

26/05/2021 Gruppo D 26mag

Site conditions

Altitude: 870 m.a.s.l.

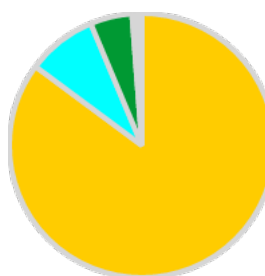
Geology / Bedrock: Alluvial and mixed beds

Soil type: Cambisol – Leptosol with Luvisol of the Central Appenino Mountains.

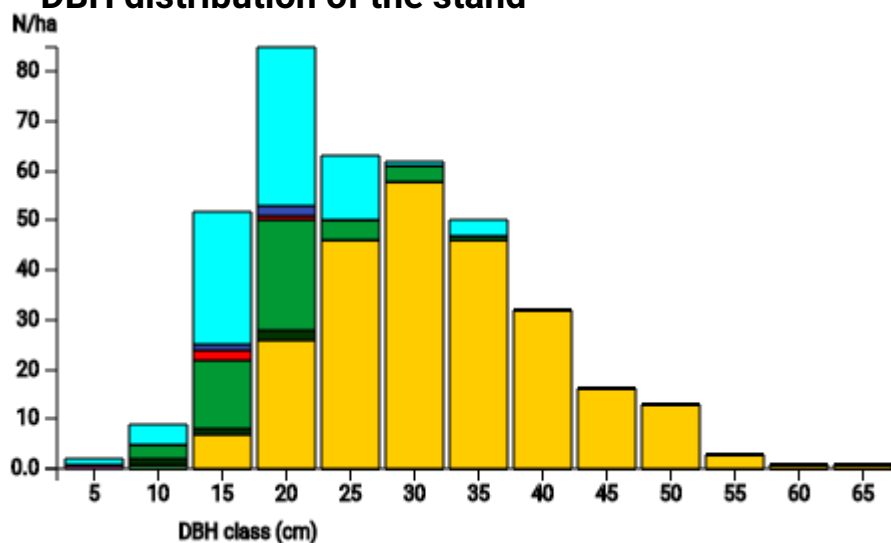
Natural forest community: Aceri obtusati-Quercus cerridis sigmetum

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 %

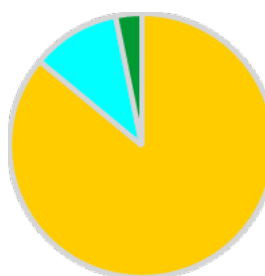
DBH distribution of the stand**Initial stand (details by tree species)**

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 treesVolume: 112.2 m³Basal area: 8 m²

Economic value: 8577 €

Habitat value: 2429 pts.

Removed trees (N in %)

Turkey oak: 86 %

European hop-hornbeam: 10.8 %

Italian maple: 3.2 %

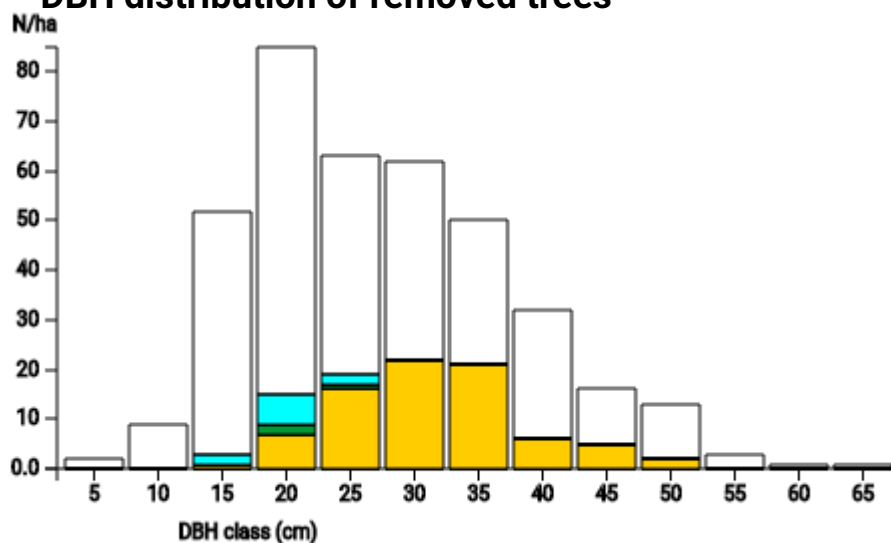
common beech: 0 %

downy oak: 0 %

field maple: 0 %

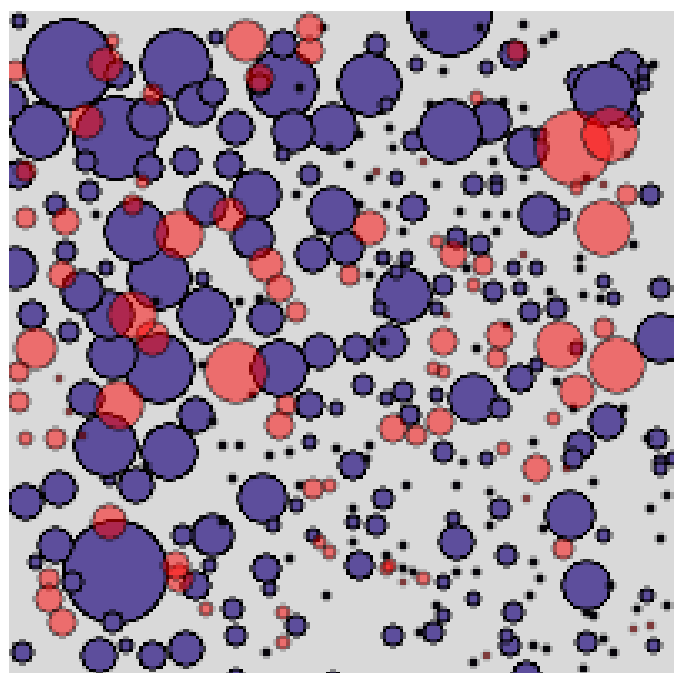
manna ash: 0 %

hornbeam: 0 %

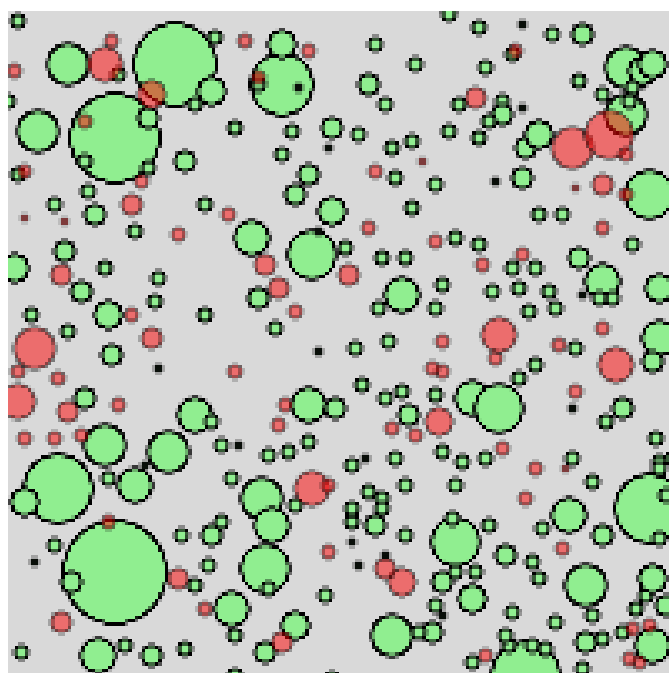
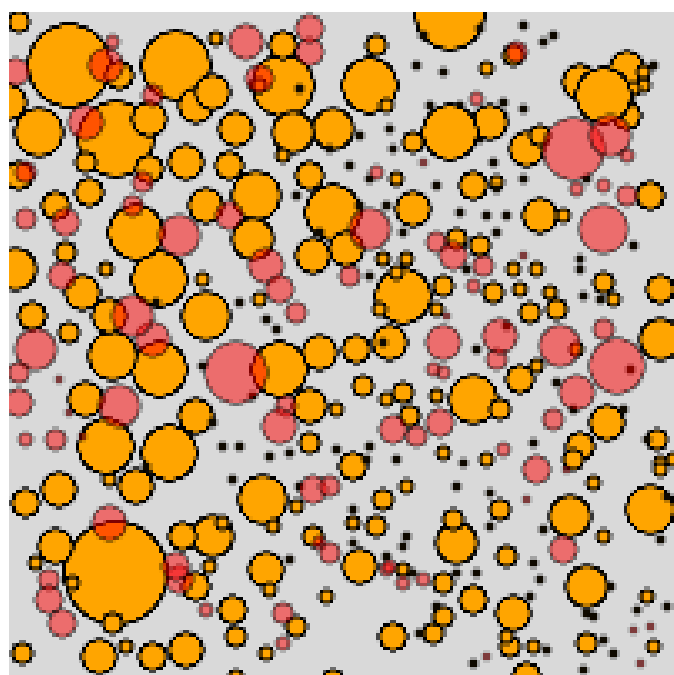
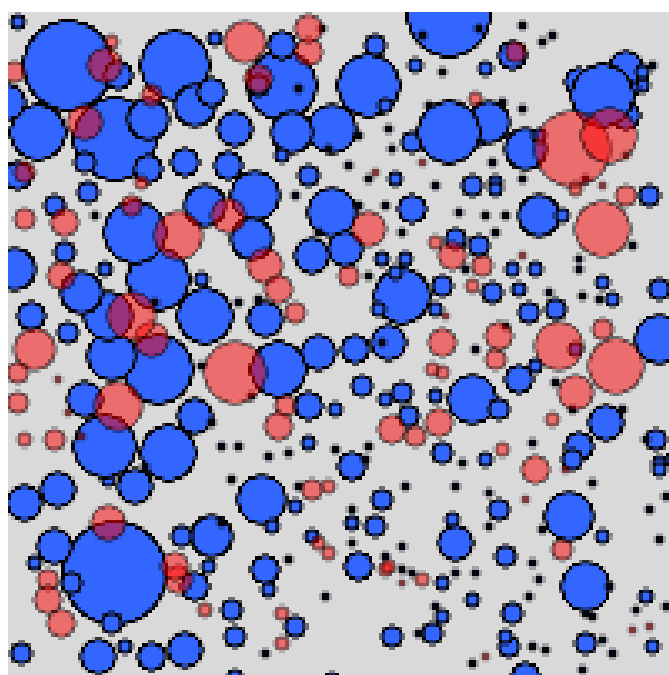
DBH distribution of removed trees**Removed trees (details by tree species)**

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	10	0.4	4.2	323	232	12
Italian maple	3	0.2	2	155	72	5
Turkey oak	80	7.5	105.9	8099	2125	108
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	93	8	112.1	8577	2429	125

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

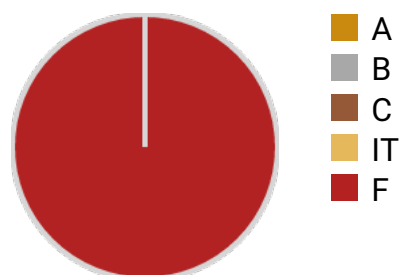
Total value of removed trees: 8577 €

Percentage of total stand value: 27.5 %

Stand value after harvest: 22563 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	0	0
downy oak	0	0
Turkey oak	8099	77
field maple	0	0
Italian maple	155	77
manna ash	0	0
hornbeam	0	0
European hop-hornbeam	323	76
Total	8577	77

**Wood quality distribution
(m³ in %)**

Quality class	m ³	%
A	0	0
B	0	0
C	0	0
Industrial Timber	0	0
Fuelwood	112.1	100

Habitat values

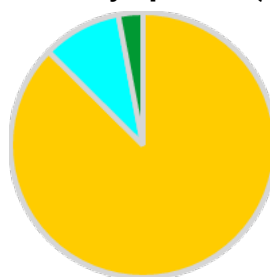
Total habitat value of removed trees: 2429 pts.

Percentage of total stand value: 23 %

Stand value after harvest: 8141 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	2125	20.1	108
field maple	0	0	0
Italian maple	72	35.6	5
manna ash	0	0	0
hornbeam	0	0	0
European hop-hornbeam	232	54.9	12
Total	2429	21.7	125

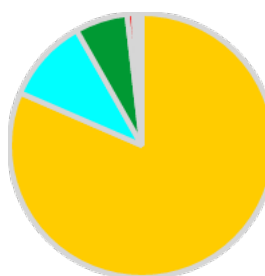
**Habitat value (points) of removed
trees by species (in %)**

Turkey oak	(87.5 %)
European hop-hornbeam	(9.6 %)
Italian maple	(3 %)
common beech	(0 %)
downy oak	(0 %)
field maple	(0 %)
manna ash	(0 %)
hornbeam	(0 %)

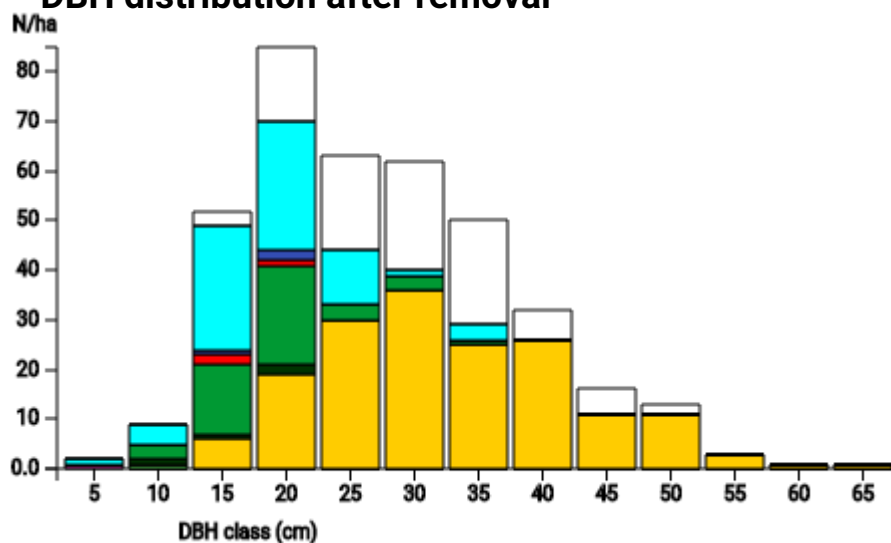
Remaining standVolume: 295 m³Basal area: 22.1 m²

Economic value: 22563 €

Habitat value: 8141 pts.

Remaining trees by volume (m³ in %)

- Turkey oak: 81.6 %
- European hop-hornbeam: 10.3 %
- Italian maple: 6.4 %
- manna ash: 0.8 %
- field maple: 0.5 %
- hornbeam: 0.4 %
- 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	71	2.6	30.4	2324	1437	89
Italian maple	44	1.7	18.7	1433	845	60
Turkey oak	169	17.3	240.5	18401	5682	293
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	296	21.9	294.9	22563	8141	453

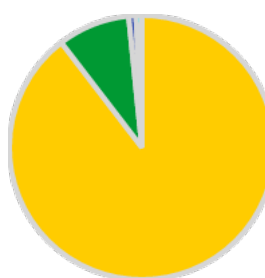
Retention treesVolume: 58.7 m³

Elite trees: 29

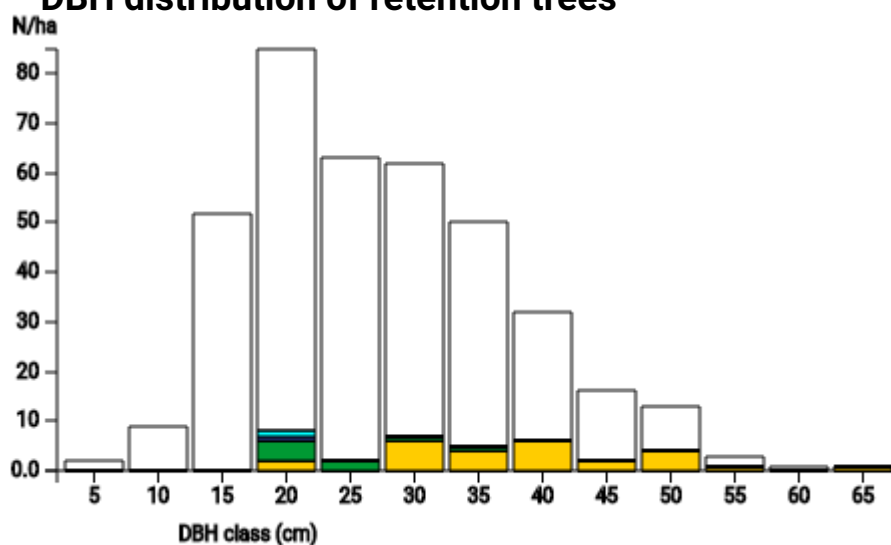
Habitat trees: 1

Economic value: 4492 €

Habitat value: 1347 pts.

Retention trees by volume (m³ in %)

Turkey oak:	89.6 %
Italian maple:	8.8 %
hornbeam:	0.9 %
European hop-hornbeam:	0.7 %
common beech:	0 %
downy oak:	0 %
field maple:	0 %
manna ash:	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	1	0	0.4	29	0	0
Italian maple	8	0.4	5.2	396	247	13
Turkey oak	26	3.6	52.6	4025	1100	57
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	41	0	0
manna ash	0	0	0	0	0	0
Total	36	4.1	58.7	4492	1347	70

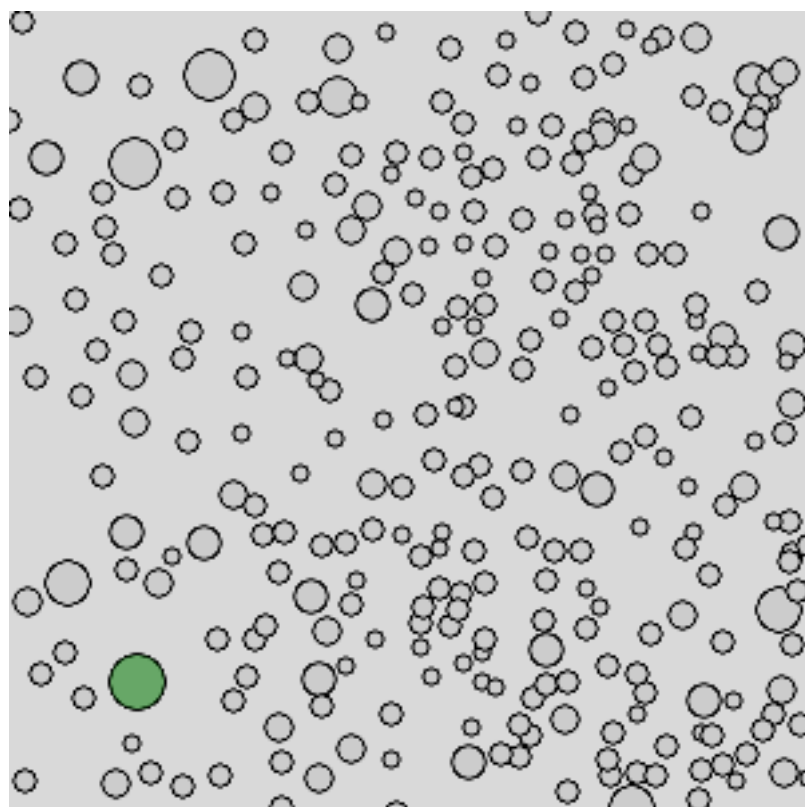
Number of habitat trees	[N]	1
Habitat value	pts.	174
	[% of total]	1.6
Economic value	[€]	409
	[% of total]	1.3
Number of microhabitats	[N]	13
	[% of total]	2.2

Habitat tree distribution by species (N in %)

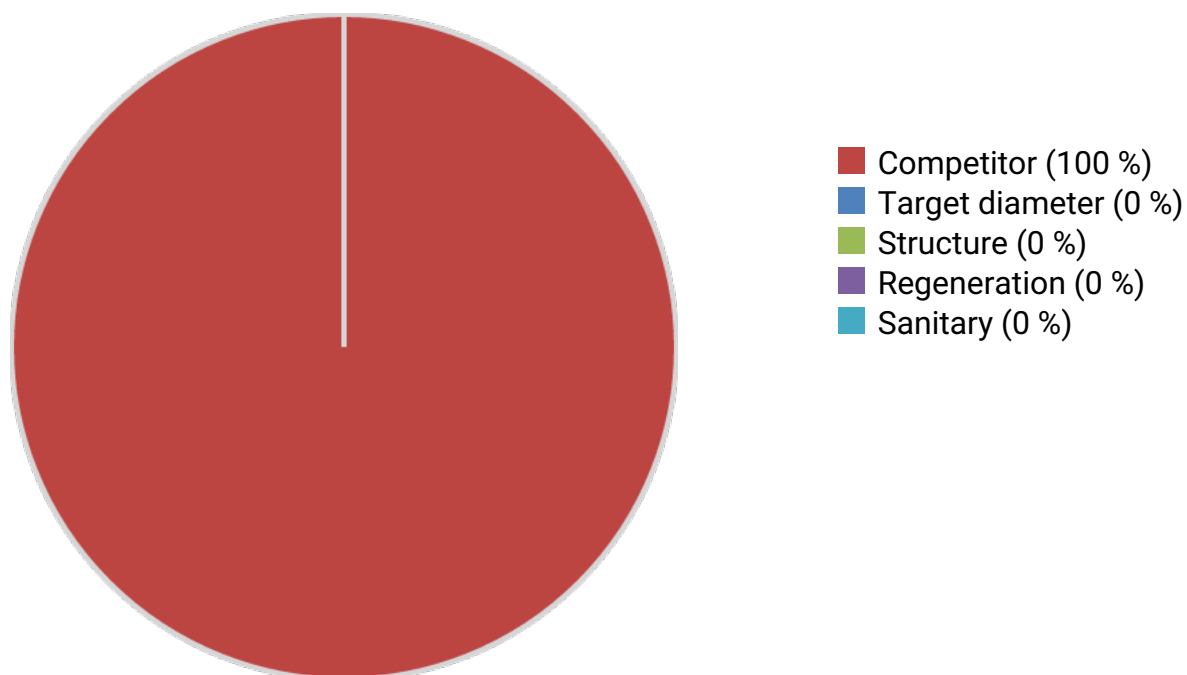


■	Turkey oak: 100 %
■	common beech: 0 %
■	downy oak: 0 %
■	field maple: 0 %
■	Italian maple: 0 %
■	manna ash: 0 %
■	hornbeam: 0 %
■	European hop-hornbeam: 0 %

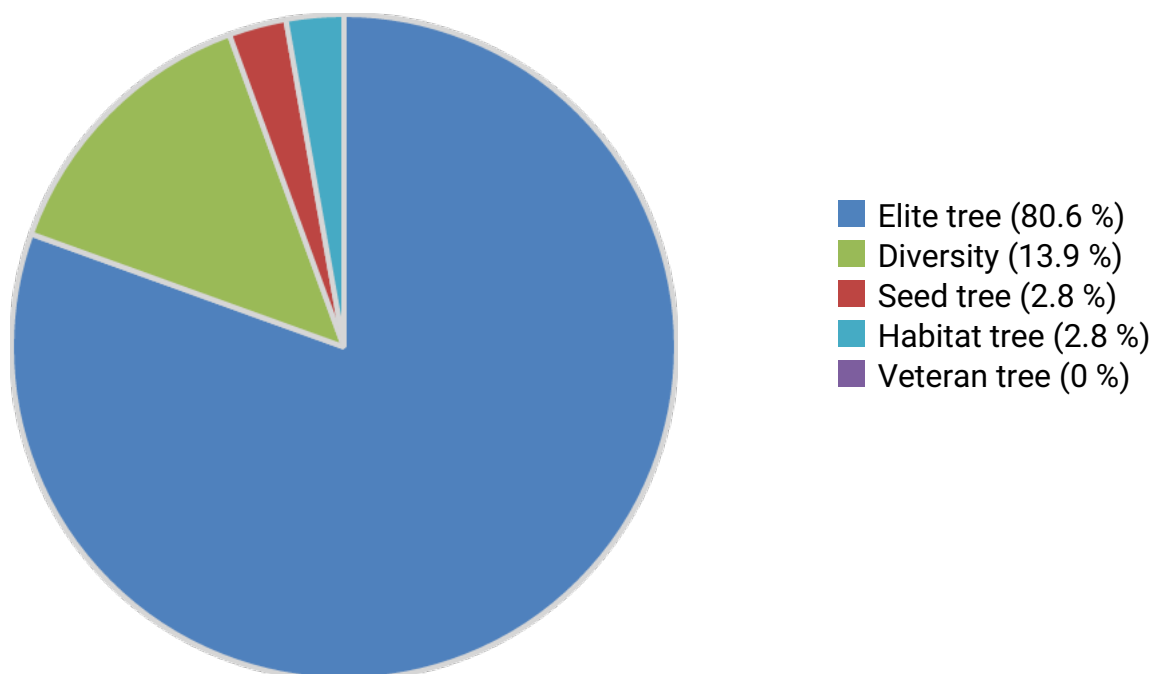
Spatial distribution of habitat trees



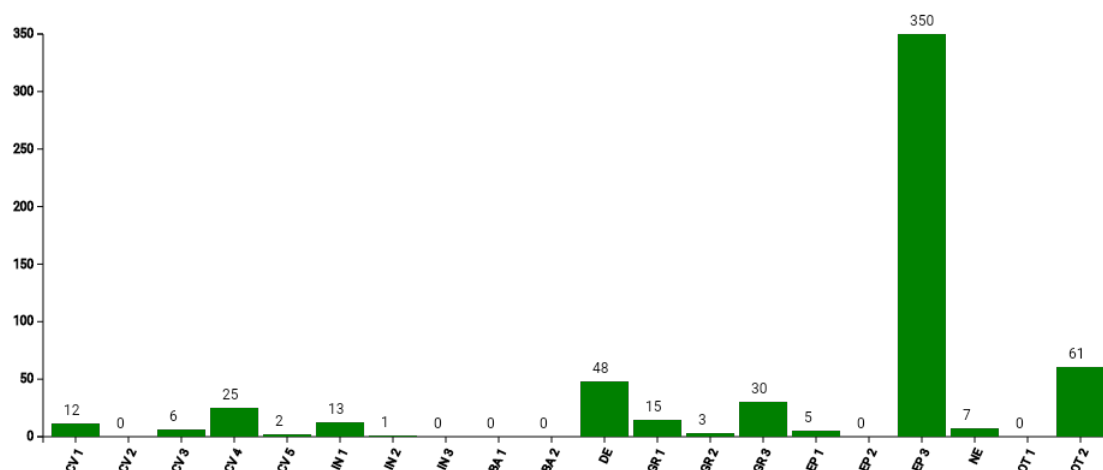
Reasons for removal



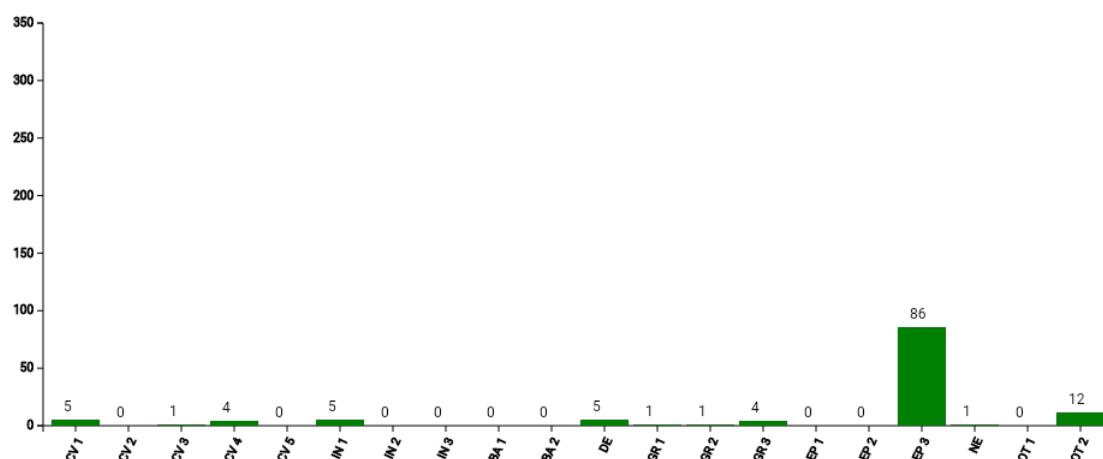
Reasons for retention



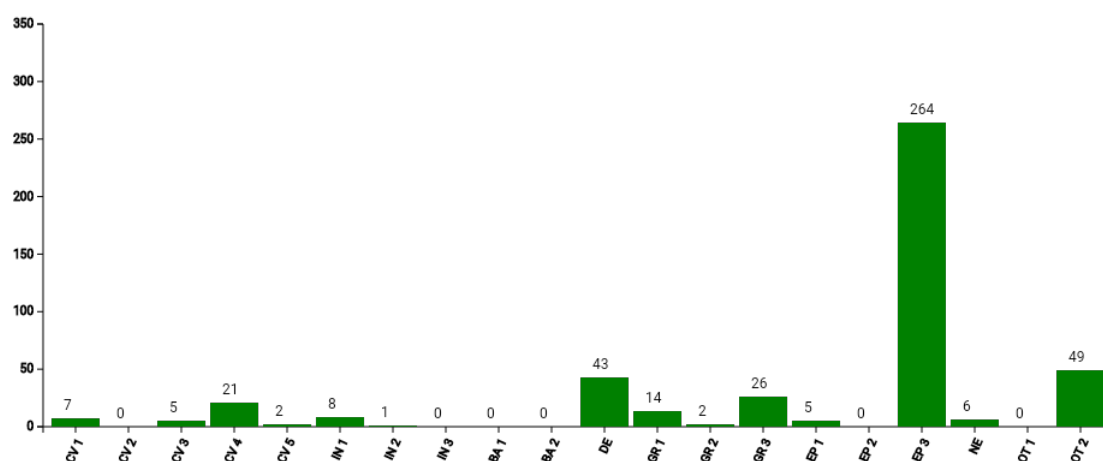
Distribution of tree microhabitats by code (N total)



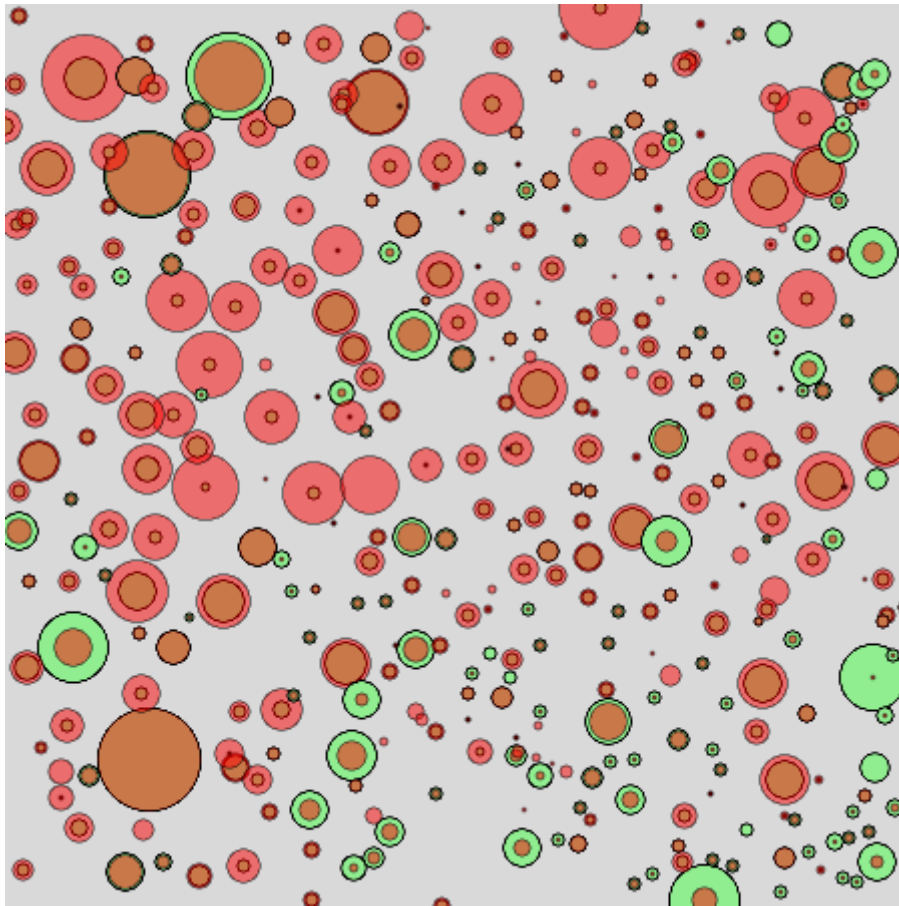
Removed tree microhabitats by code (N removed)



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 (326) Quercus cerris	53	0.22	3.9	299	66	Competitor
Turkey oak (78) Quercus cerris	52	0.21	3.1	238	24	Competitor
Turkey oak (176) Quercus cerris	49	0.19	3	232	60	Competitor
Turkey oak (351) Quercus cerris	47	0.17	2.9	224	24	Competitor
Turkey oak (86) Quercus cerris	45	0.16	2.4	183	24	Competitor
Turkey oak (327) Quercus cerris	45	0.16	2.7	208	76	Competitor
Turkey oak (82) Quercus cerris	45	0.16	2.2	169	64	Competitor
Turkey oak (51) Quercus cerris	44	0.15	2.5	191	24	Competitor
Turkey oak (167) Quercus cerris	43.5	0.15	2.4	181	24	Competitor
Turkey oak (69) Quercus cerris	43	0.15	2.4	184	24	Competitor
Turkey oak (360) Quercus cerris	43	0.15	1.9	149	24	Competitor
Turkey oak (15) Quercus cerris	41.5	0.14	1.9	142	60	Competitor
Turkey oak (27) Quercus cerris	40	0.13	1.9	145	24	Competitor
Turkey oak (75) Quercus cerris	39.5	0.12	1.7	131	36	Competitor
Turkey oak (116) Quercus cerris	39	0.12	1.9	146	18	Competitor
Turkey oak (90) Quercus cerris	39	0.12	1.6	121	28	Competitor
Turkey oak (4) Quercus cerris	38.5	0.12	2	155	24	Competitor
Turkey oak (175) Quercus cerris	38.5	0.12	1.7	127	24	Competitor
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 (159) Quercus cerris	38	0.11	1.5	117	27	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (191) Quercus cerris	37.5	0.11	1.6	123	45	Competitor
Turkey oak (62) Quercus cerris	37.5	0.11	1.6	119	30	Competitor
Turkey oak (131) Quercus cerris	37	0.11	1.5	116	40	Competitor
Turkey oak (46) Quercus cerris	36.5	0.11	1.7	132	24	Competitor
Turkey oak (104) Quercus cerris	36.5	0.11	1.2	94	60	Competitor
Turkey oak (6) Quercus cerris	36	0.1	1.4	111	0	Competitor
Turkey oak (367) Quercus cerris	36	0.1	1.5	113	0	Competitor
Turkey oak (132) Quercus cerris	36	0.1	1.5	111	4	Competitor
Turkey oak (55) Quercus cerris	36	0.1	1.5	113	40	Competitor
Turkey oak (8) Quercus cerris	35.5	0.1	1.3	98	24	Competitor
Turkey oak (137) Quercus cerris	35.5	0.1	1.4	111	30	Competitor
Turkey oak (203) Quercus cerris	35.5	0.1	1.4	105	28	Competitor
Turkey oak (11) Quercus cerris	35	0.1	1.5	116	18	Competitor
Turkey oak (188) Quercus cerris	34.5	0.09	1.4	109	24	Competitor
Turkey oak (226) Quercus cerris	34.5	0.09	1.2	94	24	Competitor
Turkey oak (112) Quercus cerris	34.5	0.09	1.2	95	60	Competitor
Turkey oak (136) Quercus cerris	34	0.09	1.3	103	4	Competitor
Turkey oak (17) Quercus cerris	34	0.09	1.2	90	24	Competitor
Turkey oak (42) Quercus cerris	34	0.09	1.3	98	12	Competitor
Turkey oak (362) Quercus cerris	33.5	0.09	1.1	87	40	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
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 (134) Quercus cerris	33	0.09	1.2	94	0	Competitor
Turkey oak (19) Quercus cerris	33	0.09	1.2	93	50	Competitor
Turkey oak (41) Quercus cerris	32.5	0.08	1.2	89	12	Competitor
Turkey oak (83) Quercus cerris	32	0.08	1.1	87	24	Competitor
Turkey oak (106) Quercus cerris	32	0.08	1.1	81	24	Competitor
Turkey oak (29) Quercus cerris	32	0.08	1	79	24	Competitor
Turkey oak (181) Quercus cerris	31	0.08	0.9	68	0	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 (73) Quercus cerris	30	0.07	1.1	85	28	Competitor
Turkey oak (168) Quercus cerris	30	0.07	1	74	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 (111) Quercus cerris	29.5	0.07	0.8	63	24	Competitor
Turkey oak (369) Quercus cerris	29.5	0.07	1	79	24	Competitor
Italian maple (330) Acer opalus	29.5	0.07	1	73	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

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
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 (141) Quercus cerris	27	0.06	0.8	59	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 (125) Quercus cerris	26	0.05	0.7	53	0	Competitor
Turkey oak (171) Quercus cerris	25.5	0.05	0.6	48	24	Competitor
European hop-hornbeam (192) Ostrya carpinifolia	25	0.05	0.6	44	24	Competitor
Italian maple (331) Acer opalus	24	0.05	0.5	39	40	Competitor
Turkey oak (260) Quercus cerris	24	0.05	0.5	41	44	Competitor
European hop-hornbeam (328) Ostrya carpinifolia	24	0.05	0.5	40	28	Competitor
European hop-hornbeam (340) Ostrya carpinifolia	23.5	0.04	0.5	38	24	Competitor
Italian maple (333) Acer opalus	23.5	0.04	0.6	42	8	Competitor
Turkey oak (84) Quercus cerris	23	0.04	0.5	36	24	Competitor
Turkey oak (102) Quercus cerris	23	0.04	0.5	38	24	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (356) <i>Quercus cerris</i>	22.5	0.04	0.5	40	24	Competitor
Turkey oak (202) <i>Quercus cerris</i>	22.5	0.04	0.5	41	12	Competitor
European hop-hornbeam (322) <i>Ostrya carpinifolia</i>	22	0.04	0.5	38	6	Competitor
Turkey oak (386) <i>Quercus cerris</i>	21	0.04	0.4	29	4	Competitor
European hop-hornbeam (211) <i>Ostrya carpinifolia</i>	21	0.04	0.3	26	24	Competitor
European hop-hornbeam (248) <i>Ostrya carpinifolia</i>	21	0.04	0.4	29	24	Competitor
Turkey oak (280) <i>Quercus cerris</i>	20.5	0.03	0.3	24	24	Competitor
European hop-hornbeam (247) <i>Ostrya carpinifolia</i>	20	0.03	0.3	26	24	Competitor
Turkey oak (103) <i>Quercus cerris</i>	18	0.03	0.3	22	40	Competitor
European hop-hornbeam (269) <i>Ostrya carpinifolia</i>	17	0.02	0.2	14	24	Competitor
European hop-hornbeam (270) <i>Ostrya carpinifolia</i>	15	0.02	0.1	10	24	Competitor

Retention trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (133) Quercus cerris	68	0.36	5.4	409	174	Habitat tree
Turkey oak (13) Quercus cerris	56.5	0.25	3.7	281	144	Elite tree
Turkey oak (101) Quercus cerris	51	0.2	3.3	253	66	Elite tree
Turkey oak (317) Quercus cerris	51	0.2	3.2	249	24	Diversity
Turkey oak (57) Quercus cerris	51	0.2	3.4	258	24	Diversity
Turkey oak (306) Quercus cerris	50	0.2	3.2	246	24	Diversity
Turkey oak (52) Quercus cerris	49	0.19	3.2	244	24	Elite tree
Turkey oak (59) Quercus cerris	45	0.16	2.3	174	60	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	Diversity
Turkey oak (18) Quercus cerris	41	0.13	1.7	132	28	Elite tree
Turkey oak (361) Quercus cerris	40	0.13	1.9	147	24	Elite tree
Turkey oak (150) Quercus cerris	40	0.13	1.8	139	60	Elite tree
Turkey oak (85) Quercus cerris	40	0.13	1.8	141	30	Seed tree
Turkey oak (130) Quercus cerris	37	0.11	1.6	119	24	Elite tree
Turkey oak (14) Quercus cerris	35.5	0.1	1.6	122	24	Elite tree
Turkey oak (5) Quercus cerris	35.5	0.1	1.5	118	52	Elite tree
Turkey oak (40) Quercus cerris	35	0.1	1.5	114	24	Elite tree
Italian maple (313) Acer opalus	35	0.1	1.3	101	64	Elite tree
Turkey oak (146) Quercus cerris	33.5	0.09	0.9	72	48	Elite tree
Turkey oak (294)	33	0.09	1.3	101	24	Elite tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
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 (124) Quercus cerris	31.5	0.08	0.9	65	0	Elite tree
Turkey oak (189) Quercus cerris	31.5	0.08	1.1	81	36	Elite tree
Italian maple (318) Acer opalus	30	0.07	0.9	71	27	Elite tree
Italian maple (166) Acer opalus	28	0.06	0.8	60	24	Elite tree
Italian maple (267) Acer opalus	28	0.06	0.7	52	60	Elite tree
Italian maple (63) Acer opalus	24.5	0.05	0.5	38	40	Elite tree
Turkey oak (259) Quercus cerris	23.5	0.04	0.5	40	0	Elite tree
hornbeam (332) Carpinus betulus	23	0.04	0.5	41	0	Elite tree
European hop-hornbeam (354) Ostrya carpinifolia	22.5	0.04	0.4	29	0	Diversity
Italian maple (89) Acer opalus	22	0.04	0.3	23	4	Elite tree
Turkey oak (368) Quercus cerris	22	0.04	0.4	34	0	Elite tree
Italian maple (193) Acer opalus	21.5	0.04	0.4	29	4	Elite tree
Italian maple (65) Acer opalus	21	0.04	0.3	24	24	Elite tree