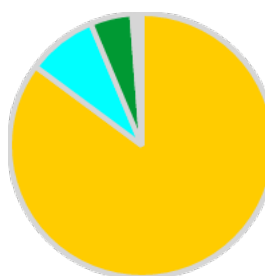


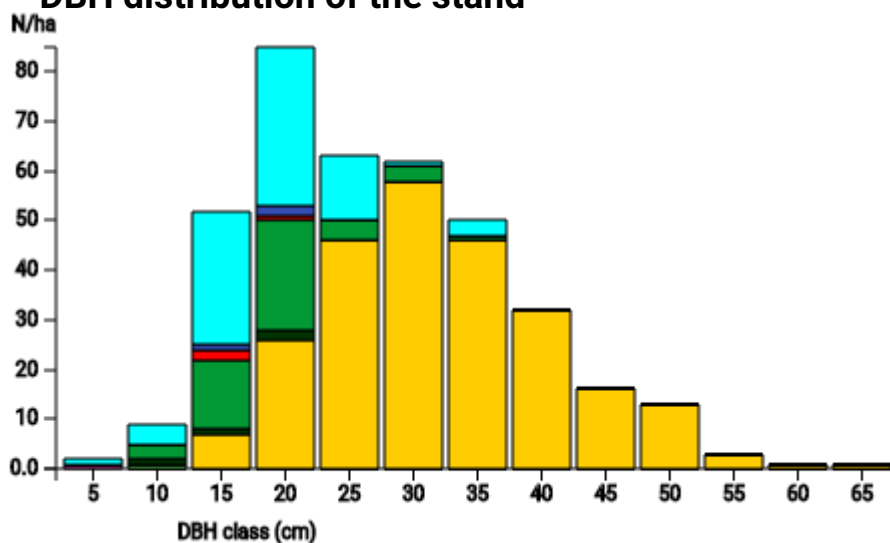
12/05/2021 Sala_prod_gruppo a 12.05.21

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 %

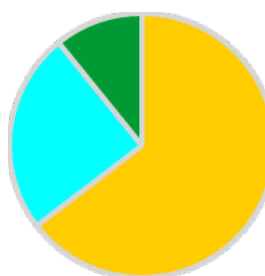
DBH distribution of the stand**Initial stand (details by tree species)**

Tree species	N/ha	Basal area (m²)	Volume (m³)	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

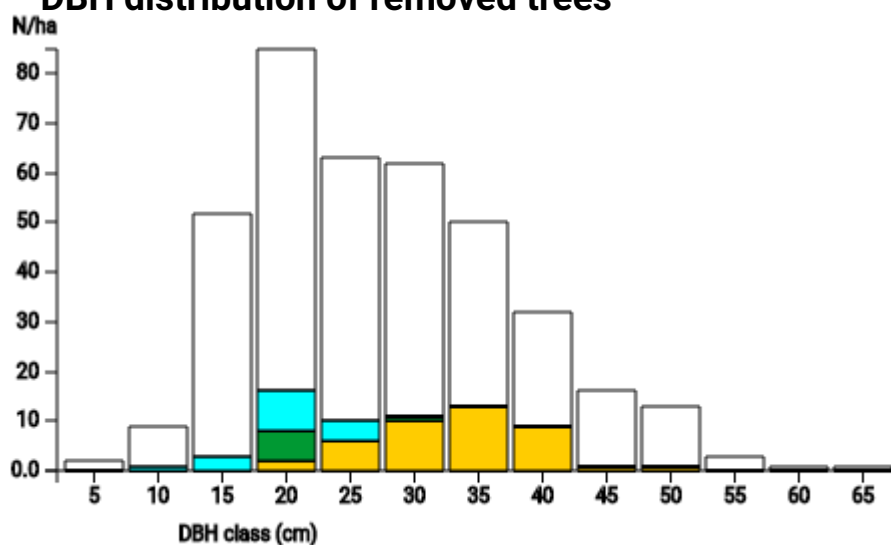
Removed treesVolume: 71.7 m³Basal area: 5.2 m²

Economic value: 5490 €

Habitat value: 1568 pts.

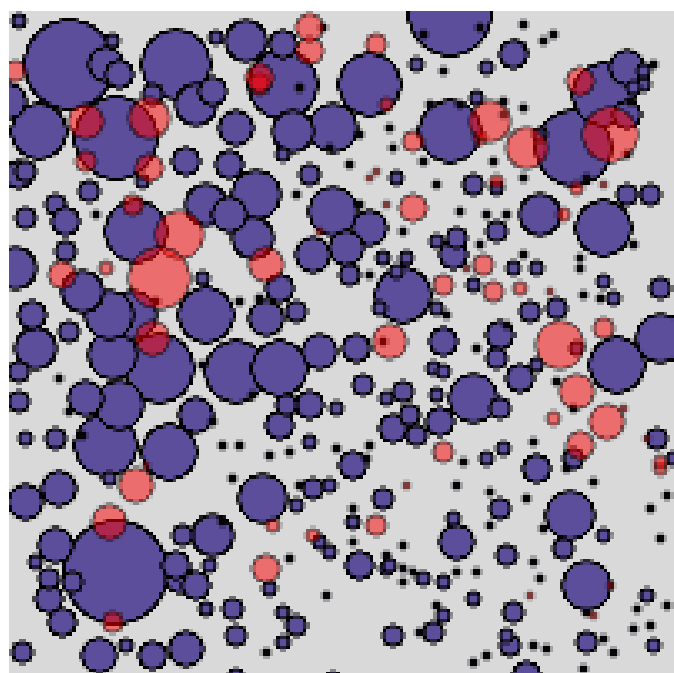
Removed trees (N in %)

- Turkey oak: 64.6 %
- European hop-hornbeam: 24.6 %
- Italian maple: 10.8 %
- common beech: 0 %
- downy oak: 0 %
- field maple: 0 %
- manna ash: 0 %
- hornbeam: 0 %

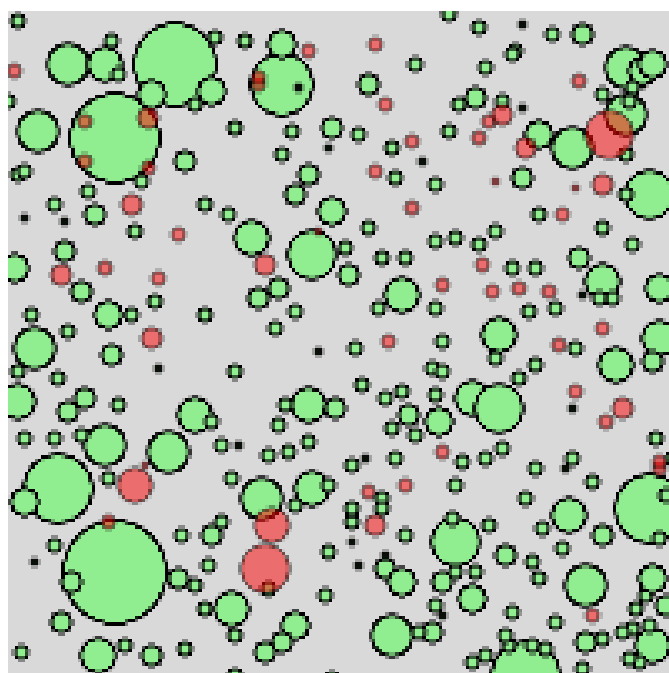
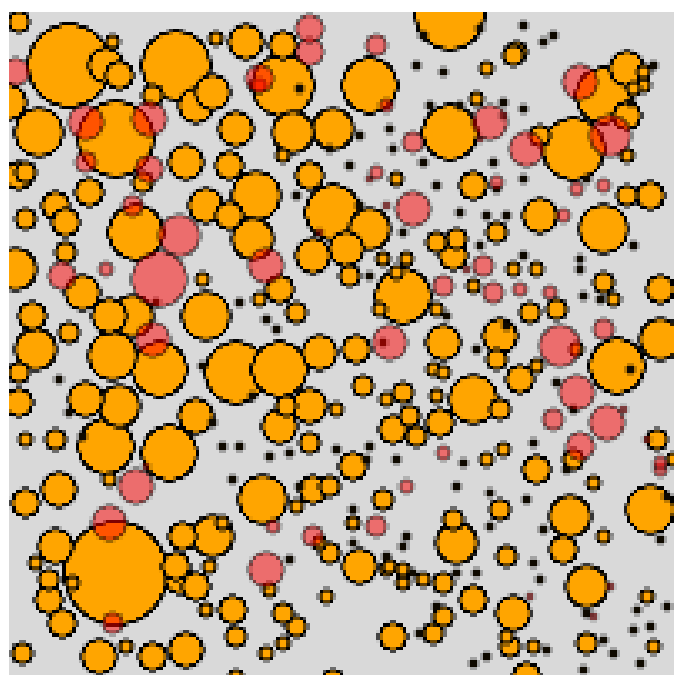
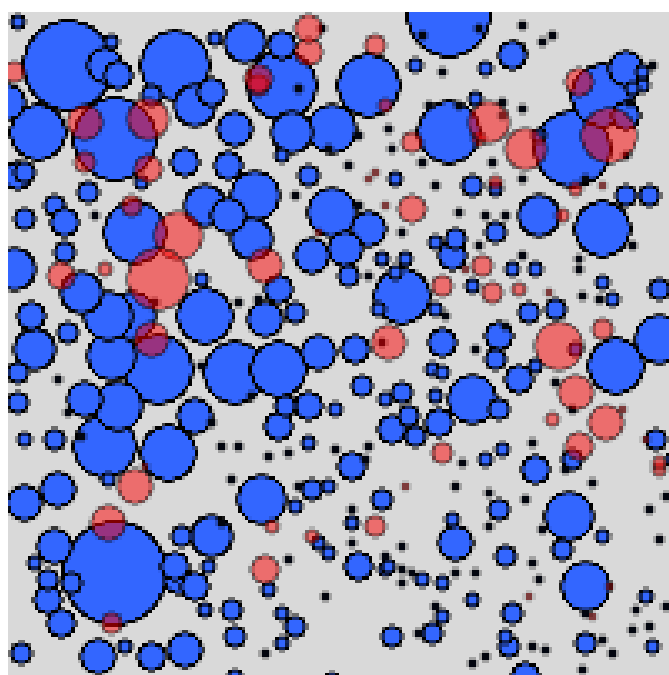
DBH distribution of removed trees**Removed trees (details by tree species)**

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	16	0.6	7.3	555	271	16
Italian maple	7	0.3	3.9	296	181	13
Turkey oak	42	4.2	60.7	4640	1116	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	0	0	0	0	0	0
manna ash	0	0	0	0	0	0
Total	65	5.2	71.8	5490	1568	86

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.

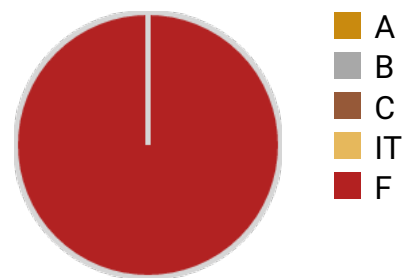
Economic values

Total value of removed trees: 5490 €
 Percentage of total stand value: 17.6 %
 Stand value after harvest: 25649 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	0	0
downy oak	0	0
Turkey oak	4640	76
field maple	0	0
Italian maple	296	77
manna ash	0	0
hornbeam	0	0
European hop-hornbeam	555	77
Total	5490	76

Wood quality distribution (m³ in %)



Quality class	m ³	%
A	0	0
B	0	0
C	0	0
Industrial Timber	0	0
Fuelwood	71.8	100

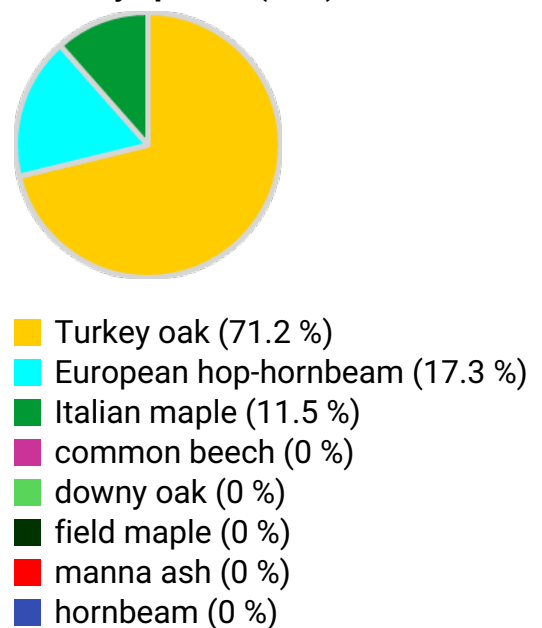
Habitat values

Total habitat value of removed trees: 1568 pts.
 Percentage of total stand value: 14.8 %
 Stand value after harvest: 9002 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	1116	18.4	57
field maple	0	0	0
Italian maple	181	46.8	13
manna ash	0	0	0
hornbeam	0	0	0
European hop-hornbeam	271	37.4	16
Total	1568	21.8	86

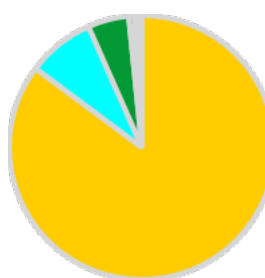
Habitat value (points) of removed trees by species (in %)



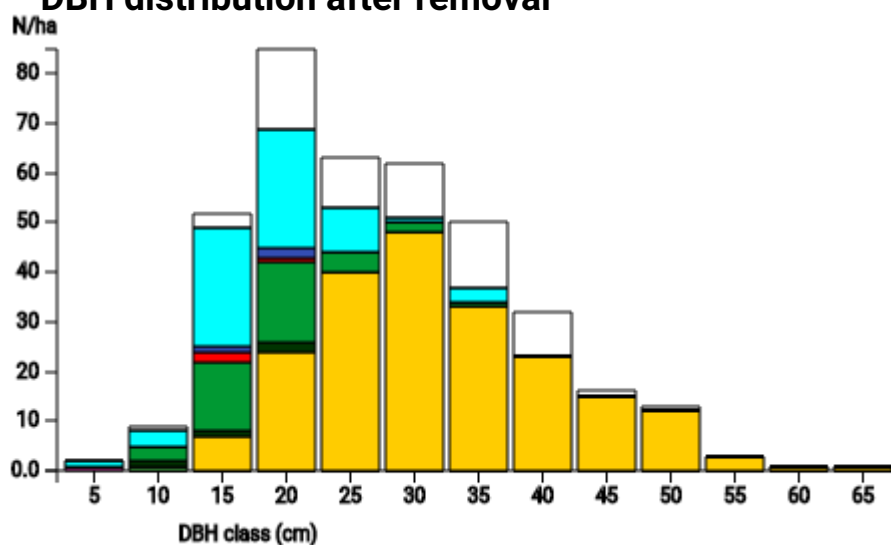
Remaining standVolume: 335.5 m³Basal area: 25 m²

Economic value: 25649 €

Habitat value: 9002 pts.

Remaining trees by volume (m³ in %)

Turkey oak: 85.2 %
European hop-hornbeam: 8.2 %
Italian maple: 5 %
manna ash: 0.7 %
field maple: 0.4 %
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	65	2.4	27.3	2092	1398	85
Italian maple	40	1.5	16.9	1292	736	52
Turkey oak	207	20.5	285.7	21859	6691	344
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	324	24.7	335.3	25649	9002	492

Retention treesVolume: 73.3 m³

Elite trees: 14

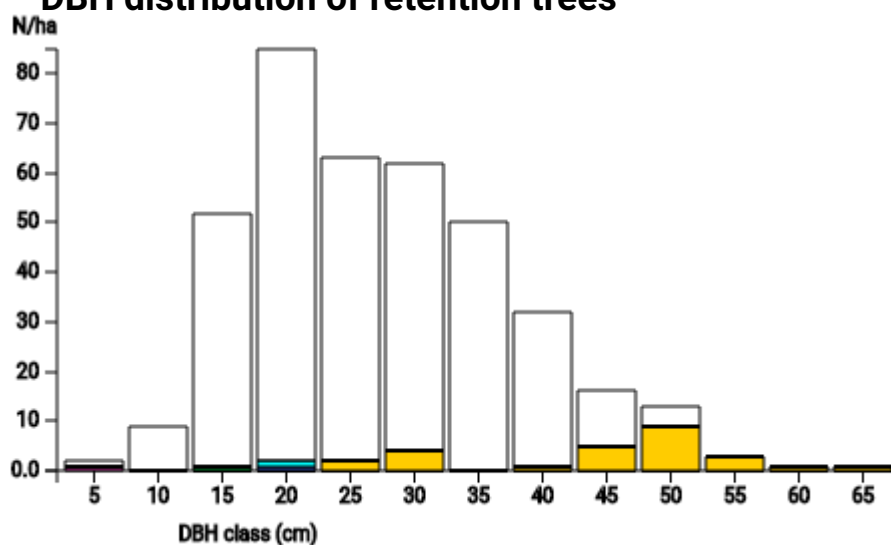
Habitat trees: 13

Economic value: 5610 €

Habitat value: 1497 pts.

Retention trees by volume (m³ in %)

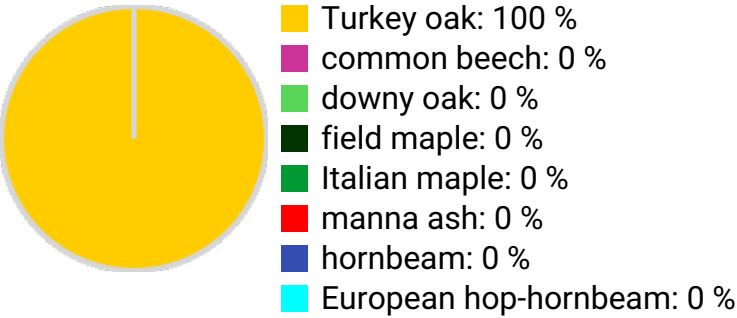
Turkey oak:	98 %
hornbeam:	0.7 %
European hop-hornbeam:	0.6 %
Italian maple:	0.4 %
common beech:	0.3 %
downy oak:	0 %
field maple:	0 %
manna ash:	0 %

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

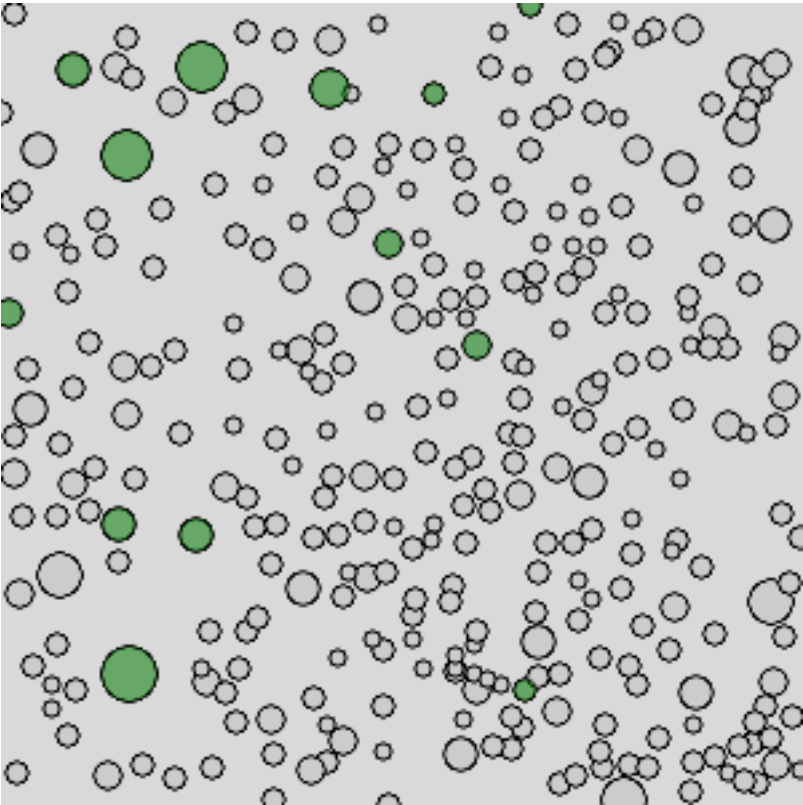
Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	1	0	0.4	34	30	2
Italian maple	1	0	0.3	22	12	1
Turkey oak	26	4.7	71.9	5497	1455	91
common beech	1	0	0.2	16	0	0
downy oak	0	0	0	0	0	0
field maple	0	0	0	0	0	0
hornbeam	1	0	0.5	41	0	0
manna ash	0	0	0	0	0	0
Total	30	4.8	73.3	5610	1497	94

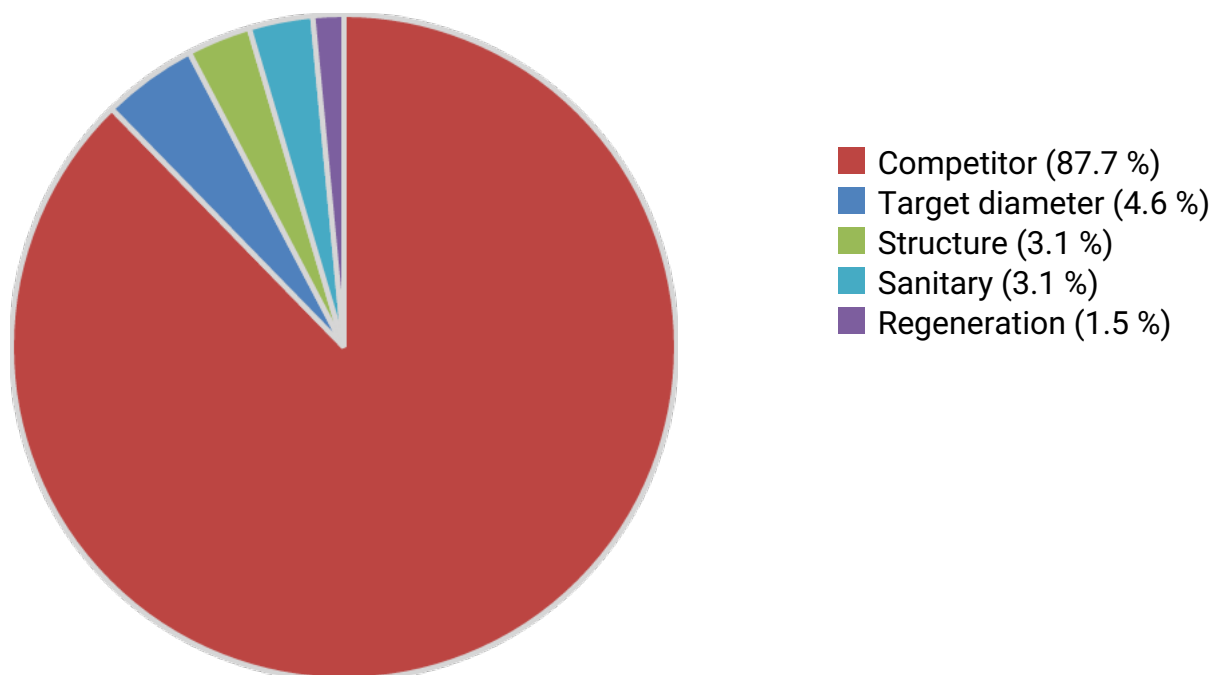
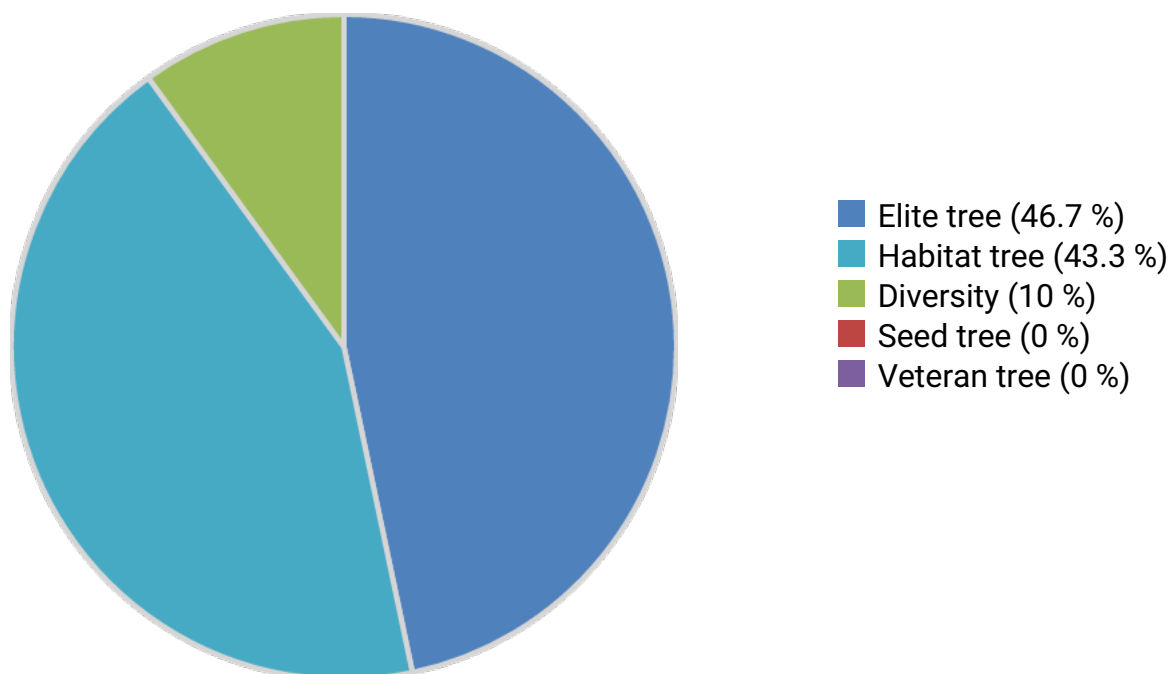
Number of habitat trees	[N]	13
Habitat value	pts.	1017
	[% of total]	9.6
Economic value	[€]	3331
	[% of total]	10.7
Number of microhabitats	[N]	68
	[% of total]	11.8

Habitat tree distribution
by species (N in %)

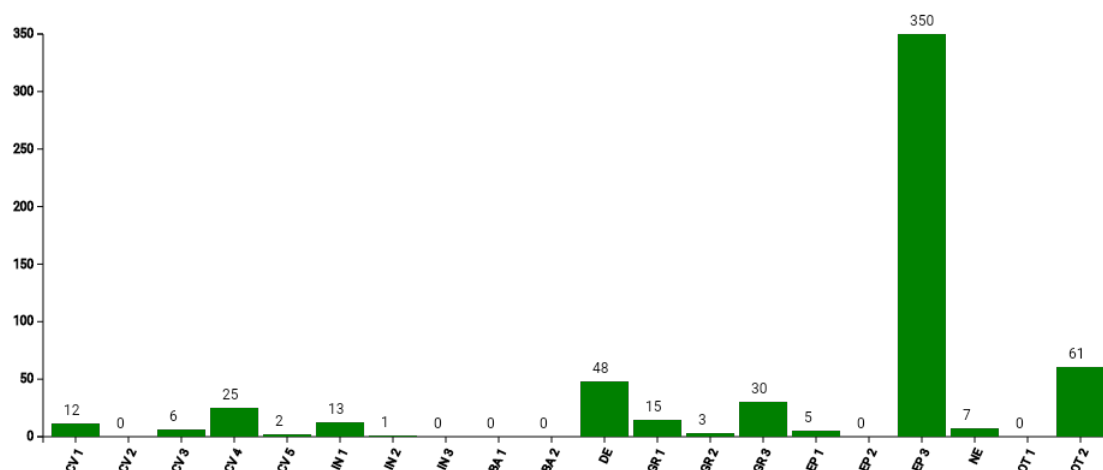


Spatial distribution of habitat trees

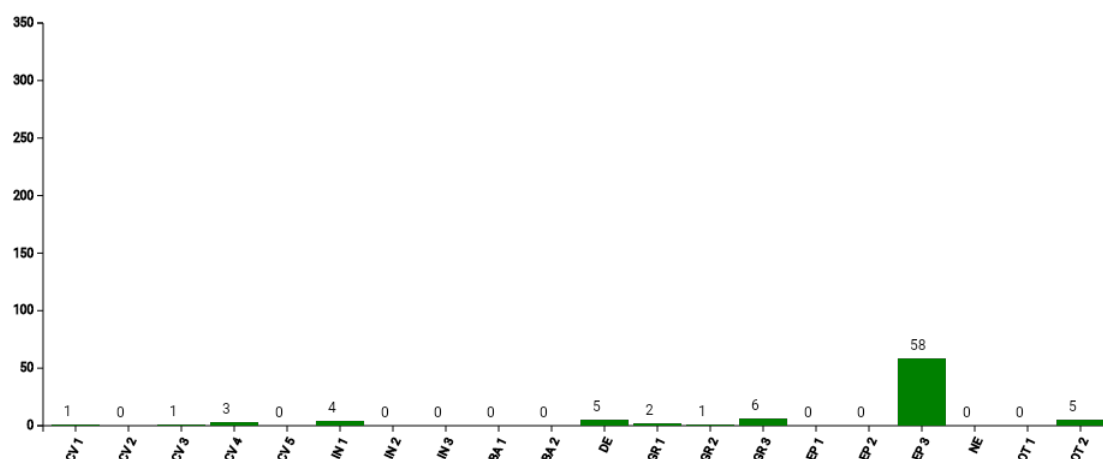


Reasons for removal**Reasons for retention**

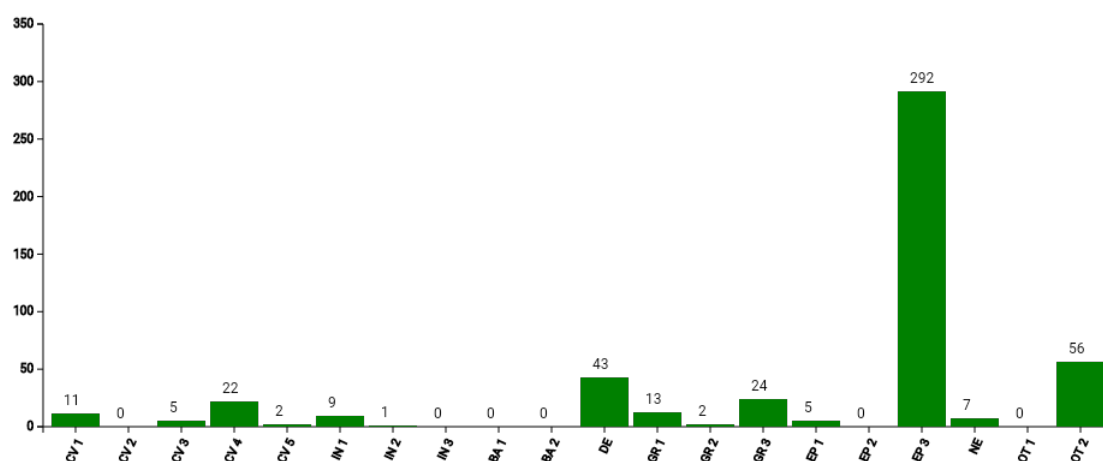
Distribution of tree microhabitats by code (N total)



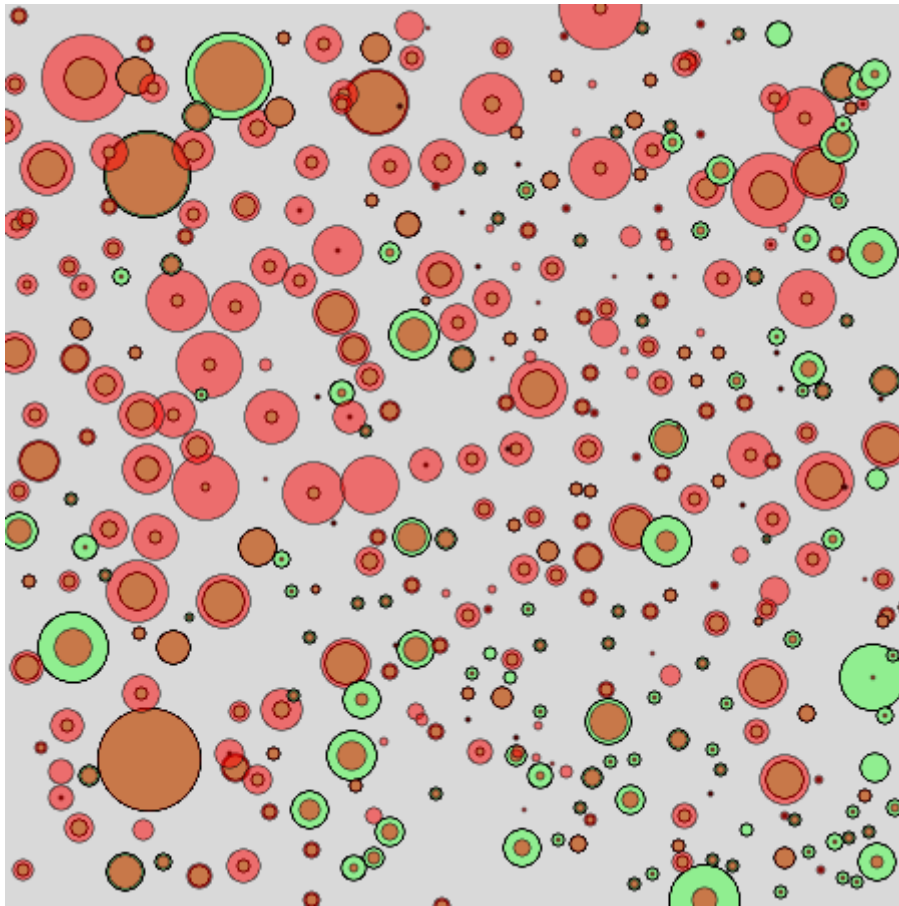
Removed tree microhabitats by code (N removed)



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 (57) Quercus cerris	51	0.2	3.4	258	24	Competitor
Turkey oak (327) Quercus cerris	45	0.16	2.7	208	76	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 (179) Quercus cerris	41.5	0.14	1.7	131	24	Competitor
Turkey oak (25) Quercus cerris	41.5	0.14	2.1	157	36	Competitor
Turkey oak (128) Quercus cerris	41	0.13	1.5	115	82	Target diameter
Turkey oak (315) Quercus cerris	41	0.13	2	152	24	Competitor
Turkey oak (158) Quercus cerris	40	0.13	1.7	126	24	Sanitary
Turkey oak (324) Quercus cerris	40	0.13	2	151	36	Target diameter
Turkey oak (27) Quercus cerris	40	0.13	1.9	145	24	Competitor
Turkey oak (108) Quercus cerris	39.5	0.12	1.8	134	54	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 (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 (345) Quercus cerris	38	0.11	1.3	101	24	Competitor
Turkey oak (305) Quercus cerris	38	0.11	1.6	123	24	Competitor
Turkey oak (6) Quercus cerris	36	0.1	1.4	111	0	Competitor
Turkey oak (31) Quercus cerris	36	0.1	1.5	115	24	Competitor
Turkey oak (55) Quercus cerris	36	0.1	1.5	113	40	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (8) Quercus cerris	35.5	0.1	1.3	98	24	Competitor
Turkey oak (11) Quercus cerris	35	0.1	1.5	116	18	Competitor
Turkey oak (195) Quercus cerris	35	0.1	1.4	109	0	Competitor
Turkey oak (17) Quercus cerris	34	0.09	1.2	90	24	Competitor
Turkey oak (163) Quercus cerris	33	0.09	1.2	89	24	Competitor
Turkey oak (138) Quercus cerris	31.5	0.08	1.1	86	0	Competitor
Turkey oak (124) Quercus cerris	31.5	0.08	0.9	65	0	Target diameter
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 (380) Quercus cerris	31	0.08	1.2	92	24	Competitor
Turkey oak (285) Quercus cerris	31	0.08	1.2	89	24	Competitor
Turkey oak (382) Quercus cerris	30	0.07	0.9	70	24	Competitor
Turkey oak (30) Quercus cerris	30	0.07	0.9	69	24	Competitor
Italian maple (318) Acer opalus	30	0.07	0.9	71	27	Competitor
Turkey oak (369) Quercus cerris	29.5	0.07	1	79	24	Competitor
Turkey oak (44) Quercus cerris	29	0.07	0.9	73	32	Competitor
Turkey oak (206) Quercus cerris	28.5	0.06	0.9	70	24	Structure
Turkey oak (123) Quercus cerris	28	0.06	0.7	57	60	Competitor
European hop-hornbeam (56) Ostrya carpinifolia	28	0.06	0.7	56	24	Structure
Turkey oak (12) Quercus cerris	27.5	0.06	1	80	24	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
European hop-hornbeam (336) <i>Ostrya carpinifolia</i>	26.5	0.06	0.6	47	14	Competitor
European hop-hornbeam (199) <i>Ostrya carpinifolia</i>	26.5	0.06	0.8	61	24	Competitor
Turkey oak (379) <i>Quercus cerris</i>	25.5	0.05	0.6	45	24	Competitor
European hop-hornbeam (299) <i>Ostrya carpinifolia</i>	25	0.05	0.7	51	24	Competitor
Turkey oak (219) <i>Quercus cerris</i>	24.5	0.05	0.5	41	24	Competitor
Italian maple (331) <i>Acer opalus</i>	24	0.05	0.5	39	40	Competitor
Italian maple (350) <i>Acer opalus</i>	24	0.05	0.5	42	28	Competitor
European hop-hornbeam (200) <i>Ostrya carpinifolia</i>	24	0.05	0.7	51	24	Competitor
European hop-hornbeam (378) <i>Ostrya carpinifolia</i>	24	0.05	0.5	41	28	Competitor
European hop-hornbeam (340) <i>Ostrya carpinifolia</i>	23.5	0.04	0.5	38	24	Competitor
Italian maple (333) <i>Acer opalus</i>	23.5	0.04	0.6	42	8	Competitor
Italian maple (316) <i>Acer opalus</i>	23	0.04	0.6	45	24	Competitor
European hop-hornbeam (344) <i>Ostrya carpinifolia</i>	22.5	0.04	0.4	33	0	Competitor
Italian maple (178) <i>Acer opalus</i>	22	0.04	0.4	28	38	Competitor
Turkey oak (368) <i>Quercus cerris</i>	22	0.04	0.4	34	0	Competitor
European hop-hornbeam (246) <i>Ostrya carpinifolia</i>	21.5	0.04	0.5	35	24	Competitor
European hop-hornbeam (231) <i>Ostrya carpinifolia</i>	20.5	0.03	0.3	26	4	Competitor
European hop-hornbeam (314) <i>Ostrya carpinifolia</i>	20.5	0.03	0.3	26	38	Regeneration
European hop-hornbeam (341) <i>Ostrya carpinifolia</i>	20	0.03	0.3	27	3	Competitor
Italian maple (50) <i>Acer opalus</i>	20	0.03	0.4	29	16	Competitor
European hop-hornbeam (245) <i>Ostrya carpinifolia</i>	18.5	0.03	0.3	19	4	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Ostrya carpinifolia						
European hop-hornbeam (109) Ostrya carpinifolia	17.5	0.02	0.2	15	12	Competitor
European hop-hornbeam (196) Ostrya carpinifolia	17	0.02	0.3	20	0	Competitor
European hop-hornbeam (222) Ostrya carpinifolia	13	0.01	0.1	7	24	Sanitary

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 (16) Quercus cerris	60	0.28	4.6	351	72	Habitat tree
Turkey oak (26) Quercus cerris	57.5	0.26	4.3	329	148	Habitat tree
Turkey oak (287) Quercus cerris	57	0.26	4.3	330	24	Habitat tree
Turkey oak (13) Quercus cerris	56.5	0.25	3.7	281	144	Habitat tree
Turkey oak (10) Quercus cerris	54	0.23	3.5	269	106	Habitat tree
Turkey oak (80) Quercus cerris	51.5	0.21	3.5	266	16	Elite tree
Turkey oak (101) Quercus cerris	51	0.2	3.3	253	66	Habitat tree
Turkey oak (384) Quercus cerris	51	0.2	3	229	60	Habitat tree
Turkey oak (49) Quercus cerris	51	0.2	2.4	183	42	Habitat tree
Turkey oak (317) Quercus cerris	51	0.2	3.2	249	24	Elite tree
Turkey oak (306) Quercus cerris	50	0.2	3.2	246	24	Elite tree
Turkey oak (100) Quercus cerris	50	0.2	2.9	219	69	Habitat tree
Turkey oak (298) Quercus cerris	50	0.2	3.3	252	30	Habitat 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 (59) Quercus cerris	45	0.16	2.3	174	60	Elite tree
Turkey oak (232) Quercus cerris	45	0.16	2.5	192	64	Elite tree
Turkey oak (54) Quercus cerris	44	0.15	2.1	160	46	Habitat tree
Turkey oak (252)	32	0.08	0.9	66	36	Habitat tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (197) Quercus cerris	32	0.08	1.2	90	24	Elite tree
Turkey oak (223) Quercus cerris	32	0.08	1	79	24	Elite tree
Turkey oak (388) Quercus cerris	30	0.07	0.9	73	24	Elite tree
Turkey oak (339) Quercus cerris	28	0.06	0.8	60	24	Elite tree
Turkey oak (381) Quercus cerris	26	0.05	0.7	55	0	Elite tree
hornbeam (332) Carpinus betulus	23	0.04	0.5	41	0	Diversity
European hop-hornbeam (334) Ostrya carpinifolia	22	0.04	0.4	34	30	Diversity
Italian maple (180) Acer opalus	18.5	0.03	0.3	22	12	Elite tree
common beech (7) Fagus sylvatica	9	0.01	0.2	16	0	Diversity