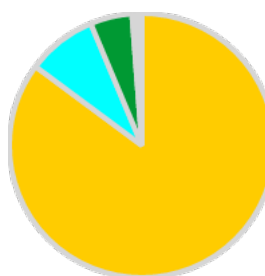


07/05/2021 Sala_prod_gruppo a 07.05

Site conditions

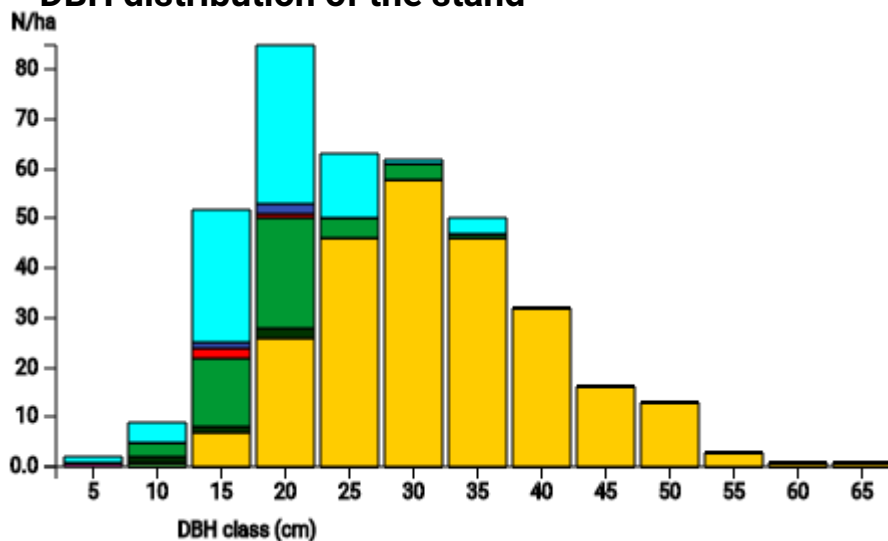
Altitude: 870 m.a.s.l.
 Geology / Bedrock: Alluvial and mixed beds
 Soil type: Cambisol – Leptosol with Luvisol of the Central Appenino Mountains.
 Natural forest community: Aceri obtusati-Quercu cerridis sigmetum
 Mean annual temperature: 12.4 C;
 Mean annual precipitation: 1154 mm; Ownership: State-owned
 Agency "Sala"; Establishment: 2020

Tree species distribution by volume (in %)



- Turkey oak: 85.1 %
- European hop-hornbeam: 8.5 %
- Italian maple: 5.1 %
- manna ash: 0.6 %
- field maple: 0.3 %
- hornbeam: 0.3 %
- common beech: 0 %
- downy oak: 0 %

DBH distribution of the stand



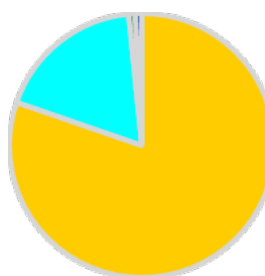
Initial stand (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	81	3	34.6	2647	1669	101
Italian maple	47	1.8	20.8	1588	917	65
Turkey oak	249	24.7	346.4	26500	7807	401
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	4	0.1	1.4	104	115	6
hornbeam	3	0.1	1.3	101	24	1
manna ash	3	0.1	2.3	174	38	4
Total	389	29.9	407.1	31140	10570	578

Removed trees

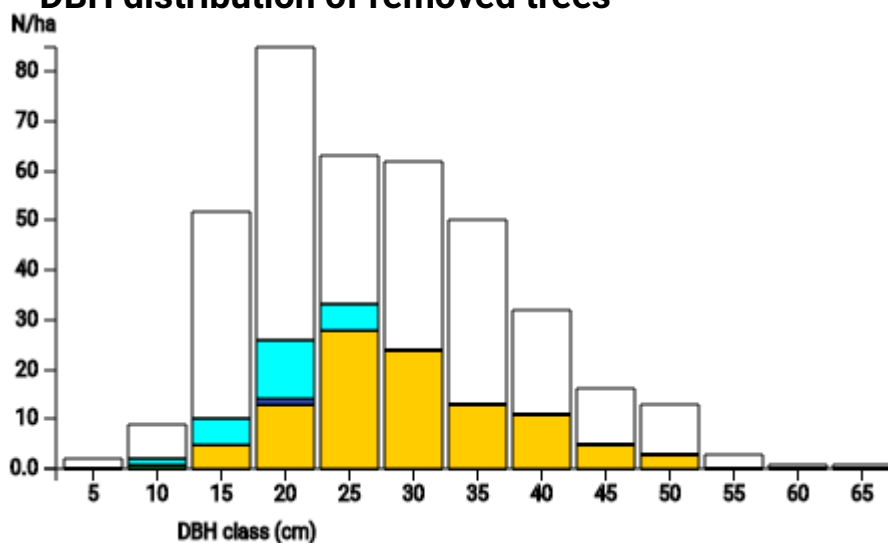
Volume: 126.4 m³
 Basal area: 9.4 m²
 Economic value: 9668 €
 Habitat value: 3344 pts.

Removed trees (N in %)



- Turkey oak: 80.3 %
- European hop-hornbeam: 18.1 %
- Italian maple: 0.8 %
- hornbeam: 0.8 %
- common beech: 0 %
- downy oak: 0 %
- field maple: 0 %
- manna ash: 0 %

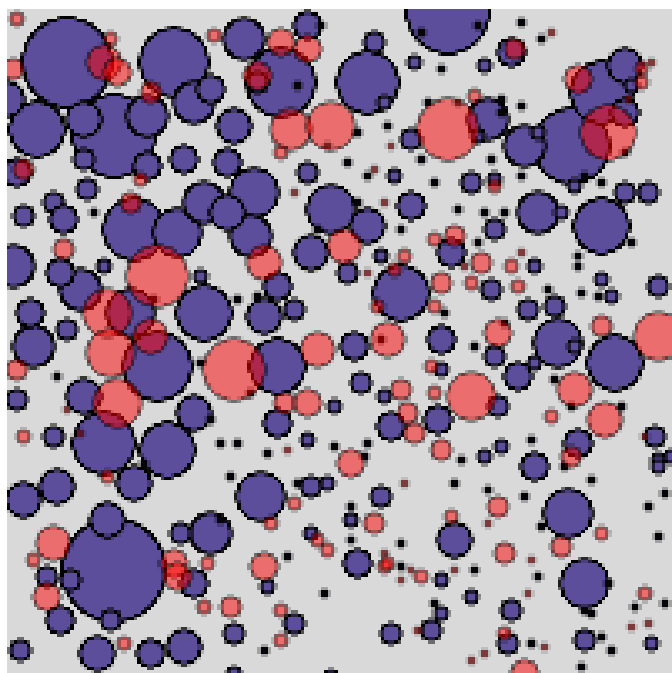
DBH distribution of removed trees



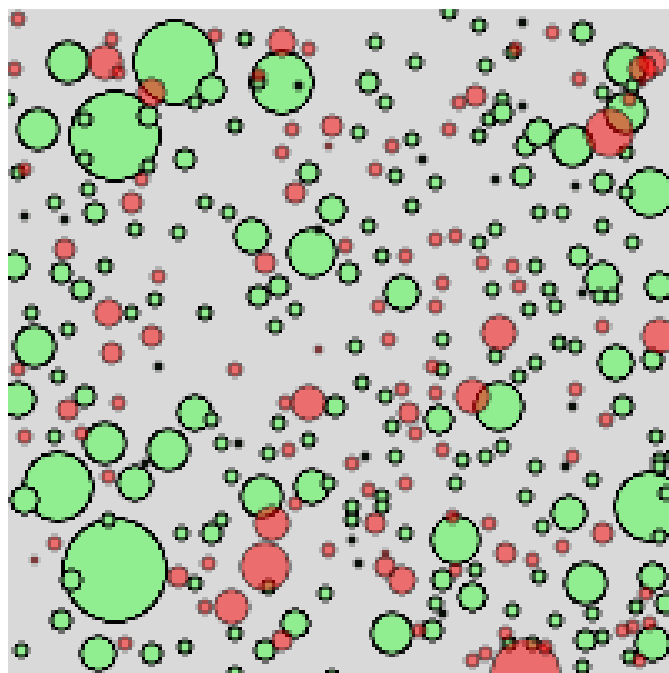
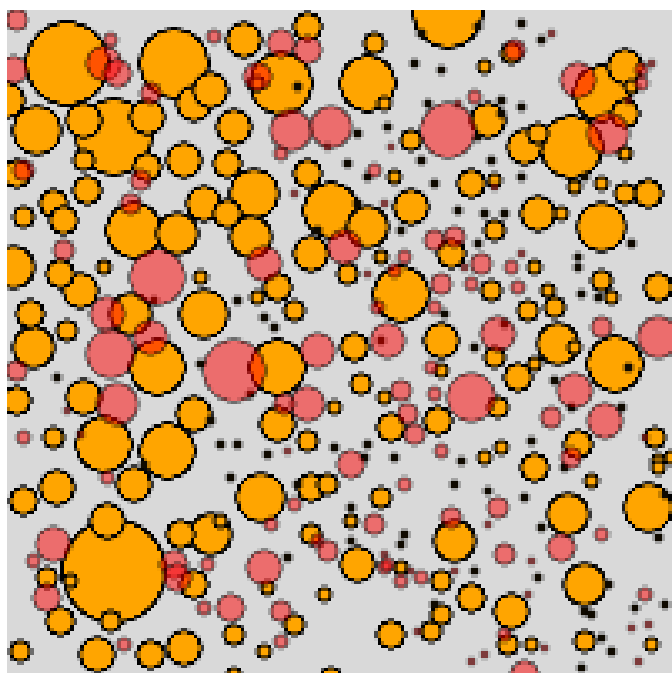
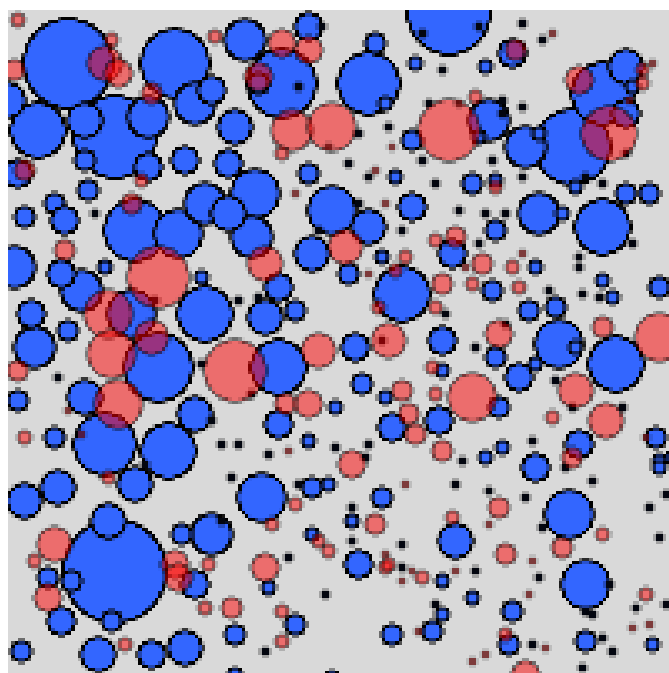
Removed trees (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	23	0.8	9.9	759	506	28
Italian maple	1	0	0.1	9	28	2
Turkey oak	102	8.5	115.9	8865	2786	132
common beech	0	0	0	0	0	0
downy oak	0	0	0	0	0	0
field maple	0	0	0	0	0	0
hornbeam	1	0	0.5	35	24	1
manna ash	0	0	0	0	0	0
Total	127	9.4	126.4	9668	3344	163

Economic value [EUR]



Habitat value

Basal area [m²]Volume [m³]**Description:**

Red circles (removed trees); circle size according to numerical values (e.g. large circles mean high values); trees with very low values (e.g. habitat value "0") are not visible.

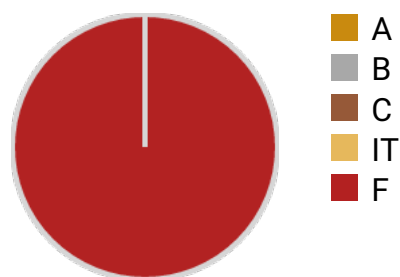
Economic values

Total value of removed trees: 9668 €
 Percentage of total stand value: 31 %
 Stand value after harvest: 21471 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	0	0
downy oak	0	0
Turkey oak	8865	76
field maple	0	0
Italian maple	9	77
manna ash	0	0
hornbeam	35	77
European hop-hornbeam	759	77
Total	9668	76

Wood quality distribution (m³ in %)



Quality class	m ³	%
A	0	0
B	0	0
C	0	0
Industrial Timber	0	0
Fuelwood	126.4	100

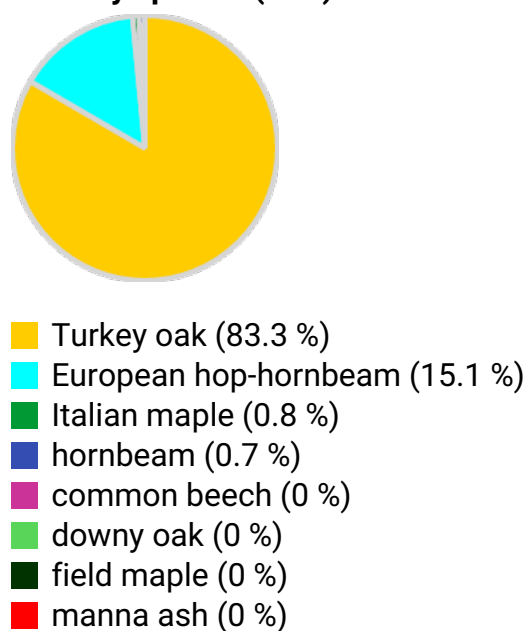
Habitat values

Total habitat value of removed trees: 3344 pts.
 Percentage of total stand value: 31.6 %
 Stand value after harvest: 7226 pts.

Habitat value by tree species [pts.]

Tree species	Total	Per m ³	Microhabitats [N]
common beech	0	0	0
downy oak	0	0	0
Turkey oak	2786	24	132
field maple	0	0	0
Italian maple	28	238.8	2
manna ash	0	0	0
hornbeam	24	51.8	1
European hop-hornbeam	506	51	28
Total	3344	26.5	163

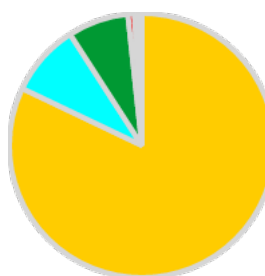
Habitat value (points) of removed trees by species (in %)



Remaining stand

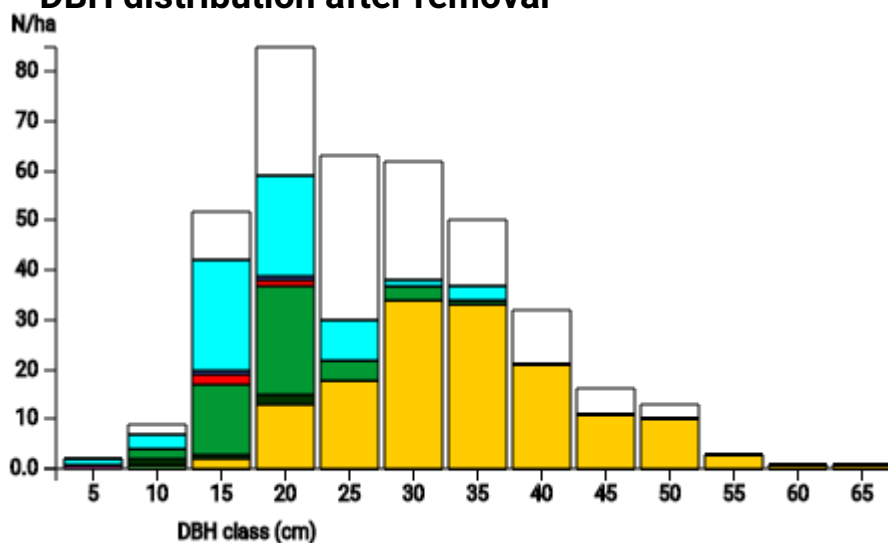
Volume: 280.6 m³
 Basal area: 20.5 m²
 Economic value: 21471 €
 Habitat value: 7226 pts.

Remaining trees by volume (m³ in %)



- Turkey oak: 82.1 %
- European hop-hornbeam: 8.8 %
- Italian maple: 7.4 %
- manna ash: 0.8 %
- field maple: 0.5 %
- hornbeam: 0.3 %
- common beech: 0.1 %
- downy oak: 0 %

DBH distribution after removal



Remaining stand (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	58	2.1	24.7	1888	1163	73
Italian maple	46	1.8	20.6	1579	889	63
Turkey oak	147	16.2	230.5	17635	5021	269
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	4	0.1	1.4	104	115	6
hornbeam	2	0.1	0.9	66	0	0
manna ash	3	0.1	2.3	174	38	4
Total	262	20.5	280.7	21471	7226	415

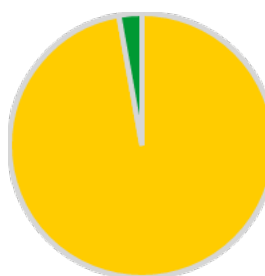
Retention treesVolume: 67.6 m³

Elite trees: 30

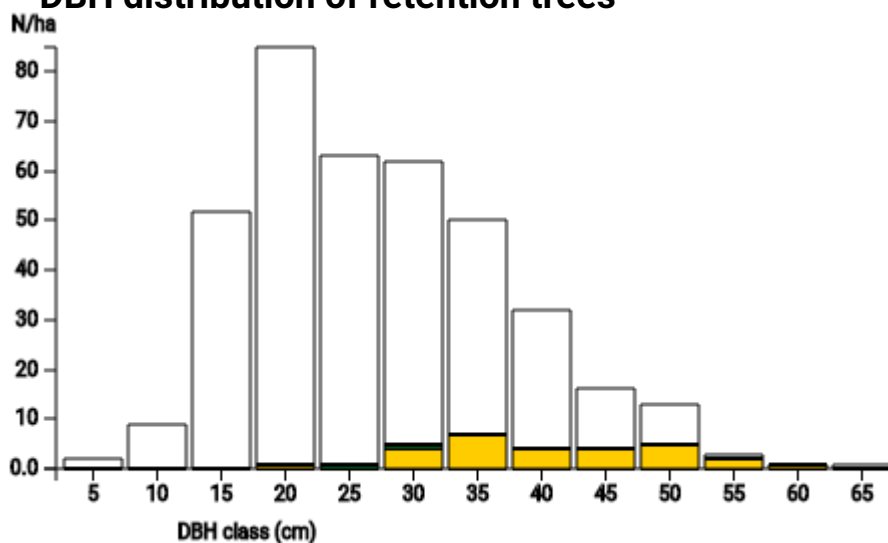
Habitat trees: 0

Economic value: 5167 €

Habitat value: 1133 pts.

Retention trees by volume (m³ in %)









Turkey oak: 97.2 %
Italian maple: 2.8 %
common beech: 0 %
downy oak: 0 %
field maple: 0 %
manna ash: 0 %
hornbeam: 0 %
European hop-hornbeam: 0 %

DBH distribution of retention trees**Retained trees (details by tree species)**

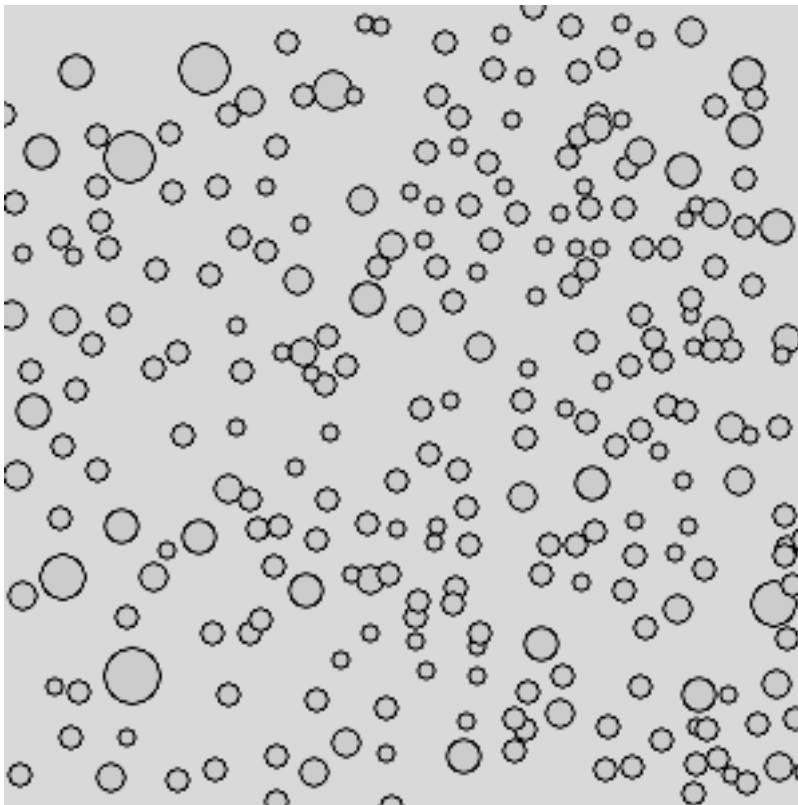
Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	0	0	0	0	0	0
Italian maple	2	0.2	1.9	145	100	4
Turkey oak	28	4.2	65.7	5022	1033	51
common beech	0	0	0	0	0	0
downy oak	0	0	0	0	0	0
field maple	0	0	0	0	0	0
hornbeam	0	0	0	0	0	0
manna ash	0	0	0	0	0	0
Total	30	4.4	67.5	5167	1133	55

Number of habitat trees	[N]	0
Habitat value	pts.	0
	[% of total]	0
Economic value	[€]	0
	[% of total]	0
Number of microhabitats	[N]	0
	[% of total]	0

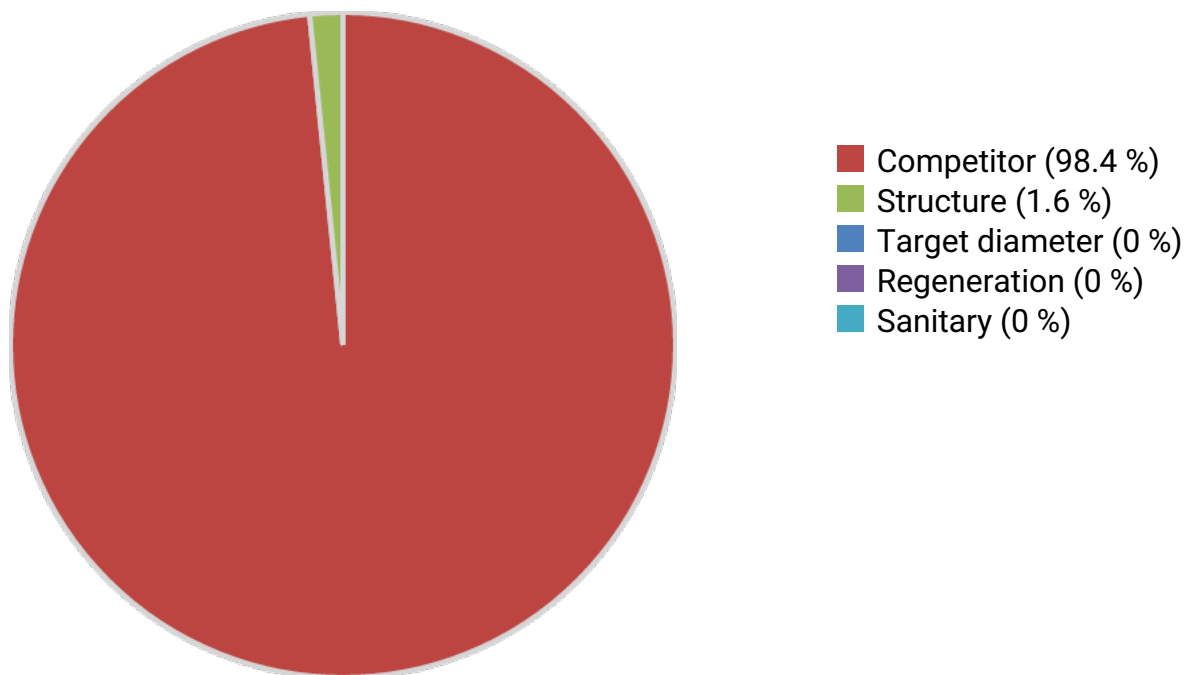
Habitat tree distribution by species (N in %)

	common beech: NaN %
	downy oak: NaN %
	Turkey oak: NaN %
	field maple: NaN %
	Italian maple: NaN %
	manna ash: NaN %
	hornbeam: NaN %
	European hop-hornbeam: NaN %

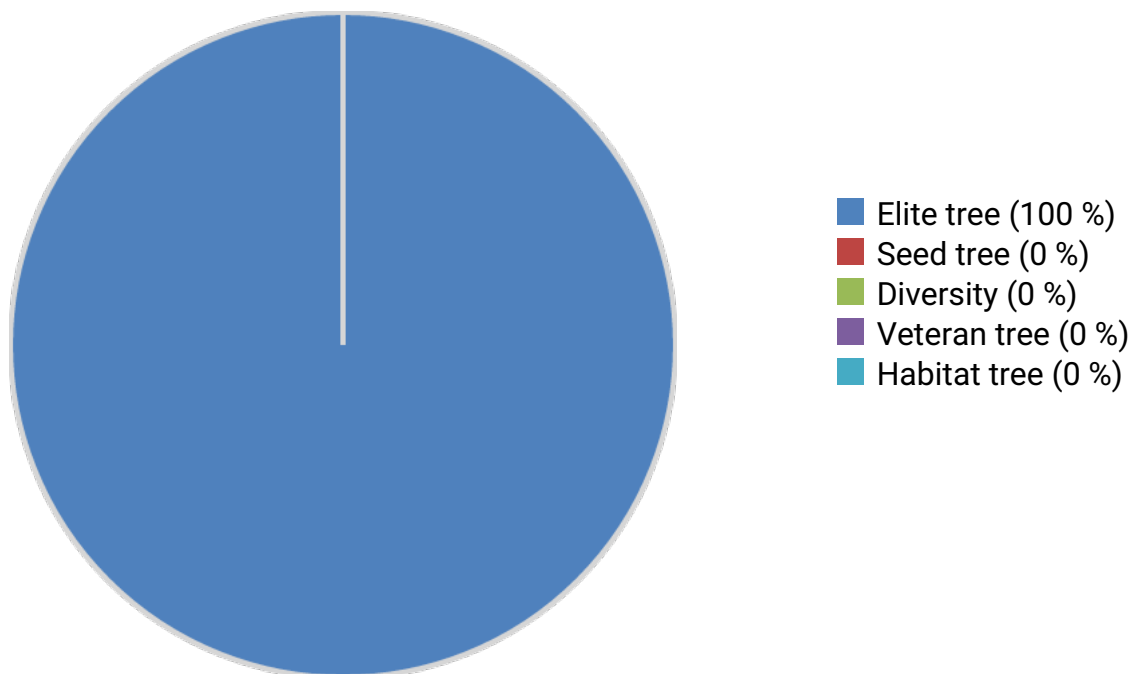
Spatial distribution of habitat trees



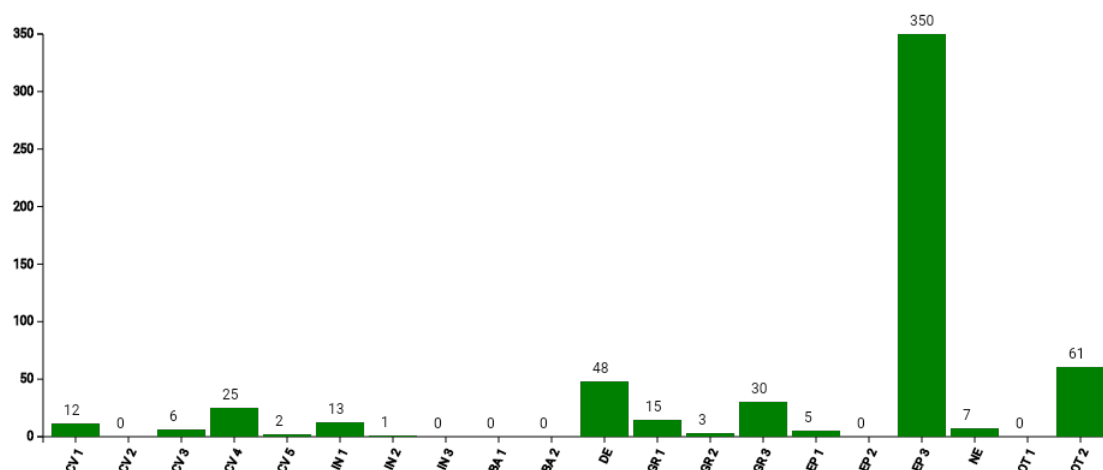
Reasons for removal



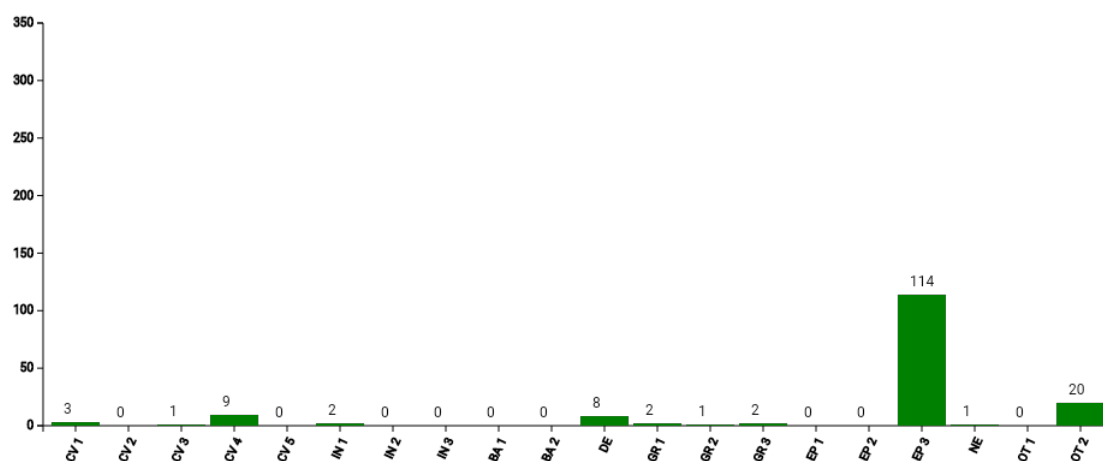
Reasons for retention



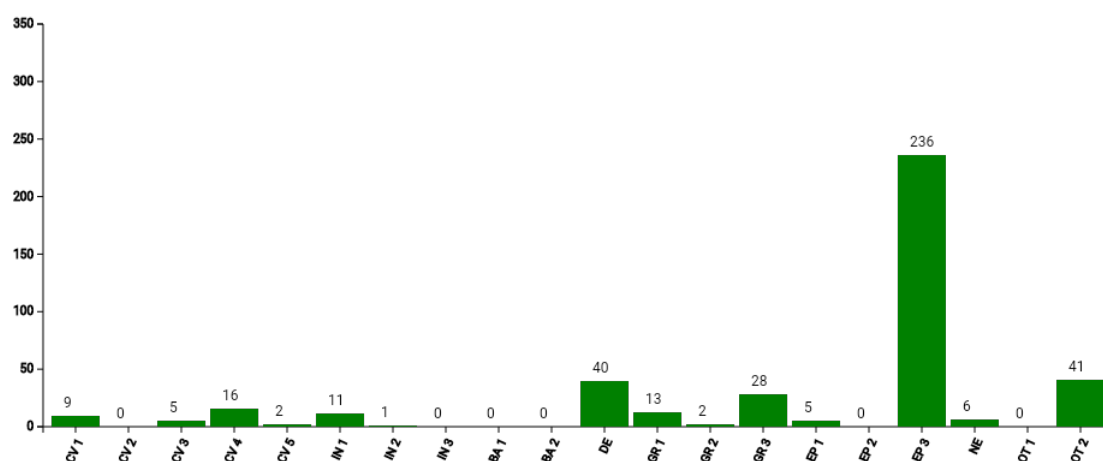
Distribution of tree microhabitats by code (N total)



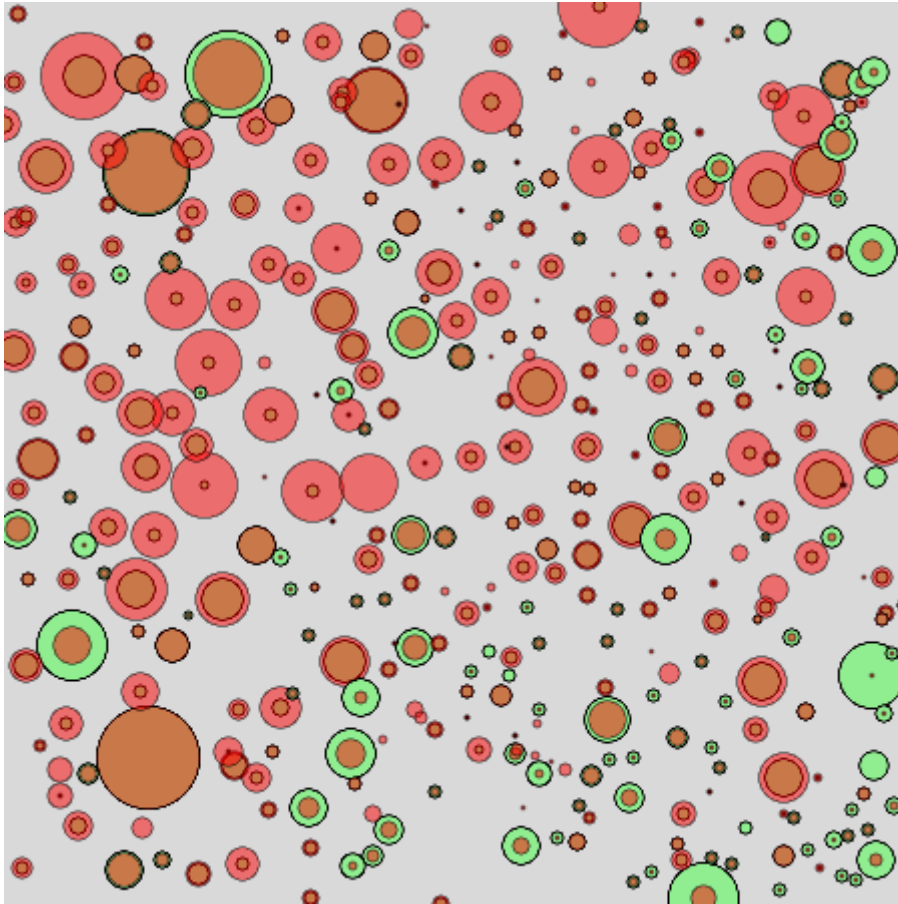
Removed tree microhabitats by code (N removed)



Remaining tree microhabitats by code (N after harvest)



For more details on codes consult the field guide "Catalogue of tree microhabitats" or the tree microhabitat app.

Conflict trees (stand data)**Description:**

Overlay of economic and habitat value: red circles (economic value), green circles (habitat value); circle size according to numerical values (e.g. large circles mean high values); trees with very low values are not visible. Trees where both values overlap considerably represent so called "conflict trees".

Removed trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (78) Quercus cerris	52	0.21	3.1	238	24	Competitor
Turkey oak (317) Quercus cerris	51	0.2	3.2	249	24	Competitor
Turkey oak (57) Quercus cerris	51	0.2	3.4	258	24	Competitor
Turkey oak (183) Quercus cerris	46	0.17	2.3	179	60	Competitor
Turkey oak (81) Quercus cerris	46	0.17	2.6	195	40	Competitor
Turkey oak (86) Quercus cerris	45	0.16	2.4	183	24	Competitor
Turkey oak (164) Quercus cerris	45	0.16	2.4	182	60	Competitor
Turkey oak (327) Quercus cerris	45	0.16	2.7	208	76	Competitor
Turkey oak (21) Quercus cerris	43	0.15	2.3	179	30	Competitor
Turkey oak (22) Quercus cerris	42	0.14	2.1	163	24	Competitor
Turkey oak (179) Quercus cerris	41.5	0.14	1.7	131	24	Competitor
Turkey oak (15) Quercus cerris	41.5	0.14	1.9	142	60	Competitor
Turkey oak (128) Quercus cerris	41	0.13	1.5	115	82	Competitor
Turkey oak (92) Quercus cerris	41	0.13	1.6	122	60	Competitor
Turkey oak (68) Quercus cerris	40.5	0.13	2.3	178	52	Competitor
Turkey oak (361) Quercus cerris	40	0.13	1.9	147	24	Competitor
Turkey oak (158) Quercus cerris	40	0.13	1.7	126	24	Competitor
Turkey oak (76) Quercus cerris	40	0.13	1.8	134	6	Competitor
Turkey oak (119) Quercus cerris	40	0.13	1.6	126	24	Competitor
Turkey oak (75) Quercus cerris	39.5	0.12	1.7	131	36	Structure
Turkey oak (175)	38.5	0.12	1.7	127	24	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (60) Quercus cerris	38.5	0.12	1.6	126	40	Competitor
Turkey oak (161) Quercus cerris	38	0.11	1.4	109	60	Competitor
Turkey oak (305) Quercus cerris	38	0.11	1.6	123	24	Competitor
Turkey oak (131) Quercus cerris	37	0.11	1.5	116	40	Competitor
Turkey oak (221) Quercus cerris	36	0.1	1.3	103	24	Competitor
Turkey oak (132) Quercus cerris	36	0.1	1.5	111	4	Competitor
Turkey oak (8) Quercus cerris	35.5	0.1	1.3	98	24	Competitor
Turkey oak (14) Quercus cerris	35.5	0.1	1.6	122	24	Competitor
Turkey oak (282) Quercus cerris	35.5	0.1	1.3	99	116	Competitor
Turkey oak (5) Quercus cerris	35.5	0.1	1.5	118	52	Competitor
Turkey oak (11) Quercus cerris	35	0.1	1.5	116	18	Competitor
Turkey oak (226) Quercus cerris	34.5	0.09	1.2	94	24	Competitor
Turkey oak (136) Quercus cerris	34	0.09	1.3	103	4	Competitor
Turkey oak (142) Quercus cerris	34	0.09	1.2	90	60	Competitor
Turkey oak (17) Quercus cerris	34	0.09	1.2	90	24	Competitor
Turkey oak (357) Quercus cerris	33.5	0.09	1.1	86	24	Competitor
Turkey oak (293) Quercus cerris	33.5	0.09	1.2	89	24	Competitor
Turkey oak (163) Quercus cerris	33	0.09	1.2	89	24	Competitor
Turkey oak (19) Quercus cerris	33	0.09	1.2	93	50	Competitor
Turkey oak (218) Quercus cerris	33	0.09	1.1	86	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (53) Quercus cerris	32.5	0.08	1.1	81	36	Competitor
Turkey oak (83) Quercus cerris	32	0.08	1.1	87	24	Competitor
Turkey oak (29) Quercus cerris	32	0.08	1	79	24	Competitor
Turkey oak (235) Quercus cerris	32	0.08	1	74	36	Competitor
Turkey oak (189) Quercus cerris	31.5	0.08	1.1	81	36	Competitor
Turkey oak (240) Quercus cerris	31.5	0.08	1	78	36	Competitor
Turkey oak (181) Quercus cerris	31	0.08	0.9	68	0	Competitor
Turkey oak (1) Quercus cerris	31	0.08	0.8	60	24	Competitor
Turkey oak (185) Quercus cerris	31	0.08	1	75	24	Competitor
Turkey oak (126) Quercus cerris	30.5	0.07	0.8	60	24	Competitor
Turkey oak (358) Quercus cerris	30.5	0.07	0.8	63	24	Competitor
Turkey oak (382) Quercus cerris	30	0.07	0.9	70	24	Competitor
Turkey oak (194) Quercus cerris	30	0.07	1.1	82	24	Competitor
Turkey oak (145) Quercus cerris	30	0.07	0.9	66	0	Competitor
Turkey oak (190) Quercus cerris	30	0.07	1	78	24	Competitor
Turkey oak (369) Quercus cerris	29.5	0.07	1	79	24	Competitor
Turkey oak (224) Quercus cerris	29.5	0.07	0.8	63	24	Competitor
Turkey oak (91) Quercus cerris	29	0.07	1	74	24	Competitor
Turkey oak (44) Quercus cerris	29	0.07	0.9	73	32	Competitor
Turkey oak (37) Quercus cerris	29	0.07	0.9	65	24	Competitor
Turkey oak (206)	28.5	0.06	0.9	70	24	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (123) Quercus cerris	28	0.06	0.7	57	60	Competitor
European hop-hornbeam (216) Ostrya carpinifolia	28	0.06	0.8	61	30	Competitor
Turkey oak (114) Quercus cerris	28	0.06	0.9	66	19	Competitor
Turkey oak (184) Quercus cerris	28	0.06	0.8	64	24	Competitor
Turkey oak (385) Quercus cerris	28	0.06	0.8	62	24	Competitor
European hop-hornbeam (302) Ostrya carpinifolia	27.5	0.06	0.8	59	30	Competitor
Turkey oak (2) Quercus cerris	27.5	0.06	0.8	64	24	Competitor
Turkey oak (383) Quercus cerris	27.5	0.06	0.8	60	24	Competitor
Turkey oak (141) Quercus cerris	27	0.06	0.8	59	24	Structure
Turkey oak (279) Quercus cerris	27	0.06	0.6	42	24	Competitor
Turkey oak (129) Quercus cerris	27	0.06	0.7	52	24	Competitor
Turkey oak (154) Quercus cerris	27	0.06	0.6	49	36	Competitor
Turkey oak (105) Quercus cerris	27	0.06	0.7	53	24	Competitor
Turkey oak (258) Quercus cerris	27	0.06	0.6	48	36	Competitor
Turkey oak (254) Quercus cerris	26.5	0.06	0.6	47	0	Competitor
Turkey oak (381) Quercus cerris	26	0.05	0.7	55	0	Competitor
Turkey oak (261) Quercus cerris	26	0.05	0.6	43	0	Competitor
Turkey oak (170) Quercus cerris	26	0.05	0.6	47	21	Competitor
Turkey oak (135) Quercus cerris	26	0.05	0.7	53	14	Competitor
Turkey oak (125) Quercus cerris	26	0.05	0.7	53	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (379) Quercus cerris	25.5	0.05	0.6	45	24	Competitor
European hop-hornbeam (229) Ostrya carpinifolia	25.5	0.05	0.7	55	24	Competitor
European hop-hornbeam (310) Ostrya carpinifolia	25.5	0.05	0.6	50	7	Competitor
Turkey oak (3) Quercus cerris	25	0.05	0.6	49	24	Competitor
European hop-hornbeam (309) Ostrya carpinifolia	25	0.05	0.7	53	51	Competitor
Turkey oak (34) Quercus cerris	25	0.05	0.7	53	24	Competitor
Turkey oak (107) Quercus cerris	25	0.05	0.6	47	24	Competitor
Turkey oak (219) Quercus cerris	24.5	0.05	0.5	41	24	Competitor
Turkey oak (365) Quercus cerris	24.5	0.05	0.6	46	0	Competitor
Turkey oak (366) Quercus cerris	24	0.05	0.6	46	24	Competitor
Turkey oak (139) Quercus cerris	24	0.05	0.6	46	28	Competitor
Turkey oak (370) Quercus cerris	24	0.05	0.6	42	24	Competitor
Turkey oak (260) Quercus cerris	24	0.05	0.5	41	44	Competitor
European hop-hornbeam (340) Ostrya carpinifolia	23.5	0.04	0.5	38	24	Competitor
Turkey oak (96) Quercus cerris	23	0.04	0.5	39	24	Competitor
Turkey oak (335) Quercus cerris	23	0.04	0.6	44	0	Competitor
Turkey oak (102) Quercus cerris	23	0.04	0.5	38	24	Competitor
European hop-hornbeam (344) Ostrya carpinifolia	22.5	0.04	0.4	33	0	Competitor
European hop-hornbeam (354) Ostrya carpinifolia	22.5	0.04	0.4	29	0	Competitor
European hop-hornbeam (48) Ostrya carpinifolia	22	0.04	0.5	35	38	Competitor
European hop-hornbeam (321)	22	0.04	0.4	34	28	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Ostrya carpinifolia						
Turkey oak (283) Quercus cerris	22	0.04	0.4	32	24	Competitor
Turkey oak (368) Quercus cerris	22	0.04	0.4	34	0	Competitor
hornbeam (291) Carpinus betulus	21.5	0.04	0.5	35	24	Competitor
European hop-hornbeam (35) Ostrya carpinifolia	21.5	0.04	0.5	41	6	Competitor
European hop-hornbeam (272) Ostrya carpinifolia	21	0.04	0.4	30	24	Competitor
Turkey oak (277) Quercus cerris	21	0.04	0.3	21	24	Competitor
European hop-hornbeam (248) Ostrya carpinifolia	21	0.04	0.4	29	24	Competitor
European hop-hornbeam (308) Ostrya carpinifolia	21	0.04	0.4	33	48	Competitor
European hop-hornbeam (301) Ostrya carpinifolia	20.5	0.03	0.4	28	24	Competitor
Turkey oak (280) Quercus cerris	20.5	0.03	0.3	24	24	Competitor
European hop-hornbeam (247) Ostrya carpinifolia	20	0.03	0.3	26	24	Competitor
European hop-hornbeam (225) Ostrya carpinifolia	20	0.03	0.3	24	24	Competitor
Turkey oak (255) Quercus cerris	19.5	0.03	0.3	20	6	Competitor
European hop-hornbeam (234) Ostrya carpinifolia	19	0.03	0.3	23	24	Competitor
European hop-hornbeam (243) Ostrya carpinifolia	19	0.03	0.2	18	24	Competitor
European hop-hornbeam (245) Ostrya carpinifolia	18.5	0.03	0.3	19	4	Competitor
Turkey oak (363) Quercus cerris	18.5	0.03	0.3	25	0	Competitor
Turkey oak (103) Quercus cerris	18	0.03	0.3	22	40	Competitor
Turkey oak (312) Quercus cerris	18	0.03	0.2	19	28	Competitor
Turkey oak (253) Quercus cerris	18	0.03	0.2	17	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
European hop-hornbeam (196) <i>Ostrya carpinifolia</i>	17	0.02	0.3	20	0	Competitor
European hop-hornbeam (269) <i>Ostrya carpinifolia</i>	17	0.02	0.2	14	24	Competitor
Italian maple (249) <i>Acer opalus</i>	13.5	0.01	0.1	9	28	Competitor
European hop-hornbeam (222) <i>Ostrya carpinifolia</i>	13	0.01	0.1	7	24	Competitor

Retention trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (16) Quercus cerris	60	0.28	4.6	351	72	Elite tree
Turkey oak (287) Quercus cerris	57	0.26	4.3	330	24	Elite tree
Turkey oak (13) Quercus cerris	56.5	0.25	3.7	281	144	Elite tree
Turkey oak (326) Quercus cerris	53	0.22	3.9	299	66	Elite tree
Turkey oak (101) Quercus cerris	51	0.2	3.3	253	66	Elite tree
Turkey oak (384) Quercus cerris	51	0.2	3	229	60	Elite tree
Turkey oak (306) Quercus cerris	50	0.2	3.2	246	24	Elite tree
Turkey oak (77) Quercus cerris	50	0.2	3	232	0	Elite tree
Turkey oak (176) Quercus cerris	49	0.19	3	232	60	Elite tree
Turkey oak (52) Quercus cerris	49	0.19	3.2	244	24	Elite tree
Turkey oak (115) Quercus cerris	48	0.18	2.7	205	70	Elite tree
Turkey oak (351) Quercus cerris	47	0.17	2.9	224	24	Elite tree
Turkey oak (212) Quercus cerris	44	0.15	2.5	189	60	Elite tree
Turkey oak (236) Quercus cerris	43	0.15	1.9	143	78	Elite tree
Turkey oak (69) Quercus cerris	43	0.15	2.4	184	24	Elite tree
Turkey oak (315) Quercus cerris	41	0.13	2	152	24	Elite tree
Turkey oak (4) Quercus cerris	38.5	0.12	2	155	24	Elite tree
Turkey oak (191) Quercus cerris	37.5	0.11	1.6	123	45	Elite tree
Turkey oak (172) Quercus cerris	37	0.11	1.5	118	24	Elite tree
Turkey oak (130) Quercus cerris	37	0.11	1.6	119	24	Elite tree
Turkey oak (5)	36	0.1	1.4	111	0	Elite tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (31) Quercus cerris	36	0.1	1.5	115	24	Elite tree
Turkey oak (195) Quercus cerris	35	0.1	1.4	109	0	Elite tree
Italian maple (36) Acer opalus	34.5	0.09	1.2	93	40	Elite tree
Turkey oak (134) Quercus cerris	33	0.09	1.2	94	0	Elite tree
Turkey oak (281) Quercus cerris	32.5	0.08	1	75	24	Elite tree
Turkey oak (223) Quercus cerris	32	0.08	1	79	24	Elite tree
Turkey oak (380) Quercus cerris	31	0.08	1.2	92	24	Elite tree
Italian maple (267) Acer opalus	28	0.06	0.7	52	60	Elite tree
Turkey oak (259) Quercus cerris	23.5	0.04	0.5	40	0	Elite tree