (2)	< 0.0001	0.9316	1278.9
	BA _{at}	154.44 (2)	< 0.0001	0.6708	1497.4
	I _t	141.13 (2)	< 0.0001	0.6377	1510.7
	GF	122.96 (2)	< 0.0001	0.5871	1528.9
	OP	121.71 (2)	< 0.0001	0.5834	1530.1
	LAI	165.54 (2)	< 0.0001	0.6961	1486.3
	DSF	36.63 (2)	< 0.0001	0.2316	1615.2
	ISF	99.91 (2)	< 0.0001	0.5126	1552.0
	TSF	41.17 (2)	< 0.0001	0.2564	1610.7
	BA _{bt} +I _t +LAI+ISF	528.52 (5)	< 0.0001	0.9768	1129.3

χ^2 – likelihood ratio χ^2 test value, DF – degree of freedom, ps. R² – pseudo R², AIC – Akaike information criterion, BA_{bt} – stool basal area before thinning, BA_t – basal area of thinning, BA_{at} – stool basal area after thinning, I_t – intensity of thinning, GF – gap fraction, OP – openness, LAI – leaf area index, DSF – direct site factor, ISF – indirect site factor, TSF – total site factor.

Table S3. The goodness of fit characteristics of the number of dead new sprouts model.

Species	Year	Predictor	χ^2 (DF)	p	ps. R ²	AIC
European hornbeam	2015	BAb _t	34.17 (2)	< 0.0001	0.2330	350.6
		BA _t	36.38 (2)	< 0.0001	0.2461	348.4
		BA _{at}	14.80 (2)	< 0.0001	0.1080	370.0
		I _t	2.05 (2)	< 0.0001	0.0156	382.7
		GF	13.28 (2)	< 0.0001	0.0974	371.5
		OP	12.73 (2)	< 0.0001	0.0935	372.0
		BA _{bt} +I _t	53.42 (3)	< 0.0001	0.3411	337.3
	2016	BA _{bt}	128.42 (1)	< 0.0001	0.6045	717.8
		BA _t	116.85 (2)	< 0.0001	0.5699	731.4
		BA _{at}	95.32 (2)	< 0.0001	0.4974	752.9
		I _t	7.06 (2)	0.0294	0.0496	814.2

χ^2 – likelihood ratio χ^2 test value, DF – degree of freedom, ps. R² – pseudo R², AIC – Akaike information criterion, BA_{bt} – stool basal area before thinning, BA_t – basal area of thinning, BA_{at} – stool basal area after thinning, I_t – intensity of thinning, GF – gap fraction, OP – openness.

Table S4. The goodness of fit characteristics of the new sprouts height models.

Species	Predictor	F (DF)	p	R ²	AIC
sessile oak	BA _{bt}	22.568 (1, 82)	< 0.0001	0.2158	526.0
	BA _t	25.475 (1, 82)	< 0.0001	0.2370	523.7
	BA _{at}	13.841 (1, 82)	0.0004	0.1444	533.3
	I _t	7.929 (1, 82)	0.0061	0.0881	538.7
	GF	8.349 (1, 82)	0.0049	0.0924	538.3
	OP	9.381 (1, 82)	0.0030	0.1027	537.3
	LAI	6.049 (1, 82)	0.0160	0.0687	540.4
	ISF	335.994 (1, 83)	< 0.0001	0.1406	533.7
	ISF + BA _{bt}	230.862 (2, 82)	< 0.0001	0.3166	514.4
European hornbeam	GF	13.938 (1, 137)	0.0003	0.0923	840.3
	OP	13.200 (1, 137)	0.0004	0.0879	840.9
	LAI	14.133 (1, 137)	0.0003	0.0935	840.1
	DSF	12.033 (1, 137)	0.0007	0.0807	842.0
	ISF	8.237 (1, 137)	0.0048	0.0567	845.6
	TSF	12.263 (1, 137)	0.0006	0.0822	841.8

F – F test value, DF – degree of freedom, R² – coefficient of determination, AIC – Akaike information criterion, BA_{bt} – stool basal area before thinning, BA_t – basal area of thinning, BA_{at} – stool basal area after thinning, I_t – intensity of thinning, GF – gap fraction, OP – openness, LAI – leaf area index, DSF – direct site factor, ISF – indirect site factor, TSF – total site factor.